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LETTER OF TRANSMITTAL

SMITHSONIAN INSTITUTION,
BUREAU OF AMERICAN ETHNOLOGY,
Washington, D. C., December 28, 1955.

SIR: I have the honor to submit the accompanying manuscripts, entitled "The Ormond Beach Mound, East Central Florida," by Jesse D. Jennings, Gordon R. Willey, and Marshall T. Newman; "Hair Pipes in Plains Indian Adornment, a Study in Indian and White Ingenuity," by John C. Ewers; "Observations on Some Nineteenth-Century Pottery Vessels from the Upper Missouri," by Waldo R. Wedel; "Revaluation of the Eastern Siouan Problem, With Particular Emphasis on the Virginia Branches—The Occaneechi, the Saponi, and the Tutelo," by Carl F. Miller; "An Archeological Reconnaissance in Southeastern Mexico," by Matthew W. Stirling; "Valladolid Maya Enumeration," by John P. Harrington; "Letters to Jack Wilson, the Paiute Prophet, Written between 1908 and 1911," edited and with an introduction by Grace M. Dangberg; and "Factionalism at Taos Pueblo, New Mexico," by William N. Fenton; and to recommend that they be published as a bulletin of the Bureau of American Ethnology.

Very respectfully yours,

M. W. STIRLING, *Director.*

DR. LEONARD CARMICHAEL,
Secretary, Smithsonian Institution.

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Anthropological Papers, No. 49

THE ORMOND BEACH MOUND, EAST CENTRAL FLORIDA

By JESSE D. JENNINGS, GORDON R. WILLEY, and MARSHALL T. NEWMAN

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PREFACE

The Ormond Beach mound, in Volusia County, east central Florida, has been known for some time. There is mention of it by LeBaron (1884, p. 771), Small (1929), Stirling, (1935), and Goggin (1952, p. 93). Goggin has designated the site as Vo–75, and his symbol is here used instead of the temporary symbol V–1 used at the time of excavation. The V–1 symbol must be noted, however, because it is the symbol used in establishing provenience for the collections as accessioned in the United States National Museum. In both symbols, of course, the "V" or "Vo" signifies Volusia County.

The Ormond Beach project was originally planned as the first of a series of excavations in a 6-month project to be conducted in Volusia County under Smithsonian Institution sponsorship, with funds from the Federal Emergency Relief Administration (FERA) of Florida, which took over the Federal relief program when the Civil Works Administration (CWA) was discontinued in April 1934. As it turned out, funds proved to be available only for the investigation of the Ormond Beach mound; this was excavated with a limited labor force between April 13 and May 21, 1934. Dr. M. W. Stirling, then director of the Smithsonian Institution area research program in Florida, and chief of the Bureau of American Ethnology, selected the site for investigation. Jesse D. Jennings was the archeologist in charge of the excavations.

Upon completion of the fieldwork at the Ormond Beach site, Mr. Jennings shipped all notes, photographs, plans, and collections to the Smithsonian Institution, where the data were stored in the Bureau of American Ethnology files and the collections were accessioned in the United States National Museum.[1] In 1950 the Ormond mound collections were studied by Gordon R. Willey, then senior anthropologist on the staff of the Bureau of American Ethnology. Subsequently, in 1954–55, Jennings and Willey reviewed the field and laboratory data and prepared the present report. In this they were aided by Marshall T. Newman, associate curator of physical anthropology in the United States National Museum, who studied and described the skeletal material from the mound.

It should be noted that the Ormond Beach report is the last of a series of publications (Stirling, 1935; Willey, 1949 a, 1949 b, 1954)

[1] Catalog numbers range from Nos. 383893 to 383970. The only exceptions in this series are Nos. 383964–383965, which pertain to the "Turtle Mound" rather than to the Ormond Beach mound.

which treat of the archeological projects carried out under the aegis of the Bureau of American Ethnology in Florida with Federal relief funds. The authors of this report realize that it is woefully late in its appearance. The course of Florida archeology has swept around and beyond it in the 20 years or more that have elapsed since the date of the fieldwork. Nevertheless, the obligation to make available the basic factual information of the excavations and the primary analyses of the data is recognized. Such is the purpose of the report.

It is also realized that excavation procedures, observations, and the field record on the Ormond Beach mound were not up to standard. Reasons for this are numerous, but one seems to stand out: we were working with a relief organization and this involved so many complexities that the investigation was seriously hampered at every turn by delays and difficulties in procuring both men and equipment. That any vestige of record exists is a tribute to the sagacity and loyalty of the foreman, Hobart Hughes, of Murphy, N. C., who came fresh from work at the Peachtree mound to assist at Ormond. Although Mr. Hughes prepared no final notes, his observations and aid were at all times a benefit to the excavation supervisor, and much is owed to the loyalty and careful work he inspired in our crew.

Throughout the long and discontinuous operations which have led to the publication of this work we have been aided by Dr. M. W. Stirling, Bureau of American Ethnology, and F. M. Setzler, Dr. W. R. Wedel, and Dr. Clifford Evans, Jr., of the United States National Museum. We also wish to thank E. P. Henderson, Drs. Tucker Abbott, Alexander Wetmore, and Remington Kellogg, of the United States National Museum, for their respective identifications of stone materials, marine shells, and bird and mammal remains. E. G. Schumacher, staff artist of the Bureau of American Ethnology, prepared the ground plans which accompany the report, and Mrs. Natalie Stoddard and Miss Maria von Mering, Peabody Museum, Harvard University, did the final typing of the manuscript. Finally, on behalf of the Smithsonian Institution as well as ourselves, we extend thanks to W. E. French, of Daytona Beach, Fla., who gave permission for the excavation of the mound, which was situated on his property, and to Mrs. Richard Reed and P. D. Gold, also of Daytona Beach, for the many courtesies shown to us.

JESSE D. JENNINGS,
University of Utah.
GORDON R. WILLEY,
Harvard University.
MARSHALL T. NEWMAN,
Smithsonian Institution.

May 1, 1955.

THE ORMOND BEACH MOUND, EAST CENTRAL FLORIDA

By JESSE D. JENNINGS, GORDON R. WILLEY, and MARSHALL T. NEWMAN

THE ENVIRONMENTAL, ARCHEOLOGICAL, AND ETHNOHISTORICAL SETTING

The Ormond Beach mound is located in the southern portion of the Northern St. Johns archeological region. This region, as defined by Goggin (1947; 1952, pp. 15–16, "subarea III"), comprises most of the northeastern quarter of the State of Florida plus a small adjacent section of Georgia. The St. Johns River flows northward through the region, turning east and emptying into the Atlantic at Jacksonville. This major drainage and its numerous stream and lake tributaries was the principal concourse of aboriginal occupancy for the region. A somewhat less dense clustering of archeological sites is found along the Atlantic beach and the inland lagoons which lie immediately behind it. The Ormond mound lies on one of these brackish lagoons known as the Halifax River.

The Northern St. Johns region is low-lying country composed of limestones, marls, coquina, and sand deposits. It offered only moderately good soils for maize agriculture, but the St. Johns system with its lakes and the inlets and lagoons of the coast were once rich reservoirs of fish and shellfish for the Indians. The vegetation cover is largely of Temperate Zone type, including pine and cypress as well as oak and other deciduous trees. There are swamps, open savannas, and forests. In general, the region is warm, with only light winter frosts. Goggin (1952) has characterized it as subhumid mesothermal; i. e., an essentially subtropical climate. The low elevation of the Florida peninsula, the alternating swamps and sandy hammocks, and the climatic factors exercise some control over the vegetation, and tend to make for a more varied flora, and a consequently more varied fauna, than would be found in comparable climatic circumstances where soils and other factors were more uniform. The major floral complexes are, it might be noticed, those characteristic of most of the

temperate southeast rather than those of the extreme tropical tip of the peninsula.

Faunal food resources of the region are reflected in remains in the Ormond site. From scrap bone and waste shell recovered from cooking pits (these pits were later used for food waste), the following *food* animals were identified: 1 turtle, 9 fish, 100 birds, 8 deer (*Odocoileus virginianus*), 2 opossums (*Didelphis virginiana*), 5 bottlenose porpoises (*Tursiops truncatus*). The following shellfish have been identified from both the pits and the fill of the Ormond Beach site: *Busycon carica* Gmelin, *B. perversum* Linné, *Arca incongrua* Say, *Ostrea virginica* Gmelin, *Donax variabilis* Say, *Tagelus gibbus* Spengler, *Mercenaria mercenaria* Linné, Unionidae, *Neverita duplicata* Say.

Goggin (1952, pp. 38–74) has summarized the prehistory and early history of the region by means of five major cultural traditions which are expressed chronologically in six periods.

The first of these traditions, and one which is represented by very scanty remains, is the Paleo-Indian. It refers to those early hunting and gathering populations that occupied North America in remote times and whose evidences are best known from areas like the High Plains and the Great Basin. There seems little doubt, however, that the Eastern United States was also inhabited at the same time, and Goggin lists a number of Florida finds which may, possibly, belong to this epoch.

The first substantial evidence for occupation in the northern St. Johns region is attributed to the Archaic tradition and is represented by two periods in the cultural chronology: the Mt. Taylor and the Orange. The Archaic sites of both periods are the great shell mounds along the St. Johns River. The Mt. Taylor period is characterized by large- and medium-sized stemmed triangular points of chipped stone, *Busycon* shell gouges, and bone awls, pins, and projectile points. The succeeding Orange period is an obvious continuation of the Archaic tradition plus the addition of fiber-tempered pottery and certain additions to and modifications of nonceramic artifacts. There are both general and specific relationships between these Archaic periods of the Northern St. Johns region and other Archaic manifestations of the Southeastern United States.

These periods of the Archaic tradition are, in turn, followed by the St. Johns I and II periods of the St. Johns tradition. Goggin (1952, p. 68) defines the St. Johns tradition as—

> . . . a pottery using, mound building, semi-sedentary complex probably with agriculture. . . . The pottery is simple and seems to have been relatively unimportant, plain and check stamped ware being dominant. Crude clay effigies of plant products and animals for funeral offerings, and other unusual artifacts such as flanged clay spools and funnel-like objects, are found. Smoking pipes of clay and stone now appear, and stone celts of foreign materials were imported.

As such, the St. Johns tradition marks a break with the presumed nonagricultural past. The pottery of the St. Johns genre is soft, chalky temperless ware as opposed to the fiber-tempered pottery of the late Archaic. Finally, the significant element of the burial mound is a part of the St. Johns tradition while it is lacking in the Archaic. As elsewhere in the Southeast and the Eastern United States, this shift from the Archaic to the succeeding cultures is marked by both continuity and change. The culture of the St. Johns I period cannot be derived wholly from the Archaic; but, nevertheless, there are certain traits which carry over and persist. For example, the incised decorative motifs of Orange period pottery continue in the incised pottery designs of the St. Johns I period. The new traits, such as the burial mound idea and a number of pottery trade wares, appear to be derived from the Florida Gulf region to the west. The St. Johns tradition lasted for many centuries in the Northern St. Johns region. The major chronological divisions, periods I and II, are defined by ceramic changes, chiefly by the appearance of the small-checked stamped type in St. Johns II. Both periods are further subdivided, largely upon the basis of trade sherds which come into the region from the West and the North. The latter one-third of the time span assigned to the St. Johns II period is further characterized by the appearance of early European trade items.

A Spanish–Indian tradition is established from archeological sites which show the fusion of native and Spanish cultures. These sites were fortified posts and missions in which the community plan or organization was essentially that of the invader. The St. Augustine period, which is representative of this tradition, is marked by a type of complicated stamped pottery, San Marcos Stamped. Materials of European manufacture or inspiration are also found in St. Augustine period sites, including ceramics, tools, weapons, ornaments of metal, and glass beads.

The final tradition and period is that of Seminole. These Indians, of diverse origins but largely Georgia Creeks, moved into the Northern St. Johns region in the late 18th century.

An estimated chronology of these events in the Northern St. Johns region is based upon guess, comparisons with other areas of the Southeast, and some historical documentation for the later periods. Goggin (1952, fig. 3) places the close of the Orange period of the Archaic as 400 B. C. St. Johns I is extended from this date up to A. D. 1100. St. Johns II terminates about A. D. 1600. The St. Augustine period is given approximately a century and a half, closing at about 1750 with the arrival of the Seminole.

The first recorded knowledge of the Northern St. Johns country and its native inhabitants comes from the account of Ponce de Leon, who

landed in northeast Florida in 1513. (See Goggin, 1952, pp. 21–30, for a detailed statement of ethnohistory and ethnography.) Subsequent Spanish voyages to Florida were directed, for the most part, to other sections of the peninsula; and it was not until the French Huguenot expeditions of the 1560's that attempts at permanent colonization were made. It is to this brief period of French exploration that we owe some of the best ethnographic accounts of the 16th century Indians of the Northern St. Johns region. The Spanish quickly smashed the French attempt to establish a colony near the mouth of the St. Johns, and from 1565 until 1763 Spain dominated Florida. The Spanish fort and city of St. Augustine dates from this victory over the French. During the 17th century the Spanish established a chain of missions along the northeast coast and across north Florida. These missions were the principal foci for the changes that were remaking Indian life during the above-mentioned St. Augustine period.

At the time of European contact, northern Florida was held by Indians speaking the Timucuan language. As Goggin (1952, p. 28) has rightly pointed out, the culture of these Indians was not the same throughout north Florida, and he has suggested that the term "Eastern Timucua" be applied to those Timucuan-speaking Indians who were living in the Northern St. Johns region. There were a number of tribes among these Eastern Timucuans, including the Saturiwa, the group who met the French near the mouth of the St. Johns, the Tacatacuru, the Yui, Icafui, Yufera, Surruque, and Urubia. These tribes were the possessors of the culture of the St. Johns tradition as represented by the sites of the latter part of the St. Johns II period. As the St. Johns tradition showed no great modification from the time of its inception until the European incursions, it is reasonable to suppose that Eastern Timucuans were in the Northern St. Johns region as early as the St. Johns I period (ca. 400 B. C., following Goggin's chronology). Goggin (1952, p. 76) has suggested that Timucuan speech in this territory may go back into Archaic times.

The 16th-century accounts describe the Eastern Timucua as intensive maize agriculturists who supplemented their grain diet with abundant wild plants, game, and fish. Towns were surrounded with wooden stockades. There were both sib organizations and social classes, and chieftainship was well developed. Goggin (1952, p. 30) comments:

> Politically the people were grouped together in small towns, each ruled by a minor chief. Several towns formed a confederacy, or what we have called a tribe, and these were controlled by an important chief, such as Saturiba or Utina. Apparently there was considerable fluctuation in the relationships of the confederacies with each other, all striving to be the dominant group.

THE SITE

DESCRIPTION OF THE SITE AND ENVIRONS

The Ormond Beach mound was situated inside the corporate limits of Ormond Beach, Fla., near Halifax Drive, alongside the Halifax River, 1.3 miles south of Ormond bridge. The property was owned (in 1934) by W. E. French. Mr. French's permission to excavate was contingent upon our agreement to distribute waste earth in the low spots over the entire property to level it for a building site. The mound was obliterated and the land leveled to the satisfaction of the owner, even though some data from below the base of the mound were not recovered.

For archeological interpretations, the relationship of the site to the immediate terrain is of importance. The mound was a small sand tumulus about 60 feet in diameter by (an original maximum of) 6 feet in height, on the peninsula side, i. e., left or east bank, of the Halifax River. Modern dredging had increased the distance from site to river from an estimated 10 yards to approximately 100 yards; Halifax Avenue itself runs between the present riverbank and the site on the artificial fill resultant from the dredging. Construction of Halifax Drive had indeed destroyed a small part of the extreme west edge of the mound.

When excavation began, the mound was far from virgin. Its surface was pocked and pitted with amateur digging which had partially flattened and increased its area (from, it is believed, a smaller but higher original domed or conical structure). One deep crater or pit on the summit surrounded by a ring of spoil dirt, a weed-choked trench cut in from the south side, and a dense growth of scrub oak, palm, and a large pine stump (pl. 1) gave ominous and accurate threat that the materials in the fill would at worst be rotten; at best, broken and shifted, and that digging would be tedious. At this stage, the mound looked higher than it eventually proved to be because roadwork had, on two sides (west and south), cut away about a 2-foot depth of the sandy hammock upon which the mound had been built (pl. 2, *a*). Later, when the site was cleared, a broad and quite shallow moatlike trench was seen to encircle the mound on the east and north. The moat is presumed to have been the borrow source for the sand in the mound fill.

The site had served essentially as a burial ground although it was underlain by midden refuse. On the basis of field guesswork, at least 66 individuals were observed. Because of the fast and complete drainage of the sandy fill, some skeletal material remained reasonably solid, but was broken, crushed, and scattered through the combined

effects of the interlaced myriads of pine and palmetto roots, the churning of the upper layers by the pot hunters (and a few rodents), and the carelessness of the aborigines themselves. Generally, however, all bone except skulls had become soft and spongy, possibly because of the humic acid content of the seeping surface waters.

EXPLORATION AND MOUND FEATURES

Following the clearing of vegetation from the mound surface, exploration began with the cutting of an east-west trench along the south edge of the site. The mapping control system was the grid (see figs. 1, 2, 3), oriented north-south, and laid out in 5-foot intervals. The first trench lay between lines 2½ and 10, extending from line L5 to R4, a distance of 45 feet. This exploratory cut permitted

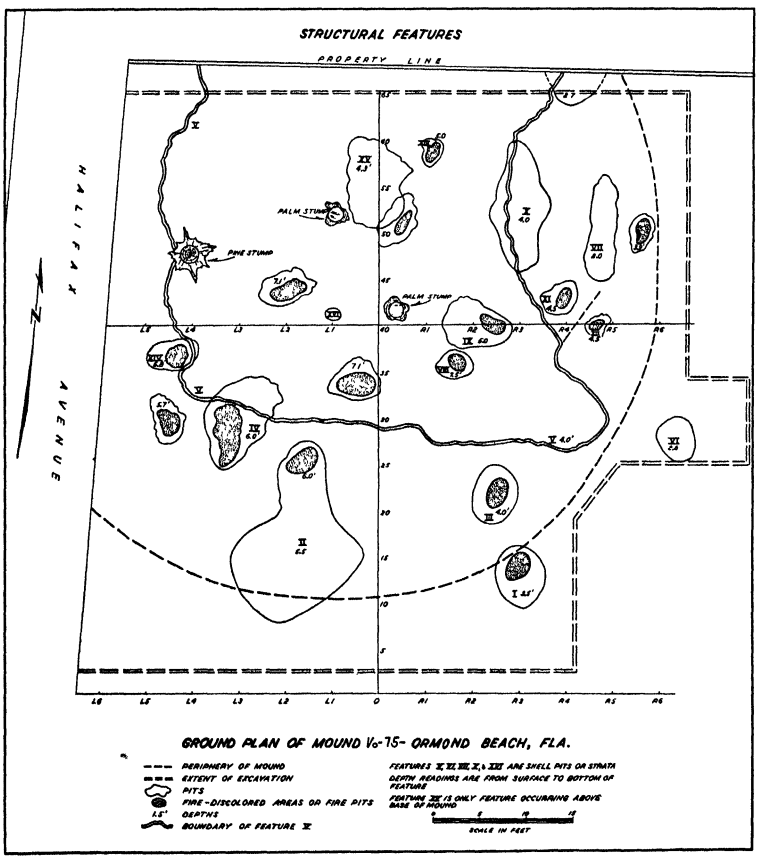


FIGURE 1.—Ground plan of features in Ormond Beach mound.

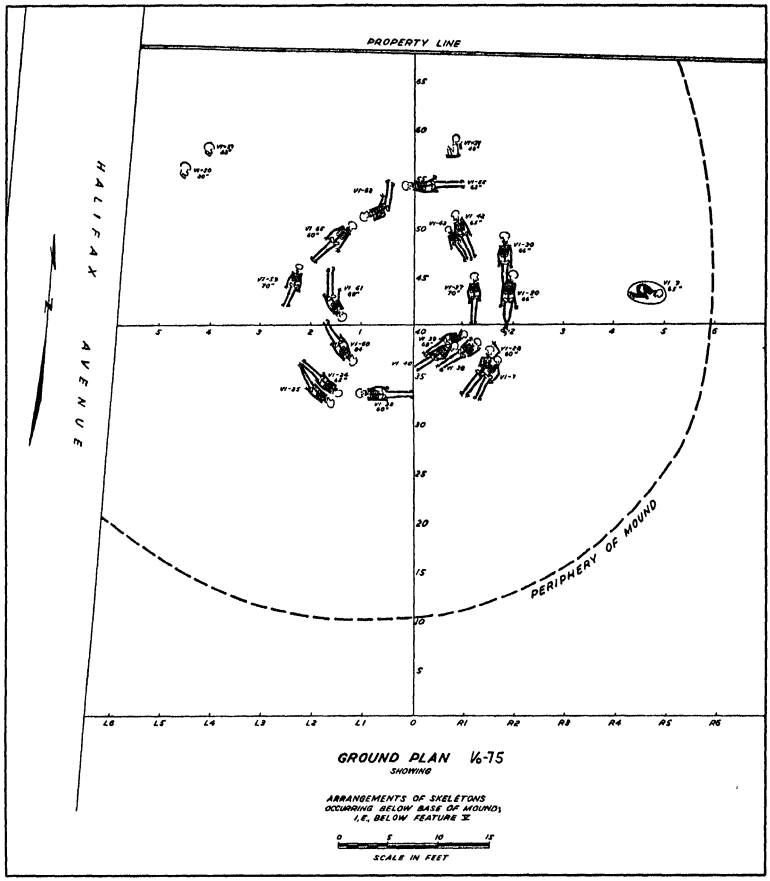


FIGURE 2.—Ground plan of burial arrangements below mound level, Ormond Beach. Burial or skeleton number preceded by prefix "V1." Depth below mound surface, in inches, is noted by each burial.

determination, by cross section, of the exact extent of the pot hunter's trench on the south; at the same time we learned the local problems of soil texture, color, and stability while the first steps in the training of the labor crew in archeological digging began.

This first cut, soon widened by 5 feet to the north, was informative in many ways. Discovery of the low, north-south trending sand ridge (locally called a "hammock") on which the mound was erected, gave notice that there was less artificial structural mound fill to deal with than had been anticipated. The loose, free-running fill sand slumped and slid and sloughed off as the trench walls dried out in the daily

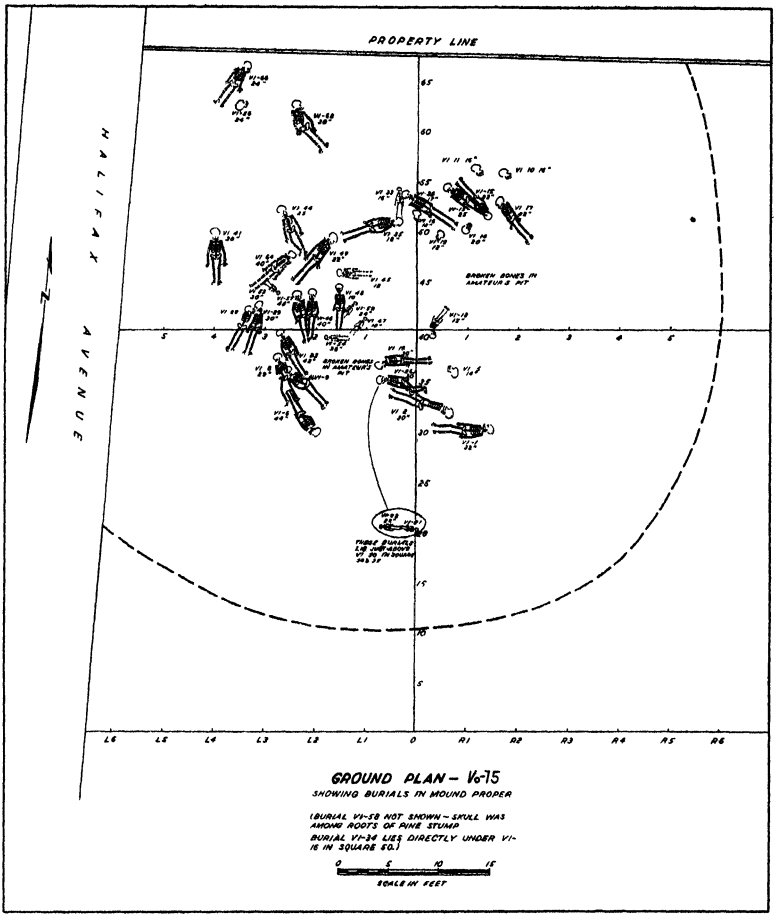


FIGURE 3.—Ground plan of burial arrangements in mound proper, Ormond Beach. Burial or skeleton number preceded by "V1." Depth below mound surface, in inches, is noted by each burial.

greater heat. A few days' work convinced us that the clean, neat trenches and sleek cross sections so desirable for good photographic record would not be possible at Ormond. And a network of oak and palm roots laced through the sand to make the digging difficult from the first.

Excavation procedure, after the approach cut, was the simple and obvious one. After the brief period of training and orientation for the crew, the north side of the approach trench served as a working face and the fill from top to bottom was cut rapidly away in thin slices with shovels. As a concession to the unstable sandfill, the

working face was kept on about a 60° to 70° slope, rather than near vertical. This technique prevailed until perhaps one-third of the site was cut away to a depth some 3½ feet below mound base. In fact, near-vertical cutting continued to line 30; here a layer of very dark humus-laden soil containing coquina clamshell (feature V), which emphasized the two-phase nature of the site, was encountered. The source of this dark soil is uncertain; it may well have been river-bank or river-bottom muck, with heavy sand content. The coquina came from ocean waters.

By the time feature V was understood to have wide extent (see fig. 1) and crucial importance in this site, the working face was nearly 10 feet high at the highest point. A two-level or step-cutting technique was adopted at this time. The mound proper—i. e., all fill *above* the humus-coquina blanket (feature V)—was removed for a distance of 5 or 10 feet. Then the basalar material was to have been cut away. This, at least in theory, was the procedure. Actually the jumble of 40 mound-fill skeletons, and the problems of determining intrusions and other relationships, led to an early abandonment of any tidy preconceived plan of excavation. And in the final phases of the project, even less attention was paid to the niceties. As soon as the horizontal location relationship was determined and recorded for each specimen or structure, it was identified as being referable to the "below-mound" level or to the mound fill proper, and cleaned or snatched up.

Before a week of digging had passed, the major structural features and sequences of the site had appeared and were vaguely understood (see pl. 5). As these finally worked out, we recognize as first and earliest, the domed north-south hammock of clean, light tan sand, which was almost white when dry. Upon this unstained and undisturbed clean hammock sand lay an irregular 6- to 12-inch stratum of light ash-gray sand. This was an old soil, its color derived from a high humus content. The ash-gray sand was interpreted as a stable original ground surface antedating any human use of the spot. (For the relationships here discussed, see fig. 4.)

From this old surface of sand-humus mixture, many rather deep, slope-sided round or elliptical pits had been dug (pl. 5, *b*). There were 15 of these pits, 10 of which are designated herein as features I, II, III, IV, VIII, IX, XI, XII, XIII, and XIV. Five additional pits, comparable in all respects, were not assigned numbers, but show in figure 1 in squares 25L4, 30, 40L1, 45R6, 50R1. (The latter five pits were discovered, mapped hastily, and emptied during the frantic last day of project operation; in fact, the project ended before exploration of the hammock deposits was completed.) The pits were usually less than 36 inches deep from the level of origin. (The depths on

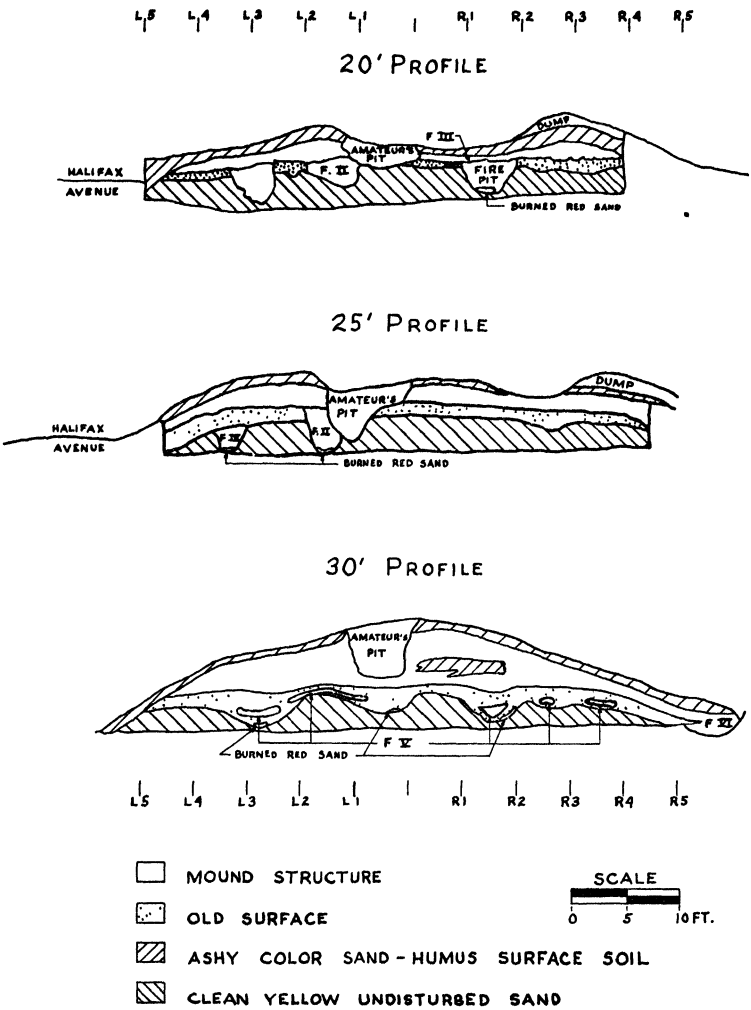


FIGURE 4.—Typical cross sections, Ormond Beach mound. Profiles along lines 20, 25, and 30. All viewed from south.

figures 1, 2, and 3 were recorded from the mound surface at the time of the reading.) The pits, occurring at random, vary in diameter from 3 to 6 feet at the old forest-floor surface of origin and from 1 to 3 feet at the bottom. Each pit was filled with a very rich black earth, bits of charcoal, charred or even calcined shells, sherds, and bone scrap. The pit sides, near the constricted bottoms, were marked by a zone of fire-reddened sand, which had been subjected to quite intense

heat. In the pit floor or bottom, with perhaps two exceptions, was a hard, stony formation composed of ash and bits of shell, cemented together with heat-fused sand; these lumps were usually faintly red in color. Many of the sherds, as well as the animal bone and shell, used in analyses came from these pits. The data justify the identification of these features as aboriginal cooking pits or ovens, perhaps used once or twice, after which they served as midden disposal pits. In two or three cases (feature XI is an example), burials were subsequently laid down where a pit had once stood open, but no burial had been laid into any refuse pit. No functional or structural connection existed between the pit features and the burials of the "below-mound" level. It is believed that none of the pits stood open at the time of the mass interment.

Upon the old ground surface of the slightly elevated hammock, after the entire submound area had served as a cooking, and presumably a dwelling, site, a series of extended, single, double, and triple burials—totaling 26 individuals, all but one adults—were placed on the ground. They were arranged head to toe in a circle nearly 25 feet in diameter (fig. 2). Over these burials a 6-inch-thick blanket of coquinalike, consolidated clamshells and dark soil (feature V) was placed (pls. 4; 5, *b*). Evidence, strong but not conclusive, was that the score of burials represented a mass interment. This is the conclusion reached during the excavation period; a careful restudy of the notes and drawings tends to confirm this view, although the record is somewhat puzzling and difficult to interpret on this score. There was also evidence that the site stood unprotected for quite a time after the mass burial ceremony. This evidence consisted of the broken and shifted condition of some of the burials (although six or more feet of mound fill lay above these "below-mound" skeletons), suggesting that they were disturbed before the mound proper was erected. Verification of this was seen in a clearly identifiable thin accumulation of forest soil or humus above the coquina clam layer. The notes reveal that there was considerable preoccupation, during excavation, with this matter of a time lapse between the interment of the first group and the raising of the mound, and long vacillation by the excavator in interpretation. His final opinion, appearing in a preliminary report done immediately after the project closed, was that there was a lapse of time between the deposition of the coquina layer and the construction of the mound itself. Such would mean that burial consisted of placing the dead upon a prepared spot or low platform with no immediate covering other than a mantle of earth and shells. At an appreciably later time a sand burial mound was constructed over the spot.

In addition to the cooking pits, there were four features (VI, VII,

X, XIV) below the mound base and one in the mound proper (feature XV) described as shell beds or layers (see fig. 1). These features are local, but thick and extensive, deposits of nothing but unburned shell.

From some features, but oftener at random in the mound fill or in random little pits, 12 to 18 inches beneath the premound surface, several nearly complete pottery vessels were recovered. One such vessel (St. Johns Plain, globular bowl, pl. 7, *a*) came from feature II.

The final phase of activity at the site was the building of a sand burial mound. The sand of this structure occasionally had the faint gray cast of forest-humus-stained surface sand, but was chiefly clean tan subsurface sand. The notes reveal that the humus content of the fill sand was heaviest near the mound center—i. e., about line 45. This is assumed to demonstrate that construction began in the central area where the borrowed surface soil was used. The remainder of the mound was then built of the lower cleaner and unstained sand from the borrow area.

Within the mound proper were some 40 burials. There were scattered human bones in the spoil dirt from amateur pits; these were neither saved nor numbered. An estimated eight or more individuals are represented by these scattered bones. In rare cases it was suspected that burials lay in grave pits let down from the surface, but evidence of these grave pits was never conclusive. Many other bodies, however, had clearly been laid upon mound fill during construction and simply covered over with more fill.

Random burials over a short period of time, while the mound gradually grew in size, would seem to be the best explanation of the mound building process, except for the semicircle of skeletons lying in the north half of the mound (see fig. 3); but even here the flat plan is deceiving because the half circle of skeletons was not upon a common level. Adjacent burials were found at elevations as much as 20 inches apart—e. g., Nos. 15 and 19 versus No. 17. This possibly can be explained as mass burial upon the uneven surface of the first few heaps of fill dirt. Whether intentional or not, the circular pattern is certainly as plain in the mound burials as in those beneath the mound. Also, the mass-burial idea gets some support from our observation that the central portion of the mound was built of markedly darker sand, representing surface scrapings. A continuous, short-lived building spurt to accommodate a mass burial of several dead in a concentric pattern may, indeed, have been the nucleus or first stage of the mound construction, while the remainder of the mound was added later at a more leisurely rate as occasional death rites occurred.

Throughout the mound fill, and particularly in the central darker portion, random sherds were common. Over 250 sherds were recovered.

In summary, despite the many details missing from the record, we can confidently sketch the major events in a sequence as follows:

(1) The Ormond site, upon a slight elevation near the river bank, was first a village or a feast site. Village debris and cooking pits mark this period.

(2) Then, without perceptible time lag, 20 or more adults were placed head to toe in two concentric circles and accorded a mass burial under an extensive blanket of humus and coquina shells.

(3) For some time after this ceremony there was exposure or casual reoccupancy of the spot, with a soil zone developing on this surface.

(4) At length, another mass burial called for the erection of a low mound of earth.

(5) Intermittently thereafter the mound was the scene of burials; before it was abandoned the mound grew to be 6 feet or more high, and 50 to 60 feet in diameter.

BURIALS

Figures 2 and 3 adequately record the positions of all burials encountered. Of the 66 so presented, only 1 was definitely in a flexed position; this flexed body is believed to antedate both the first mass burial and mound construction. Most interments (sometimes multiple) appear to have been primary—made in the flesh—upon the then-current surface and covered with sand or shell. There were, however, several loose single skulls unassociated with any other bones. There may have been a few burials made in shallow pits dug into the mound proper; the notes, in one or two cases, record this possibility, but in no case could a pit, intrusive from a higher level, be observed clearly enough to permit positive statement on the point. The condition of the bones was usually poor. Roots had often destroyed facial bones, particularly in the mound proper. Long bones were often soft and fragile. Only the cranial bones remained solid.

Of major interest in the burial complex is the mass burial, with bodies arranged in large concentric circles. This is one of the few documented occurrences of the "burials in a circle" so often reported by amateur diggers. Another burial trait of importance is the paucity of grave furniture. With only two exceptions, the scanty artifact series derived from burials came from submound burials.

Burial locations, burial relationships to each other and to other features, depth from surface, and other location data are best learned from the maps. Table 1 summarizes only those burial data not otherwise available.

In Hrdlička (1940, pp. 325, 331, 361, 367) measurements of 16 female and 9 male crania are given; the United States National Museum catalog numbers referred to by Hrdlička have been added to table 1.

TABLE 1.—*Burials.*

BELOW-MOUND BURIALS

Burial No.	Position	Sex		Condition [1]	Remarks (grave goods) [2]	USNM No.
		As marked on skull	As marked on skeleton			
3	Flexed	♂		Fair	Adult—lay in pit intrusive from original ground surface. Probably antedates mass burials; only skull saved. Broken calvaria and jaw.	372.603
7	Extended, supine			Poor	Nos. 7 and 28 constituted a multiple burial. The tibia of No. 7 showed pathology. No other bones saved. Coquina rubbing stone associated (pl. 12, *e*).	372.606
20	do	♂	♂	Fair	Fragmentary calvaria and jaw	372 618
24	do		♂	do	Warped and broken calvaria and jaw. Nos. 24 and 25 were a multiple burial.	372.620
25	do	♀?		Poor	Calva and jaw. Longheaded	372 621
28	do	♀	♀	Fair	Buried with No. 7. Unrestorable skull and jaw. Bone awl with No. 28 (pl. 11, *h*).	372 623
30	do			Poor	Only scraps	372.625
31	Flexed			Poor*		
32	Extended, supine	♀			Broken calvaria and jaw	372.626
37	do	♀	♀	Fair	Warped and broken cranium. Shell plummet at right shoulder (pl. 11, *b*).	372.629
38	do		♀	do	Nos. 38, 39, and 40 were a multiple burial	372.630
39	do		♀	Poor	Skull scraps of 2 individuals, a ♂ and a ♀. Only 3 fragmentary bones.	372 631
40	do	♀?	♀	do	Only clavicles and hand bones; skull scraps	372.632
42	do	♀	♀	do	Nos 42 and 43, adult and preadult, multiple burial. Warped and unrestorable skull and jaw (adult).	372.634
43	do		Child, 4–6	do	Skull scraps and long bones	372.635
50	?			(*)	Skull only observed	
51	?	♂		Fair	Incomplete cranium	372.640
55	Extended, supine	♀	♀	do	Unrestorable calva and jaw	372 643
56	?	♂?		Poor	Calva and jaw only	372 644
59	Extended, supine	♂	♂	Fair	Broken cranium	372 609
60	do	♂	♂	Poor	Frontal and scraps	372 6 7
61	Extended, supine (legs twisted).	♂	♂	do	Unrestorable and warped skull and jaw. Shell and stone plummets found at throat (pl. 11, *a*, *c*).	372.648
62	Extended, supine	♂		Fair	Cranium. Only skull solid enough to clean. Pottery vessel with burial (St. Johns Plain).	372.649
63	do	♀	♂?	Poor	Unrestorable warped skull and jaw	372 650
65	do	♂		do	Unrestorable skull and jaw	372.652
66	do	♂		do	Calva and jaw. Only skull solid enough to clean. Pipe with burial (pl. 12, *d*).	372.653

MOUND BURIALS

1	Extended, supine	♀		Poor	Calva	372.601
2	do	♀		Fair	Calva and jaw, longheaded	372.602
4	?	♀		Poor	Skull only observed; fragmentary calva and jaw. Unassociated with other bones.	372.604
5	?			Crushed	Skull only observed. Unassociated with other bones	
6	Extended, supine	Adolescent	Child	Poor	Nos. 6, 8, 9 multiple burial Fragmentary calva and jaw. The right arm of No. 9 lay under the pelvis of No. 8; the left arm of No. 8 was under the head of No. 9.	372.605
8	do	♀	♀	do	Calva and jaw	372.607
9	do	♀	♀	Fair	do	372.608
10	?			(*)	Skull only observed	
11	?	♂?		Poor	Unrestorable skull	372.610
12	Supine, twisted		Child, 6–10	Fair	Calvaria and jaw	372.612
13	?	♀	♀	Good	Calvaria and jaw. Unassociated with other bones	372.611
14	?			(*)	Skull only observed. Unassociated with other bones	
15	Extended, supine	♀	♂	Good	Calvaria and jaw; Nos. 15 and 19 were multiple burial	372.613
16	?	♀	♀	do	Cranium. Not associated with other bones	372.614
17	Extended, supine			Fair	Calvaria	372.615
18	do	♀		do	do	372.616
19	do	♂	♂	Good	Cranium. Tangled with No. 15	372.617
21	do			(*)	Nos. 21 and 22 multiple burial (preadult)	
22	do			(*)		
23	do		♂	Fair	Unrestorable calva and jaw	372.619
26	do				Lay just above Burial 6	372.622
27	do	♀		Poor*	Calva and jaw. Multiple burial with 29	
29	do	♀	♀	Fair	Calva and jaw	372.624
33	do			(*)	Infant badly deteriorated; not saved	
34	?			(*)	Nothing saved. Scattered and fragile	
35	Extended, supine	♀	♀	Good	Calvaria and jaw. (Extra jaw)	372.627
36	do	♂	♂	Fair	Calvaria and jaw	372.628
41	do			Poor	Broken skull and jaw	372.633
44	do			Good	Only cranium solid enough to clean	372.636
45	do			(*)	Only skull solid enough to clean (preadult)	
46	do	♀	♀	Fair	Calvaria and jaw. Made multiple burial with 57	372.637
47	do			(*)	Only skull solid enough to clean (preadult)	
48	do		♀	Fair	Calva and jaw	372.638
49	do		♂	Good	Calvaria and jaw. Pathology, right tibia	372.639
52	do	♂		do	Cranium. Only skull solid enough to clean (preadult)	372.641
53	do			(*)	Only skull solid enough to clean (preadult)	
54	do	♂	♂?	Poor	Posterior calvaria and jaw. Only skull solid enough to clean (preadult).	372.642
57	do	♂	♂	Good	Cranium. Multiple burial with 46	372.645
58	?	♀		Poor	Fragmentary calva and jaw	372.646
64	Extended, supine	♀		do	Fragmentary calva and jaw. Only skull solid enough to clean.	372.651

[1] Where skull and skeleton are present, judgment of "poor," "fair," or "good" is made on a compromise basis. Asterisk indicates bones were very fragmentary and were discarded in the field.

[2] Calva indicates skull vault only; calvaria, skull vault and base minus face; calvarium, skull with face but minus mandible; cranium, skull with face and mandible.

DISTRIBUTION AND CHRONOLOGICAL SIGNIFICANCE OF THE ARTIFACTS IN THE SITE

The 735 pottery specimens from the Ormond mound, including both restorable vessels and sherds, are classified into the following types:

St. Johns Plain	667
St. Johns Simple Stamped	23
St. Johns Check Stamped	1
Dunns Creek Red	12
Little Manatee Shell Stamped	1
Cord Marked (soft paste)	4
Indeterminate Stamped (soft paste)	1
Pasco Plain	1
Pasco Simple Stamped	1
Deptford Bold Check Stamped	5
Orange Incised	1
Residual Plain	17
Unclassified Incised	1
Total	735

There are three principal provenience categories into which these pottery specimens may be assigned: the "below-mound zone," including the cooking and refuse pits in the old surface and the sherds found in the black coquina stratum; the "mound proper," including the body of the mound; and, finally, those proveniences where placement as to stratigraphic position in the mound is uncertain. In all, there are 59 small ceramic provenience units cataloged in the Ormond Beach mound collections in the United States National Museum. Twenty-one of these units belong to the "below-mound zone," and these units total 225 pottery specimens. Twenty-seven units are grouped together in the "mound proper," and these combined total 284 specimens. The remaining units of uncertain stratigraphic assignment number 11 and contain 226 pottery specimens.

The typological breakdowns by these three major categories are as follows:

Below-mound zone:	*Number of specimens*
St. Johns Plain	206
St. Johns Simple Stamped	3
Dunns Creek Red	10
Indeterminate Stamped (soft paste)	1
Pasco Plain	1
Unclassified Incised	1
Deptford Bold Check Stamped	2
Residual Plain	1
Total	225

	Number of specimens
Mound proper:	
St. Johns Plain	270
St. Johns Simple Stamped	6
Little Manatee Shell Stamped	1
St. Johns Check Stamped	1
Cord Marked (soft paste)	1
Pasco Simple Stamped	1
Residual Plain	4
Total	284
Uncertain stratigraphic position:	
St. Johns Plain	191
St. Johns Simple Stamped	14
Dunns Creek Red	2
Cord Marked (soft paste)	3
Deptford Bold Check Stamped	3
Orange Incised	1
Residual Plain	12
Total	226

The principal differences between the pottery lot from the below-mound provenience category and that from the body of the mound proper are the presences of the types Dunns Creek Red and Deptford Bold Check Stamped in the first group, their absence in the second group, and, conversely, the presence of Little Manatee Shell Stamped and St. Johns Check Stamped in the second group. These particular types have a chronological significance elsewhere in Florida, and their stratigraphic relationships in the Ormond mound tend to support the inference, made during the excavation, that there is an appreciable time difference between the original occupation of the site and the first burials as opposed to the construction of the mound proper and the second mass of burials. Goggin (1952, p. 102) has noted that while Dunns Creek Red is found in both the St. Johns I and St. Johns II periods, it is more common on the earlier horizon. Deptford Bold Check Stamped is a ceramic type that is at home on the Georgia coast, and is also found in significant amounts on the northwest Florida coast (Willey, 1949 b, p. 357). Its general chronological position in the lower southeast is early, following immediately after the fiber-tempered wares. More specifically, it is pre-Santa Rosa-Swift Creek in northwest Florida (Willey, 1949 b) and, by this, antedates the first clearly recognizable Hopewellian influences in Florida. Along the St. Johns River, Goggin (1952, p. 105) assigns it to a very early St. Johns I time interval (St. Johns Ia, early). The presence of these two Deptford Bold Check Stamped sherds in the below-mound zone, together with three more fragments of the same type of uncertain

stratigraphic position, indicates a relatively early occupation of the Ormond Beach site. The single fiber-tempered sherd of undesignated provenience, Orange Incised, substantiates this. This is not to say that the basal occupation of Ormond is St. Johns Ia, early, or Orange period; but it does indicate a possible retention of minor percentages of these older types.

Opposed to the earlier pottery types are the single occurrences of St. Johns Check Stamped [1] and Little Manatee Shell Stamped in the mound proper. St. Johns Check Stamped is the marker type for the St. Johns II period (Goggin, 1952, p. 104), and Little Manatee Shell Stamped dates from about the same time (Goggin, 1952, p. 109; Willey 1949 b, p. 444). Obviously, these two sherds do not place the Ormond Beach mound as St. Johns II period; but, like the few early sherds in the below-mound collections, they provide a bracketing date.

The bulk of the Ormond pottery, from both upper and lower stratigraphic zones, is of the type St. Johns Plain. This type characterizes both St. Johns I and II periods (Goggin, 1952, pp. 101–102), although there are certain vessel form changes within this chronological span. The presence of necked or collared jar forms (pl. 8, *f–h*, *j*) suggests period II rather than period I. Yet the near absence of the type St. Johns Check Stamped makes it difficult to place any part of the Ormond site as fully St. Johns II. The type we have called St. Johns Simple Stamped does not help us much in resolving our dating problem. As reviewed under the pottery descriptions, simple-stamped surfacing on soft, St. Johns type paste is not a reliable period marker. Although such surface treatment has been reported for the St. Johns IIb and IIc periods in some localities (Goggin, 1952, p. 105), it is also noted in St. Johns Ia contexts.

In summing up the relative dating of the Ormond Beach site we can, first, consider it as falling within the time span of the St. Johns periods. Almost certainly this span can be shortened at the top, as there is no substantial evidence of early European contact at the site; and a complement of St. Johns Check Stamped, the reliable horizon marker for the St. Johns II period, is lacking. Thus, the essential occupation of both the premound and mound levels is most likely to have been St. Johns I. The few early sherds in the below-mound zone and the few late sherds in the mound proper suggest a use of the site ranging throughout that entire period (estimated at 400 B. C. to A. D. 1100, Goggin, 1952, p. 36 and fig. 3). Quite possibly this use or occupation was an intermittent one.

[1] Goggin (1952, p. 93) dates the Ormond Beach mound as of the St. Johns II period. I am inclined to think that he may have been influenced here by 2 provenience lots of sherds of the St. Johns Check Stamped type. These 2 lots (catalog Nos. 383964 and 383965), although within the Ormond Beach number series, and stored with them in the same trays, are listed as "Turtle Mound" and apparently came from the large shell mound near New Smyrna, south from Ormond.

Although only one pottery vessel, a St. Johns Plain, incurving rim bowl, was found with a burial (No. 62), several of the nonceramic artifacts from the Ormond site were associated with burials. With only two exceptions, these associations were with burials from the below-mound, or premound, zone. Thus, we have in the same general context—the mass burial on the old ground surface—the following ornaments and implements: the flared-mouth pottery elbow pipe, shell and stone plummets, a coquina hone, and a bone awl. The two artifacts from burial associations in the body of the mound proper are the worked deer vertebra and the skull of a green heron. Without immediate burial associations were several sheets of mica and the point of a bone dagger. These objects belong to the below-mound zone. Loose in the body of the mound were three chipped stone projectile points, a socketed bone point, a rubbing stone, a piece of worked pumice, a fragment of a stone celt, and some shell picks and chisels. Five iron fragments came from an old looter's pit, and are, clearly, late intrusions. A single fragment of European crockery is without provenience.

None of the above-listed aboriginal artifacts is of significance in dating the Ormond Beach mound with greater definitiveness than we have already attempted. The pipe, the plummets or pendants, and the projectile points all fall within the St. Johns I and II time range.

SKELETAL MATERIAL

The skeletal collection from the Ormond Beach site consists of 50 skulls in all stages of completeness and preservation, of which 31 are associated with postcranial skeletons or parts thereof. Eighteen of the skulls, 14 with some skeletal parts, came from below the mound; 32 skulls, 17 with skeletons, were excavated from the mound structure. The submound bones are considerably more discolored than those from the mound; indeed they can be quite accurately sorted by color alone. In addition, poor preservation and breakage of bone is more prevalent in the submound bones. Although all the bones are partially mineralized, those from below the mound seem to be more so. We do not know whether these differences are attributable to the surrounding soils and water seepage, to a time factor, or to both.

Of the 50 skulls in the Ormond Beach collection, Hrdlička (1940, pp. 459, 462) considered only 25 (9 males, 16 females) worthy of measuring. Of these, only two males (USNM 372603, 372640) and one female (USNM 372626) are from below the mound. Obviously, then, a metric comparison of the submound versus the mound skulls is not worth while. Yet from inspection we could see no differences between the two groups, and judge them to be samples of the same racial type. Hrdlička's summary tables of the combined submound

and mound means show these small series to fit in closely with other Florida series, although the Ormond Beach males and females are more brachycranic than most, with mean indices of 82.1 and 83.1, respectively. From Hrdlička's measurements and our own observations, we judge the Ormond Beach series to represent the Gulf type of Hrdlička (1940) and Neumann's (1952) Walcolid variety, although in common with other Florida skulls they have higher cranial vaults and more massive facial skeletons. This difference is particularly noticeable in their deep and heavy lower jaws. Hrdlička (1922, p. 87) attributed the massive skulls and skeletons of coastal Florida Indians to a marine diet especially rich in phosphates, which seems likely enough. Further details on the racial anthropology of aboriginal Florida have already been published in summary form (Newman, *in* Willey, 1949 b, pp. 549–553) and need not be repeated here. Although the Ormond Beach series is probably too small to be representative, we are particularly impressed by the massiveness and the very heavy areas for muscle attachments of the male skeletons. In addition, several of the males showed heavy anteroposterior bowing of femoral and tibial shafts. In contrast, the female skeletons are consistently small in size and gracile in long-bone cross section, and make for a strong sexual dichotomy in body mass.

Two of the Ormond Beach skulls are remarkably longheaded, and thus stand out as alien to the rest of the series. These are USNM 372602 from the mound structure and USNM 372621 from below the mound. In the course of cataloging these skulls some 20 years ago, someone (perhaps Hrdlička) caused the catalog card for USNM 372602 to be marked "Indian (Negro?)". If it was Hrdlička, we suspect he reasoned that a longheaded Indian skull had no business being in a late stratum, and that perchance it was Negro. Since only the skull cap without base and face are present, no one can really tell. To us, however, the lateral profile of the vault is longheaded Indian since it lacks the more prominent forehead and the flattened parietal area characteristic of Negroes.

For pathology, the teeth show the extensive wear so characteristic of coastal and riparian Indians, and there is considerable tooth loss through pulp exposure as a result. The right tibia of USNM 372606 shows nodular changes of a pathological nature, and USNM 372639 from the mound structure shows marked periostitis of the right tibia, fibula, and ulna of a possibly syphilitic origin.

There are not even the slightest indications of artificial head flattening in the entire Ormond Beach series. The lack of even the simple and presumably accidental flattening of the occiput suggests that no cradleboards or any other kind of rigid beds were used for infants.

ARTIFACTS

POTTERY

As stated in the foregoing discussion of the distribution of pottery in the Ormond mound, there are 735 specimens in the excavation collections. These include eight partially restorable vessels; the remainder are sherds. By far the greater portion of this pottery belongs to the St. Johns ceramic series, mostly to the type St. Johns Plain. St. Johns is the dominant pottery tradition in eastern Florida. It has a long life span, ranging in time from the close of the Archaic periods (ca. 400 B. C.) to the middle of the 17th century (Goggin, 1952, fig. 3 and pp. 68–70). St. Johns pottery is characterized by a soft buff or gray ware of chalky texture (Griffin, 1945; Rouse, 1951, pp. 221–222; Goggin, 1952, pp. 99–105). It is similar or identical to the ware series described from south Florida as Biscayne (Goggin, 1940; Willey, 1949, pp. 98–99).

In addition to the St. Johns pottery types, there is a scattering of other types in the Ormond mound collection which appear to be attributable to other major Florida ceramic series. This includes a specimen of the Little Manatee series which is closely related to the St. Johns group in ware qualities and which seems to center in west-central Florida, some check-stamped fragments which are reminiscent of the Deptford series, a few cord-marked pieces on soft, St. Johns-like paste, an occasional limestone-tempered sherd of the Pasco series, a fiber-tempered sherd of the Orange series, and some plain grit or sand-tempered pottery.

St. Johns Plain.—There are 667 St. Johns Plain specimens in the Ormond collections. All eight of the restorable vessels belong to this type. The Ormond material conforms closely to previous descriptions. Paste core is gray and surfaces are usually buff although badly fire mottled. Large nodules of brown clay are often embedded in otherwise homogeneous paste. The ware scratches easily at 2.5 (Mohs scale). It averages about 7 mm. in thickness, but vessel walls are bumpy and unevenly smoothed so that thickness varies a great deal. Tooling marks are in frequent evidence on both surfaces. Coiling fractures are seen on many sherds (pl. 8, *e*). Vessel forms include boat-shaped bowls, deep simple bowls, subglobular bowls, jars or globular bowls with short collars, shallow platelike bowls, deep bowls or pots with reflared rims, and large bowls with outslanted rims. Rims are usually unmodified, although a few show marginal thickenings.

Approximately 30 sherds of the Ormond mound total of St. Johns Plain have smooth, polished surfaces. Goggin (1952, p. 101) has noted these occasional well-finished examples in his descriptions of St. Johns Plain. The Ormond Beach polished specimens are small subglobular

bowls (pl. 7, *a*), simple bowls with slightly incurved rims (pl. 7, *b–d*), and collared jars (pl. 8, *b–h, j*). Interestingly, several of these show heavy exterior folds or thickenings on the rim. These rim folds and the tendency toward surface polish, when combined with the subglobular form, suggest the Weeden Island and Papys Bayou series pottery of the Florida gulf coast (Willey, 1949 a, pp. 409 ff. and 442 ff.).

St. Johns Simple Stamped.—Twenty-three of the Ormond sherds have exterior simple stamping. These are fragments of deep bowl or pot forms with unmodified rims (pl. 7). The simple stamping is arranged diagonally to the vertical axis of the vessel, and in all cases it runs up to the edge of the rim. The lands of the stamping are 1 to 2 mms. There is some crisscrossing or overlapping of the stamping. Half a dozen sherds show occasional faint cross lands (pl. 9, *a, e, g*), but these cross lands or crossbars occur so rarely and irregularly and are so widely spaced on (3 or 4 cm. apart) that such sherds can hardly be classified as check stamped.

Griffin and Smith (1949, p. 348) have defined a type, St. Johns Simple Stamped, which they identify as a marker of the St. Johns II period. On the other hand, Goggin (1952, p. 105, footnote, and pl. 1, *H, J*) calls attention to a form of simple stamping on soft St. Johns paste that is found in early St. Johns I contexts. The differences between these two types are not clear, and we cannot identify positively the material from the Ormond mound as belonging to either the early or late variety.

St. Johns Scored.—Griffin and Smith (1949) defined this type as being characterized by exterior surface scorings. These markings are parallel and close spaced and may be straight or wavy. They can be distinguished from simple-stamped impressions in that the technique of wiping, dragging, or scoring the soft surface of the vessel is evident from the result.

We did not classify any of the Ormond Beach pottery as St. Johns Scored, but it is noteworthy that several sherds included in the count as St. Johns Plain do show such scoring marks (pl. 8, *a–c*).

St. Johns Check Stamped.—There is only a single sherd of this type in the Ormond Beach collection. This is a quite typical piece with square checks 3 mm. in diameter and lands which are of equal size (1 mm. wide) on both axes. (See Griffin, 1945; Goggin, 1952, pp. 103–104.)

Dunns Creek Red.—This is the red-slipped or red-filmed type of the St. Johns series. It has been described by Goggin (1948; 1952, p. 102). There are 12 Dunns Creek Red sherds in the Ormond collection. Although the brick-red pigment is not "fugitive" in the sense of being applied after firing of the vessel, it, nevertheless, wears off

easily. Because of this it is possible that the percentage of Dunns Creek Red in the Ormond mound was originally higher than we have tallied it and that a number of specimens have lost their red paint coating through erosion.

This particular collection of red-painted ware shows the pigment on either the exterior or on both the exterior and interior surfaces. Some sherds indicate relatively large (30 cm. in diameter) subglobular bowls; others suggest small (15 cm. in diameter) simple bowls with slightly incurved rims.

Cord Marked.—Four soft paste, St. Johns-like sherds have exterior markings that look somewhat like the impressions of a cord-wrapped paddle (pl. 10, *c*, *d*). These impressions are badly blurred, however, and it is possible that four fragments are semiobliterated, simple-stamped pieces. Cord marking does occur with St. Johns paste, although it is not common. Goggin (1952, pl. 1, *G*) illustrates such a sherd and places it as early St. Johns I period.

Orange Incised.—This is a fiber-tempered type, a marker of the Archaic horizon, which has been described by Griffin (1945) (see also Goggin, 1952, p. 98). A solitary sherd is in the Ormond collections (pl. 10, *h*). It bears fine, sharp incised lines which compose some sort of a pattern of parallel bands.

Deptford Bold Check Stamped.—There are five sherds of a hard, sandy ware which stand in contrast to the soft paste, temperless St. Johns pottery. The identification of these sherds with Deptford Bold Check Stamped is somewhat doubtful, but they appear to be closer to that type than to any other (Caldwell and Waring, 1939; Willey, 1949 b, p. 357). They bear medium-deep check impressions which are somewhat, although not markedly, linear (pl. 10, *e*, *f*, *g*). The individual rectangles measure about 5 by 10 mm. with the lands from 1 to 2 mm. in width. The impressions are too crudely done for either Wakulla Check Stamped (Willey, 1949 b, pp. 437–438) or Gulf Check Stamped (Willey, 1949 b, pp. 387–388). The hard, sand-tempered paste sets these sherds apart from the St. Johns Check Stamped type.

Pasco Plain.—This is a crushed limestone tempered type (Goggin, 1948). There is one sherd from the Ormond mound.

Pasco Simple Stamped.—Another sherd of Pasco paste and temper was in the Ormond collection. This one bore very faint, close-spaced simple stamping.

Little Manatee Shell Stamped.—There is one sherd of this type (pl. 10, *a*). It reveals a fragment of a zoned design in which the outline is executed in incision and the filler elements in shell edge stamping (cf. Willey, 1949 b, p. 444; pl. 38a).

Unclassified Incised.—This sherd bears a deep, broad-lined incised design combined with what appear to be heavy grooves (impressions

or incisions?) (pl. 10, *b*). This could, possibly, be a fragment of a St. Johns Incised vessel; but such an identification is by no means certain (see Griffin, 1945; Goggin, 1952, p. 102).

Indeterminate Stamped.—One sherd, with indistinct stamping or impressions on soft St. Johns paste.

Sand-Tempered Plain.—There are 17 sherds of sand- or fine grit-tempered pottery. Most of these are body fragments. The one rim sherd indicates a large, deep bowl with a slightly incurved rim. These sherds cannot be satisfactorily identified as either Glades Plain or Weeden Island Plain, the characteristic sand-tempered plain wares of south Florida and west Florida, respectively.

IMPLEMENTS AND ORNAMENTS

Pipe.—There is a single pottery smoking pipe made of St. Johns ware (pl. 12, *d*). It is of the elbow-form variety with a slightly flared bowl. The bowl arm measures 3 cm. while the stem arm is 2.5 cm. in length. Diameter of the bowl at the orifice is 4.7 cm. The pipe is undecorated and unpolished.

The pipe was found associated with skeleton 66.

Plummets or pendants.—Two shell plummets or pendants made from conch columellae were found in the mound (pl. 11, *a*, *b*). These objects are approximately 9 cm. long and expand to a maximum diameter of 2.7 cm. at the center. Both plummets have a knoblike or expanded head at one end. The opposite ends have a slightly smaller nub which is encircled by a single groove, in one case, and a double groove in the other. The knoblike or expanded end of one of the plummets is partially coated with black pitch or asphaltum.

One of these plummets was found at the neck of skeleton 61; the other came from near the right shoulder of skeleton 37.

A third plummet is made of coquinalike limestone (pl. 11, *c*). This one is 7.2 cm. long and flattened in cross section so that at midpoint one diameter measures 3.5 cm. and the other 2 cm. One end of the plummet comes to a smooth-rounded point. The other end is tabular and encircled by a single groove.

This plummet or pendant was found associated with skeleton 61.

Shell chisels.—Two fragmentary sections of worked conch columellae may have been used as chisels (smaller end) or light hammers (blunt, heavy end) (pl. 11, *d*, *e*).

Shell picks.—There are two of these. One is made of a *Busycon carica* shell. The point of the conch has been sharpened into a pick-like implement, but there are no hafting holes in the body of the shell. The other specimen is made from a *Busycon perversum*. The point is fine and sharp, and there are two rather irregularly shaped holes in the body of the conch that could have been used for hafting.

Stone celt.—There is a section broken from the cutting edge of a gray-green stone celt (diorite or igneous rock). The piece shows careful shaping and smoothing.

Rubbing or abrading stones.—A coquina stone has unsmoothed flat surfaces, but the edges have been used for pounding or grinding. This specimen is 6 cm. in diameter and 1.2 cm. thick. A second artifact, a large flat chunk of coquina, has been used as a hone (pl. 12, *e*). The fragment is 14 by 10 by 2.5 cm. A deep groove extends the full length of one surface.

The hone, together with a bone awl, was found near the left hip of skeleton 7.

Worked pumice stone.—A piece of pumice, irregularly shaped, has been ground on one edge and both faces. The specimen measures 9 by 6 by 2.5 cm.

Sheet mica.—Nine mica sheets, averaging about 6 cm. in diameter, were recovered from an area of clean soil in immediate proximity to a firepit. This firepit was located 80 inches below surface in section 35.

Points.—Three chert projectile points show medium to fine retouch flaking (pl. 12, *a–c*). They range from 7.5 to 6 cm. in length. All have elongated ovate-triangular blade forms. Two have slight shoulders and faintly flared stems. The third specimen has a small nubbin stem and pronounced barbs. One came from mound surface and the other two from the body of the mound.

A socketed bone point was made from a deer ulna (pl. 11, *g*). It is just under 9 cm. in length with a basal diameter of 1.5 cm. The socket extends through from butt to point and still retains traces of black pitch. The blade of the point is smoothed and well sharpened. This point came from the body of the mound.

The tip of a large bone point (or, perhaps, a dagger) similar to the one described above was recovered from feature XIII, a firepit in section 55R2 (pl. 11, *f*). This tip is 6 cm. long.

Bone awl.—A bone awl was found with skeleton 28 in section 30R2. This artifact was made from a large splinter of deer bone (pl. 11, *h*). It is 10 cm. long and 1 cm. wide. The butt is broken and unworked. The point is broad, flat, and well smoothed and these smoothed edges and surfaces continue for 5 cm. up the shaft of the tool.

Worked vertebra.—A worked vertebra of a deer (?) was found with skeleton 2 in section 30R2 (pl. 11, *i*). Both the articular surfaces and all of the sides of the bone have been ground off. The diameter of the specimen is 4.5 cm., the thickness 4 cm.

European pottery.—A single sherd of reddish, wheel-made pottery (pl. 11, *j*) was found in a provenience lot described simply as "section 25." All other specimens in this lot were aboriginal ceramics

or artifacts. The exterior surface of this piece of crockery is covered with a mottled yellow-white glaze. There is a decoration in low relief consisting of a series of lines radiating out from a circular center.

Iron.—Five rusted-iron fragments came from the spoil dirt of an old pit in the vicinity of section 35L2. These appear to be fragments of tool blades and a bolt or section of a rod. It seems likely that they are late intrusive objects.

Bird skull.—Next to the left wrist of skeleton 23, in section 35L2, was a bird skull with bill attached. It appeared to have been purposely placed with the burial. The bird has been identified as *Butorides virescens* or a Little Green Heron.

SUMMARY AND CONCLUSIONS

The Ormond Beach mound (Vo–75) is a burial tumulus constructed of sand. It is located on the east side of the Halifax River in Volusia County, east central Florida. The mound was originally about 6 feet in height, dome shaped or conical, circular in outline, and approximately 60 feet in diameter. It stood on and was surrounded by a small village area. Goggin (1952, p. 93) records such a village midden as site Vo–76. The locale was, obviously, a favorable one for fishing and shellfishing in past times. Such food remains, along with animal and bird bones, were found in and under the mound.

The history of the mound site may be recapitulated in two major occupational or constructional phases. The first phase is marked by a village refuse and cooking area which was situated upon a slight natural rise. A number of cooking and garbage pits are associated with this occupation. Immediately over this village debris 20 or more adult burials were arranged in extended, on-the-back-position, head-to-toe, in two concentric circles. A few artifacts, such as shell or stone plummets or pendants, a pottery elbow pipe, miscellaneous tools, and a pottery bowl, were placed with the burials. Although it appears from their arrangement that these burials were a mass interment, the artifacts found with them were placed singly with individual burials and not as a mass offering. A thin but extensive layer of black earth and clamshells was placed over all of these burials. Subsequently, the shell in this covering tended to consolidate into a coquinalike substance.

The second occupation-constructional phase is represented by the body of the sand mound proper. Apparently this construction did not immediately follow the earlier mass burial, but an unknown period of years was allowed to elapse, during which time some of the burials under the black earth and shell mantle suffered disturbance. Upon construction of the body of the mound proper, another mass-burial ceremony must have been held, and, again, the extended bodies

were placed in a circular, head-to-toe fashion. Subsequently, other burials were made in and upon the mound with the result of a gradual increase in the bulk and height of the structure. Over 40 individuals, including both adults and children, were buried in the mound proper.

Although an extended, on-the-back position was the most common, some burials appear to have been no more than single skulls; and below mound base, quite possibly antedating the first mass burial, was a primary flexed interment. Most of the extended burials appear to have been primary, but the interpretation of mass burial suggests that these individuals had, perhaps, been stored or kept as cadavers for some time previous to their placement in the ground.

An examination of 50 of the Ormond skulls, together with some of the postcranial skeletons, reveals no noticeable differences between the earlier, or below-mound, phase of site occupation and the mound proper; however, the limited number of crania from the lower level that were suitable for study renders this judgment inconclusive. In general (with two exceptions), the Ormond skulls are brachycranic with high vaults and rugged faces. The males give evidence of heavy musculature. As a whole, the group fits into Hrdlička's (1940) "Gulf" type or into Neumann's "Walcolid." None of the skulls showed the fronto-occipital head flattening that is found along the northwest coast of Florida on what are probably contemporaneous (Weeden Island period) skulls.

The bulk of the Ormond pottery from both below-mound and mound-proper levels belongs to the St. Johns tradition. Most of it, including all of the restorable vessels, is of the type St. Johns Plain. The presence of the type Dunns Creek Red and the near absence (1 sherd) of the type St. Johns Check Stamped suggest that the period of occupation and construction falls into the St. Johns I range. A few earlier sherds, such as Deptford Bold Check Stamped and Orange Incised, imply an old, thin occupation antedating this; but there is little doubt that the first substantial habitation of the site and the first mass burial were St. Johns I in time. The St. Johns I period has been estimated by Goggin as 400 B. C. to A. D. 1100. As a fragment of St. Johns Check Stamped was found in the body of the mound it is likely that there was some activity at the site, however minor, as late as the close of the period.

In a somewhat wider frame of reference the Ormond Beach mound site is probably contemporaneous with the Santa Rosa-Swift Creek and Weeden Island I periods of northwest and Gulf coast Florida. Its salient cultural characteristics are those of the Burial Mound or Middle Woodland stage of the Southeastern United States, although use of the site may have continued on into periods of contemporaneity with Temple Mound or Mississippian cultures elsewhere.

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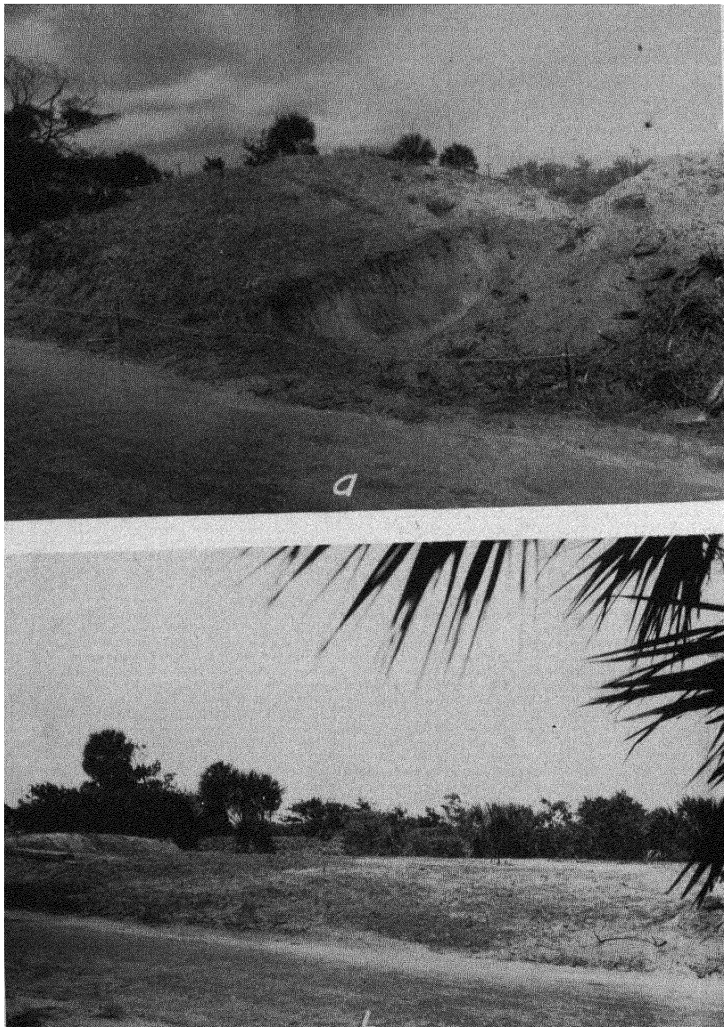
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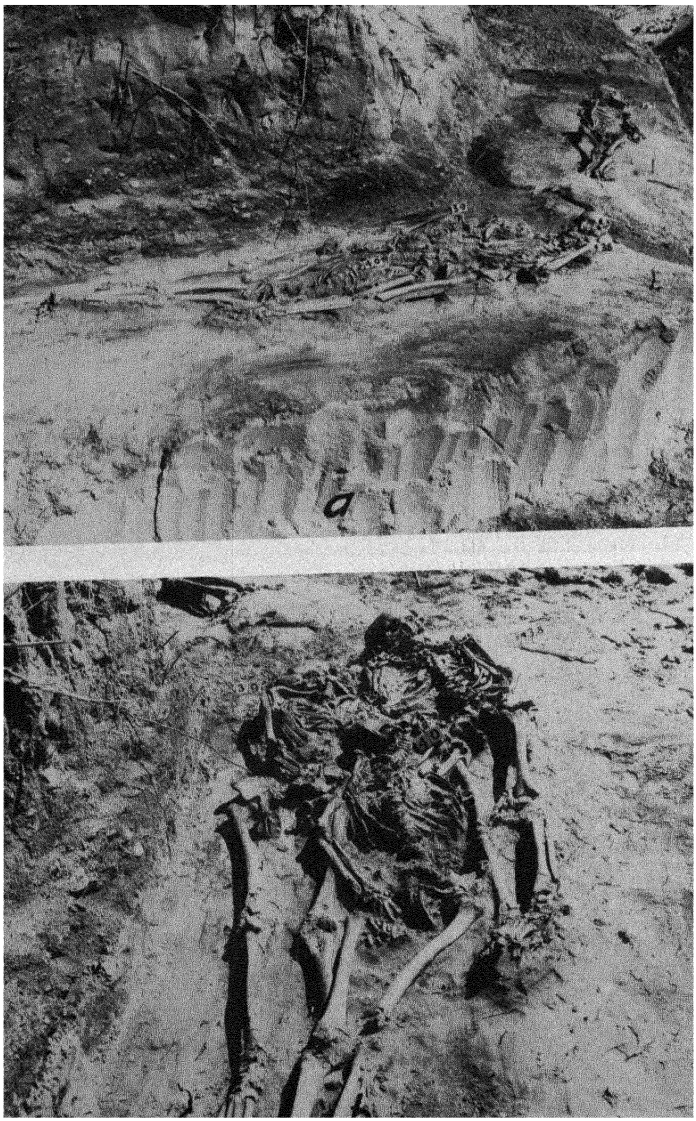
Ormond Beach mound from the southwest before clearing. Halifax Avenue in the foreground.



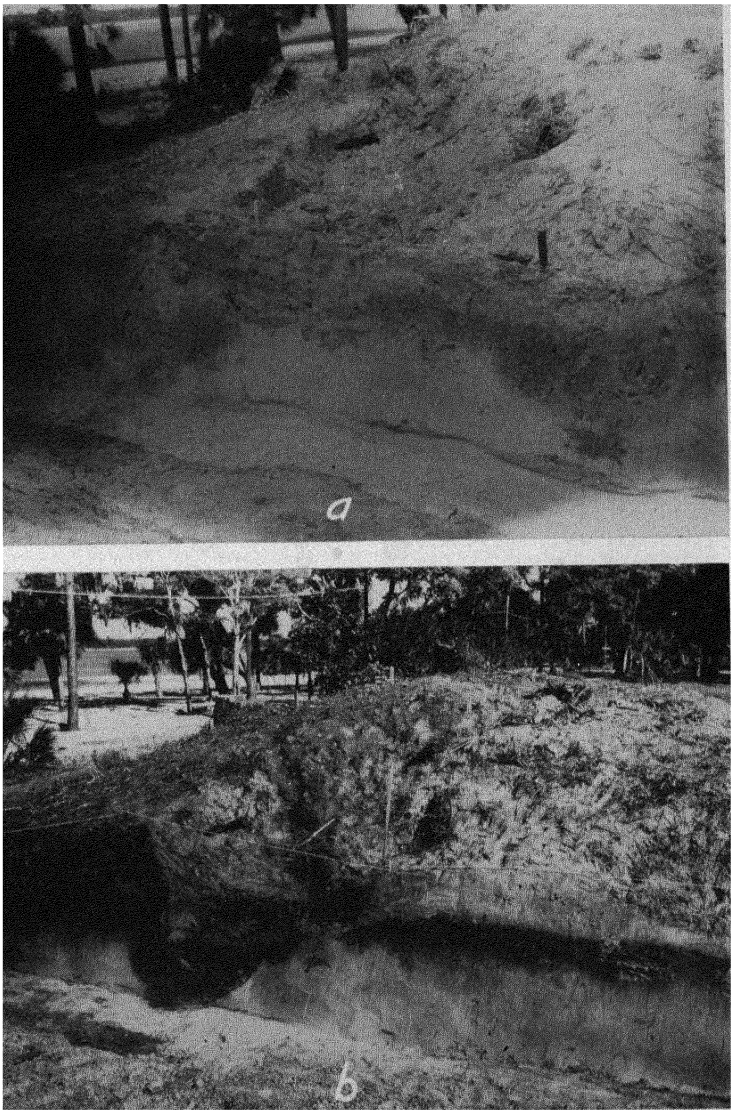
Ormond Beach mound from the southwest at the beginning, and upon completion, of excavations. *a*, Cleared site and the first cut along the south side. The low dome shape of the mound and the encroachment of the Halifax Road are visible. *b*, View of site after leveling was completed.



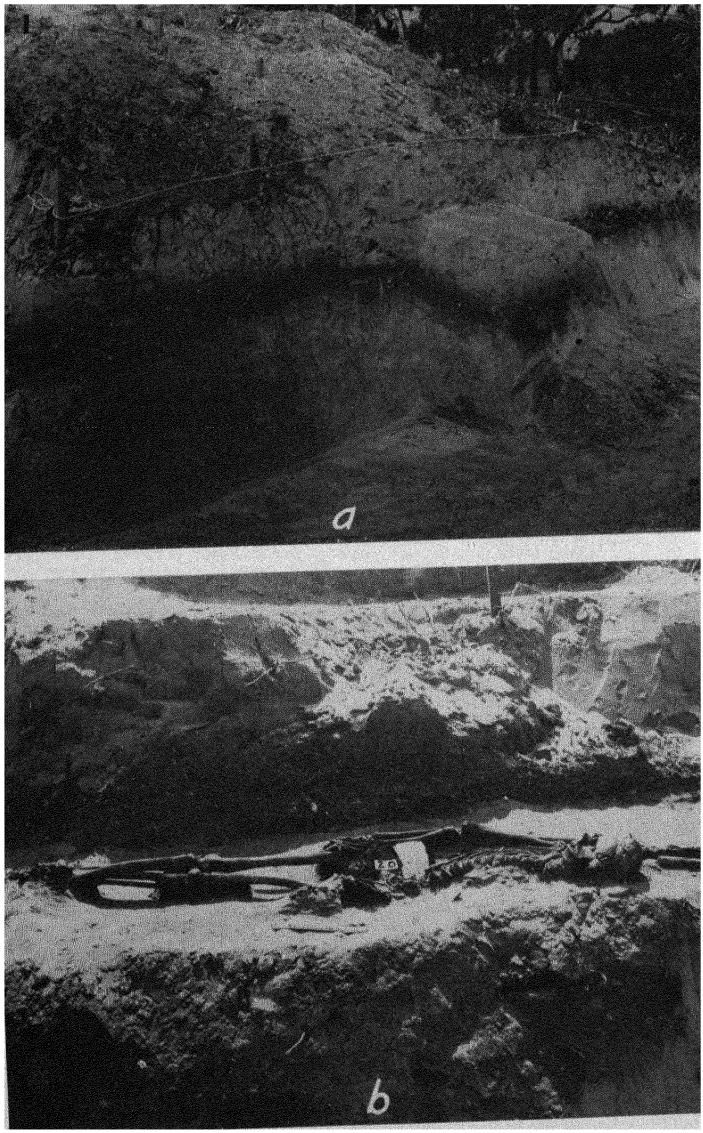
Views of burials below mound base. Both *a* and *b* show burials in the outer ring (see fig. 2 for plan of burials). Burials 7, 28, 20, and 30 from left to right.



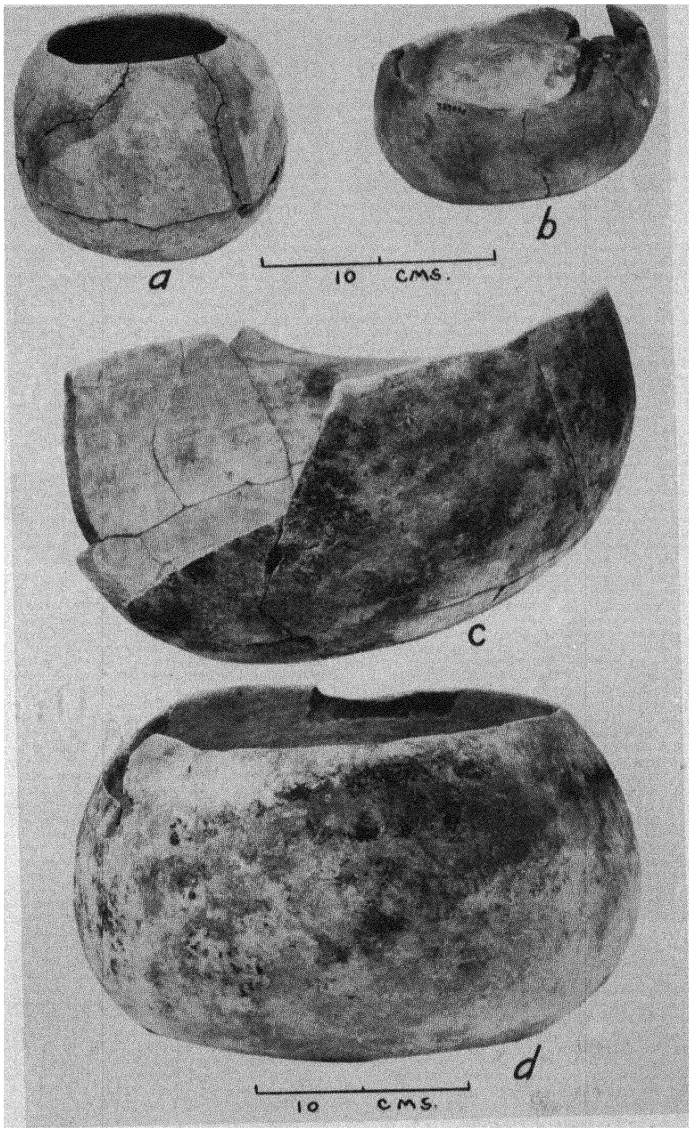
Views of burials below mound base. Both views show skeletons in the inner ring (see fig. 2 for plan of burials). *a*, Nos. 40, 39, 38, and 37 from left to right. *b*, Closeup of Nos. 39, 40, and 38.



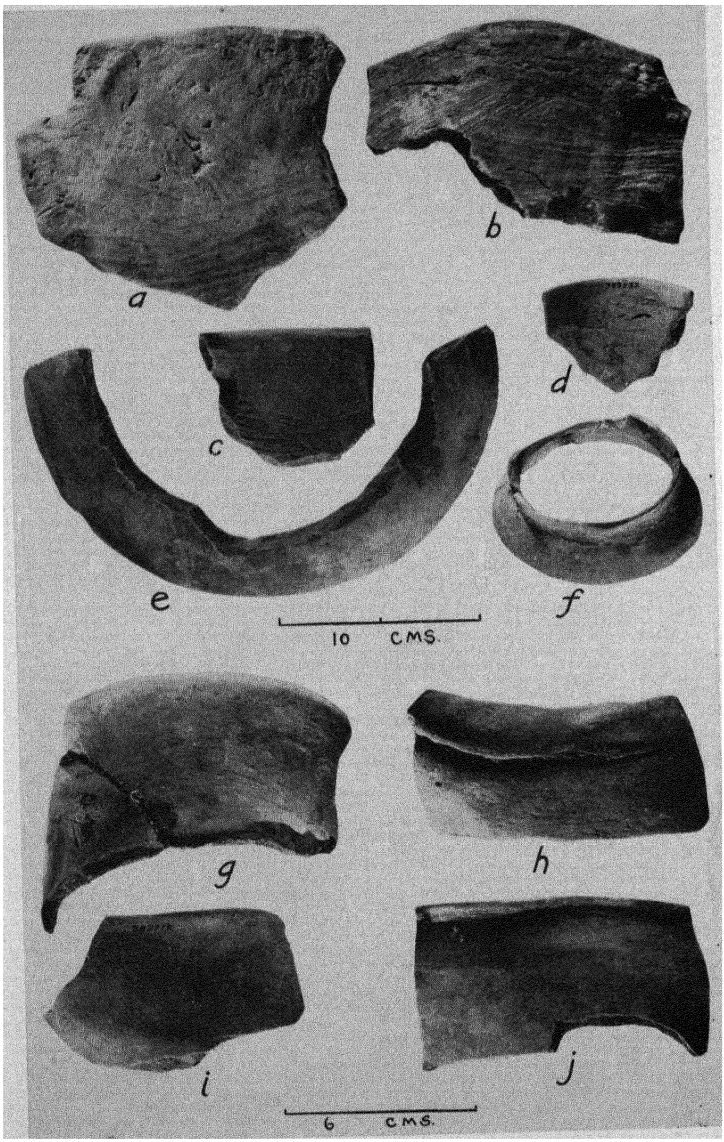
Views of the excavation showing the contrasts in the three major soil zones. At the base is the irregularly stained natural sand. Next above is the black sand containing coquina. The upper zone, the mound fill, is composed of natural sand containing various amounts of humus stain. *a* and *b*, Views of the approach trench on the south side. In *a*, on extreme edge of site, the pot hunter's trench into the mound shows clearly. In *b*, appears the most extensive of the submound pits (feature II), which the earlier amateur's trench had skimmed over.



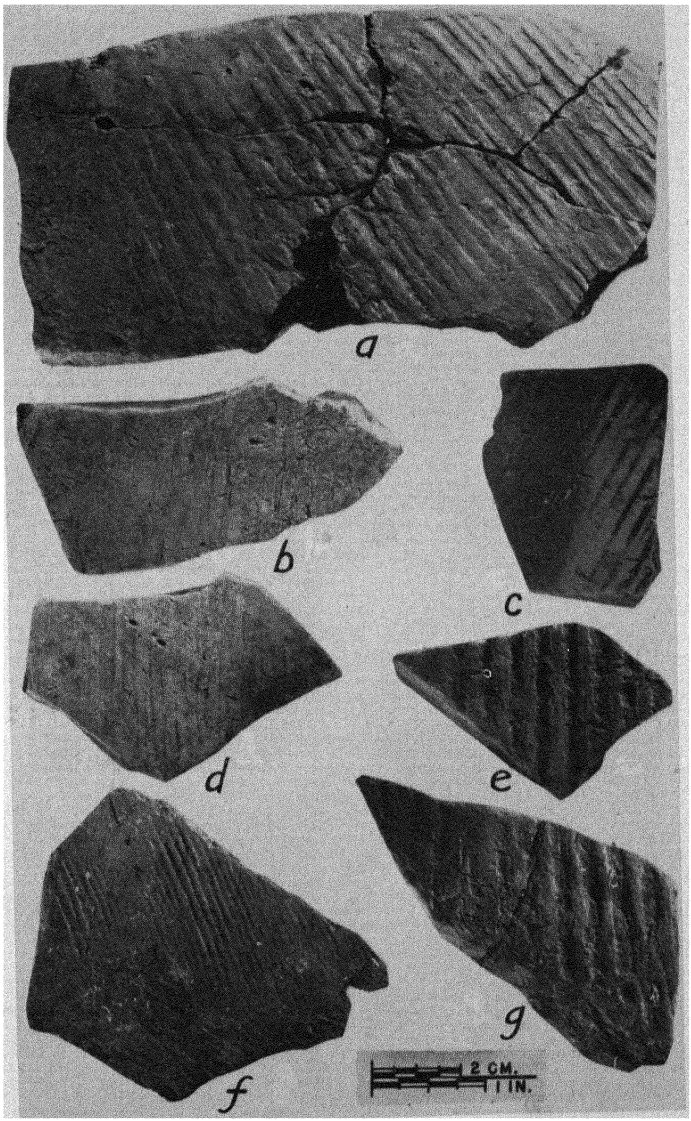
Views of excavation and burials. *a*, View of the approach trench on the east side of line R4. *b*, Burial 20, with coquina layer visible in the bank behind skeleton.



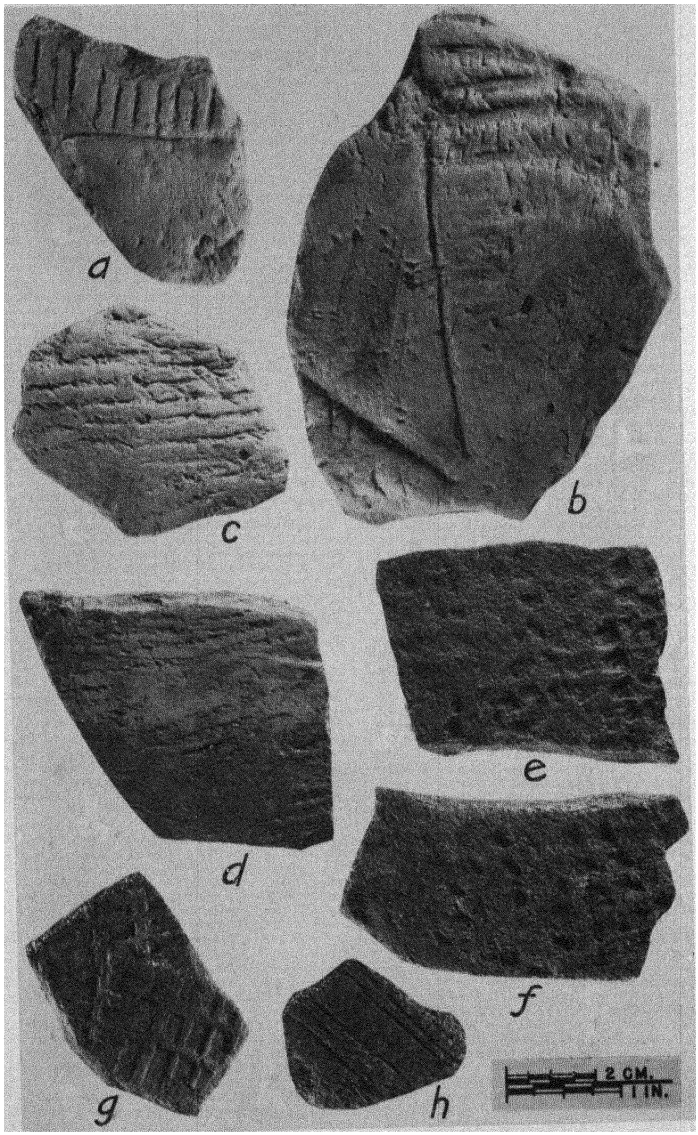
Partially restored vessels of the St. Johns Plain type. (Streaking on specimen *a* results from mending fluid and is not paint. Other specimens show fire smudging.) (USNM Nos. *a*, 383896; *b*, 383895; *c*, 383948; *d*, 383893.)



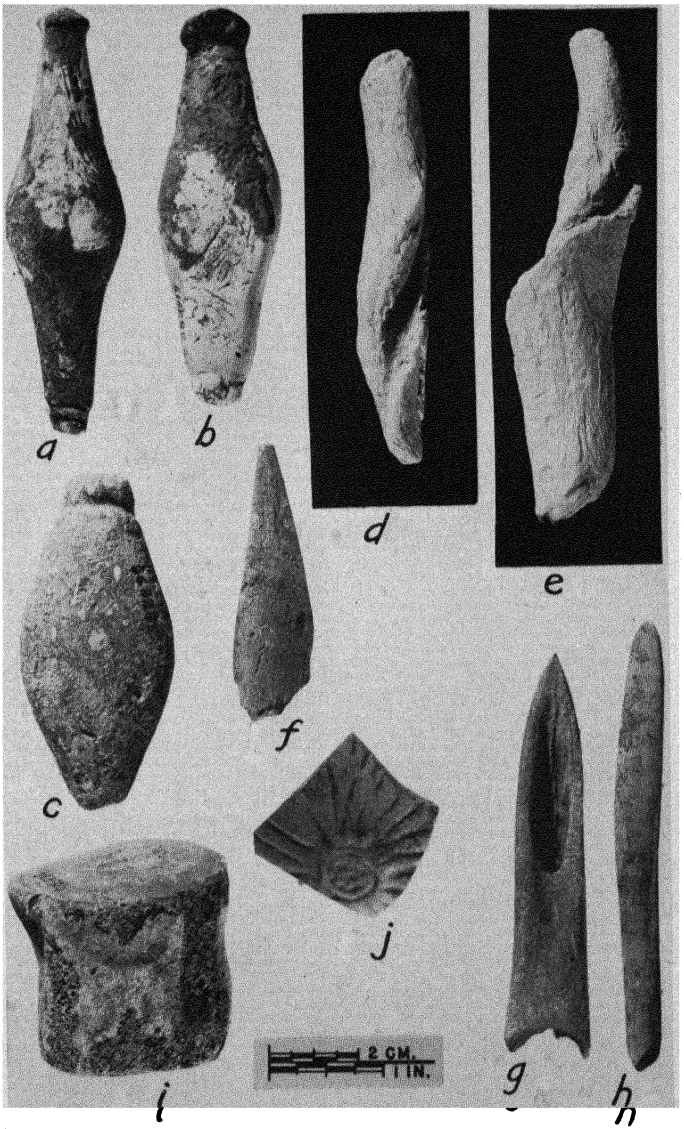
St. Johns Plain sherds. Specimens *a–c* show scoring similar to type St. Johns Scored; *d*, interior of open bowl rim sherd; *e*, large sherd showing coil fractures; *f*, short, outflared collar of bowl or jar (picture inverted); *g*, jar collar; *h*, *j*, bowls with short outflared collars; *i*, rim sherd from subglobular bowl. (USNM Nos.: *a*, 383959; *b*, 383933; *c*, 383939; *d*, 383932; *e*, 383951; *f*, 383908; *g*, 383959; *h*, 383931; *i*, 383918; *j*, 383909.)



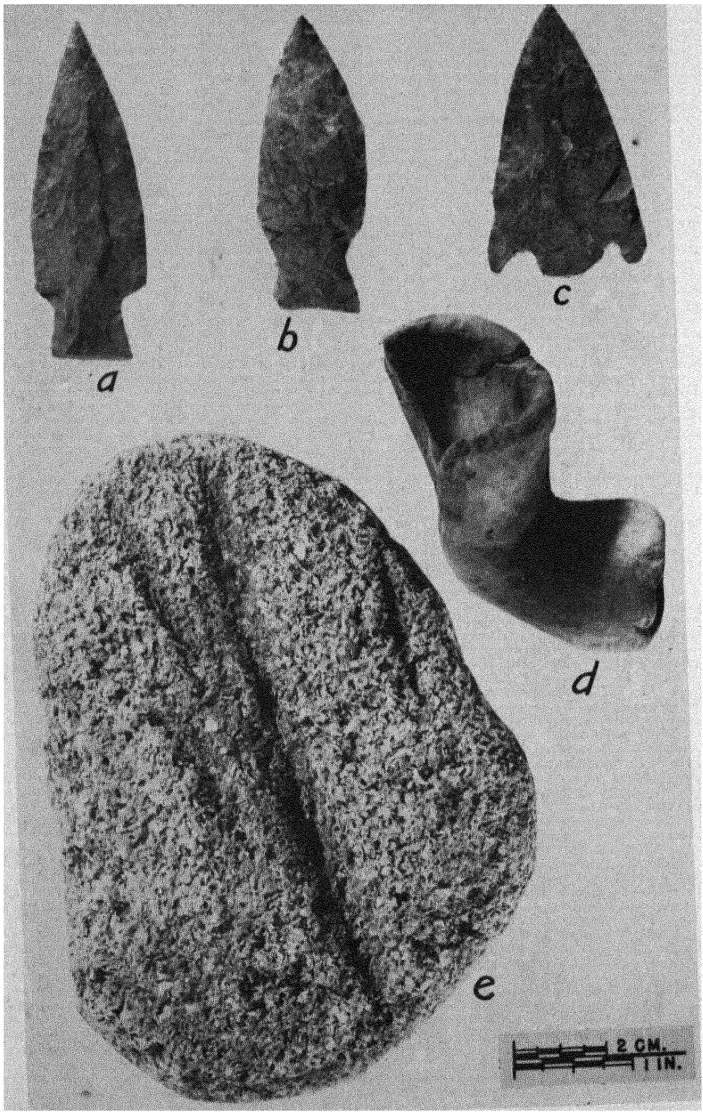
St. Johns Simple Stamped sherds. Sherds *a* and *c* are rim fragments; all others are body pieces. Sherds *a*, *e*, *g*, show occasional cross lands, vaguely reminiscent of check-stamped treatment. (USNM Nos.: *a*, 383916; *b*, 383939; *c*, 383914; *d*, 383959; *e*, 383907; *f*, 383909; *g*, 383907.)



Potsherds of various types. *a*, Little Manatee Shell Stamped. *b*, Unclassified Incised. *c*, *d*, Cord-Marked (soft paste). *e*, *f*, *g*, Deptford Bold Check Stamped. *h*, Orange Incised. (USNM Nos.: *a*, 383921; *b*, 383906; *c*, *d*, 383959; *e*, 383925; *f*, *g*, *i*, 383959.)



Various artifacts. *a*, *b*, Pendants or plummets made of conch shell columellae. *c*, Pendant or plummet of coquina. *d*, *e*, Chisels made of conch columellae. *f*, Tip of bone dagger or point. *g*, Socketed bone point. *h*, Bone awl. *i*, Worked vertebra (deer ?). *j*, Fragment of European pottery. (USNM Nos.: *a*, 383899; *b*, 383919; *c*, 383898; *d*, *e*, 383970; *f*, 383956; *g*, 383902; *h*, 383962; *i*, 383905; *j*, 383959.)



Various artifacts. *a–c*, Chipped stone projectile points. *d*, Pottery smoking pipe. *e*, Hone of coquina. (USNM Nos.: *a*, 383900; *b*, 383915; *c*, 383901; *d*, 383897; *e*, 383928.)

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HAIR PIPES IN PLAINS INDIAN ADORNMENT

A Study in Indian and White Ingenuity

By JOHN C. EWERS

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FOREWORD

Students of the American Indians and of Western history are familiar with the elaborate breastplates of long, light-colored, tubular beads worn by many prominent Plains Indian men that have been depicted in photographs taken since about 1870. Yet the story of how, when, and where these picturesque ornaments originated and how the custom of wearing them was diffused widely among the Plains Indians and their neighbors has never been told. One may search in vain through the voluminous literature on the Plains tribes for a comprehensive discussion of this problem.

I recall that Dr. Leslie Spier referred to this unsolved problem in one of his always stimulating classes at the Yale University Graduate School in the period 1932–34. I obtained valuable information on some important historical aspects of the question while stationed on the Blackfeet Reservation, Mont., in the early 1940's. But it was not until after I joined the staff of the Smithsonian Institution in 1946 and became well acquainted with the wealth of ethnological specimens and dated drawings and paintings in the collections of the Division of Ethnology, United States National Museum, and with the outstanding collection of early, dated photographs in the Bureau of American Ethnology, that I began to realize that sufficient evidence might be gathered to provide a solution to this problem. As I became more familiar with the evidence obtained from these and other sources, I came to realize that the question was but one facet of a more complex one involving various Indian uses of a type of long, cylindrical ornament known to Indian traders since late colonial times as a "hair pipe."

Students of the material culture of the historic tribes commonly utilize three classes of source materials: (1) the verbal testimony of Indian informants, (2) references in the published literature, and (3) ethnological specimens in museum collections. The present study, however, required delving into the history of the Plains Indians beyond the period covered by the memories of living informants. The published literature on the subject was found to be grossly inadequate. I found, however, that the lacunae in the literature and the historical limitations of fieldwork could be overcome in large measure by careful study of dated ethnological specimens, drawings, paintings, and photographs and by tedious search of archival records. Perhaps, then, this study may serve not only as a solution to a particular problem, but

also as a demonstration of the results that can be achieved through the exploitation of these research tools in the investigation of problems of change and stability in American Indian material culture.

In the course of this study I have incurred heavy obligations to many individuals who have generously given of their time and specialized knowledge to assist me. I am indebted to John Witthoft, Pennsylvania State Archaeologist, Harrisburg, Pa.; to Arthur A. Futer, New Holland, Pa.; to Kenneth E. Kidd, Royal Ontario Museum of Archeology, Toronto, Canada; to Glenn Black, Indiana University, Bloomington, Ind.; and to Raymond S. Baby, Ohio State Museum, Columbus, Ohio, for specific information on the archeological occurrences of long, cylindrical ornaments of glass and of metal in historic sites of the Eastern Woodlands. J. C. Storms, of Park Ridge, N. J., patiently recalled for me his boyhood acquaintance with the last of the shell hair-pipe makers of that town. Mrs. Mary S. Curtis, curator, Bergen County Historical Society, North Hackensack, N. J., graciously searched the county records for information on the Campbell family of wampum makers. Frank and Joseph Sherburne, merchants of Browning, Mont., told me of their father's important role in the invention of the bone hair pipe. J. V. Hurson and Edward Wentworth, both of Armour & Co., and Carl V. Otto, vice president, Missouri Meerschaum Co., Washington, Mo., kindly supplied information pertaining to the development of the bone hair pipe. The late Robert A. Boake, Indian trader of Anadarko, Okla., and John Choloff of Pine Ridge Reservation, S. Dak., told me of their trade in bone hair pipes, while Indian informants of the Blackfeet, Blood, Fort Peck, Fort Belknap, and Western Oklahoma Consolidated Agency furnished information on the use of hair pipes by their respective tribes. James M. Luongo, president, Plume Trading & Sales Co., Inc., of New York City, informed me of his firm's present-day trade in bone hair pipes.

Archival records furnished the greater part of the data here presented on the early distribution of hair pipes by traders. I am indebted to Marius Barbeau, National Museum of Canada, Ottawa, Canada, for a copy of his notes on trade goods taken during his studies in the Archives of the Seminary of Quebec, Laval University, Quebec, Canada; to Mrs. Alice J. Turnham, director, McGill University Museums, Montreal, Canada, for information on the sale of hair pipes contained in the account book of James and Andrew McGill; to Mrs. Frances Biese, archivist, Missouri Historical Society, St. Louis, Mo., for locating references to trade in hair pipes in the extensive manuscript collections of that society; and to Marshall Moody of the National Archives for aid in finding references to hair pipes in the records of the Office of Indian Trade. I am grateful

to Dorothy C. Barck, librarian, The New York Historical Society, for permission to examine the American Fur Co. papers in that library.

Mrs. Margaret Blaker facilitated my examination of the thousands of photographs of North American Indians in the Bureau of American Ethnology. The Chicago Musuem of Natural History and the American Museum of Natural History, New York City, kindly permitted my examination of their extensive collections of photographs of Plains Indians.

I shall always be grateful to Prince Karl Viktor zu Wied, of Munich, Germany, for permission to examine the 118 original drawings and watercolors, executed by Carl Bodmer on his visit to the Upper Missouri in 1833–34, which were brought to the United States for temporary exhibition in 1953. Dr. Josef Röder showed me photographs of 100 other Bodmer originals in the possession of the estate of Prince Maximilian zu Wied.

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HAIR PIPES IN PLAINS INDIAN ADORNMENT

A STUDY IN INDIAN AND WHITE INGENUITY

By JOHN C. EWERS

THE HAIR PIPE

For nearly two centuries white men who have traded with the Indians of the Eastern Woodlands and the Great Plains have referred to a tubular bead measuring 1½ inches or more in length which they carried in stock by the name of "hair pipe." The origin of the name is obscure. Certainly the name itself fails to suggest the variety of ways in which Indians employed these long beads as articles of personal adornment. Nor should the application of this name to articles made by Whites for trade to Indians identify this form of ornament as a white man's invention. It appears more probable that the trade hair pipe was a white man's substitute for a type of long, cylindrical ornament which had its origin in prehistoric Indian culture.

ABORIGINAL PROTOTYPES OF TRADE HAIR PIPES

The wearing of hollow, cylindrical beads, 1½ inches or more in length, as costume ornaments was a custom known to prehistoric Indians of the Eastern United States. There is archeological evidence of Indian use of long, tubular beads of bone, shell, copper, and stone before the time of Columbus.

Of these prehistoric ornaments, the long shell bead, made from the column of the marine conch, seems to have been employed most widely over an extended period of time in the intertribal trade of prehistoric peoples. Trade in these ornaments and/or the marine shells from which they were made is strongly indicated by the discoveries of these beads in archeological sites in the interior of the Eastern Woodlands far removed from the seacoast habitat of the marine conch.

Eight long, cylindrical conch columella beads were found in a necklace worn by an Indian child buried at a depth of 5 feet at the Perry site on the Tennessee River in northern Alabama (Webb and DeJarnette, 1942, p. 64, pl. 96, fig. 1). This burial in the Archaic horizon

may be more than 4,000 years old. Webb and DeJarnette (ibid., p. 312) have listed the wearing of long, conch columella beads as a trait typical of the nonagricultural, non-pottery-making shell mound dwellers of the Pickwick Basin.

The wearing of longitudinally drilled, conch columella beads, ranging in length from 12.5 cm. to over 20 cm., also was typical of more sophisticated Indians of the Middle Woodland period in eastern Tennessee. Numbers of these beads were found in graves of Hamilton Focus horizon sites in that area. A drawing reconstructing the costume of a woman of that culture shows two of these long, shell beads in her necklace (Lewis and Kneberg, 1946, p. 127, pls. 80A, 99). The fact that these sites contained no discarded remnants of conch shells from which beads were made suggests that the beads were obtained in trade from Indians living nearer the seacoast.

Aboriginal trade in the long, tubular, conch columella beads over a still wider area is indicated by finds of these ornaments in sites of the Middle Woodland period in western New York and southern Ontario (Richie, 1944, p. 362, pls. 67, 69). Richard S. MacNeish (in Griffin, 1952, pp. 49–50) listed the use of conch columella beads as a characteristic trait of the Point Peninsula III horizon in western New York.

At the late prehistoric Feurt Mounds and Village site, about 5 miles north of Portsmouth, Ohio, tubular beads of bird bones and of conch columella were found in necklaces accompanying burials. Long, cylindrical beads of rolled copper also were found at that site. These beads of three different materials reveal the popularity of hollow, tubular ornaments among Indians of the Ohio Valley shortly before the beginning of the historic period (Mills, 1922, figs. 12, 17, 18, 61).

James Adair noted the survival of the wearing of long, conch columella beads among southeastern Indians (Chickasaw, Creeks, and/or Cherokee) in the early historic period. Apparently writing of the customs of these Indians in the period shortly after white contact, but before European trade goods had been introduced among them in quantity, he stated:

> Formerly four deer-skins was the price of a large conch shell bead, about the length and thickness of a man's forefinger; which they fixed to the crown of their head, as an high ornament—so greatly they valued them. [Adair, 1775, p. 170.]

This appears to be the only certain early historic reference to a method of wearing long, conch-shell beads by Indians. It would appear logical that the name "hair pipe" consistently applied by traders to the long, hollow, cylindrical ornaments supplied to Indians of the Woodlands and Plains in later years was derived from the traders' knowledge of Indian usage as hair ornaments of roughly similar-appearing articles of native manufacture.

17TH-CENTURY TUBULAR TRADE ORNAMENTS OF GLASS

Before the middle of the 17th-century white traders introduced long, tubular glass beads of European manufacture among some tribes of the northeastern woodlands. These trade beads seem to have been accepted by the Indians as substitutes for native-made tubular ornaments.

In 1946, Kenneth E. Kidd excavated a Huron Indian ossuary in Tiny Township, Simcoe County, Ontario, which he believed to have been the ossuary visited by the Jesuit missionary, Jean de Brebeuf in 1636, and to have contained burials of Huron Indians who died between the years about 1624 and 1636. Scattered throughout the ossuary were grave goods of native and European manufacture. Included among them were a number of long, tubular glass beads, some of twisted glass, examples of which are illustrated in figure 123 of Kidd's report on this site (Kidd, 1953). The ossuary also contained a number of tubular beads of dull-red slate (also shown in fig. 123). Kidd concluded that the glass trade beads had been introduced in imitation of the native-made slate beads. However, these ornaments were not associated with the skeletal materials sufficiently closely to illustrate their method of use as ornaments (ibid., pp. 359–379).

John Witthoft, Pennsylvania State archeologist, has kindly informed me of the finding of a number of tubular, glass trade beads at the Strickler site, Washingtonboro, Lancaster County, Pa., in the region occupied by the Susquehanna Indians in the 17th century. Witthoft stated that the site may be dated between 1640 and 1675, and that the glass beads seem to be in a trade-goods context of the 1640's. They are, therefore, nearly contemporaneous with the tubular glass beads of the Huron ossuary in Ontario. Nearly two decades ago Donald Cadzow (1936, p. 92) expressed the opinion that the glass beads of the Strickler site were introduced by the French and may have reached the Susquehanna Indians through their alliance with the Huron.

About 30 tubular glass beads have been found at the Strickler site. Arthur Futer, of New Holland, Pa., who excavated most of the graves at this site, kindly sent me two of the glass beads for study. They are reproduced in plate 13, *a* and *b*. Both are of translucent, twisted, green glass. Figure *a* is 5⅞ inches long, 3/16 inch in diameter, and has a narrow hole less than 1/16 inch in diameter through the center of its length. The twist is gradual, forming not quite a complete revolution in the length of the specimen. Figure *b* is a little shorter (5¾ inches) and a little thicker (¼ inch diameter), but the center hole has the same diameter. The twist is more pronounced. A complete revolution is made in 1¾ inches of length. Witthoft has informed me that these beads have been found in close association with the skulls in burials

at the Strickler site. There were never more than four of them at the sides of a single skull. Probably the Indians used them for hair ornaments.

Cadzow (1936, p. 82) mentioned the finding of tubular, conch-shell beads in association with a burial at the Strickler site. This would suggest that among the Susquehanna the tubular glass beads may have been accepted as substitutes for earlier, native-made, conch columella beads.

The case of the tubular glass beads as here presented is of particular interest as an indication of the progress made by white traders among the Indians of the northern woodlands before the middle of the 17th century in getting Indians to accept long, tubular beads manufactured by white men as substitutes for tubular ornaments of native origin. We can only speculate as to the motives of the Indians in accepting the glass substitutes. We have no information on the relative cost of native-made and European-made tubular beads in trade at that time. Perhaps the Indians were attracted to these early, glass, tubular beads because of their attractive colors and their initial rarity. Certainly the fragility of the glass material was not in its favor. Surely they were much less practical ornaments than were the manufactured tubular ornaments offered Indians by traders in later colonial times.

18TH-CENTURY SILVER AND BRASS HAIR PIPES

The first recorded use of the term "hair pipe" in the Indian trade of which I have knowledge, had reference to silver ornaments furnished Indians of the Ohio Valley in 1767. On October 18th of that year George Morgan of Fort Pitt ordered from Boynton and Wharton of Philadelphia two dozen silver hair pipes (Gillingham, 1934, pp. 114–115). The same article may have been known to traders in the Ohio Valley by the name "hair bob" as early as 1760. In that year several dozen hair bobs made by Philadelphia silversmiths were sent to Pittsburgh (Gillingham, 1936, pp. 14, 16–19). I find no contemporary use of the terms "hair bobs" and "hair pipes" in the lists of silver ornaments employed in the Pennsylvania Indian trade of the 1760's. The name "hair bob" seems to have disappeared from these lists after the name "hair pipe" first appeared in 1767.

Apparently the numbers of silver hair pipes furnished the western Indians in colonial times never was great. By far the largest order for these articles, dated August 27, 1784, listed by Gillingham (1934, p. 122) comprised 12 dozen hair pipes to be used in the purchase of land in the State of Pennsylvania.

No specimens of silver hair pipes are known to have been found in archeological sites in Pennsylvania. Nor does there seem to be a record of the finding of these specimens in documented historic sites

lower down the Ohio Valley. There is, however, a rolled silver tube 3 5/16 inches long, tapering slightly toward one end from a maximum diameter of ½ inch, in the Ohio State Museum. The silver is 0.023 inch thick. This specimen was excavated in 1899, from an Indian grave on the Blanchard River, 1 mile east of Ottawa, Ohio. The specimen bears no touchmark and cannot be dated. It may be an example of the article known to colonial records as a "silver hair pipe," but we cannot be positive of this identification. I am indebted to Raymond S. Baby, of the Ohio State Museum, for calling my attention to this specimen and for the photograph of it reproduced in plate 13, *d*.

Much more closely approximating the tapered form of articles known as hair pipes in the later Indian trade is an ingeniously made brass ornament found in an intrusive burial at the Angel site, Vanderburgh County, Ind., in 1940. The specimen is of rolled brass, 3 5/16 inches long, tapering from the center toward each end, and so cut that the overlap forms a straight line. Glenn Black, who kindly informed me of this find, stated that the specimen was found at the base of a skull on the left side, and that other grave goods associated with this burial appeared to date it after 1750 and probably about 1800. The shape of this ornament, illustrated in plate 13, *c*, closely resembles that of later and better known shell hair pipes made by Whites for the Indian trade.

There is evidence that both Canadian and American traders were offering silver hair pipes in the Indian trade during the first decade of the 19th century, and that these articles were then made in Montreal as well as in Philadelphia. On January 26, 1801, Angus Mackintosh, at Sandwich, on the Detroit River, wrote to Robert Cruickshank, Montreal silversmith, placing an order for silver trade objects which included 12 hair pipes (Barbeau, 1940, pp. 128–130). On January 16, 1807, the United States Office of Indian Trade, Georgetown, D. C., placed an order for silver objects with John McMullen and Samuel Williamson, Philadelphia silversmiths, which included $25 worth of hair pipes (National Archives, MS. A). That silver hair pipes were furnished to Government Factories[1] west of the Mississippi is proved by the record of a shipment of "142 P. Hair Pipes" valued at $52.58, or a little more than 38 cents each, to John B. Treat, agent in charge of Arkansas Post in 1807 (National Archives, MS. A). In the next year, 33 hair pipes were sent from the Office of Indian Trade in Georgetown, D. C., to the United States Trading House at Osage River. They were valued at 40 cents each (National Archives, MS.

[1] Between 1795 and 1822 the United States Government established and operated trading posts in the Indian Country. Headquarters of this system was the Office of Indian Trade in Georgetown, D. C. (See: A history of the United States Indian Factory system, 1795–1822, by Ora Brooks Peake. Denver, Colo. 1954.)

B, p. 7). In 1809, 20 silver hair pipes, valued at 75 cents each, were forwarded to Fort Osage by William Clark (National Archives, MS. C, p. 278). An inventory of merchandise on hand at Fort Osage, September 30, 1810, listed 32 silver hair pipes, valued at 40 cents each (National Archives, MS. D).

These records show clearly that silver hair pipes were furnished to Government Factories trading with the Plains Indians in the first decade of the 19th century. However, the quantities of these articles involved in that trade seem to have been small. I have found no reference to any silver hair pipes traded to the Plains Indians in subsequent years, nor do there seem to be contemporary records of trade in silver hair pipes by private traders who were the competitors of the Government Factories for the business of Indians in the Osage Country in the first decade of the 19th century. Private traders appear to have favored less expensive hair pipes made of shell.

SHELL HAIR PIPES

The most common type of hair pipe in use among the Plains Indians for three-quarters of a century prior to 1880, was one made from the lip of the West Indian conch (*Strombus gigas*) by Whites in New Jersey. Traders who supplied the Indians with these shell hair pipes sometimes referred to them as "wampum hair pipes."

MANUFACTURE OF SHELL HAIR PIPES

The center of commercial manufacture of shell hair pipes for the Indian trade was the little town of Pascack (now Park Ridge) in Bergen County, N. J. Dutch settlers in Bergen County made clam-shell wampum for the Indian trade in colonial times. Manufacture of hair pipes appears to have been a development from that earlier wampum industry. The apparent absence of these commercially made hair pipes of shell in historic Indian sites of the pre-Revolutionary War period in the Northeast and in the Great Plains, coupled with the lack of contemporary records of trade in these artifacts prior to 1799, suggest that manufacture of these articles was begun between the years 1776 and 1798.

In the history of shell hair-pipe making in Bergen County one family has played a dominant role. They were the descendants of Irish-born William Campbell who settled at Schraalenburg in 1735. "His son John, two grandsons, four great-grandsons, and two or more great-great-grandsons became the renowned family of wampum makers. The original homestead of John W. Campbell and wife, Letitia Van Valen, of one hundred acres, was at Pascack, 25 miles from New York. They settled there prior to 1775, and began manufacturing wampum" (Westervelt, 1924, p. 9). Doubtless the Camp-

bells learned the methods employed by their Dutch neighbors of working clamshells into wampum and did not begin to make hair pipes until after they had become proficient in shaping and drilling clamshells. Although the name of the inventor of the shell hair pipe is not definitely known, it may be that this distinction belongs to John W. Campbell (born July 1, 1747, died March 15, 1826), founder of the Campbell wampum business. The invention may have been inspired by a desire on the part of Indian traders to obtain a cheaper substitute for the silver hair pipe which would be acceptable to the Indians.

At the hands of successive generations of Campbells, hair-pipe making developed from a simple, hand-tooled, home industry into a factory operation in which the most difficult and precise work was performed by crude machinery which they invented. In the mid-19th century the making of hair pipes for the Indian trade was considered one of the important industries of Bergen County. Yet the thrifty, industrious Campbells continued to regard it as a seasonal occupation. They worked hard at it from October to April. The rest of the year they farmed. A contemporary map of Park Ridge, N. J., about 1876, shows the location of the Campbell Brothers' Wampum Mill on Pascack Brook, a tributary of the Hackensack River. (See pl. 14.) This map also depicts the farms of three of the four Campbell brothers (pl. 14). The mill had been built in 1860 to utilize waterpower for turning the grinding and polishing wheels. Plate 15, *a*, shows the exterior of this factory as it appeared while still in use in 1886.

The making of hair pipes required the use of a larger and thicker shell than the Rockaway clam previously employed in the manufacture of clamshell wampum. In the West Indian conch (*Strombus gigas*) the Campbells found a shell suitable for hair pipes. According to Westervelt (1924, p. 16) these shells were brought from West Indian ports as ballast to New York City docks, where the Campbells purchased them in lots of five and ten thousand. The large 5-pound shells were preferred.

It was common for the Campbells to sell quantities of these shells to other workers in the neighborhood. In their homes the neighbors broke out long sections of shell from the lips of the conch with pick and chisel. Then the Campbells bought back the thick, roughly shaped pieces for drilling and finishing. The Campbells regarded their finishing methods as trade secrets. Among these were the baking of shell pipes in the family oven to whiten them, the soaking of pipes in buttermilk to soften them for drilling, and the tempering of metal drills in sheep's tallow. The pipes were ground to shape by holding them against grindstones with wooden pinchers. They were highly polished with Rockaway sand and water.

By far the most difficult step in the manufacturing process was that of drilling the long central holes. In the early period of hair-pipe making the Campbells used the same tools and methods of drilling that had been used in drilling clamshells in the manufacture of wampum. As Daniel Campbell explained it, the drillers "used to wear a sort of breastplate against which they rested a block to hold them. Then they had a spool with a string around it to revolve it. The drill was put into this spool and the end placed in the pipe. Then the string was pulled back and forth and the drill went into the pipe. Halfway through, the pipe was reversed and the drill sent through the other end. The trick was in making the two holes meet in the middle. Lots of pipes were spoiled by the drill getting in crooked" (Newark Evening News, 1923, p. 2-x).

I am indebted to J. C. Storms for the photograph of this simple bow drill shown in plate 16, *a*. Drilling hair pipes with such primitive equipment was undoubtedly a difficult, time-consuming operation. Yet some skilled workers were able to drill 100 pipes a day with this hand tool.

The most ingenious, laborsaving invention of the Campbells was the pipe-drilling machine, capable of drilling 6 pipes simultaneously and increasing an individual's output to 400 pipes per day. This crude but effective machine was the product of the combined skill of James Campbell, the family's mechanical genius, and Daniel Campbell, an able carpenter. Daniel's son claimed this machine had been in use for some time before he began to make hair pipes about the year 1866.

The pipe-drilling machine was made entirely from materials found on the Campbells' farms—wood, metal, and leather belting. To a crude wooden framework was attached the mechanism, which consisted of six handmade steel drills so placed as to make precise contact with the centers of the ends of six hair pipes fastened in metal troughs opposite the drills. Pipes and drills were lowered by a lever into a metal tank containing water, and a crank was turned rotating the drills and drilling the pipes halfway through. The drills were withdrawn, the pipes reversed and drilled from the other ends to the center. The water kept the pipes cool and washed the particles of shell from the bored holes. Drills were sharpened on a grindstone attached to the framework of the machine itself. They were held in a candle flame until red hot and then thrust into melted sheep's tallow to temper them. The tallow was from sheep raised on the family farms. The entire mechanism was so simple that boys of the family could, and often did, operate it.

This ingenious machine was the closely guarded secret that enabled the Campbells to maintain a near monopoly of hair-pipe drilling and

thus virtual control of the production of hair pipes. J. C. Storms, octogenarian resident of Park Ridge, who as a former neighbor of the Campbells knew the last two generations of hair-pipe makers, told me that they kept one machine on the upper floor of an outbuilding. That floor was entered by a trapdoor through which only members of the family were permitted to pass. Mr. Storms said two of these machines were made and used by the Campbells. He recently secured the only remaining pipe-drilling machine for the collections of the Pascack Historical Museum, Park Ridge, N. J. Mr. Storms has kindly furnished the photograph of this machine reproduced in plate 16, *b*.

Shell hair pipes were manufactured in lengths ranging from 1½ inches to 6 inches. They are characteristically barrel shaped, with center diameters about ⅝ inch, tapering to end diameters of less than ¼ inch. The longitudinal hole is about ⅛ inch in diameter.

On plate 17 are illustrated the successive stages in the manufacture of a shell hair pipe. At the left is an unworked shell of the *Strombus gigas* (*a*). Next to it is a portion of the thickened lip of the shell (*b*) broken out for making into a hair pipe. Plate 17, *c*, shows a fragment of a hair pipe blocked out preparatory to drilling; *d*, a drilled but only partially finished pipe; *e*, a shaped but unpolished pipe 4⅞ inches long; and *f*, a polished and completed hair pipe 2 inches in length. All specimens shown, other than the unworked shell, were collected at the Campbells' Wampum Factory and are now in the Division of Ethnology, United States National Museum. The drilled specimens were obtained by Erminnie A. Smith on a visit to the factory in 1884. At that time four aged Campbell brothers, the youngest of whom was about 70 years old, were still making hair pipes for the Indian trade. In 1886, the artist Frank M. Gregory visited the factory and made the illustrations appearing in plate 15. Plate 15, *b*, shows the four brothers at work. It clearly indicates a pile of conch-shell debris in the lower left-hand corner. The man at the far right is shaping a shell gorget, known to the trade as a "moon," on a grindstone. The moons were also made from the *Strombus gigas*. They were turned out in considerable quantities by the Campbells. Abraham, last of the four brothers, died in 1889. Although several members of the next generation of Campbells had participated in hair-pipe manufacture they did not continue to produce them. With the death of Abraham, the making of shell hair pipes for the Indian trade came to an end.

It is difficult to determine the extent to which other residents of Bergen County engaged in the manufacture of shell hair pipes. Westervelt (1924) acknowledged that neighbors of the Campbells played active parts in the early stages of manufacture, but she did not mention their production of finished hair pipes. However, the records

of the American Fur Co. reveal that there must have been at least one rival concern in 1836. Beside an order for 3,000 inches of hair pipes placed by P. Chouteau & Co. of St. Louis, with the New York office of the American Fur Co. in that year, appears the notation "Wm. Hopper 1000 and S. Campbell 2000" (N. Y. Hist. Soc. MS. A, pp. 5–6). There were several William Hoppers at that period in Bergen County. It is not possible to determine which one of them was the maker of hair pipes or to learn more of the extent of his output. There is also a suggestion that others made hair pipes in the laconic statement attributed to a member of the Campbell family in the mid-eighties, to the effect that "none of 'em ever could make hair pipe equal to our'n" (Norton, 1888, p. 594).[2]

DISTRIBUTION OF SHELL HAIR PIPES AMONG THE PLAINS INDIANS

The New Jersey hair-pipe makers did not sell their products directly to the Indians. Rather they sold hair pipes wholesale to New York City merchants, some of whom were representatives of the great trading companies and others middlemen who resold the hair pipes to firms of Indian traders in the United States and Canada.

Descendants of the Campbell shell workers claimed that John Jacob Astor, the most enterprising of all Indian traders, "laid the foundation of his great wealth through the Campbells' wampum" (Westervelt, 1924, p. 23). This statement grossly underestimates both the variety and complexity of Astor's business interests in the years following his arrival in New York from Europe in 1784. Nevertheless Astor did play an important role in the marketing of hair pipes at an early period. In the mid-eighties he collected furs in the Hudson Valley, at which time he may have met the Campbells and taken an interest in marketing their shell products. As early as 1788, Astor began to make annual trips to Montreal to buy furs from Canadian traders (Porter, 1931, vol. 1, pp. 27–50). However, the earliest reference I have found to his trade in hair pipes appears in a letter from Daniel Sutherland, in charge of the Montreal office of the XY Co., to J. J. Astor, Esq., dated November 27, 1802, requesting him to purchase clamshell wampum and "one thousand Hair pipes" for his firm (Archives Sem. of Quebec., MS. A).

Three years earlier, in March 1799, the Montreal firm of James and Andrew McGill was purchasing wampum and hair pipes from

[2] In the preparation of the foregoing section on shell hair-pipe manufacture I have utilized information kindly furnished me by J. C. Storms, of Park Ridge, N. J., in a personal interview during September 1952, in addition to the following published sources: Norton (1888), Smith (1885), Storms (1939), Westervelt (1924), and an interview with Daniel Campbell reported in the Newark Evening News, November 3, 1923. Mrs. Mary S. Curtis, curator, Bergen County Historical Society, North Hackensack, N. J., has graciously assisted me in locating additional information on the history of the Campbell family and on hair-pipe manufacture in that county.

Thomas Delves, listed in the New York City Directory for 1799 as "merchant, 56 Wall and Store 133 Front" Street. The quantities purchased were not listed (McGill Univ. Mus., MS. A, p. 259).

On April 1, 1802, the Montreal firm of Forsyth, Richardson & Co., then operating in opposition to the Northwest Co., purchased "695 Hairpipes" for its trade. In 1804 the Northwest Co. ordered "3971 Inches Hair Pipes at 4d NYK Cy." for its 1805 trading outfit (Archives Sem. Quebec. MS. B, C).

The Northwest Co. was the first Canadian trading company known to have offered hair pipes to the Plains Indians of the Upper Missouri. During his sojourn among the Crow Indians in the summer of 1805, Francois Larocque purchased eight beaverpelts and a horse from a member of that tribe. Among the articles he gave in return were "two Wampoon hair pipes" (Larocque, 1910, p. 36). In July of the next year Alexander Henry, also of the Northwest Co., gave "2 wampum hair pipes" and other articles to a Hidatsa Indian in exchange for a horse (Henry and Thompson, 1897, vol. 1, p. 355).

Evidence that Auguste Chouteau, leading St. Louis trader, was employing hair pipes in the Indian trade west of the Mississippi prior to the Louisiana Purchase appears in an invoice of trade goods which he purchased from Rd. Pattinson & Co. at Michilimakinac, June 17, 1802. This order included "200 white hair Pipes" (Mo. Hist. Soc., MS. A).

We know that Chouteau sold hair pipes to the Lewis and Clark Expedition, as a letter from Meriwether Lewis to William Clark in April, 1804, stated "I can't find Hair pipes purchased of Mr. Chouteau. Mr. Hays says they are necissary [sic]" (Mo. Hist. Soc., MS. B). The explorers either must have located the missing hair pipes or purchased more of them before they set out on their voyage of discovery, May 14, 1804, for their baling invoice of "Sundries for Indian Presents" listed "24 Wampum Hairpipes." They planned to distribute these hair pipes systematically among prominent Indians encountered, thus: 2 hair pipes for the first chiefs of the Oto and Pawnee, 1 for the first chief of the Ponca or any other tribe they might meet down river from the Omaha, 1 for the second chief of the Omaha, and others for chiefs of tribes as yet unknown to them whom they might meet beyond the Mandan (Lewis and Clark, vol. 6. pp. 270–276).

In June 1807, the Court of General Quarter Sessions of the Territory of Louisiana, sitting in St. Louis, considered the case of one Francis Hosler, accused of unlicensed trading with the Omaha. Among the articles he was charged with illegally selling the Omaha were "forty two Hair pipes" and 5,300 pieces of wampum (Mo. Hist. Soc., MS. C).

The United States Government supplied some shell hair pipes to their factories operated on or west of the Mississippi River in the

first decade of the 19th century. The hair pipes apparently were purchased directly from New Jersey manufacturers by Joseph Lopes Dias, New York agent for the Superintendent of Indian Trade. In May 1808, "50 Hair Pipes 179¼ Inches at 4¢" were purchased and sent to the Lemoin Factory at Fort Madison in present Iowa (National Archives., MS. B, p. 9). That post supplied the Sauk and Fox Indians. Evidence that shell hair pipes were furnished Fort Osage on the Missouri, westernmost of the Government Factories, appears in an inventory of merchandise on hand at that establishment, September 30, 1810, listing:

32 silver hair pipes at 40¢ $12. 80
1 wampum hair pipe at 15¢ ..... .15
[National Archives, MS. D.]

Perhaps the relative cheapness of the shell hair pipes (⅜ the value of silver ones) accounted for the fact that the supply of them was nearly exhausted at the time of inventory.

When John Jacob Astor's American Fur Co. opened its Western Division in St. Louis and thus entered the Upper Missouri trade, shell hair pipes were among the manufactured items offered by that firm. An inventory of its stock remaining on hand in St. Louis, October 21, 1822, lists:

100 Wampum Hair Pipes. 350 inches at 4½¢ $15. 75
[Mo. Hist. Soc., MS. D, p. 16.]

The ledger book of that company listed the quantities and inventory values of shell hair pipes furnished to its individual outfits trading with specific Upper Missouri tribes between the fall of 1831 and the spring of 1833:

Ree (Arikara) Outfit of Dominique Lachapelle, Oct. 17, 1831:
15 pairs Wampum H. Pipes. 140 in. at 6¢ $8. 40
Poncau (Ponca) Outfit of Louis Lafleur, Oct. 31, 1831:
11 Pairs Wampum Hair Pipes. 88 in. at 6¢ $5. 28
White River Outfit (Sioux) under D. Papin, Feb. 23, 1832:
60 in. Wampum Hair Pipes at 6¢ $3. 60
Ogallallah (Oglala) Outfit of Colin Campbell, Oct. 1832:
17 Prs. Wampum Hair Pipes. 69 in. at 6¢ $4. 14
Brule Outfit of Gabriel P. Cerre, Nov. 1832:
10 Prs. Wampum Hair Pipes. 60 in. at 6¢ $3. 60
Honcpapas (Hunkpapa) Outfit of Emille Punceau, Nov. 11, 1832:
28 in. Wampum Hair Pipes at 6¢ $2. 88
Fort Clark (Mandan) Outfit, 1832, Nov. 23, 1832:
45 Hair Pipes. 200 in. at 5¢ New York $10. 00
Honcpapa (Hunkpapa) Outfit of E. Punceau, March 1933:
60 in. Wampum Hair Pipes at 6¢ $3. 60
Fort Union in charge of James A. Hamilton, March 28, 1833:
1011 in. Hair Pipes at 6 10/100¢ $61. 67
[Mo. Hist. Soc., MS. D, pp. 23–88.]

These figures show that the company then carried hair pipes at an inventory value of 5 cents per inch in New York, 6 cents per inch in the Sioux country and 6⅒ cents per inch at the upriver post of Fort Union. The increases represent transportation and handling charges. In none of the orders listed did the length of the hair pipes average greater than 4⅝ inches. It is significant that the quantities of hair pipes furnished the Arikara, Mandan, Ponca, and the several Teton Dakota tribes were small in comparison with the number of pipes consigned to Fort Union where the Assiniboin, Plains Cree, Plains Ojibwa, Crow, and some Blackfoot traded. In fact the single consignment to Fort Union was almost double the quantity supplied all the other outfits combined. Perhaps this greater demand for hair pipes on the part of the northern tribes was due to the early stimulus to trade in these articles exerted upon those tribes by Northwest Co. traders a quarter century earlier. These figures support the statement of the experienced trader, Edwin T. Denig, made about 1854, to the effect that the upper nations (i. e., those trading at Fort Union and above) preferred shell ornaments, while the Sioux showed a greater fondness for silver ones (arm and wrist bands, gorgets, brooches, ear wheels, finger rings, and ear bobs) (Denig, 1930, p. 591).

After Astor retired from the fur trade his successors in the trade of the Upper Missouri, Pratte, Chouteau and Co. of St. Louis, continued to purchase shell hair pipes through the American Fur Co's. New York office. Let us follow a typical transaction:

On December 12, 1834, Pratte, Chouteau and Co. placed an order with the American Fur Co. in New York for "6000 inches Wampum Hair pipes assd. size, mostly large," with instructions for the order to be shipped early the next February via New Orleans. They complained that some hair pipes of their previous order had not been "bored through." In the New York office the notation "S. Campbell" was placed beside this order. On December 31, Ramsey Crooks, of the American Fur Co., wrote to Samuel Campbell, Pierson's Post Office, Franklin, Bergen County, N. J.:

> We want 3250 inches Wampum Hair Pipes, none less than 5 inches long, and not many of them over 6 inches — You must have them here by the first day of February next, or say 4 weeks from this time, and we shall pay you the same price as last season — Some of those you furnished last winter were not bored entirely through — This will not do, and I hope such deception will never be practiced again. [N. Y. Hist. Soc., MS. B, pp. 3, 29.]

Presumably these hair pipes were received in St. Louis in time to reach the upriver posts on the Missouri the following summer for

trade to the Indians through the ensuing winter months. On September 9, 1835, Pratte, Chouteau & Co. placed another order:

> 2000 inches wampum hair pipes 3 in. Ea.
> 5000 inches wampum hair pipes 4 to 6 in. Ea.

In placing this order they also commented:

> The Hair Pipes in spite of the assurances of the makers and sellers are but little better this year than last years were. They appear very well drilled at both ends, but the holes don't meet in the middle. Be a little more particular in receiving them, and you will be able to detect the cheat. [N. Y. Hist. Soc., MS. B, pp. 154–155.]

In 1836 Pratte, Chouteau and Co. placed two orders totaling 5,000 inches of wampum hair pipes. New York office notations on these orders indicate that all but 1,000 inches of the hair pipes were purchased from the Campbells (New York Hist. Soc., MS. A, pp. 5–6, 23).

This correspondence of the middle 1830's reveals an increasing demand for hair pipes in the Upper Missouri trade over the period 1831–33. It also shows the difficulties encountered by the manufacturers in producing greater and greater numbers of hair pipes, each of which had to be laboriously drilled with the hand-operated drill. Possibly this pressure for greater output was responsible for the production of the inaccurately drilled pipes complained of. Probably it was this increasing pressure for more and more hair pipes to satisfy the demands of the Indians that led eventually to the perfection of the time- and labor-saving drilling machine by the Campbells.

A letter from the American Fur Co. to Samuel Campbell, dated November 21, 1838, designated the current price for shell hair pipes paid the makers as 3½ cents per inch (New York Hist. Soc., MS. D).

Although it is most probable that hair pipes began to reach the Southern Plains Indians through Indian intermediaries, itinerant white traders, or traders operating from fixed posts, such as Natchitoches, La., Fort Gibson or Bent's Fort on the Arkansas River, before 1830, the earliest specific reference I have found to the purchase of shell hair pipes for trade with the Indians of that section is dated June 10, 1836. On that date Auguste P. Chouteau, of St. Louis, placed an order with the American Fur Co. in New York for "2,000 inches of Wampum Hair Pipes, longest size 4″ to 6″″ for use in "trade with the Prairie Indians of Arkansas" (New York Hist. Soc., MS. B, p. 253). Colonel Chouteau had established a trading post among the Comanche and their neighbors at Camp Holmes on Cache Creek near present Fort Sill, Okla., in 1835 (Van Zandt, 1935, pp. 319–322). Probably many if not all of the hair pipes Chouteau purchased in 1836 were traded to Indians at that first American post in the Comanche and Kiowa country. This post was abandoned in 1838. However, in 1839 or 1840 an American named Abel Warren built an independent trading

post near the mouth of Cache Creek. In 1842 a part of his stock included "wampum beads, which they [Comanche] wore around their necks in great quantities. These beads were from two to four inches long, pure white and resembled clay pipe stems in size. They were highly esteemed and served the part of currency in their dealings" (Clift, 1924, p. 139). The length of these articles indicates that they were hair pipes.

Among the presents given to Comanche Indians by Capt. R. B. Marcy's Red River Exploring Expedition in 1854 were "long wampum beads." W. P. Parker, a member of the party, noted the lively demand for these items "which are procured but in one place, a small town in New Jersey," and observed that Naroni, a Southern Comanche chief, was wearing "a wampum necklace almost equal to a breast plate" (Parker, 1856, pp. 194, 201–202). These "long wampum beads" must have been hair pipes.

This brief review of the available evidence on the distribution of shell hair pipes among the Plains Indians prior to 1855 is sufficient to show how this product of New Jersey industry was distributed widely over the area by enterprising white men of the great trading companies from both Canada and the United States, by independent traders, and by agents of the United States Government.

During the first half of the 19th century, Plains Indian demand for hair pipes increased. Nevertheless, our data suggest that the Indians were not uniformly interested in hair pipes. Prior to about 1850 the greatest demand for these articles appears to have occurred among the tribes in the vicinity of Fort Union on the Upper Missouri and among the tribes living on the Southern Plains. The mighty, warlike Teton Dakota were then but mildly interested in these baubles.

USES OF HAIR PIPES BY PLAINS INDIANS PRIOR TO 1880

ARCHEOLOGICAL EVIDENCES OF USE

Wedel (1936, pp. 86–87, 121, fig. 8) has described and illustrated shell hair pipes from the Hill site on the south bank of the Republican River, Nebr. In all probability this is the site of the Republican Pawnee village visited by Zebulon M. Pike in 1806. The village was abandoned about 1810 or 1811. The specimens illustrated range in length from 4½ inches to less than 3 inches, and exhibit the characteristic, even tapering of commercial shell hair pipes. They occurred "as grave finds, always in pairs, and nearly always one on each side of the head." Dr. Wedel concluded that "doubtless their purpose was for ear or hair ornamentation."

Matthew W. Stirling found a single pair of shell hair pipes at the Leavenworth Village site, above the mouth of Grand River, S. Dak.

This site was occupied by the Arikara from about 1800 to 1832. The specimens are illustrated by Stirling (1924, fig. 67). One pipe measures 3¼ inches in length, the other 2⅝ inches. They were found in company with other trade goods, including copper, iron, and glass beads, by the skull of an adolescent male. Probably they too served as ear or hair ornaments. This Arikara find is of peculiar interest inasmuch as there appears to be no descriptive or pictorial record of the wearing of hair-pipe ornaments by this tribe. We do have the definite statement, however, that St. Louis traders were offering hair pipes to the Arikara in 1831 (see p. 48).

I have found no reported finds of commercial shell hair pipes in documented archeological sites in the Great Plains of the 18th century. The archeological evidence, though limited, appears to support the evidence obtained from historical records regarding the introduction of hair pipes among the Plains tribes. Available evidence from both sources indicates that commercial hair pipes began to reach the Plains Indians about the year 1800.

HAIR PIPES AS EAR ORNAMENTS

In view of the great number of contemporary field descriptions of the Plains Indians written by explorers, travelers, fur traders, and Government officials prior to 1880, it is really remarkable how meager is the information on Indian use of hair pipes appearing in the literature. Our most complete and most accurate source of information on the uses of hair pipes is the considerable body of dated and tribally identified artists' drawings and paintings of the precamera period and of early dated photographs.

The earliest pictorial representation of the use of hair pipes by a Plains Indian appears is C. B. J. F. de Saint-Memin's crayon portrait of an Osage warrior who was a member of a delegation from that tribe brought to Washington by the St. Louis trader Auguste Chouteau in 1806. The original portrait, in the New York Historical Society, is reproduced in plate 18, *a*. Pendent from the left ear of this young dandy is a complex ornament which includes what appears to be a long, shell hair pipe strung vertically on a cord. Presumably this ornament was balanced by an identical pendant from the right ear, hidden from view in the profile drawing.

Other members of that delegation, who posed for the same artist, did not wear hair-pipe ear pendants. They may have been something of a novelty among the Osage at that time. However, it is certain that Osage men made considerable use of paired hair-pipe ear pendants prior to 1850. Catlin depicted them in a painting of an Osage warrior executed in 1834 (USNM No. 386034). Tixier's portraits of the prominent Osage chiefs, Majakita and Chonkeh, drawn

in 1840, show this ornament (Tixier, 1940, frontispiece, opp. p. 240). John Mix Stanley's "An Osage Scalp Dance," painted in 1845, portrays the wearing of hair-pipe ear pendants by several of the dancing men (Kinietz, 1942, pl. 20). A photograph of Pawnee-No-Pashee (Governor Joe) taken in 1874, indicates the survival of the hair-pipe ear pendant among the Osage (BAE neg. 4139–b).

When the Kansa chief, White Plume, visted Washington in 1821 or 1825, Charles Bird King painted his portrait which clearly shows a pair of long hair-pipe ear pendants (Birket-Smith, 1942, opp. p. 22). The popularity of this ornament among the Kansa is attested by the fact that all six of the chiefs and warriors of that tribe whose portraits Catlin painted in 1831 wore long hair-pipe ear pendants (USNM Nos. 386022 through 386027). Catlin's portrait of The Wolf, a Kansa chief, is reproduced in plate 18, *b*.

When Bear-in-the-Forks-of-a-Tree, Sauk and Fox delegate to Washington, posed for C. B. King in 1837, he wore a pair of hair-pipe ear pendants (McKenney and Hall, 1868, vol. 1., opp. p. 139). These pendants also were worn by four Sauk and Fox delegates to Washington 31 years later, including the head chief, Keokuk the Younger (BAE negs. 622-b, 654, 713, 714).

None of the Iowa Indians painted by George Catlin in the field in 1832 wore hair-pipe ear decorations. Yet when he executed portraits of two Iowa men on their visit to Europe in 1845–6, both wore a long hair pipe under each ear (USNM Nos. 386312 and 386313). Catlin's portrait of The Walking Rain, Iowa war chief, appears as plate 18, *d*. No Heart, Iowa head chief, wore a pair of hair-pipe ear pendants when he sat for his photograph shortly before his death in 1862 (BAE neg. 3898–a). They were also worn by two Iowa chiefs who were delegates to Washington in 1869 (BAE negs. 3897 and 3900–b).

During his visit among the Comanche, Kiowa, and Wichita in 1834, Catlin apparently saw little use of hair pipes as ear ornaments. However, the four tubular ornaments hanging on cords under the right ear in his portrait of Wee-ta-ra-sha-ro, Wichita head chief, may have been hair pipes (pl. 18, *c*).

At Fort Edmonton, in present Alberta, in 1847, Paul Kane painted a portrait of a Cree chief wearing hair pipe ear pendants. This painting is now in the Royal Ontario Museum of Archaeology, Toronto.

By the time the camera began to record the portraits of Indians of the present Oklahoma region in the decade 1868–78, prominent men of several tribes of that area were wearing hair-pipe ear pendants. Seventeen photographs taken during that decade among tribes of the Oklahoma region, showing the wearing of hair-pipe ear pendants are in the Bureau of American Ethnology files. These include 3 Comanche, 9 Kiowa (among them the prominent chiefs Lone Wolf

and Satanta), 2 Kiowa Apache (including head chief Pacer), 1 Kichai, 1 Tawaconie, and 1 Waco.[3]

William H. Jackson's series of Pawnee field photographs, taken in 1871, portray the wearing of this ornament by only one man, Good Chief, a band chief of the Republican Pawnee (BAE neg. 1296).

That the hair-pipe ear pendant was not unknown to the Siouan peoples of the high plains prior to 1840 is demonstrated by two of Alfred Jacob Miller's portraits executed in the field in 1837. One portrays the wearing of hair-pipe ear pendants by the Crow chief High Lance, the other by "a Sioux man" (Ross, 1951, pls. 6, 39). Early photographs portray the wearing of these pendants by Siouan men, including the Ponca, Iron Whip, in 1859? (BAE neg. 4180); the Yankton chief, Black War Eagle, in 1867 (BAE neg. 3567–a); Medicine Horse, Oto head chief, in 1869 (BAE neg. 3835–d); and two Yanktonai and three Hunkpapa visitors in Washington, in 1872.[4]

Early photographs also show the wearing of hair-pipe ear pendants by representatives of three marginal peoples including the Delaware chief Great Bear prior to 1869 (BAE Neg. 817–a), the Winnebago, Winnishick (BAE neg. 3793–b), and the Jicarilla Apache, Kle-zheh, prior to 1877 (BAE neg. 2569).

Although hair-pipe ear pendants were predominantly men's ornaments, there are a few references in the pictorial sources to their use by women. Catlin's portraits of the Mink, a Mandan girl (USNM No. 386133), and Red-Thing-that-Touches-in-Marching, a Teton Dakota woman (USNM No. 386081), seem to show relatively short hair-pipe ear pendants. However, an unnamed Wichita woman wore long hair-pipe ear decorations when photographed in 1868 (BAE neg. 1335–d).

The great majority of the pictorial references to the wearing of hair-pipe ear pendants by Plains Indian men prior to 1850 portray them adorning men with roached hair. This suggests the possibility that this method of using hair pipes was first employed by men of the eastern or prairie plains who commonly employed that style of hairdress. Certainly the hair-pipe ear pendant was less well suited to use by long-haired Indians whose lengthy tresses might hide all or part of the ornament from view. Effective display of these pendants by long-haired men required modification in hairdress. Mooney (1898, p. 150) observed that it was an old custom among Kiowa warriors to "cut the hair from the right side of the head, on a line with the base of the ear, in order to better display the ear pendants, while allowing it to grow to full length on the left side, so as to be braided and wrapped

[3] BAE negs. as follows: Comanche: 1743–a, 1727; Kiowa: 1381–a, 1476–c, 1476–d, 1376–a–2, 1378, 1374–b–1, 1382–a–3, 1387, 1380; Kiowa Apache: 2580–e–2, 2581–a; Kichai: 811–b; Tawaconie: 1362–a; Waco: 1363–a.

[4] These are BAE negs. 3513–a, 3536—Yanktonai; 3180–a, 3182–b–1, 3186–a—Hunkpapa.

with otter skin after the common fashion of the southern plains." Possibly, therefore, the long-haired Kiowa first adopted the hair-pipe ear pendant as a decoration for the right ear only. However, photographs of Kiowa men taken in the period about 1870 show that they sometimes wore these pendants from both ears at that time and trimmed the hair forward of the ears on both sides to show off these decorations.

The Kiowa and their neighbors of the southern plains commonly suspended their hair-pipe ear pendants on buckskin cords from large, hoop-shaped, brass earrings. Long brass chains and small silver pendants hung downward below the hair pipes. James Mooney collected specimens of this type among the Kiowa in 1891. Two of them are illustrated in plate 19, *a* (USNM Nos. 152842, 152847). The shell hair pipes are each 1½ inches long, the hoops and chains are of brass, and the small end pendants are of German silver. The prominent Kiowa White Horse wore ear pendants of this type when he posed for his photograph in 1870 (pl. 19, *b*).

HAIR PIPES AS HAIR ORNAMENTS

A second method of wearing hair pipes was employed by long-haired men, especially among the northern tribes. The hair pipes were displayed on vertical cords at the sides of the head, forward of the ears. The suspension cord might pass over the head, thus connecting the pendants at either side, or suspension cords were tied to the hair high on each side of the head.

Although Peter Rindisbacher may indicate the wearing of this ornament in one of his paintings, "Drunken Frolic amongst Chippeways and Assiniboins," in the Rindishbacher Collection at the United States Military Academy, West Point, N. Y., probably executed prior to 1826, George Catlin was the first artist to clearly portray this use of hair pipes. His portrait of the Plains Cree chief, He-Who-Has-Eyes-Behind-Him, known also as Eyes-on-Both-Sides and Broken Arm, painted in the fall of 1831, displays four long hair pipes, two of which are pendent at each side of the head from a cord passing over the forehead above the hairline (pl. 20, *a*). Catlin's paintings of The Six, a Plains Ojibwa chief, and Mouse-Colored-Feather, a young Mandan warrior, both executed in 1832, also show this use of hair pipes. Carl Bodmer's portrait of Wolf Calf, a young Piegan, painted at Fort McKenzie in the fall of 1833, plainly shows the wearing of similar hair ornaments.[5]

[5] Reproduced as frontispiece in "Carl Bodmer Paints the Indian Frontier." Exhibition Catalog, Smithsonian Institution, 1954. This is the only work of Bodmer's that appears to show any use of hair pipes. I am indebted to Prince Karl Viktor zu Wied for an opportunity to examine photographs of the entire collection of 220 Bodmer originals in the possession of the estate of Prince Maximilian zu Wied.

The Crow chief Rottentail wore hair-pipe hair ornaments when his portrait was drawn by the artist R. F. Kurz at Fort Union in 1851 (Kurz, 1937, pl. 48).

Two photographs taken prior to 1880 portray the wearing of hair-pipe hair ornaments by the son of the Kiowa Apache head chief about 1870 (BAE neg. 2580) and by Plenty Horses, a Cheyenne (USNM print).

In the summer of 1953, I showed photographs of Catlin's portrait of the Cree chief (pl. 20, *a*) to elderly Assiniboin informants on Fort Peck and Fort Belknap Reservations. They informed me that in the late 1870's and early 1880's some Assiniboin men wore this type of hair ornament, but it was not a common Assiniboin one.

More data on the use of this ornament certainly are needed. The facts that both the earliest and the greatest number of the few occurrences reported refer to wearing of hair-pipe hair ornaments by tribes of the Missouri-Saskatchewan region suggest that the first Plains Indians to adopt this ornament were those long-haired peoples who traded with Canadian merchants. As pointed out (p. 47), Northwest Co. traders were offering hair pipes to Indians of the Upper Missouri as early as 1805–6. The fact that George Catlin also depicted this ornament worn by The Great Cloud, son of the Menomini head chief, in 1836, is further suggestive of its early northern occurrence (USNM No. 386220).

HAIR PIPES IN NECKLACES

Necklaces composed of hair pipes, large trade beads, and, in some cases, short lengths of clamshell wampum strung on cords appear in many of George Catlin's portraits of Indian men and women of the Woodlands and Great Plains painted in the years 1831–46. Catlin rendered the details of some of these necklaces in a very sketchy manner, as illustrated in the reproduction of his portrait of the wife of Keokuk, the Sauk and Fox chief, painted in 1834 (pl. 21, *a*). However, a careful study of Catlin's original paintings in the United States National Museum leads me to believe that he intended to depict hair pipes in the necklaces worn by 30 of his Indian sitters (table 1).

Catlin's pictorial record clearly indicates the popularity of the hair-pipe necklace among the prominent leaders of the Comanche in the mid-1830's. His portrait of the Mountain of Rocks, second chief of that tribe in 1834, wearing a hair-pipe necklace appears in plate 22, *a*. A statement in the literature to the effect that the Comanche wore long "wampum beads" around their necks in great quantities in 1842, appears to corroborate the testimony of Catlin's paintings (Clift, 1924, p. 139).

TABLE 1.—*Hair-pipe necklaces depicted in George Catlin's portraits of Indian men and women of the Woodlands and Great Plains*

Name	Tribe	Sex	Year	USNM No.
Hon-je-a-put-o	Kansa	F	1831	386023
She-Who-Bathes-Her-Knees	Cheyenne	F	1832	386144
Two Crows	Crow	M	1832	386164
The Mink	Mandan	F	1832	386133
Kay-a-gis-gis	Plains Ojibwa	F	1832	386183
Whirling Thunder	Sauk and Fox	M	1832	386003
Wife of Keokuk	do	F	1834	386005
Bow and Quiver	Comanche	M	1834	386046
Mountain of Rocks	do	M	1834	386047
He-Who-Carries-a-Wolf	do	M	1834	386048
Hair-of-Bull's-Neck	do	M	1834	386049
Wolf-Tied-with-Hair	do	M	1834	386050
The Beaver	do	M	1834	386052
New Fire	Kiowa	M	1834	386064
Clermont	Osage	M	1834	386029
Wa-ho-beck-ee	do	M	1834	386033
Sky-se-ro-ka	Wichita	M	1834	386056
Grisley Bear	Menomini	M	1835	386218
The South	do	M	1836	386222
Mash-kee-wit	do	M	1836	386223
Pah-shee-nau-shaw	do	M	1836	386224
Earth Standing	do	M	1836	386227
Ah-yaw-ne-tah-car-ron	do	M	1836	386230
The-Meeting-Birds	Chippewa	M	1836	386184
Tensquataway	Shawnee	M	1831	386278
Osceola	Seminole	M	1838	386301
Deep Lake	Seneca	M	1830	386264
Strutting Pigeon	Iowa	F	1845–6	386525
Pigeon-on-the-Wing	do	F	1845–6	386526
Female-War-Eagle	do	F	1845–6	386527

No other artist of the precamera period depicted hair-pipe necklaces worn by Plains Indians. I have seen only four photographs of Plains Indians, taken before 1880, showing the wearing of hair-pipe necklaces. All of them were taken in 1868. One portrays the necklace worn by Old-Man-Afraid-of-His-Horses, noted Oglala chief. Another shows the necklace worn by an Osage man. Two photographs portray the wearing of hair-pipe necklaces by Wichita women. One of these, reproduced in plate 22, *b*, depicts a single-strand necklace of long hair pipes.[6]

HAIR PIPES AS CHOKERS

Catlin alone of the artists of the precamera period illustrated still another use of hair pipes. His portrait of Tee-too-sah (better known as Dohasan), first chief of the Kiowa, painted in 1834, shows him wearing a close-fitting choker of four rows of horizontal hair pipes (pl. 23, *a*). The hair-pipe choker was also worn by The Sea, a Sauk and Fox man, who posed for his photograph in 1869 (BAE neg. 640). I have seen no other illustrations of this ornament of hair pipes depicting its use prior to 1880. However, the wearing of a similar ornament of dentalium shells was not uncommon among the Dakota tribes. The photograph of Iron Black Bird, a Yankton Indian, taken in 1867, shows the wearing of the dentalium shell choker (pl. 23, *b*).

[6] In order mentioned, these photographs are BAE negs. 3689, 4051, 1335, and 1335-a.

HAIR PIPES IN BREASTPLATES

The most striking and ingenious method of employing hair pipes in adornment was that of stringing considerable numbers of them on buckskin cords horizontally or diagonally in two or more vertical rows to form an elaborate breastplate. This breastplate was not illustrated in the works of any artists who drew or painted the Plains Indians in the first half of the 19th century. It is possible, however, that Parker referred to it when he observed that Naroni, a Southern Comanche chief, was wearing "a wampum necklace almost equal to a breastplate" in the summer of 1854 (Parker, 1856, p. 201).

We know that the Comanche were fond of wearing hair-pipe necklaces in Catlin's time (1834). Available evidence suggests that the Comanche invented the hair-pipe breastplate, probably before 1854 and certainly before 1867. In the latter year Dr. Edward Palmer collected what appears to be the oldest dated specimen of a hair-pipe breastplate while he was among the Comanche. This specimen (USNM No. 6968) is illustrated in plate 25, *a*. It was accessioned November 12, 1868. It consists of 30 shell hair pipes, each 4 inches long, strung horizontally on buckskin cords in two vertical rows of 15 pipes each. At each end of each pipe is a large yellow glass trade bead. A strip of commercial leather three-eighths of an inch wide and one-eighth of an inch thick separates the two rows of hair pipes, and the outer ends of the buckskin cords are tied to vertical strips of the same material. The latter strips are covered with bindings of trade cloth. A large German silver ornament hangs from the center of the breastplate. The breastplate was suspended from the neck of the wearer by a buckskin cord. This simple breastplate of 30 pipes may be regarded as the type specimen of the hair-pipe breastplate in the Plains. Although later examples were much larger, they employed the same general method of construction. Generally, however, they lacked the trade-cloth wrapping and the German silver pendant.

That the hair-pipe breastplate was worn by men of other tribes of the Southern Plains by the year 1867 is proved by Private Hermann Stieffel's original watercolor entitled "Sa-tan-ti addressing the Peace Commissioners at Council Grove, Medicine Lodge Creek, Ks." (USNM 384183). The artist was an eyewitness at this Medicine Lodge Treaty Council attended by representatives of the Kiowa, Kiowa Apache, Comanche, Cheyenne, and Arapaho tribes in October of 1867. His watercolor, reproduced as plate 24, illustrates the wearing of hair-pipe breastplates by the Kiowa chief Satanta and by two other Indians present. (Note figures in center and at extreme left and right of this reproduction.)

Early photographs, taken in 1868–72 attest to the popularity of the hair-pipe breastplate among Kiowa, Comanche, Kiowa Apache,

and Arapaho men at that time. (See table 2.) Many of these photographs show the alinement of hair pipes in four rows of relatively short pipes similar to the breastplate worn by the Kiowa, White Horse, reproduced in plate 19, *b*.

TABLE 2.—*Early photographs showing hair-pipe breastplates worn by men of the Arapaho, Cheyenne and Southern Plains tribes*

Year	Name	Tribe	Number of rows in breast-plate	Pipes per row	BAE neg. No.
1868	Kicking Bird [1]	Kiowa	4	21 plus	1381-a
1869	Powder Face	N. Arapaho	4	26	180-b-2
1869	Son of above	do	2	10	180-b-2
1870	White Horse [1]	Kiowa	4	21	1378
1870	Lone Wolf	do	4	24	1382-c
1870	Trailing-the-Enemy	do	4	31	1472
1868–72	Son of Satanta	do	2	32	1476-c
1868–72	A brave	do	4	37	1476-h-2
1868–72	A small boy	do	4	21	1409-c
1868–72	Pacer's Son	Kiowa Apache	4	27	2580-e-1
1868–72	Grey Eagle [1]	do	4	28	2589
1868–72	Heap-of-Wolves	Comanche	3	30	1782-c
1868–72	Horse Back's son	do	4	18–20	1782-i
1868–72	Asa-to-yet	do	4	12	1744-d
1868–72	Ma-nim-ick	S. Cheyenne	3	17	267-b
1868–72	Cheyenne brave	Cheyenne	4	22	365-g-h
1872	Buffalo Hump	Comanche	4	19	1735
1872	Jim	do	4	18	1742-a

[1] Reproduced as illustrations in Mooney (1898).

These data indicate that the size of the breastplate was not standardized among these tribes in about 1870. The range of variation extends from 2 rows of 10 pipes to 4 rows of 37 pipes each. The breastplate worn by White Horse (pl. 19, *b*) was of about average size for the Southern Plains tribes at that time. It is of the most common four-row pattern.

The wearing of hair-pipe breastplates by the Northern Arapaho, Powder Face and his son (pl. 26, *a*) may be of significance in connection with the diffusion of the hair-pipe breastplate. It is noteworthy that these Northern Arapaho were photographed at Camp Supply in Indian Territory, apparently while visiting among the Southern Arapaho. Perhaps Powder Face and/or other Northern Arapaho and Cheyenne visitors to their kinsfolk in the south obtained their hair-pipe breastplates from the Southern Plains Indians. Through the Northern Arapaho and/or Cheyenne the hair-pipe breastplate may have been diffused to their northern neighbors about the year 1870.

By the early 1870's hair-pipe breastplates began to appear in photographs of Indians of tribes distant from the apparent center of origin of this ornament among the Comanche and Kiowa. Jackson's photographs at the Loup Pawnee village in 1871 depict two Pawnee wearers of hair-pipe breastplates (BAE negs. 1228, 1248). On his visit to

Washington in 1872, a Moache Ute, One-Who-Wins-the-Race, wore a simple 2-row breastplate of 16 hair pipes (pl. 26, *b*). Hillers' 1873 field photograph of a Uintah Ute warrior depicts a much larger 2-row breastplate (Steward, 1939, pl. 26).[7]

The adoption of the hair-pipe breastplate by the Teton Dakota tribes is of particular interest because men of those tribes came to be such common wearers of this ornament in later years that they might erroneously be considered its inventors. It is true that the Teton Dakota did wear a necklace of similar form made of the shorter dentalium shells for some years prior to 1870. Mooney (1898, p. 281) claimed that the Dakota were the originators of this dentalium shell breastplate. Dentalia were also supplied the Indians by fur traders, who referred to these shells as "Iroquois beads." The large series of photographs of Teton Dakota Indians at the Fort Laramie Treaty Council in 1868, taken by Alexander Gardner, depict the wearing of dentalium shell breastplates by several Brule and Oglala men and boys. Hair-pipe breastplates are not shown in these photographs. Two Yankton Dakota men, photographed in 1867, wore dentalium shell breastplates (BAE negs. 3556, 3559).

The earliest photographs of Teton Dakota men wearing hair-pipe breastplates appear in the pictorial record of delegations to Washington in 1872. Of the 15 men in Red Cloud's Oglala delegation in that year, 2 wore the hair-pipe breastplate. However, it is apparent that both wore the same breastplate when posing for their portraits. It is a 2-row ornament, of 15 pipes per row, in which one pipe is definitely broken. This breastplate is shown in High Wolf's portrait reproduced in plate 27, *a*. In the same year one member of the Hunkpapa delegation wore a breastplate comprising 2 rows of 10 hair pipes each, and a member of the Brule group wore a 2-row breastplate of 12 pipes each (BAE negs. 3188–a, 3124–a). These simple breastplates are elementary in form compared with the elaborate breastplates worn by Southern Plains Indians at that time. They are reminiscent of the earliest known Comanche specimen made at least 5 years earlier.

It is noteworthy that the more traditional type of Dakota breastplate, that made of dentalium shells, was worn by a greater number of the 1872 delegates than was the hair-pipe ornament. Dentalium shell breastplates were worn by 2 Hunkpapa, 2 Brule, and 1 Oglala, suggesting that the hair-pipe breastplate had not yet replaced the one of dentalia in popularity among these tribes.[8]

The transition from dentalium shell to hair-pipe breastplate among the Teton Dakota tribes is graphically portrayed in the two photo-

[7] Steward (1939, p. 15) erroneously conjectured that this breastplate was "probably made of manufactured bone brought to these people by the traders." In 1873 trade hair pipes of bone had not been invented. These hair pipes must have been shell ones.

[8] BAE negs. 3127–a, 3140–a, 3180–a, 3186–a, 3312–a.

graphs of the Brule White Thunder appearing in plate 28. Figure *a* shows White Thunder wearing a dentalium-shell breastplate on his visit to Washington in 1872. Figure *b* shows the same man wearing a hair-pipe breastplate on his return to Washington 5 years later. Photographs of the Teton Dakota delegations of 1877 depict no use of dentalium-shell breastplates, while the hair-pipe breastplates worn are not only more numerous but larger and more elaborate than the ornaments worn by delegates from these tribes 5 years earlier. It appears, therefore, that during the period 1872–77 the hair-pipe breastplate supplanted the one of dentalium shell as a popular ornament among Teton Dakota leaders.

Henry Ulke's portrait of the Miniconjou chief, Touching-the-Cloud, painted in Washington in 1877, probably is the earliest representation of the use of this ornament by that Teton tribe. It is also the first of many artists' renderings of Sioux wearers of hair-pipe breastplates (pl. 32, *d*).

By 1877 the Ponca, who were moving south to Indian Territory, also had adopted the hair-pipe breastplate. Four delegates from that tribe to Washington (1877) wore these ornaments. Included among them was their head chief White Eagle. His breastplate, shown in plate 27, *b*, is of the 4-row pattern, with 20 pipes per row, resembling the breastplates then worn by Southern Plains Indians more closely than the 2-row ornaments popular among the Teton Dakota.

LIMITATIONS OF THE SHELL HAIR PIPE

In the years prior to 1880 the hair pipe in common use among the Plains Indians was the one manufactured from the shell of the *Strombus gigas* by Whites in New Jersey. Although this material was used in making hair-pipe ear and hair pendants, necklaces, chokers, and breastplates, it was not ideal for those purposes. The long shell tubes were breakable, and broken hair pipes certainly decreased the attractiveness of the ornaments from which they were made. It was possible for the Indians to replace the broken pipes with new ones, but it is clear from the pictorial record that they did not always do so. Bodmer's literal rendering of the hair-pipe hair ornament worn by Wolf Calf, the Piegan, in 1833 definitely shows a broken hair pipe. A number of photographs of breastplates worn by Indians prior to 1880 depict one or more broken pipes. Perhaps the Southern Plains tribes revealed their greater experience in working with hair pipes than had the Northern Plains Indians by developing a breastplate comprising four rows of relatively short pipes in preference to one of two rows of longer pipes. The short pipes, sometimes apparently made by sawing long hair pipes in two (note the pipes in White Horse's breastplate,

pl. 19, *b*, tapered at one end only), were less apt to break than were the longer ones.

Thrifty Indians seem to have been loathe to discard broken hair pipes. They may have reused solid portions of broken pipes as pendants in the decoration of small beaded containers. Such reuse appears probable in the decoration of a Mandan awl case collected in 1869 (pl. 29, *a*). The two short segments of shell hair pipes measure 1¼ inches in length (USNM No. 8437). The pipes appearing on a Kiowa toilet case collected in the 1890's are 1⅞ inches long (pl. 29, *b*. USNM No. 385886). However, whole shell hair pipes in short lengths sometimes were employed in the same way. Witness the Northern Cheyenne awl case with two full-length 2-inch shell hair-pipe pendants, illustrated in plate 29, *c*. This specimen, USNM No. 129887, was received by the Museum in 1888. These specimens afford examples of still another use of hair pipes in Plains Indian decoration.

THE SUBSTITUTION OF THE BONE HAIR PIPE

About the year 1880, at a time when the demand for large numbers of hair pipes for use in making elaborate breastplates was increasing, the Plains Indians began to obtain a cheaper and much less fragile hair pipe than the shell one long in use. The peculiar circumstances of the origin of this substitute—the bone hair pipe—comprise an interesting chapter in the history of Indian use of hair pipes which is at the same time a noteworthy case history in invention.

While I was stationed on the Blackfeet Reservation in Montana in the early 1940's, both Frank Sherburne and his brother Joseph Sherburne, Browning merchants, independently told me of the role their father, the late Joseph H. Sherburne, had played in the invention of the bone hair pipe during his early days as a trader among the Ponca Indians. The Records of Licenses to Trade (vol. 5, p. 115) in the National Archives state that Joseph H. Sherburne was issued a license to trade with the Ponca Indians between Arkansas and Shawkaskia Rivers in the Indian Territory on September 10, 1878.

Frank Sherburne said that in his father's first year of trade with the Ponca he had among his wares a quantity of corncob pipes. The corncob bowls were equipped with bone stems. These pipes sold readily but without comment from the Indians. Upon his next trip to the Ponca, Mr. Sherburne found the corncob pipes in great demand. White Eagle, chief of the tribe, showed him an elaborate neck ornament made of the bone stems of the pipes strung on buckskin thongs. He wanted more pipestems in quantity.[9]

[9] White Eagle certainly was acquainted with the use of shell hair pipes in the construction of breastplates. See his portrait showing him wearing a breastplate in 1877 (pl. 27, *b*).

Mr. Sherburne, desirous of pleasing the chief, wrote to S. A. Frost, in New York, from whom he had purchased glass beads and other articles for the Indian trade, explaining the problem and asking if it would be practical to furnish a quantity of long, tubular bone "beads." Frost considered the matter and after he became convinced that the demand for this product was great enough to justify its perfection, set about having the bone articles made. However, a delay of more than a year was encountered before the new bone "beads" were ready for the market. When they became available in quantity Frost not only sold them to Mr. Sherburne but to many other traders on other reservations as well.

I have not seen a sample of the bone pipestem furnished the Ponca by Mr. Sherburne in 1878. However, Carl V. Otto, vice president of the Missouri Meerschaum Co., established in Washington, Mo., by Henry Tibbe, inventor of the corncob pipe in 1872, kindly furnished me for study a pipe known to have been made by that firm prior to 1900. It is shown in plate 30, *a* and *b*. The bone stem bears only a superficial resemblance to the bone "beads" perfected by Mr. Frost. In designing the bone beads Frost seems to have followed the pattern of the shell hair pipes which for so many years had been made for the Indian trade at Park Ridge, N. J., some 25 miles from his New York headquarters. Not only did the new bone beads follow the tapered form of shell hair pipes literally but they were made in approximately the same lengths as the shell pipes. They were, in reality, bone hair pipes and became known to Indian traders as hair pipes.

The Sherburne brothers had no knowledge of where or how the bone hair pipes were made. However, Mr. Otto supplied a valuable clue when he wrote me that the bone stems of corncob pipes were furnished his firm by Armour & Co. of Chicago. Through the kind cooperation of J. V. Hurson of Armour & Co.'s Washington Office, Edward N. Wentworth, director of Armour's Livestock Bureau in Chicago, was interested in the problem of the manufacture of the bone hair pipes. In the absence of written records, he discussed the matter with long-time employees of the company, some of whom are now retired. He concluded that Armour & Co. definitely furnished the bone material from which the hair pipes were made, and that the raw material was supplied to Mr. Frost, of New York, in quantity. Mr. Wentworth further stated that the bones from which hair pipes were made were the metacarpal or lower leg bones of cattle. A specimen of this bone, kindly furnished by him, together with a finished bone hair pipe in the collections of the United States National Museum are shown together in plate 30, *c* and *d*.

No definite information is available regarding the process of manufacture of bone hair pipes. Power tools probably were used. They

may have been drilled with a rotary, belt-powered drill and shaped on a lathe. Such methods of rapid manufacture of large numbers of bone hair pipes would have made it possible to offer them to Indians at a lower price than had been asked for shell hair pipes. It must have been the pressure of competition with this cheaper, stronger bone hair pipe that caused the New Jersey shell hair-pipe makers to discontinue operations in 1889, less than a decade after bone hair pipes began to reach the Indian country.

The Kiowa breastplate shown in plate 25, *b*, illustrates the transition from shell to bone hair pipes in Indian ornament. Of the 144 hair pipes in this specimen, 49 (at the top) are of bone. The remainder, including two broken pipes, are of shell. This specimen, USNM No. 152842, was collected by James Mooney in 1891. It must have been made up during the preceding decade when bone hair pipes were beginning to replace shell hair pipes in the Kiowa trade.

USES OF HAIR PIPES 1880–1910

In the period of general economic depression among the Plains Indians following the extermination of the buffalo, during which they subsisted largely upon Government rations, possession of an elaborate hair-pipe breastplate or necklace was a coveted symbol of greater-than-average prosperity among these proud people. Not only did the Indians wear these ornaments when they attended ceremonies and participated in traditional social dances on their own reservations, but they wore them when they dressed to visit the Great White Father in Washington, when they took part in wild-west shows, such as the famous one organized by William F. Cody (Buffalo Bill) in 1883, and when they appeared in costume at national, regional, State, and local exhibitions or fairs.

The cessation of intertribal wars after the Plains Indians were settled on reservations was followed by a period of increased friendly contacts between neighboring tribes formerly hostile to one another. Visits back and forth among these Indians were accompanied by the exchange of gifts between members of different tribes. These conditions encouraged diffusion of hair-pipe breastplates and necklaces during the Reservation Period.

HAIR-PIPE BREASTPLATES

Pictorial sources reveal the continued use of hair-pipe breastplates during the Reservation Period by men of all those tribes known to have made use of this ornament prior to 1880, i. e., the Comanche, Kiowa, Kiowa Apache, Ponca, and Pawnee in the south; the Arapaho and Cheyenne in Oklahoma, Wyoming, and Montana; the Teton Dakota of the Dakotas; and the Ute west of the Rockies.

Tribes of the Oklahoma region preferred the wide, relatively short breastplate comprising 4 or more rows of short to medium-length pipes, rarely more than 30 pipes per row. This type was worn by Quannah Parker, the famous Comanche chief, in 1892 (pl. 32, *a*). It was also worn by the prominent Kiowa leader Running Bird when he attended the intertribal Indian council on the Little Big Horn in 1909 (Dixon, 1913, illus. opp. p. 52).

Other tribes of the Oklahoma region appear to have adopted this type of breastplate during the Reservation Period. Bureau of American Ethnology photographs show it worn by Sauk and Fox (before 1892), Oto and Tonkawa (1898), and Osage (1906). A 3-row breastplate was worn by a Caddo delegate to Washington in 1898.[10]

The Teton Dakota and Ute preferred a breastplate of long hair pipes, usually 2 but in some cases 3 rows in width, and not uncommonly more than 40 pipes per row. The famous Oglala chief, Red Cloud, was repeatedly photographed wearing this type of breastplate. One of these portraits appears in plate 32, *c*. Spotted Tail, the noted Brule chief, also wore this type of breastplate (pl. 32, *b*).[11] Among these two tribes of Teton Dakota the hair-pipe breastplate was very popular in the Reservation Period. The longest breastplates pictured were worn by men of these tribes. About 1900 George Little Wound wore a breastplate composed of 2 rows of 63 long pipes each (pl. 31, *a*). At the St. Louis Exposition in 1904, Little Soldier, an Oglala, wore a 2-row breastplate containing a total of 140 long pipes (Chicago Mus. Nat. Hist., neg. 15932). This is the largest hair-pipe breastplate of which I have knowledge.

It was apparently from the Teton that this type of breastplate was diffused to other Siouan tribes north of the Platte River. Photographs portray the wearing of the 2- or 3-row breastplate by men of the Assiniboin (1882), Omaha (1909), Yanktonai (1903), and Yankton (1904) tribes.[12] My elderly Assiniboin informants in 1953 stated that the first breastplates worn by men of their tribe came from the Sioux (Teton), although the Assiniboin themselves began to make them in the 1880's. They claimed the Assiniboin of Fort Peck Reservation began to wear these breastplates before they were adopted by men of that tribe living farther west on Fort Belknap Reservation.

However, the Crow Indians were little impressed by the hair-pipe breastplates of their former enemies, the Teton. The large

[10] BAE negs: 651-a (Sauk and Fox); 3878-a, 3884 (Oto); 1193, 1198-a-b (Tonkawa); 1367-a (Caddo).

[11] Schmidt and Brown (1948) reproduce photographs of a number of prominent Teton Dakota leaders wearing hair-pipe breastplates, including Crow King, American Horse, Charging Bear, Fast Bear, Kicking Bear, Little Big Man, Little Wound, Low Dog, Short Bull, and Young-Man-Afraid-of-His-Horses.

[12] BAE negs.: 3755-c (Assiniboin); 3972-a (Omaha); 3518-a (Yanktonai); 3580-a, 3582-a, 3692-a, 3594-a, (Yankton).

series of Crow photographs in the Bureau of American Ethnology files do not depict a single example of the use of this ornament. In the spring of 1953, an elderly Crow informant told Dr. Claude Schaeffer that hair-pipe breastplates were not favored by the older Crow men and that it has been only in recent years that young Crow Indians have worn these ornaments in the grass dance.

Men of the Blackfoot tribes also showed relatively little interest in hair-pipe breastplates. Piegan and Blood informants told me that men of their tribes did not make them but acquired a few breastplates from the Assiniboin as gifts, possibly as early as 1893. Among the Blackfoot they were worn primarily in the grass dance and other social dances. R. N. Wilson's photograph of Assiniboin grass dancers on a visit to the Blood Reserve in 1893 depicts the wearing of hair-pipe breastplates by two or three participants (pl. 36, *b*). The Chicago Museum of Natural History possesses a photograph (neg. 26672) taken at the Piegan Sun Dance of 1899, showing two wearers of hair-pipe breastplates.

By the turn of the century the hair-pipe breastplate had been adopted by Indians of the Plateau tribes west of the Rockies. Photographs show the wearing of this ornament by men of the Bannock (1897), Flathead (no date), and Yakima (1902) tribes. Major Moorhouse's photographs, taken about 1900, show hair-pipe breastplates worn by Shoshoni, Nez Percé, Walla Walla, and Sinkiuse men.[13] Two undated prints in the Division of Ethnology, United States National Museum, portray hair-pipe breastplates worn by Colville and Wasco men.

Spinden (1907, pp. 217–218) was of the opinion that the bone-bead (hair pipe) breastplates worn by Nez Percé men were "undoubtedly introduced from the Plains." He found these breastplates were less common among the Nez Percé than were breast ornaments composed of several strings of small disk-shaped beads. Teit (1930, p. 81) reported the wearing of "breastplates of long, polished bone beads" [hair pipes] by Coeur d'Alêne men in the early years of the present century. However, his statement that they were "adopted by the Coeur d'Alêne about the beginning of the 19th century" must be discounted. It is unlikely that that tribe began to wear hair-pipe breastplates before the 1890's. Teit's informants showed their lack of long familiarity with hair pipes in their testimony as to their origin. Some thought "the bones were polished buffalo bones made by the tribes east of the Coeur d'Alêne; while others claim(ed) that they were introduced by the fur traders and were quite unknown to all Indian tribes long ago."

[13] BAE negs. 1706 (Bannock); 3000-b (Flathead); 2862-b (Yakima); 1704-c (Shoshoni); 2987-b-9 (Nez Percé); 2902-b-28 (Walla Walla); 3012-c-6 (Sinkiuse).

The hair-pipe breastplate does not appear to have gained popularity among the Indian tribes east of the Mississippi. However, a portrait of Joseph Sherritt of the White Earth Band of Chippewa, taken in 1911, shows him wearing a two-row breastplate of hair pipes (pl. 31, *b*). Another two-row breastplate, collected in 1911 among the Chippewa of White Earth Reservation, Minn., is in the collection of the United States National Museum (cat. No. 392661).

In 1917 the Plains Cree leader, Little Bear, gave Frank Bird Linderman a breastplate of bone hair pipes of the 2-row pattern, 35 pipes per row. The hair pipes are 4½ inches long. This specimen (Museum of the Plains Indian, cat. No. 539L) may have been in Little Bear's possession for a number of years prior to 1917.

HAIR-PIPE NECKLACES

In contrast with the breastplate, which was always a man's ornament, the necklace of hair pipes continued to be worn by both men and women in the period 1880–1910. Of the tribes of Plains Indians known to have worn hair-pipe necklaces in earlier days, photographic sources illustrate their use by Cheyenne, Crow, Kiowa, Mandan, Oglala, Osage, and Sauk and Fox after 1880. Among all these tribes except the Oglala the necklace is shown as a woman's ornament.

Plate 21, *b*, depicts a hair-pipe necklace worn by a Sauk and Fox woman in the period 1895–97. Note that the hair pipes are strung on cords along with short lengths of clamshell wampum. The appearance of this necklace is remarkably like that worn by the wife of Keokuk, Sauk and Fox chief, in George Catlin's painting executed more than a half century earlier, which is reproduced on the same plate.

The dated pictorial records do not indicate that the hair-pipe necklace was popular among the Oklahoma tribes after 1880. Of the tribes of that area not known to have worn hair-pipe necklaces before 1880, its use by the Pawnee and Ponca is revealed by photographs.[14]

The hair-pipe necklace appears to have enjoyed a much greater popularity among northern tribes in the Reservation Period. Not only did it become a common ornament for women among the Oglala and Brule, but it was made into a much more elaborate form by those tribes than the more simple necklace worn by Southern Plains Indians.

As was the case with the breastplate, the hair-pipe necklace appears to have been diffused from the Teton Dakota tribes (primarily Oglala and Brule) to neighboring tribes during the Reservation Period. At the Omaha Exposition of 1898, hair-pipe necklaces were worn by a Winnebago woman, by an Omaha woman and two men of that tribe, and by an Assiniboin woman. A Winnebago man, photographed in 1899, wore a hair-pipe necklace. Single photographs show the wearing

[14] BAE neg. 1305-a (Pawnee man), Div. Ethnology, USNM, print (White Eagle, Ponca).

of the hair-pipe necklace by a Hidatsa woman (1903), a Yankton man (1904), and a Gros Ventres woman (1905). Dr. P. E. Goddard collected a hair-pipe necklace among the Sarsi of Alberta, which is now on exhibition in the American Museum of Natural History.[15]

My Assiniboin field data indicate that the hair-pipe necklace was adopted by Assiniboin women prior to 1885, and from them it was diffused to the Piegan in Montana and Blood in Alberta through trade and/or gift about 1892. The extension of its distribution coincided with the diffusion of the hair-pipe breastplate to these Upper Missouri tribes. Assiniboin women made hair-pipe necklaces, but Piegan and Blood women were content to obtain them ready-made from the Assiniboin. Informants from all three of these tribes stated that their people employed hair-pipe necklaces only as women's ornaments for use as dance and dress costume accessories. The Assiniboin said that in the 1880's their necklaces were relatively simple affairs consisting of a few strands of vertical pipes, but after about 1895 they began to make necklaces of a much greater number of pipes in which the lower rows were connected.

The elaboration of the necklace among the Teton Dakota and their neighbors definitely took place during the Reservation Period. The more simple necklace forms common to the 1880's and early 1890's are illustrated in plate 33. The single strand Northern Arapaho necklace (pl. 33, *a*) contains but four long, shell hair pipes (all of which are broken or chipped) strung on a buckskin cord together with large brass trade beads. This specimen (USNM No. 290365) probably was made prior to 1890. Plate 33, *b*, is a portrait of Susie-Shot-in-the-Eye, an Oglala woman, taken prior to 1900, wearing a 3-strand necklace composed of 24 long (bone?) hair pipes separated by large trade beads. Plate 34, *b*, illustrates a more complex necklace type worn by a Teton Dakota woman prior to 1900. This type was developed during the 1890's, probably by one of the Teton Dakota tribes. A museum specimen of this type of necklace appears in plate 34, *a*. It is composed of 120 bone hair pipes. The lower 40 pipes are 3 inches long, the remainder are 4 inches in length. The pipes are so arranged that the upper portion forms a 10-strand necklace while the lower 2 rows are connected to form continuous rows of 20 pipes each. Complex necklaces of this type were not made until after bone hair pipes were introduced in quantity. The use of commercial leather strip dividers between the vertical rows of hair pipes apparently was adapted from the similar (but vertical) dividers used in hair-pipe breastplates. This specimen (USNM No. 358117) is not tribally

[15] Photographic references: BAE negs. 3709-a, 3784-a (Winnebago); 4022-a-b, 3016-a-b, 3958 (Omaha); 3728-a-b (Assiniboin); Div. Ethnology, USNM, print (Hidatsa); BAE neg. 3588-a (Yankton); Chicago Mus. Nat. Hist. neg. 26656 (Gros Ventres).

identified, but probably is of Teton Dakota origin. The largest necklace of this type that I have seen was owned and still worn in traditional social dances by Mrs. Henry Black Tail, Assiniboin woman of Fort Peck Reservation, in 1953. No less than 225 bone hair pipes were used in its construction.

West of the Rockies the hair-pipe necklace, of more simple form, was adopted by several tribes prior to 1900. It appears in a portrait of a Ute Indian girl which was copyrighted in 1884. Major Moorhouse's photographs, taken about the year 1900, illustrate its use by a Paiute man (whose home reservation is not stated), and by tribes on the Umatilla Reservation in Oregon (including 2 men and a woman of the Umatilla tribe, 2 Cayuse men, and 1 Walla Walla man).[16]

Two photographs illustrate the wearing of hair-pipe necklaces by prominent men of tribes east of the Mississippi in the early years of the present century. One necklace was worn by Fish Carrier, a Cayuga chief, photographed in 1901. The other was worn by Eniwube, a Chippewa singer of Lac du Flambeau Reservation, Wis., prior to 1913.[17]

HAIR-PIPE BANDOLIERS

Indian men also adopted the hair-pipe necklace of several strands to use as a bandolier extending over one shoulder and under the opposite arm. The earliest dated photograph illustrating this use appears to be James Mooney's portrait of the Oglala, Weasel Bear, taken on Pine Ridge Reservation in 1893 (pl. 35, *a*). The bandolier of hair pipes was worn by three Omaha men in 1898. By 1900 this use of hair pipes began to appear in photographs of men from a number of tribes of the Columbia River Valley. A Yakima man who visited Washington in 1901, wore a bandolier of hair pipes, as illustrated in plate 35, *b*. Major Moorhouse's photographs, taken in the field at about the same time, show hair-pipe bandoliers worn by men of the Palouse, Cayuse, Umatilla, Walla Walla, and Wasco tribes.[18]

In 1911 a bandolier of hair pipes was worn by a Chippewa man of the White Earth Reservation, Minn. (BAE neg. 594–b–1). The survival of the wearing of the hair-pipe bandolier among the Chippewa is illustrated in a photograph of a group of Indians in ceremonial costume, taken at Mille Lacs in 1928, and reproduced in Coleman (1947, pl. 2, fig. *f*).

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[16] Photographic references: Div. Ethnology, USNM, print (Ute); BAE negs. 1662–b (Paiute); 2890–b–41, 2890–b–5 (Umatilla); 3073–b–60, 3073–b–46 (Cayuse); 2902–b–19 (Walla Walla).

[17] Both of these photographs have been published: the former in Hodge (1907, pt. 1, p. 223), the latter in Densmore (1913, pl. 26).

[18] Photographic references: BAE negs. 4016–a, 4019, 3955 (Omaha); 2901–c (Palouse); 3073–b–8, 3073–b–9, 3073–b–15, 3073–b–44, 3073–b–54, 3073–b–70–1, 3073–b–69 (Cayuse); 2890–b–4, 2890–b–13, 2890–b–25 (Umatilla); 2902–b–27 (Walla Walla); 2899–b–2 (Wasco).

The adaptation of hair pipes to use as men's bandoliers, as well as the perfection of the complex woman's necklace, provides proof that the Indians were still developing new uses for hair pipes in the Reservation Period.

HAIR-PIPE EAR PENDANTS

In contrast to the increased popularity of the breastplate and necklace, the less elaborate forms of hair-pipe ornaments were little worn during the Reservation Period. The formerly popular use of hair pipes as ear pendants appears to have survived among a few tribes after 1880. Feathered Lance, an aged Kiowa, clung to the old custom of wearing hair-pipe ear pendants in 1892–93. They appear in Mooney's field portrait of him taken at that time. Two Sauk and Fox men wore them in 1890. Four members of an Oto delegation wore these ornaments in 1895, and two of the same men, in addition to another Oto, wore them in 1898. At the Omaha Exposition of 1898 hair-pipe ear pendants were worn by 6 men—2 Omaha, 1 Winnebago, 1 Tonkawa, and 2 Santa Clara Pueblo Indians. The most recent pictorial reference to the wearing of these ornaments appears in a portrait of a Yankton visitor to Washington in 1905.[19]

HAIR-PIPE HAIR ORNAMENTS

The wearing of hair-pipe hair ornaments appears to have become nearly obsolete by 1880. The only post-1880 pictorial reference to this ornament appears in the portrait of Medicine Crow, a handsome Crow Indian, taken during his visit to Washington in 1882 (pl. 20, *b*). None of the other Crow delegates who accompanied Medicine Crow wore hair pipes in any way.

HAIR-PIPE CHOKERS

The close-fitting hair-pipe choker, a rarity prior to 1880, appears but rarely in the pictorial record of subsequent years. The Sauk and Fox seem to have been most fond of this ornament. Five men of that tribe wore hair-pipe chokers when photographed during the period 1887–93. Plate 23, *c*, illustrates the choker as worn by one of these men. Plate 23, *d*, shows the choker worn by an Osage visitor to Washington in 1904. Other wearers of hair-pipe chokers when photographed were two Oto (one in 1896, the other in 1908), a Tonkawa (1899), and a Santa Clara Pueblo Indian (1898).[20]

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[19] Pictorial references: BAE negs. 1406-a-1-2 (Kiowa); 3828-a, 3831-a, 3856-a, 3870-a, 3877-a, 3829-b, 3858-a (Oto); 645-a, 685-a-1 (Sauk and Fox); 3947-a, 3958 (Omaha); 3801-a (Winnebago); 1201-a (Tonkawa); 1947-a, 1957-a (Santa Clara); 3503 (Yankton).

[20] Pictorial references: BAE negs 673, 648-a, 668-a, 668, 669 (Sauk and Fox); 3873-a, 3892-b (Oto); 1188-a (Tonkawa); 1947-a (Santa Clara Pueblo).

SURVIVAL OF THE USE OF HAIR PIPES

Hair-pipe breastplates, necklaces, and bandoliers were popular ornaments worn by Plains Indians when they dressed for Indian dances near home or for exhibitions in 1910. There was still a demand for bone hair pipes from the traders' stores. In more recent years the demand has dwindled and local traders have discontinued stocking hair pipes. I have obtained field data on more recent trends in the history of the use of hair pipes among three tribes who formerly were fond of hair-pipe ornaments.

As we have seen, the Oglala were among the most common users of hair-pipe ornaments in the early years of the Reservation Period. John Choloff, a mixed-blood Oglala, son of a trader on Pine Ridge Reservation, told me that in the late nineties, when he worked in his father's store, the Oglala bought large numbers of hair pipes. His father purchased them wholesale from Frost's in New York City, and sold them in two sizes. The longer ones sold for 15 cents each, the shorter ones for 10 cents each. Yet John said that by the time of World War I, there was so little demand for hair pipes among the Oglala that the traders stopped carrying them in stock. Perhaps the discontinuance of Buffalo Bill's Wild West Show, which had employed some 65 Sioux performers, following the death of William F. Cody, January 17, 1917, brought in its wake a slackening of demand for spectacular hair-pipe ornaments among the Oglala. Of course these Indians had large numbers of the almost indestructible breastplates and necklaces on hand.

Kiowa informants told me that hair-pipe ornaments had been popular among their people in their youth. A well-made breastplate was then considered equal in value to a horse. However, they said that breastplates had not been made by members of that tribe for a number of years prior to our interviews in 1948–49. In 1948, the late Robert L. Boake, of Anadarko, Okla., who had traded with the Kiowa and their neighbors since 1891, told me he used to buy bone hair pipes in several lengths from Frost's in New York, and sold them in quantities to the Indians. He discontinued handling them in 1926.

Elderly Assiniboin informants on Fort Peck Reservation could remember the sale of shell hair pipes to their tribe prior to about 1893, although they did not recall that the old "white" pipes were made of shell. Yet from their statement that those pipes "were whiter and stayed white longer" and "did not show long streaks" like the later hair pipes, we can be sure that they had reference to shell hair pipes as contrasted to bone ones. One informant said these "white" (shell) pipes sold at Aubrey's Trading Post in the middle eighties at nearly 50 cents each, while the bone ones a decade later sold

for 10 to 15 cents, depending on their lengths. He definitely attributed the remarkable increase in the sizes of breastplates and necklaces that took place in the 1890's to the availability of the cheaper bone hair pipes. Fort Peck informants knew of no trader on or near their reservation who sold hair pipes to the Indians after the death of Sherman T. Cogswell, Wolf Point merchant, about 1923.

Assiniboin informants on Fort Belknap Reservation recalled that Charles A. Smith, a merchant in nearby Harlem, Mont., sold them hair pipes at $10 a hundred about 1895. They claimed he continued to sell hair pipes "until he couldn't get them any more" which was "more than 15 year ago" (i. e., before 1938).

These references indicate that the sale of hair pipes was discontinued on some reservations earlier than on others. It seems probable that few hair pipes were sold to Indians by local traders after the middle twenties.

Nevertheless, Indians have continued to wear hair-pipe breastplates and necklaces on dress occasions. At the American Indian Exposition at Anadarko, Okla., in the summer of 1948, I observed that a number of young Southern Plains Indian competitors in the dance contests wore hair-pipe breastplates. I photographed a Taos Indian shield dancer who participated at that Exposition wearing a bone hair-pipe breastplate (pl. 37, *a*). When Crazy Bull, an elderly Hunkpapa, came to Washington in 1948, he brought his dress costume and posed for his photograph in it. His outfit included a hair-pipe breastplate (pl. 37, *b*). In the summer of 1953 my Assiniboin informants on Fort Peck Reservation showed several breastplates and complex women's necklaces which they owned and told me they still wore them in Indian dances and on other occasions when they felt it desirable to wear "Indian dress."

Two incidents occurred during my visit among the Assiniboin that demonstrated concretely their continued interest in hair-pipe ornaments. In my presence an elderly Fort Belknap informant sold her 4-strand necklace of about 40 bone hair pipes to my interpreter for $5. My interpreter later explained to me that she was going to make it over into a breastplate for her adolescent son, an accomplished Indian dancer, to wear in grass dances. On Fort Peck Reservation, Bernard Standing, a middle-aged Assiniboin, showed me a breastplate of bone hair pipes which he had made the previous winter. It was one of several he had constructed for use by grass dancers. When I asked him where he obtained his hair pipes he brought out the current mail order catalog of the Plume Trading Co. of New York City, dealers in Indian craft supplies, and showed me the listing of "real bone hair pipes." James Luongo, president of that firm, has kindly informed me that his stock of bone hair pipes is a large one. It was

purchased from S. A. Frost's son when that old Indian trading company discontinued business about 1943. So hair pipes still are available to Indians as well as to Whites who may wish to use them in making traditional Indian ornaments. The distributing center is still, as it has been for more than 150 years, New York City.

CONCLUSIONS

Our quest for the origin of the long, hollow, tubular ornament, known since late colonial times as a hair pipe, has taken us back to prehistoric times, when ornaments of this general pattern were worn by Indians of the Eastern Woodlands in necklaces and perhaps as hair and ear ornaments as well. These native-made shell, bone, stone, and copper prototypes of the trade hair pipe were Indian inventions. Furthermore, Woodland Indians recognized these ornaments as desirable articles in intertribal trade long before the first white trader appeared among them.

The introduction of glass and metal hair pipes among the Indians of the Eastern Woodlands by white traders in the colonial period illustrates the efforts of these traders to induce the Indians to accept substitutes for ornaments with which they had been familiar, both as accessories to costume and as articles of intertribal trade. Through trial and error the traders were attempting to provide at profit to themselves substitutes which would be acceptable to the Indians. Probably the glass ornaments offered by the French in the 17th century were too fragile and the silver ones supplied by the English in the 18th century were too expensive to gain widespread popularity among the Indians.

The invention of the shell hair pipe by New Jersey wampum makers prior to 1800 may have been motivated by the desire to produce a cheaper hair pipe which could be sold to Indians in greater numbers. It is not improbable that the inventor or inventors of the commercial shell hair pipe had knowledge of the earlier use of native-made conch-shell ornaments by the Woodland Indians. However, they made these ornaments from the lips, not the columns of shells. The early shell hair-pipe makers had had previous experience in working clam-shells into wampum and they adopted the same tools employed in wampum making to the manufacture of hair pipes. The efforts of the Campbell family of Pascack (now Park Ridge), N. J., to control the manufacture of shell hair pipes for the Indian trade, although not completely successful, must have had the effect of limiting the output of shell hair pipes in the first half of the 19th century, when the drilling of these ornaments was a laborious, hand-tooled operation. Through the great fur-trading companies of Canada and the United States, through independent traders, and through agents of the United States

Government shell hair pipes were distributed widely, and in increasing numbers, among the Plains Indian tribes prior to 1850. Nevertheless, during this period the Plains Indians appear to have used hair pipes rather sparingly as ear pendants and hair ornaments and in necklaces.

The development of the elaborate breastplate, an ornament requiring large numbers of hair pipes, by the Indians appears to have coincided in time with the shift of hair-pipe manufacturing from a hand to a mechanized operation after 1850. Although the invention of the hair-pipe breastplate by the Comanche may have antedated the invention of the laborsaving, pipe-drilling machine by the Campbells, it is certain that the widespread use of hair-pipe breastplates among the Indians followed the perfection of that machine and resultant increase in hair-pipe production.

The invention and Indian adaptation of the cattle-bone hair pipe about 1880 shows still more clearly the interplay of Indian and white ingenuity in the development of a cheaper, more sturdy hair pipe. It was an Indian, the Ponca chief White Eagle, who first recognized the superiority of bone over shell material in costume ornaments when he acquired some corncob pipestems of bone from a trader. Once acquainted with the Indian desire for hair pipes of bone, men who supplied the Indians proceeded to locate a supply of raw bone material, to perfect methods of manufacture of bone hair pipes, and to supply quantities of the finished pipes to Indian traders in the field. The form of the bone hair pipe was patterned exactly after the shell one which it replaced. So superior was the bone hair pipe in the eyes of the Indians that within a decade the demand for shell hair pipes decreased to the point that it was no longer practical for the New Jersey manufacturers to make them. Meanwhile, on the Indian reservations of the West a period of greater and more elaborate use of hair-pipe ornaments was inaugurated, employing the cheaper, stronger bone articles. Not only did larger breastplates for men and more complex necklaces for women come into use, but a new use of hair pipes as bandoliers gained some popularity. Indians looked upon these articles as valuable possessions and desirable gifts. They continued to wear them on occasions for which "Indian dress" was preferred—in traditional dances on their own reservations, on visits to Washington, in their appearances in Wild West shows, at exhibitions, and at fairs.

Not until after the beginning of World War I did the demand for bone hair pipes decrease to the point that it was no longer practical for local traders on western reservations to stock them. Yet the custom of wearing hair-pipe ornaments has persisted. They are still owned and worn on occasion by some western Indians. To a limited extent ornaments still are made by Indians either through reuse of

old bone hair pipes in the possession of Indians or from hair pipes ordered by mail from the Plume Trading Co. of New York.

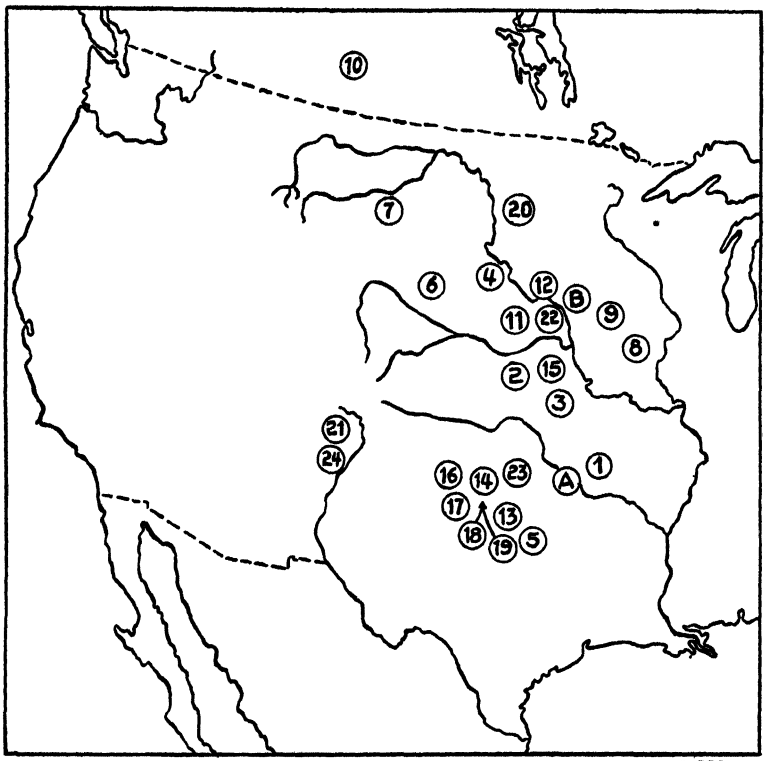
The continued use of hair pipes in Plains Indian adornment over a period of a century and a half, affords a remarkable example of stability in a trait of material culture. It is especially remarkable in view of the facts that material culture traits are generally regarded as highly susceptible to change and that the great majority of traditional material culture traits of the Plains Indians have disappeared within the Reservation Period. It is true that older types of hair-pipe ornaments became obsolete and newer types of ornaments were invented and diffused widely. But the basic form of the hair pipe employed in making these ornaments has persisted throughout the entire period.

I have prepared a series of six maps to illustrate the diffusion and distribution of the six methods of employing hair pipes in Plains Indian adornment. Tribal occurrences of each method of use are indicated by chronologically ordered numbers on the basis of available information from pictorial sources, from the literature, and from field data relative to the earliest record of the use of a particular type of ornament by a member or members of each tribe.

The reader will note that the geographical locations of tribes on these maps are not consistent. A number of tribes of the area changed their locations between the time of their first recorded use of one type of hair-pipe ornament and their first known use of another type of ornament made of hair pipes. It appears to me that a truer picture of the tribal and geographical distribution of each type of ornament is presented by placing each tribe in its approximate location at the time of its first known use of the specific ornament in question.[21]

The early distribution of the hair-pipe ear pendant (as shown on map 1) suggests that the hair pipes found archeologically at Pawnee and Arikara sites probably were worn by members of those tribes as paired ear pendants. (See p. 52.) The earliest recorded use of hair-pipe ear pendants in the Plains was among the Osage (1806), who had trading relations with St. Louis merchants, as well as with the Government traders in the first decade of the 19th century. Before 1850 some men of a number of Siouan tribes as far northwest as the Crow were wearing hair-pipe ear pendants, as were also the Caddoan Wichita, Pawnee, Arikara, and the Algonquian Plains Cree and Sauk and Fox. The early popularity of this ornament among men who roached their hair suggests that this hair-pipe ornament originated within a tribe which followed this fashion of hairdress, and later was

[21] Exceptions have been made in the cases of the Cheyenne and Arapaho, which tribes divided into northern and southern groups prior to 1850. Because of the difficulty in determining northern or southern affiliations of individuals on the basis of available evidence, I have located these tribes midway between the habitats of their northern and southern groups.

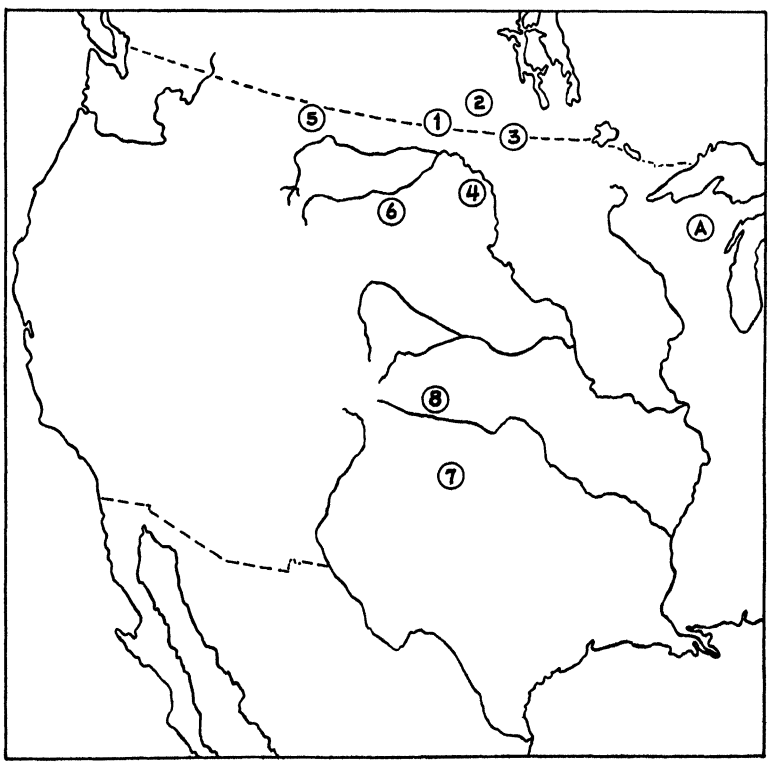


MAP 1.—Distribution of hair-pipe ear pendants.

Western tribes: 1, Osage (1806); 2, Pawnee (before 1811); 3, Kansa (1821–5); 4, Arikara (before 1832); 5, Wichita (1834); 6, Teton Dakota (1837); 7, Crow (1837); 8, Sauk and Fox (1837); 9, Iowa (1845–6); 10, Plains Cree (1847); 11, Ponca (1859); 12, Yankton (1867); 13, Kichai (1868); 14, Kiowa (1868); 15, Oto (1869); 16, Kiowa Apache (1868–72); 17, Comanche (1872); 18, Tawaconie (1872); 19, Waco (1872); 20, Yanktonai (1872); 21, Jicarilla Apache (1877); 22, Omaha, (1896); 23, Tonkawa, (1898); 24, Santa Clara Pueblo (1898). Removed Woodland tribes: *A*, Delaware (1869); *B*, Winnebago (1870).

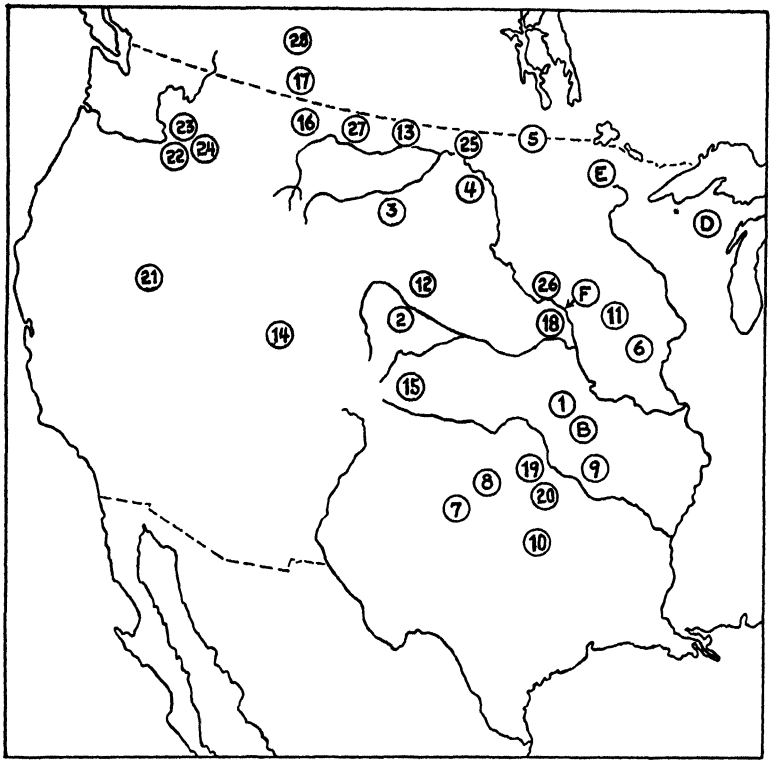
adopted by some of the long-haired tribes of the Plains. In the third quarter of the 19th century it was reported for a number of other Siouan and Caddoan tribes, as well as the Delaware and Winnebago removed from east of the Mississippi, and the Kiowa, Kiowa Apache, and Comanche of the southern High Plains. Only two tribes westward of the Great Plains have been shown to have worn these ornaments, the Jicarilla Apache and Santa Clara Pueblo in the Southwest. By and large the hair-pipe ear pendant appears to have been a popular pre-Reservation-Period ornament among men of the Central and Southern Plains. It does not appear to have spread to the majority of the tribes of the Upper Missouri, to the Plateau, or Great Basin tribes. Its popularity waned after the invention and diffusion of the hair-pipe breastplate and the development of the bone hair pipe.

The wearing of hair pipes as hair ornaments (map 2) appears to have been the most popular use of hair pipes among men of the Upper Missouri above the Teton Dakota in the first half of the 19th century. In view of this distribution we may surmise that the Crow and Hidatsa men who obtained hair pipes from Larocque and Alexander Henry in 1805–6 probably made use of them as hair ornaments. With the exception of the Crow and Plains Cree no tribe of this group is known to have worn hair-pipe ear pendants. The occurrence of hair-pipe hair ornaments among the Menomini in 1836 further indicates that the wearing of these ornaments was a northern trait. The two cases of the wearing of these ornaments by tribes farther south (Cheyenne and Kiowa Apache) were both reported relatively late in the pre-Reservation Period. I have found no indication that the wearing of hair-pipe hair ornaments was common among men of tribes living south of



MAP 2.—Distribution of hair-pipe hair ornaments.

Western tribes: 1, Assiniboin (before 1826); 2, Plains Cree (1831); 3, Plains Ojibwa (1832); 4, Mandan (1832); 5, Piegan (1833); 6, Crow (1851); 7, Kiowa Apache (1866–72); 8, Cheyenne (1876).
Woodland tribe: A, Menomini (1836).



MAP 3.—Distribution of hair-pipe necklaces.

Western tribes: 1, Kansa (1831); 2, Cheyenne (1832); 3, Crow (1832); 4, Mandan (1832); 5, Plains Ojibwa (1832); 6, Sauk and Fox (1832); 7, Comanche (1834); 8, Kiowa (1834); 9, Osage (1834); 10, Wichita (1834); 11, Iowa (1845–6); 12, Oglala (1868); 13, Assiniboin (before 1885); 14, Ute (1884); 15, Arapaho (before 1890); 16, Piegan (ca. 1892); 17, Blood (ca. 1892); 18, Omaha (1898); 19, Ponca (before 1900); 20, Pawnee (1900); 21, Paiute (ca. 1900); 22, Umatilla (ca. 1900); 23, Walla Walla (ca. 1900); 24, Cayuse (ca. 1900); 25, Hidatsa (1903); 26, Yankton (1904); Gros Ventres (1905); 28, Sarsi (ca. 1905).
Woodland tribes: *A*, Seneca of New York (1830—not shown); *B*, Shawnee (1831); *C*, Seminole of Florida (1838—not shown); *D*, Menomini (1835); *E*, Ojibwa (1836); *F*, Winnebago (1898); *G*, Cayuga of Ontario (1901—not shown).

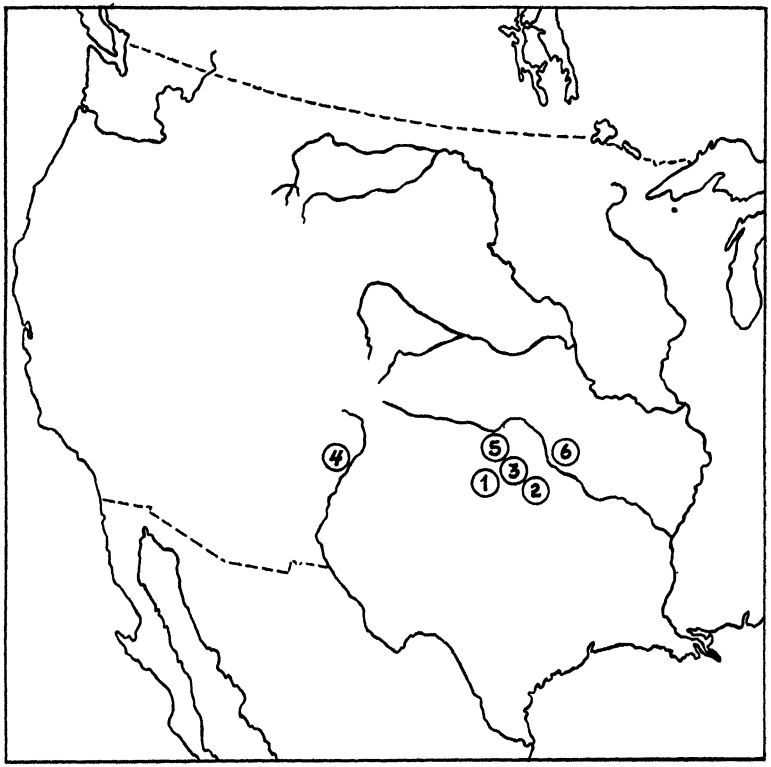
Montana and North Dakota. The single pictorial example of the wearing of this ornament after 1880 depicted its use by a Crow Indian, a representative of a tribe which did not readily adopt the more elaborate hair-pipe ornament, the breastplate. Among the other Upper Missouri tribes the popularity of this ornament was on the wane before their acquisition of bone hair pipes and their adaptation of the hair-pipe breastplate.

We have no record of the wearing of hair pipes in necklaces by Plains Indians prior to the travels of the artist George Catlin among these tribes in 1831–34 (map 3). However, his paintings depicting the wearing of these ornaments by men and women of 11 widely

separated tribes at that time suggest that the hair-pipe necklace was known to Plains Indians a number of years earlier. He also depicted these ornaments worn by Indians of five widely distributed Woodland tribes, among some of which the use of long tubular ornaments in necklaces may have occurred in aboriginal times. Available information reveals little diffusion of the hair-pipe necklace in the Plains in the period 1845–80. However, after the introduction of bone hair pipes a more complex, specialized form of woman's hair-pipe necklace was invented, probably by the Dakota, which was diffused up the Missouri to the Gros Ventres, Blackfoot, and Sarsi. Meanwhile the older and simpler form of necklace was diffused to tribes of the Great Basin and the Columbia River Valley. West of the Rockies the hair-pipe necklace served primarily as a man's ornament. In the Northern Plains the necklace has survived as a woman's ornament.

The wearing of the close-fitting, hair-pipe choker seems to have been confined to Indians of the Southern Plains, from whom it was diffused to the Santa Clara Pueblo (map 4). Probably the failure of this ornament to gain acceptance among the Dakota tribes was due to their preference for and quite common use of a very similar choker of dentalium shells. Hair-pipe chokers do appear in use among Southern Plains tribes for an extended period (i. e., 1834 to after 1900), indicating a relatively long, if not a common, use of this pattern of ornament among tribes of that subarea.

The origin and diffusion of the man's hair-pipe breastplate can be traced with greater precision than was the case with any of the preceding types of hair-pipe ornaments. (See map 5.) It was invented later than the other ornaments and was adopted by the majority of tribes who used it within the period covered by abundant pictorial records. There is no contemporary proof of the existence of the hair-pipe breastplate among any Plains Indian tribe in the first half of the 19th century. Yet by 1854 the Comanche had it. We may consider that it was invented by that tribe. By 1867 it had been adopted by neighboring Kiowa, and before 1872 it was worn by men of the Kiowa Apache, Arapaho, Cheyenne, and Pawnee tribes. It appears logical to assume that the Arapaho and/or Cheyenne, who had friendly contacts with tribes north of the Platte as well as south of the Arkansas, played a prominent role in the northward diffusion of this ornament. In 1868 the Teton Dakota (Oglala and Brule) wore similar breastplates of dentalium shells. In the period 1872–77 they replaced the dentalium-shell breastplate with the hair-pipe one, which soon became a common article of Teton Dakota adornment. By the early seventies the breastplate was also worn by Moache and Uintah Ute men. During the Reservation Period, and after cheaper bone hair pipes



MAP 4.—Distribution of hair-pipe chokers.

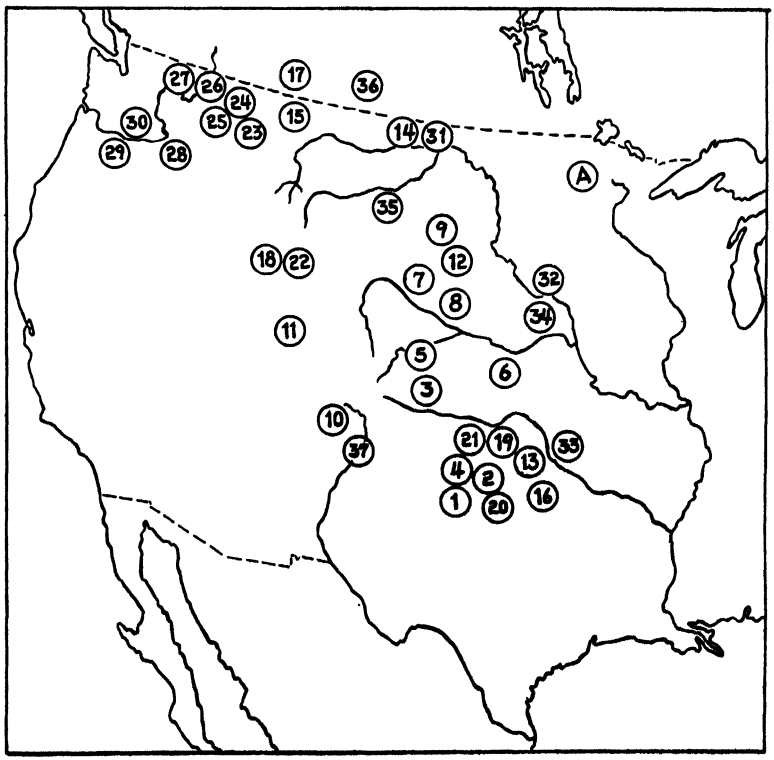
Western tribes: 1, Kiowa (1834); 2, Sauk and Fox (1869); 3, Oto (1896); 4, Santa Clara Pueblo (1898); 5, Tonkawa (1899); 6, Osage (1899).

became available, the Teton tribes made more elaborate breastplates in the construction of which larger numbers of hair pipes were employed. They preferred to use long hair pipes in a 2- or 3-row breastplate, while the Southern Plains tribes more commonly wore breastplates of shorter pipes arranged in four rows. It was the former type that was diffused most widely in the Reservation Period. It was adopted by men of at least 10 Plateau tribes west of the Rockies before about 1900. It was a breastplate of this description that was worn by a Taos dancer in 1948. Like the hair-pipe necklace, the breastplate has survived in use among the Plains Indians. It has been especially popular with young grass dancers.

The bandolier of hair pipes appeared within the Reservation Period. (See map 6.) In construction this ornament did not represent a new type of ornament. Rather it was the adaptation of the traditional

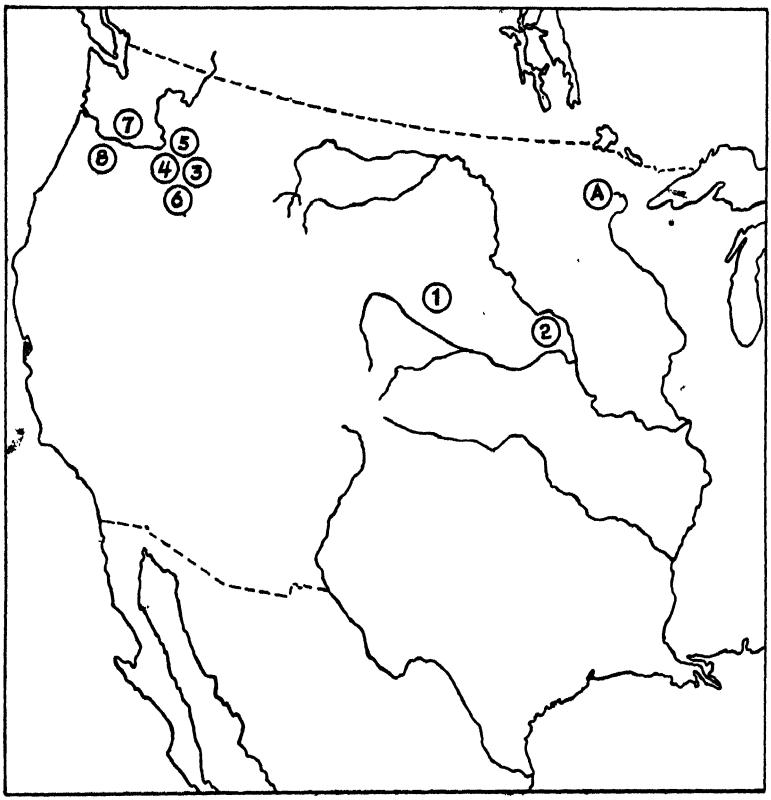
hair-pipe necklace to specialized use as a man's ornament after the wearing of the necklace came to be restricted primarily to women. Although the earliest recorded use of the bandolier was among the Oglala (1893), and it was worn by Omaha men, most of the examples of its use have been found among non-Plains Indian tribes of the Columbia River Valley and the Ojibwa of Minnesota.

In preparing this summary of the history of the various uses of hair pipes in Indian adornment I have been aware of the limitations of my data. Some of my readers may have knowledge of archeological finds of hair pipes, of pictorial representations of their use, or of published or manuscript references to trade in or Indian use of hair pipes,



MAP 5.—Distribution of hair-pipe breastplates.

Western tribes: 1, Comanche (1854); 2, Kiowa (1867); 3, Arapaho (1869); 4, Kiowa Apache (1868–72); 5, Cheyenne (1868–72); 6, Pawnee (1871); 7, Oglala (1872); 8, Brule (1872); 9, Hunkpapa (1872); 10, Moache Ute (1872); 11, Uintah Ute (1873); 12, Miniconjou (1877); 13, Ponca (1877); 14, Assiniboin (1882); 15, Piegan (ca. 1892); 16, Sauk and Fox (1892); 17, Blood (1893); 18, Bannock (1897); 19, Otŏ (1898); 20, Caddo (1898); 21, Tonkawa (1898); 22, Shoshoni (ca. 1900); 23, Flathead (ca. 1900); 24, Couer d'Alêne (ca. 1900); 25, Nez Percé (ca. 1900); 26, Colville (ca. 1900); 27, Sinkiuse (ca. 1900); 28, Walla Walla (ca. 1900); 29, Wasco (ca. 1900); 30, Yakima (1902); 31, Yanktonai (1903); 32, Yankton (1904); 33, Osage (1906); 34, Omaha (1909); 35, Crow (ca. 1910); 36, Plains Cree (before 1917); 37, Taos Pueblo (1948).
Woodland tribe: A, Ojibwa of White Earth Reservation (1911).



MAP 6.—Distribution of hair-pipe bandoliers.

Western tribes: 1, Oglala (1893); 2, Omaha (1898); 3, Cayuse (ca. 1900); 4, Umatilla (ca. 1900); 5, Walla Walla (ca. 1900); 6, Palouse (ca. 1900); 7, Yakima (1901); 8, Wasco, (ca. 1900).
Woodland tribe: *A*, Ojibwa (1911).

unknown to me, which may provide earlier dates for the use of hair pipes by some tribes or wider distribution for specific ornament types than I have listed here. New archeological discoveries may add materially to our knowledge of the early use of shell hair pipes in the Great Plains. Certainly ethnological field workers among many tribes of the Great Plains, Great Lakes, Great Basin, and Plateau can obtain from living informants additional details regarding the diffusion and/or survival of use of breastplates, necklaces, and bandoliers among those tribes. Fieldwork among the Plateau tribes, in particular, should provide significant information on the processes of diffusion of hair-pipe ornaments to the Indians of the Northwest in the Reservation Period.

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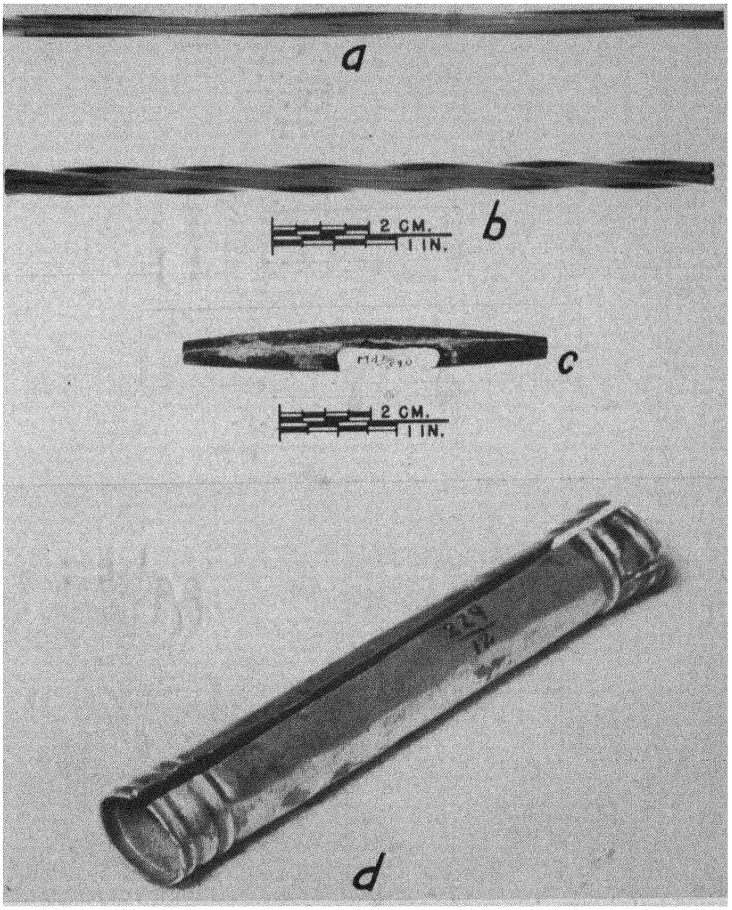
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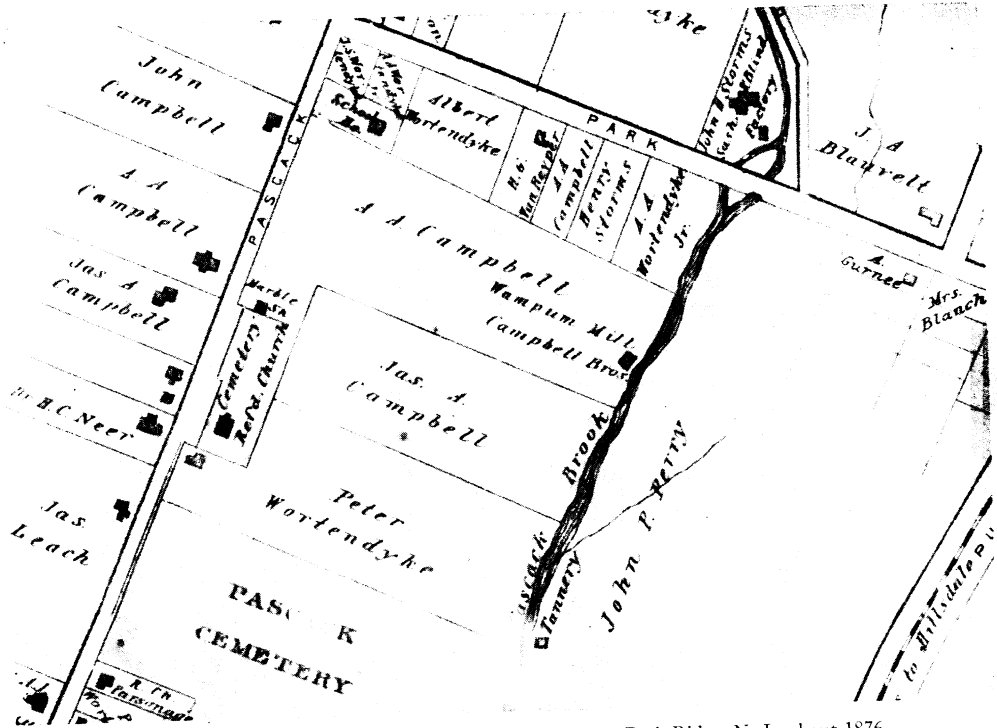
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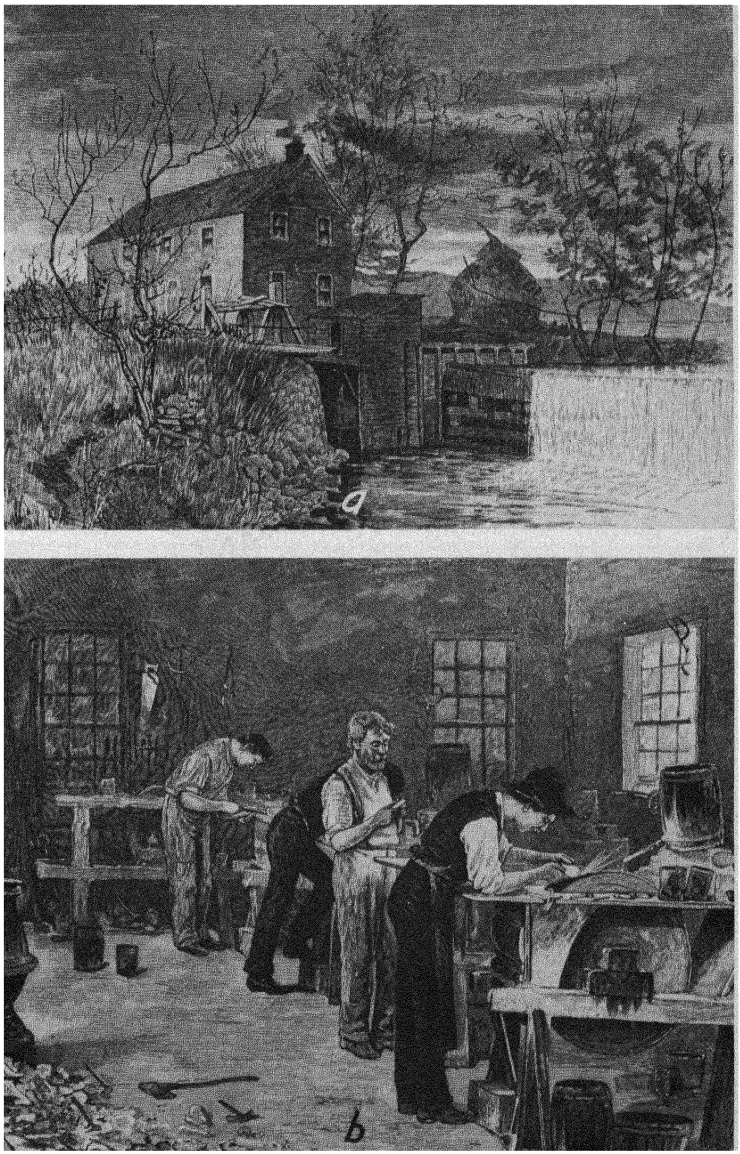
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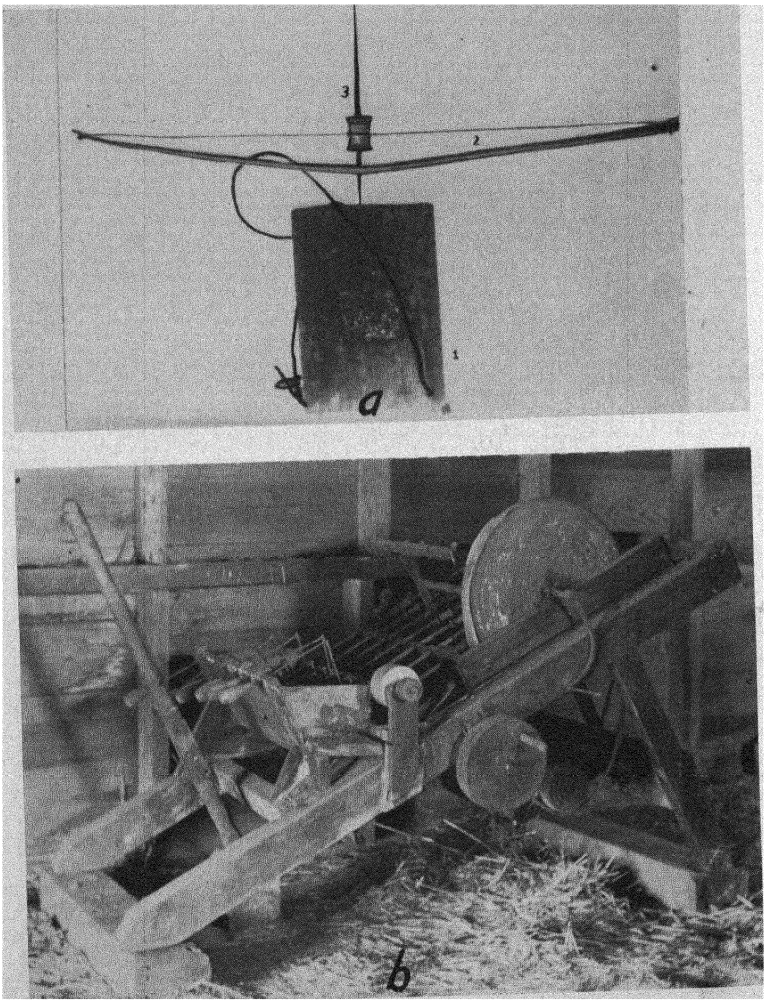
Early forms of tubular trade ornaments. *a*, *b*, Glass (Susquehanna). *c*, Brass (Angel Site, Ind.). *d*, Silver (Courtesy Ohio State Univ.).



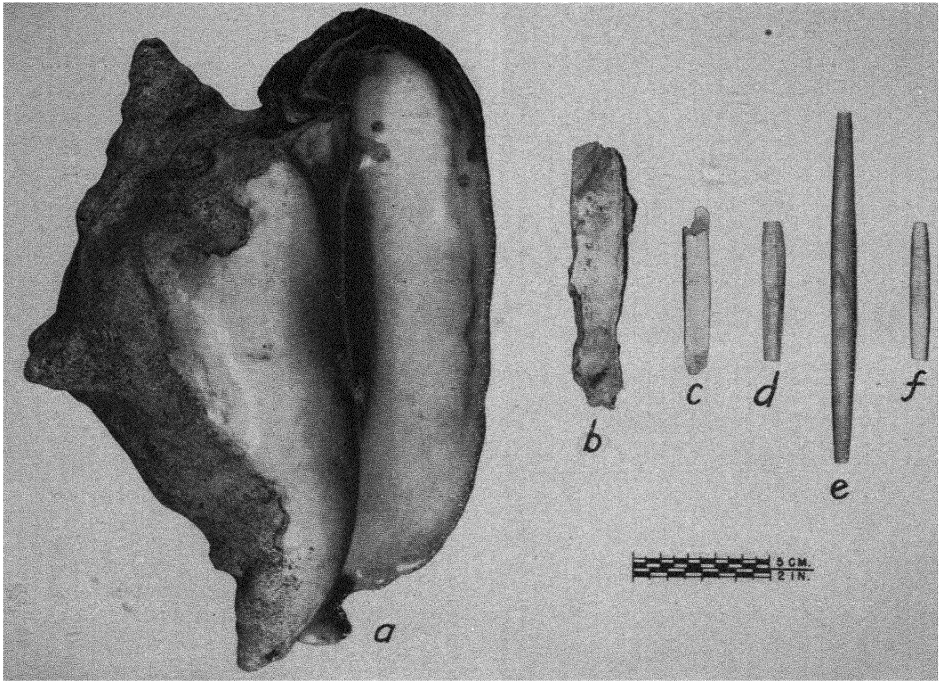
Location of the Campbell Brothers' Wampum Factory, Park Ridge, N. J., about 1876.



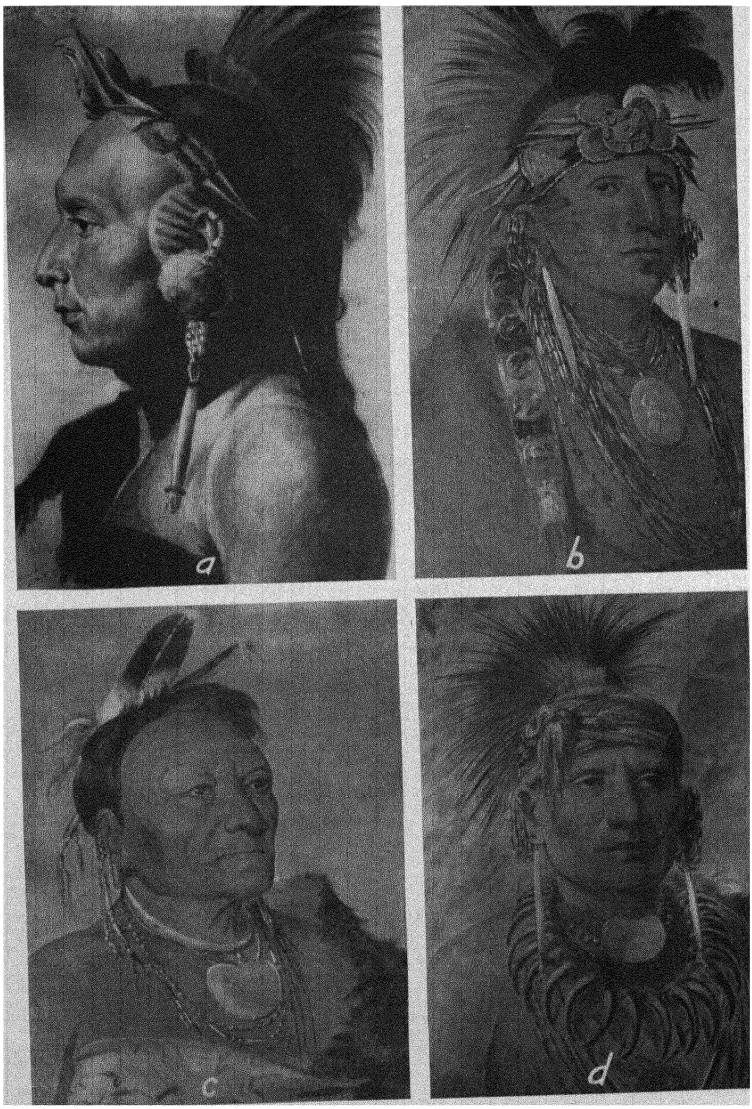
a, The Campbell Brothers' Wampum Factory (1860-89). *b*, The four wampum makers (1886).



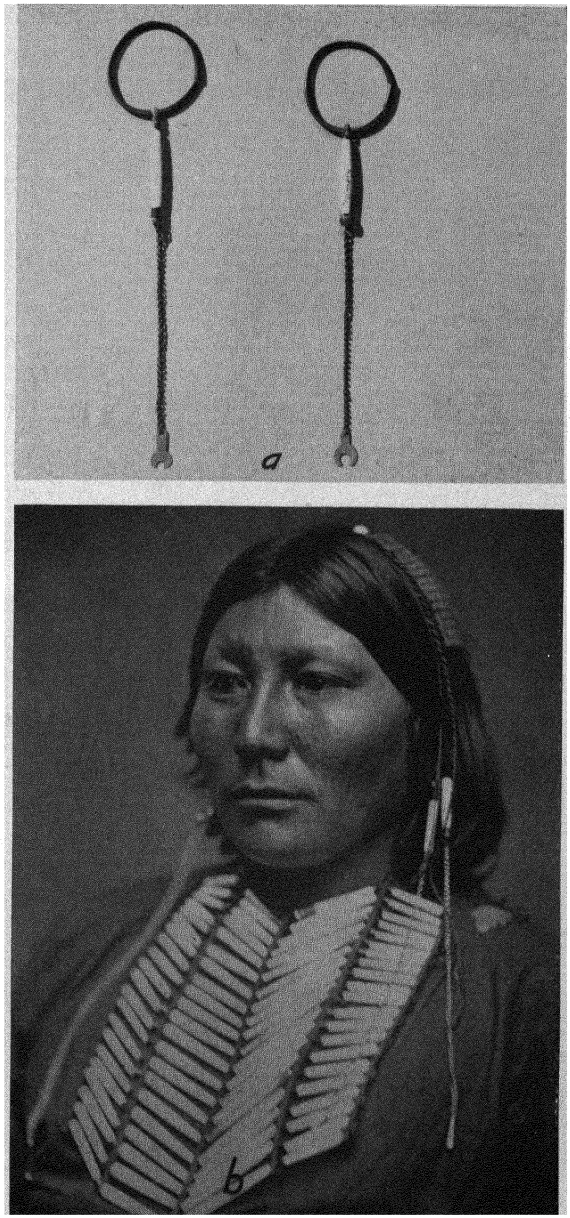
Tools used in drilling shell hair pipes. *a*, Early form of simple bow drill. *b*, Hair-pipe drilling machine.



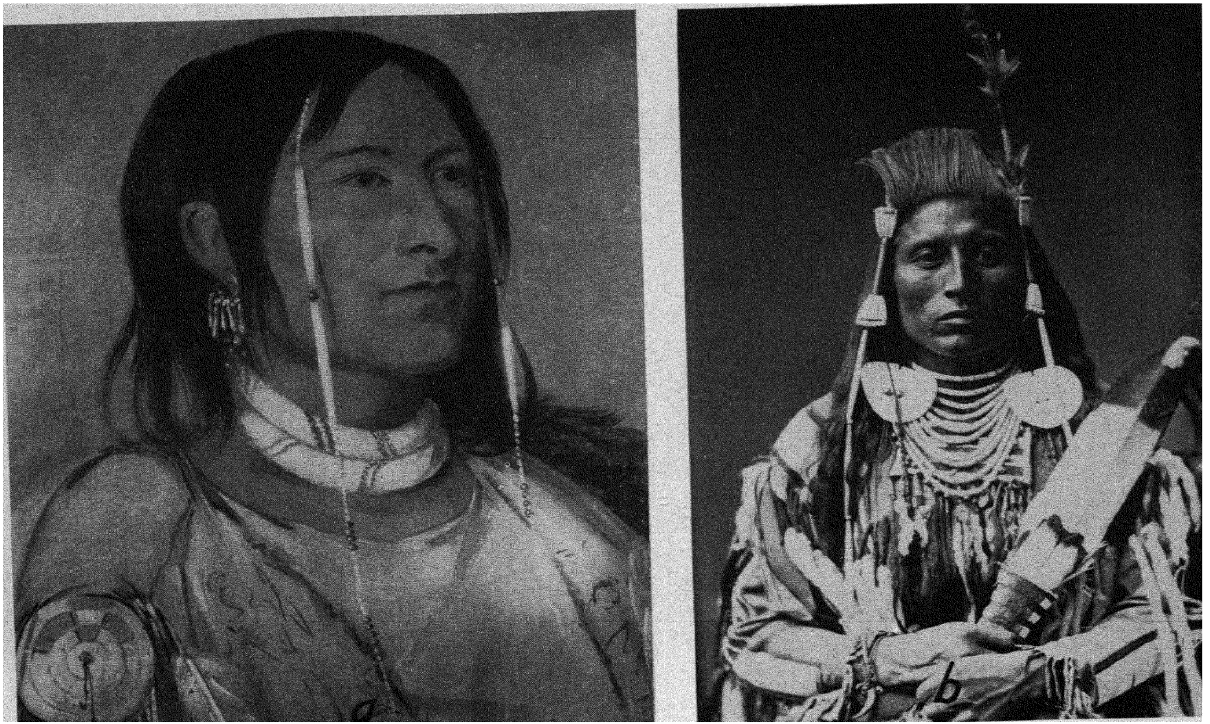
Stages in the manufacture of shell hair pipes. *a*, Unworked *Strombus gigas*. *b*, Section of lip broken off. *c*, Pipe roughly blocked out. *d*, Drilled, partially shaped hair pipe. *e*, Long hair pipe shaped but unpolished. *f*, Polished and completed short hair pipe.



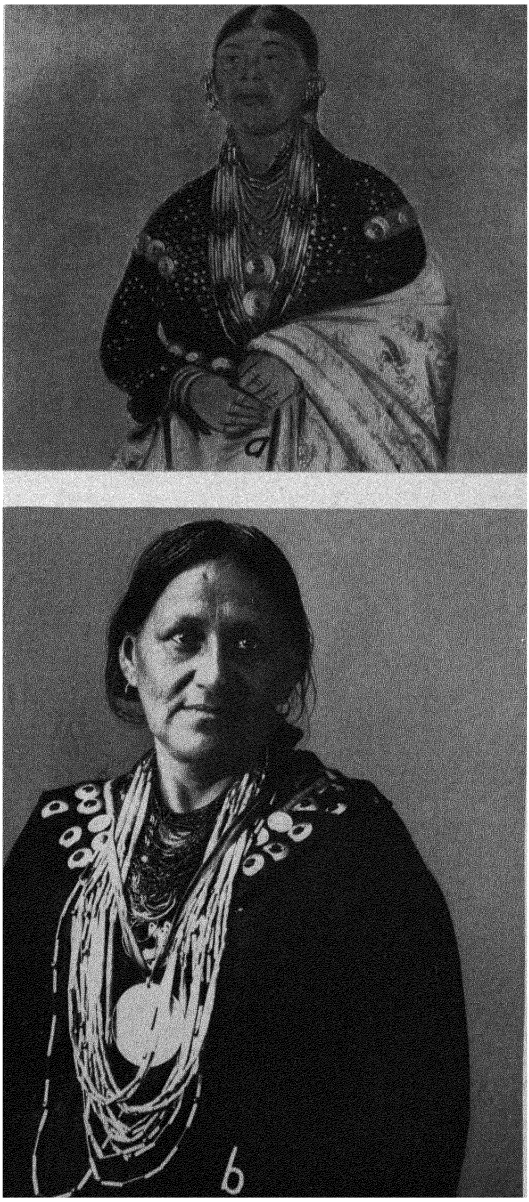
Hair pipes worn as ear pendants. *a*, An Osage warrior (1806). *b*, Kansa chief (1831.) *c*, Wichita head chief (1834). *d*, Iowa war chief (1845–46).



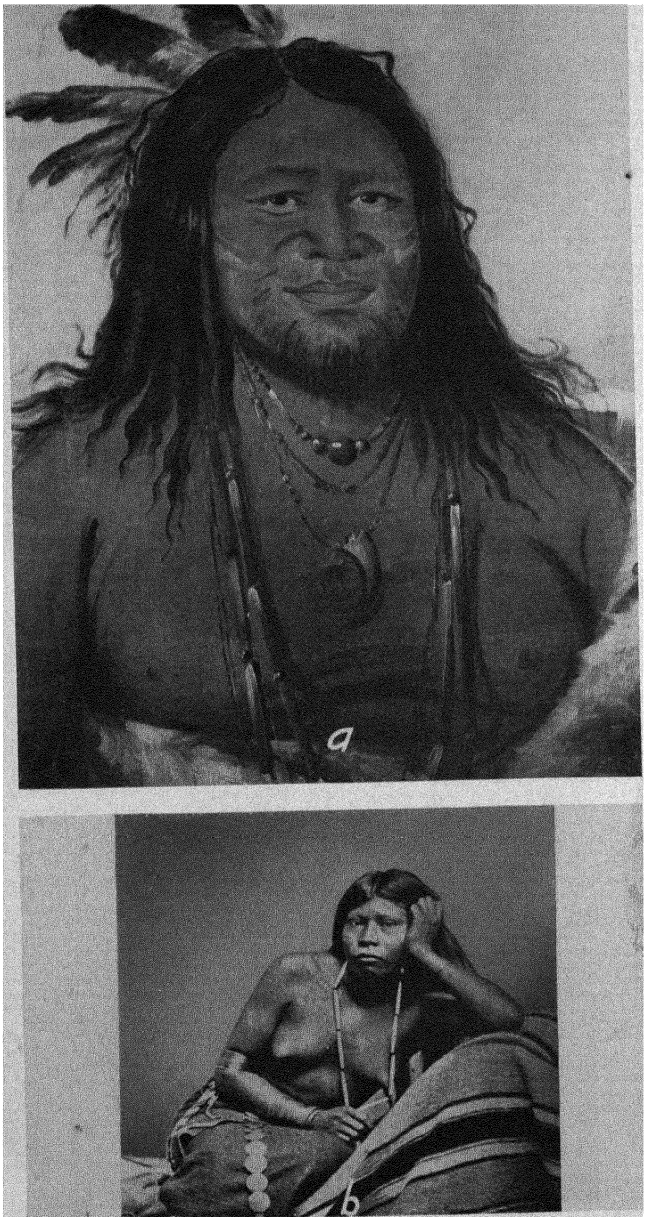
Hair-pipe earpendants of the Kiowa. *a*, Specimens collected in 1891. *b* Worn by White Horse (1870).



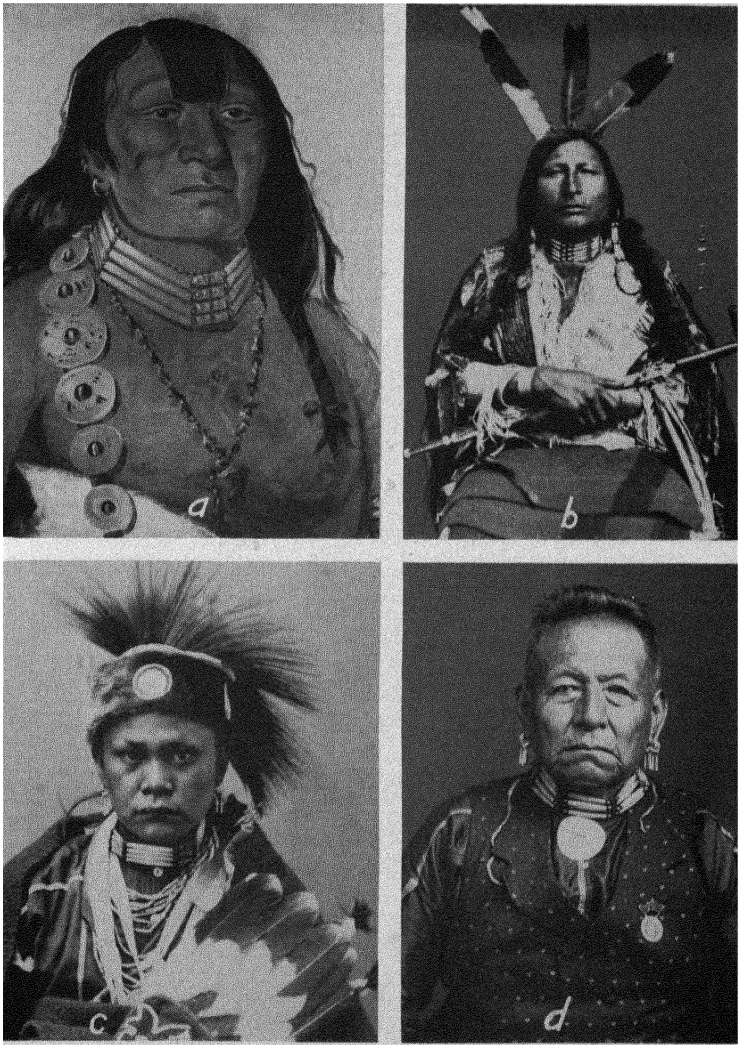
Hair pipes worn as hair ornaments. *a*, Plains Cree (1831). *b*, Crow (1882).



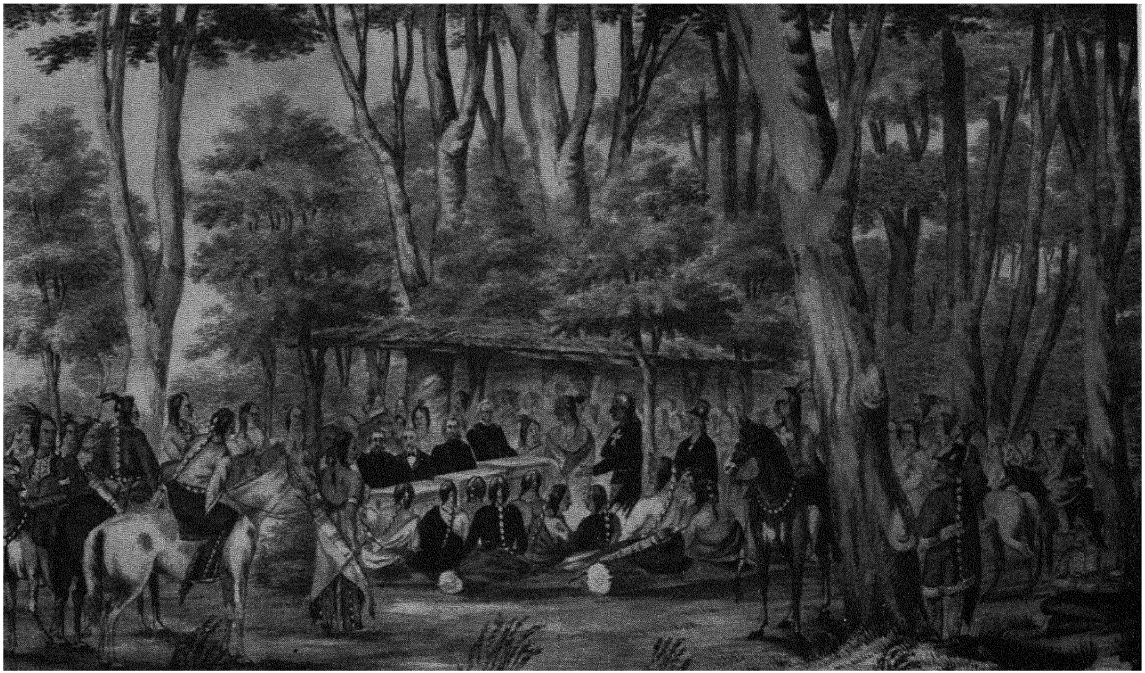
Hair pipes worn in necklaces. *a*, Wife of Keokuk, Sauk and Fox chief (1834). *b*, Sauk and Fox woman (1895–97).



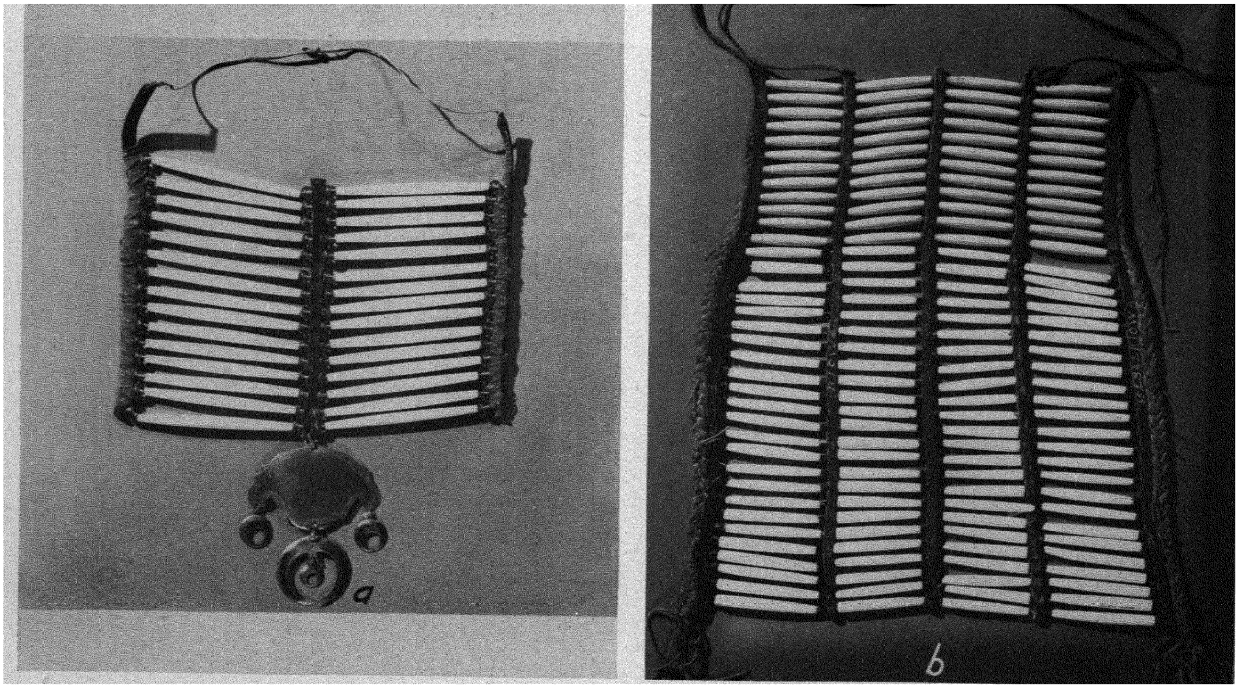
Hair pipes worn in necklaces. *a*, Comanche chief (1834). *b*, Wichita woman (1868).



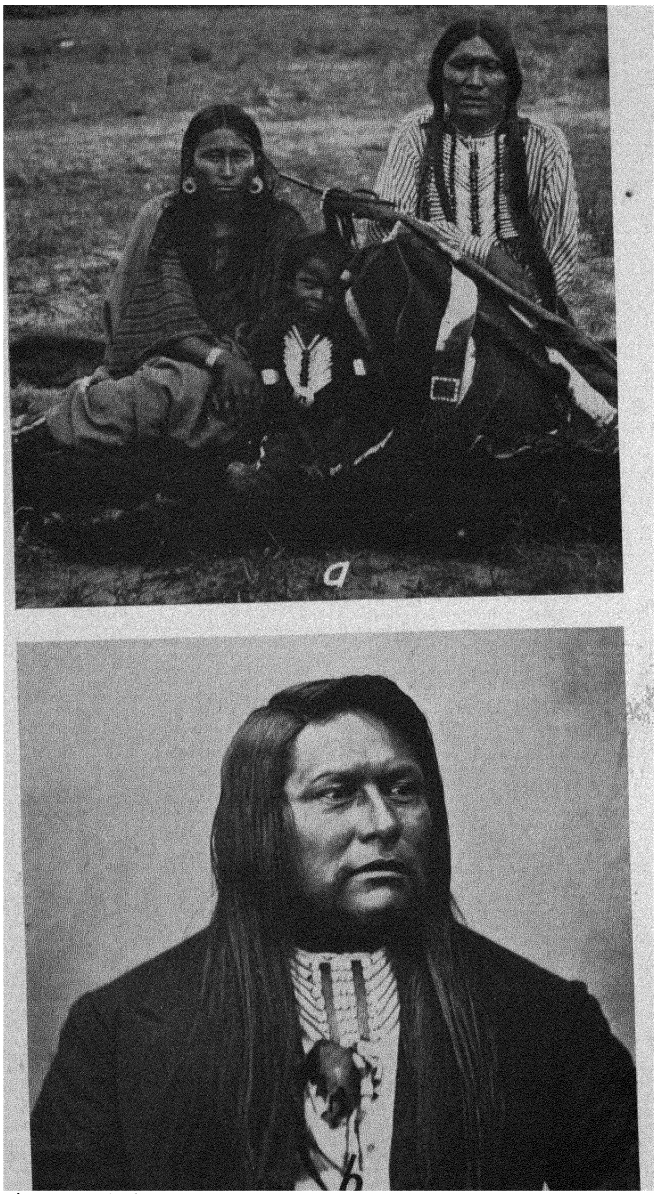
Hair pipes worn as chokers: *a*, Kiowa head chief (1834). *c*, Sauk and Fox (1887–93). *d*, Osage (1904). Dentalium-shell choker: *b*, Yankton (1867).



Hair pipes worn in breastplates by Southern Plains Indians at the Medicine Lodge Treaty Council, 1867. (From painting by [illegible] Stieffel.)



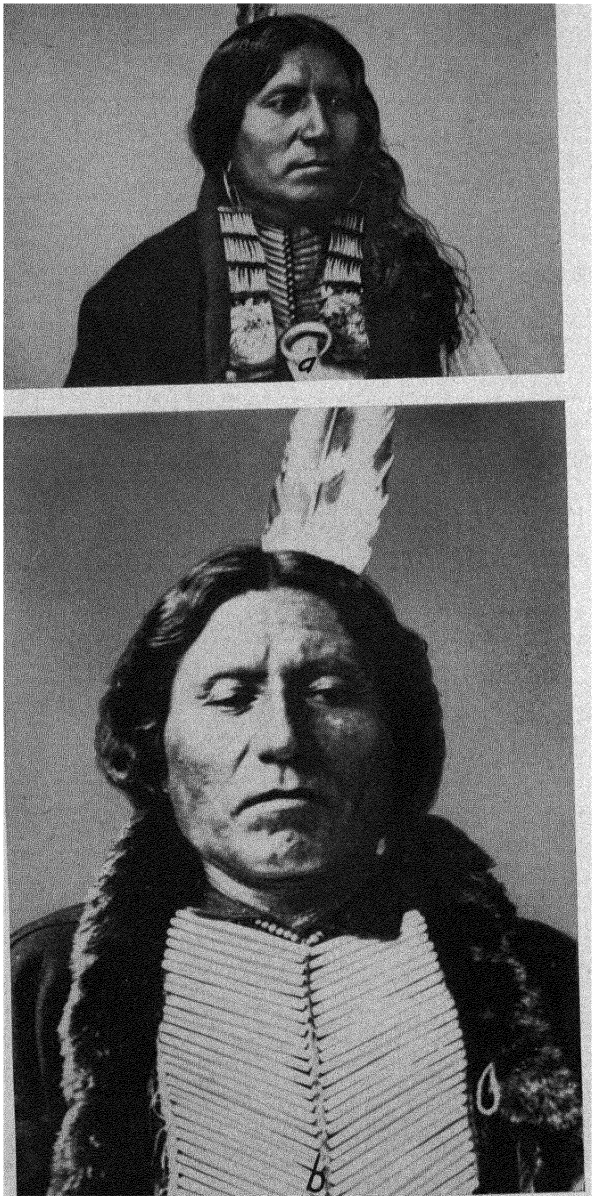
Hair-pipe breastplates from the Southern Plains. *a*, Comanche specimen, collected in 1867. *b*, Kiowa specimen, collected in 1891.



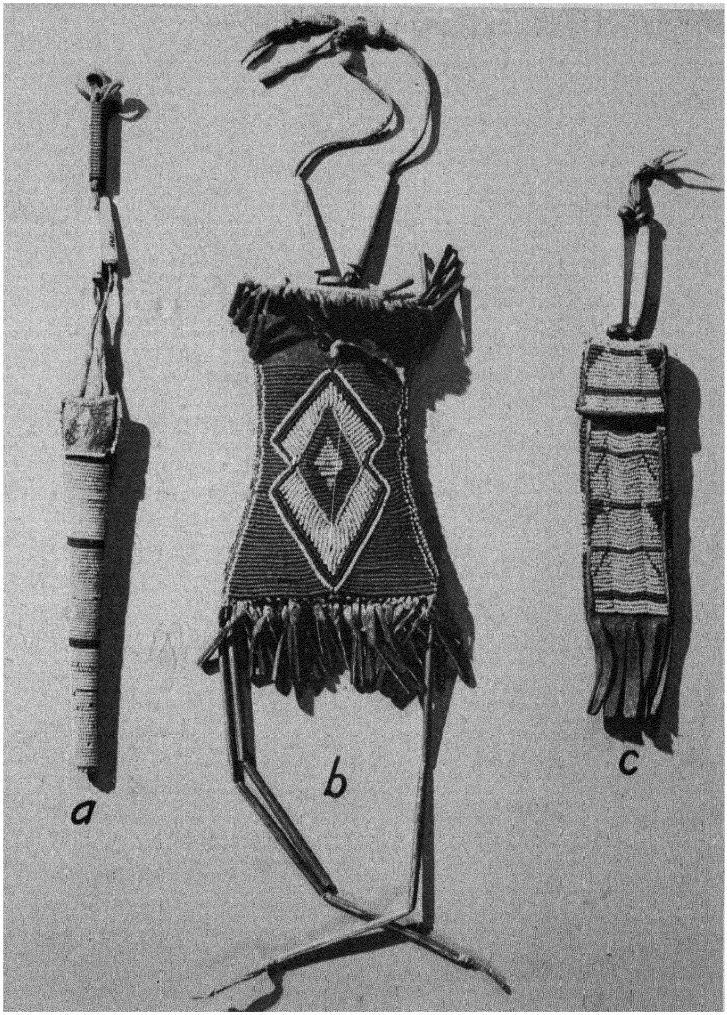
Hair pipes worn in breastplates. *a*, Powder Face and child, Northern Arapaho (1869). *b*, Tabiyuna, Moache Ute (1872).



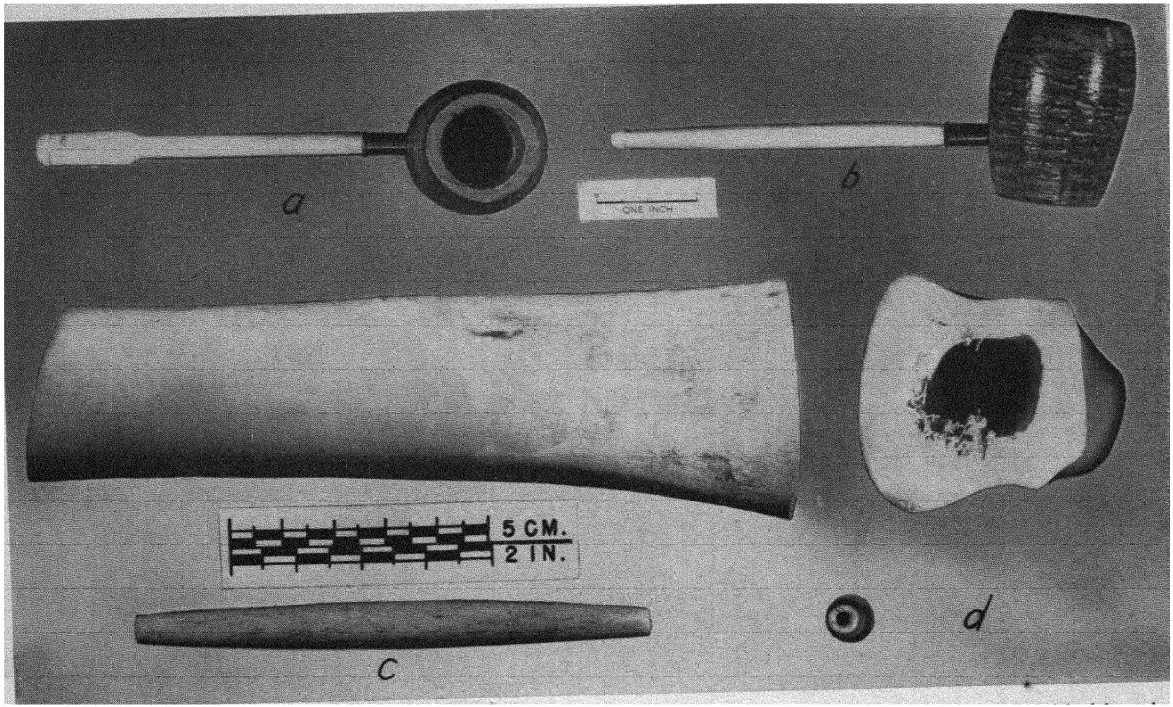
Hair pipes worn as breastplates. *a*, High Wolf, Oglala (1872). *b*, White Eagle, Ponca head chief (1877).



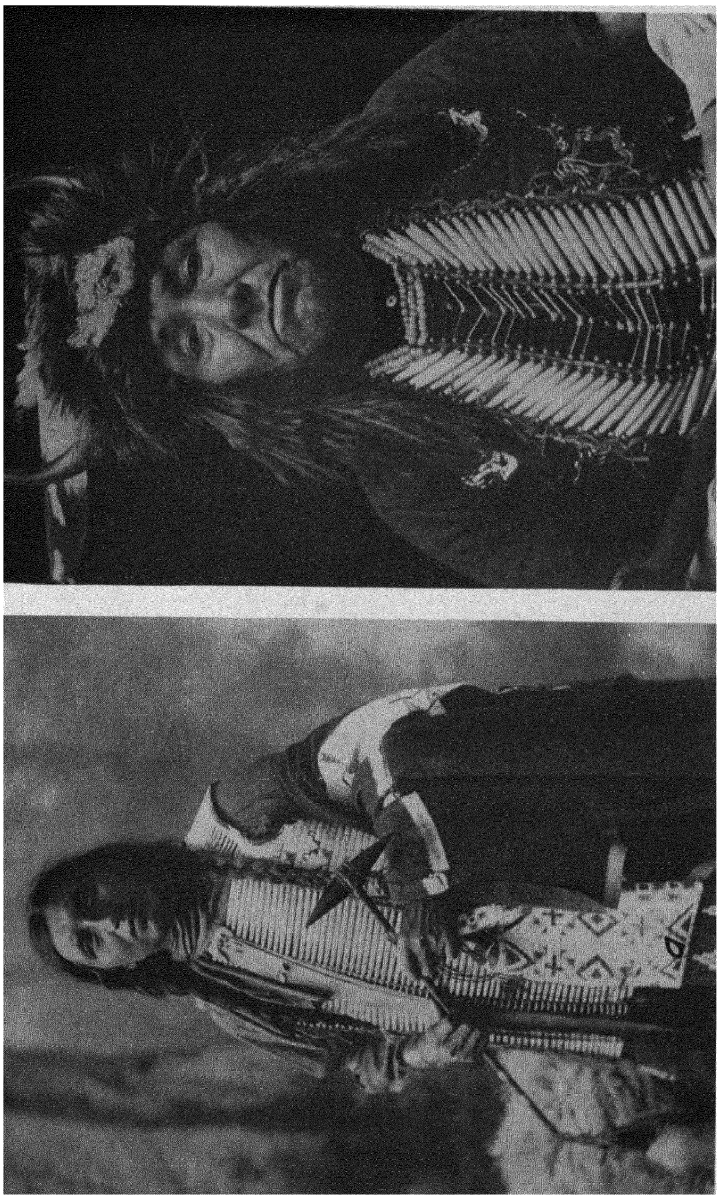
Change from dentalium-shell to hair-pipe breastplates. White Thunder, Brule, on visits to Washington: *a*, 1872; *b*, 1877.



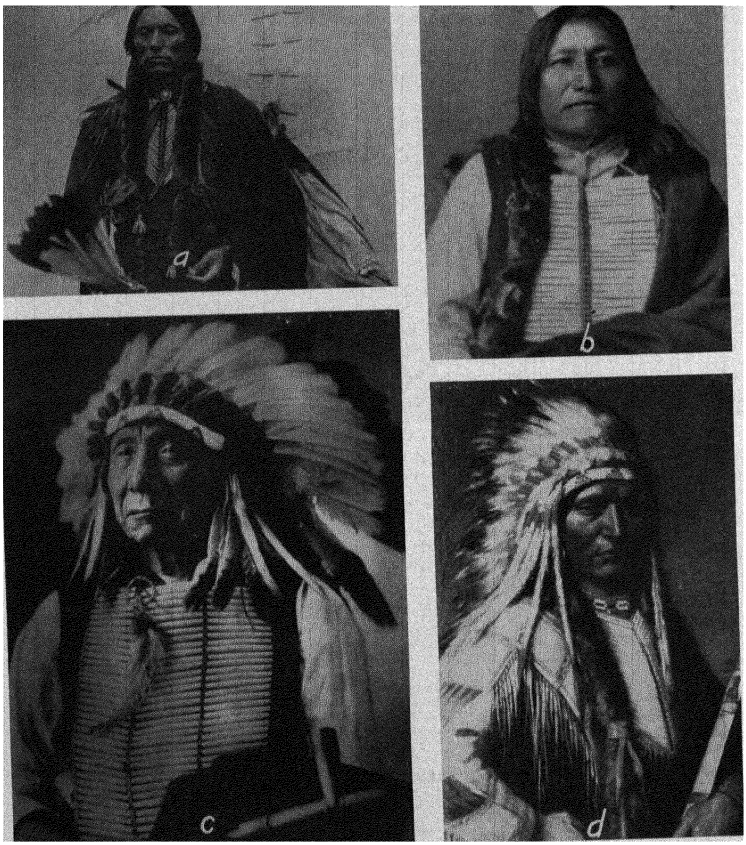
Shell hair pipes used in decoration of containers. *a*, Awl case, Mandan (1869). *b*, Kiowa toilet case (1890's). *c*, Awl case, Cheyenne (1888).



Development of the bone hair pipe. *a* and *b*, Corncob pipe with bone stem. *c* and *d*, Cattle metacarpal bone and finished bone hair pipe. Side and end views.



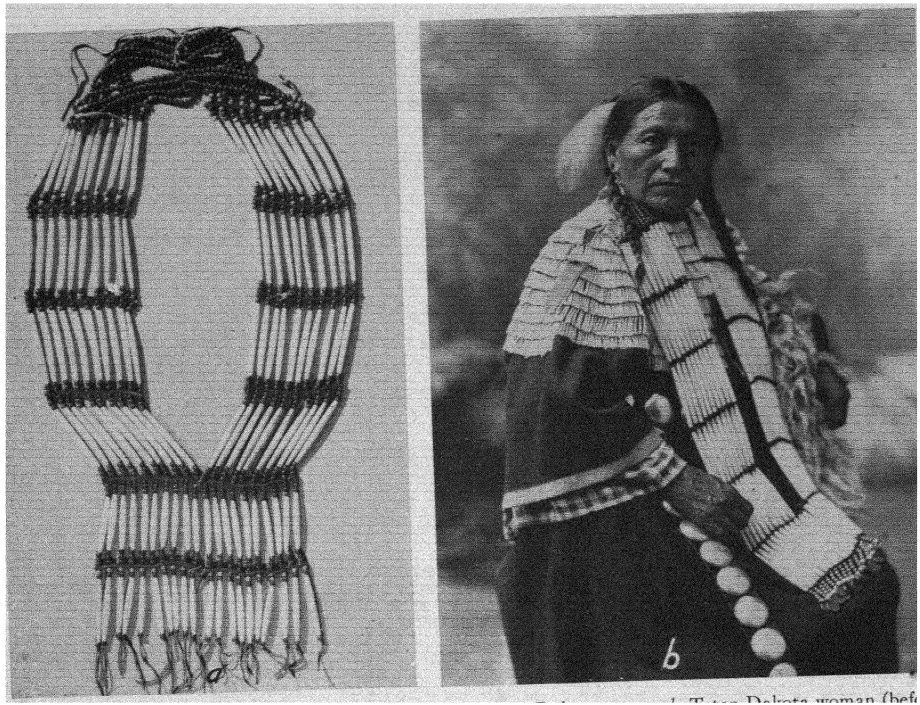
Hair pipes worn in breastplates. *a*, Teton Dakota (before 1900). *b*, Ojibwa (1911).



Famous wearers of hair-pipe breastplates. *a*, Quannah Parker, Comanche. *b*, Spotted Tail, Brule. *c*, Red Cloud, Oglala. *d*, Touching the Cloud, Miniconjou.



Woman's necklace of hair pipes, simple forms. *a*, Arapaho specimen. *b*, Oglala woman (before 1900).



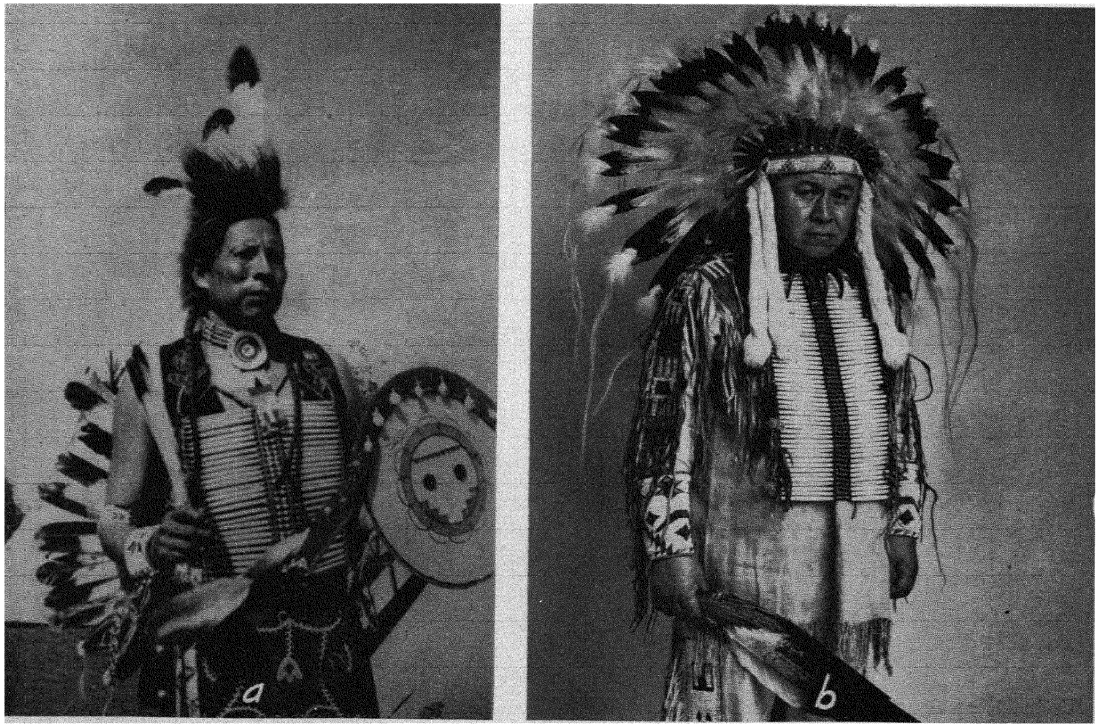
Woman's necklace of hair pipes, complex type. *a*, Specimen, Dakota type. *b*, Teton Dakota woman (before 1900).



Hair pipes worn as bandoliers. *a*, Oglala (1893). *b*, Yakima (1901).



a, Hair-pipe necklaces w[illegible], 1893. *b*, Hair-pipe breastplates worn by Assiniboin grass dancers while visiting Blood Reserve in 1893.



Recent uses of hair-pipe breastplates. *a*, Taos Indian shield dancer (1948). *b*, Crazy Bull, Hunkpapa (1948).

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OBSERVATIONS ON SOME NINETEENTH-CENTURY POTTERY VESSELS FROM THE UPPER MISSOURI

By WALDO R. WEDEL

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OBSERVATIONS ON SOME NINETEENTH-CENTURY POTTERY VESSELS FROM THE UPPER MISSOURI

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INTRODUCTION

The passing of the potter's art, as one aspect of the general cultural decline among the Upper Missouri Indians during the 19th century, remains very imperfectly documented. It is generally recognized by students that here, as elsewhere throughout the New World, the importation of metal containers by traders in the 18th and early 19th centuries foredoomed the continued manufacture of earthenware by the native peoples. By contrast with the products of pre-white and early post-white contact potters, the ceramic wares postdating the first quarter of the 19th century are usually considered drab and uninteresting. Probably few workers in the area would quarrel with the general thesis put forth by Will and Hecker (1944, p. 70):

> . . . Beginning about 1750 the decline of the Mandan ceramics was fairly gradual until about 1825. The Arikara and Hidatsa, having better trade advantages, showed an equal degree of decadence in their ceramics about 25 years earlier. After 1825 the ceramics of the three tribes was reduced to coarse pots used as storage containers, unfit for cooking. Some pottery was still being made by the three tribes (Arikara, Mandan, Hidatsa) after their removal to the Fort Berthold Site (1850–55). This late pottery, poorly made and decorated, had lost its identity as to tribal culture and was of little value either for culinary use or as decorative accessories . . . .

Such details as we have today concerning the characteristics of the Arikara, Mandan, and Hidatsa potterywares prior to 1900 are derived largely from the observations of the archeologist. These, in turn, are based almost wholly on the analysis and interpretation of surface and subsurface sherd collections gathered from village sites whose tribal identity and time of occupancy can be determined with varying accuracy from documentary or other sources. As a logical starting point for his historical interpretations, the archeologist seeks to determine the material culture complex, including ceramics, characteristic of particular tribal groups in early historic times—the earlier, the better; thereafter, his major concern is the earlier, longer, and much

less well known period preceding, on the Upper Missouri, the year 1800. With few exceptions, the later period has been left to the ethnologist and the historian. Only in comparatively recent years, as the Federal water-control program on the Missouri threatens loss of the basic data of prehistory here, have the archeologists joined with the ethnologists and historians in a serious effort to define and salvage the remains of this late period of native history.

Interesting and informative, but of limited usefulness for purposes of analysis and synthesis, are the comments which were made from time to time by various eyewitnesses—military personnel, artists, scholars, and others—who traveled or resided briefly among the Upper Missouri village Indians, mostly after 1800. These accounts, insofar as they relate to pottery making before 1900, are generally so brief and sketchy that they give little help to the archeologist. The differences in details which might be expected to have existed between villages or tribal units are seldom or never set forth. The better known contemporary accounts, indeed, do little more than confirm what is already well established—namely, that these Indians made and used pottery vessels. Understandably, therefore, few students have troubled themselves with searching out such examples as might still be extant from the decadent village Indian cultures of the 1800's.

The pottery specimens with which we are here concerned are about 25 in number. Two, oldest in the group, are credited to the Lewis and Clark expedition and were presumably collected during the winter of 1804–5; both are fragmentary. The others all appear to be considerably later in origin, having been obtained by army personnel, Indian agents, and other individuals under circumstances that are not always clear. The records accompanying these pieces include references to Forts Berthold, Buford, and Stevenson as the points of origin of particular specimens; others allude simply to the "Upper Missouri." It is impossible, therefore, to determine exactly the provenience of each and every vessel, or to be certain of the correctness of the tribal identifications offered.

Despite these uncertainties, there are a number of interesting similarities among many of the pieces. Moreover, certain consistent traits link most of them with demonstrably older ceramic materials from the Upper Missouri. Whether or not the various assertedly Mandan or Arikara vessels were actually made by a member of the stated tribe, the group as a whole is without question from the Upper Missouri country in what is now the State of North Dakota. They are of interest, therefore, as a sampling of the wares produced during the final century of pottery making in that region.

The collections of five institutions have been drawn upon in connection with the materials discussed in the following pages. Present

whereabouts of the various specimens described and illustrated are noted in the appropriate places in the text. I am under a debt of gratitude to the following persons and institutions for supplying me with photographs, descriptive notes, and provenience data relative to specimens in their custody: J. Alden Mason and Miss Frances Eyman, University Museum, Philadelphia; George G. Heye and E. K. Burnett, Museum of the American Indian, Heye Foundation, New York; J. O. Brew and J. H. Gunnerson, Peabody Museum of Archeology and Ethnology, Cambridge, Mass.; H. W. Krieger and R. A. Elder, Division of Ethnology, United States National Museum, Washington, D. C.; George F. Will, Russell Reid, and Alan Woolworth, North Dakota Historical Society Museum, Bismarck. I must also acknowledge many helpful discussions with George Metcalf, aide in the Division of Archeology, United States National Museum, who previously participated in three seasons of archeological salvage work with the Smithsonian's Missouri River Basin Survey in the Garrison Reservoir area. Now near completion, this great Corps of Engineers project will shortly drown most of the locality from which came nearly all the specimens considered herein.

In the following pages, the specimens are referred to by the catalog numbers assigned by the institution in whose custody the specimens now repose. In most cases, I have found it advantageous to accompany each catalog number by an abbreviation for the holding institution, thus: USNM, U. S. National Museum; UM, University Museum; PM, Peabody Museum; HF, Museum of the American Indian, Heye Foundation; ND, North Dakota Historical Society.

POTTERY MAKING AS REPORTED FROM THE UPPER MISSOURI

The evidence at present available indicates that the Arikara, Mandan, and Hidatsa fashioned their potteryware by the paddle-and-anvil method. Here, as Gifford (1928, p. 372) long ago noted, this was apparently a shaping, rather than a purely finishing, process. To the best of my knowledge, there is no archeological or other evidence that coiled pottery was made in the Upper Missouri region; and none of the eyewitness accounts I have seen mentions the practice. For such additional light as they throw on the potter's art here, it may be worthwhile to include some of the contemporary statements that have come down to us.

Lewis and Clark, who spent the winter of 1804–5 in the vicinity of the Mandan and Hidatsa villages, do little more than mention the fact that the nearby Indians had pottery (Thwaites, 1904–5, vol. 1, pp. 206, 281). A contemporaneous observer was Tabeau, resident trader in 1803–5 at an Arikara village just above Grand River, who wrote

(Abel, 1939, p. 149) that "They make a very hard but very coarse pottery which stands the heat well and suffices for all their cooking." More details are provided by another contemporary, Alexander Henry the Younger. Henry in the summer of 1806 visited the same Mandan and Hidatsa villages near which Lewis and Clark wintered 2 years previously; and while at Black Cat's Mandan village on the east bank of the Missouri, he wrote in part (Coues, 1897, vol. 1, p. 328):

. . . They use large earthen pots of their own manufacture of a black clay which is plentiful near their villages. They make them of different sizes, from five gallons to one quart. In these vessels nothing of a greasy nature is cooked, every family being provided with a brass or copper kettle for the purpose of cooking flesh. Whether this proceeds from superstition or not I cannot pretend to say, but they assured us that any kind of flesh cooked in those earthen pots would cause them to split. One or more of the largest kind is constantly boiling prepared corn and beans, and all who come in are welcome to help themselves to as much as they can eat of the contents. The bottoms of these pots are of a convex shape; much care is therefore required to keep them from upsetting. For this purpose, when they are put to the fire a hole is made in the ashes to keep them erect, and when taken away they are placed upon a sort of coil made of bois blanc fibers. These coils or rings are of different sizes, according to the dimensions of the several pots. Some pots have two ears or handles, and are more convenient than those with none.

Five years later, in 1811, Bradbury and Brackenridge traveled to the Upper Missouri country with separate parties. At the Arikara village later shelled by Leavenworth, some 10 miles above Grand River, Bradbury (1904, p. 169) wrote:

I noticed over their fires much larger vessels of earthenware than any I had before seen, and was permitted to examine them. They were sufficiently hardened by the fire to cause them to emit a sonorous tone on being struck, and in all I observed impressions on the outside, seemingly made by wickerwork. This led me to inquire of them by signs how they were made? when a squaw brought a basket, and took some clay, which she began to spread very evenly within it, showing me at the same time that they were made in that way. From the shape of these vessels, they must be under the necessity of burning the basket to disengage them, as they are wider at the bottom than at the top.

Brackenridge (1904, p. 116) noted merely that "They had a variety of earthen vessels, in which they prepared their food, or kept water."

Some 20 years later, when Catlin stopped briefly at the Fort Clark Mandan village in 1832, he reported (Catlin, 1841, vol. 1, p. 116):

I spoke also of the earthen dishes or bowls in which viands were served out; they are a familiar part of the culinary furniture of every Mandan lodge, and are manufactured by the women of this tribe in great quantities, and modeled into a thousand forms and tastes. They are made by the hands of the women, from a tough black clay, and baked in kilns which are made for the purpose, and are nearly equal in hardness to our own manufacture of pottery; though they have not yet got the art of glazing, which would be to them a most valuable secret. They make them so strong and serviceable, however, that they hang them over the fire as we do our iron pots, and boil their meat in them with perfect success. I

have seen some few specimens of such manufacture, which have been dug up in Indian mounds and tombs in the southern and middle states, placed in our Eastern Museums and looked upon as a great wonder, when here this novelty is at once done away with, and the whole mystery; where women can be seen handling and using them by hundreds, they can be seen every day in the summer also, moulding them into many fanciful forms, and passing them through the kilns where they are hardened.

In the following year, Maximilian spent the winter of 1833–34 at Fort Clark, and among his observations the following is of interest (Maximilian, 1906, pp. 278–279):

. . . These three nations [Arikara, Mandan, Hidatsa] understand the manufacture of earthen pots and vessels of various forms and sizes. The clay is of a dark slate color, and burns a yellowish-red, very similar to what is seen in the burnt tops of the Missouri hills. This clay is mixed with flint or granite, reduced to powder by the action of fire. The workwoman forms the hollow inside of the vessel by means of a round stone which she holds in her hand, while she works and smooths the outside with a piece of poplar bark. When the pot is made, it is filled and surrounded with dry shavings, and then burnt, when it is ready for use. They know nothing of glazing.

That there was still a considerable ceramic industry among these tribes as late as 1855–56 is suggested by Denig's account of the Arikara, who were then occupying the former Mandan village at Fort Clark. According to Denig (Ewers, 1950, p. 206):

These Indians, although dull of intellect in many respects, show considerable ingenuity in manufacturing tolerably good and well shaped vessels for cooking out of clay, wrought by hand without the aid of machinery and baked in the fire, though not glazed. These consist of pots, pans, porringers, and mortars for pounding corn. They are of a grey colour, stand well the action of fire, answer their purposes, and are nearly as strong as ordinary potter's ware. For the shape of these vessels see plate [not included] . . ."

Unfortunately, the illustration that supposedly once accompanied the Denig manuscript appears to have been lost, so that the vessel shapes he saw can no longer be ascertained.

Concerning the pottery made by, or still in possession of, the Indians in the Fort Berthold community, I have four statements. Two of these, by Boller for the period 1858–66, and by Morgan for 1862, can be said to relate to products maintaining the old traditions. According to Boller (1868, p. 259):

The Riccarees and Gros Ventres were, however, in more respects than one, in advance of the other prairie Indians. Out of a peculiar kind of clay they fashioned large pots of various shapes; after a time, from the effects of heat and use, these became hard and black like iron, and so strong that an ordinary blow with a stick or stone caused no injury. Some of the Rees still possess a few of these curious vessels, and regard them as relics of great value.

Morgan's comments (Morgan, 1871) have been given elsewhere in this paper and need not be repeated here.

From a much later period are the observations by Wilson and by Gilmore. According to the former (Gifford, 1928, p. 365), an old Mandan woman in 1910—

> . . . started the pot by making a big lump of clay and thrusting her thumbs down in the top and so beginning the inside of the pot. She built up the clay sides not by coiling, but working with her hands and thumbs. Also she used a small flat quartz stone inside for an anvil and pounded on the outside with a paddle made of a piece of rough-carved cotton-wood bark.

Gilmore (1925, pp. 286–289) gives the most detailed description extant of Upper Missouri pottery making; and while this pertains specifically to the Arikara, it presumably applies also to the Mandan and Hidatsa. He says:

> The materials used in pottery were a certain fine tenacious clay found in deposits in various places in the upper Missouri River region, together with a tempering of crushed and pulverized stone. Granite boulders of glacial origin were used to provide heat in the sweat-lodge. After being heated in fire many times for this use, they became friable, and in this condition were taken by the potters and crushed very fine. The potter took a quantity of the clay, sufficient for a pot of the size she had in mind . . . thoroughly kneaded it with her hands, and mixed with it what she judged to be a proper amount of the crushed stone for tempering. Now she shaped the tempered clay, working it out from the bottom upward to the top. When she had approximated the shape of the pot, she took in her left hand a smooth round cobblestone, which she inserted in the pot. In her right hand she took a wooden tool like a flat club, eight or nine inches long, with which she beat the clay against the shaping stone held in the other hand. When she had drawn up the clay to the proper shape and sufficiently thin, she applied the desired pattern of decoration by incision with a small pointed and edged wooden tool, or by pinching and crimping the edge of the pot with thumb and finger.
>
> When the shaping and decorating were finished, she set the pots away for 24 hours in a place where they were protected from air-currents and from jarring, during which time they became dry. For the purpose of firing the pots, a fire-bed of sufficient size, made of dry elm-wood, was laid. After kindling, this was allowed to burn to a good bed of coals. A place was hollowed out in the coals and the pot carefully placed therein. Then the coals were heaped around and in the pot, and more dry elm was laid on and around the pot, sufficient to make it red-hot. The fire was allowed to burn down, and the vessel to cool slowly and very gradually. The pot was then finished by greasing and rubbing it, which was said to give it a fine, black, glossy appearance.
>
> Elm-wood was used for the firing process for the reason that it burns quietly and steadily, not snapping and crackling as do some other species of wood.

How closely the pottery-making method detailed by Gilmore parallels that followed a hundred years before, I cannot say. The general procedure, however, is reminiscent of that briefly described by Maximilian in 1833, and there may thus be some warrant for assuming that it followed basically the aboriginal practices. As we shall see presently, however, the vessels produced in Gilmore's time, whether or not they were made in the old manner, were a sadly inferior product, and compare most unfavorably with those of a century or two earlier.

THE LEWIS AND CLARK MANDAN VESSELS

The two specimens credited to the Lewis and Clark expedition, according to the accompanying catalog data, are of Mandan origin and were collected on the "Missouri River, mouth of Knife River." An old handwritten note pasted in the paper container of one bears the following: "Ancient Mandan kettles. Their only culinary utensil." It would be interesting to determine whether this was written by Meriwether Lewis, to whom the pieces are specifically credited. I have no further direct data as to the circumstances under which these vessels were obtained.

The Lewis and Clark party wintered from November 1804 through March 1805 on the left bank of the Missouri opposite and a few miles below the Mandan village, then situated just above the site where Fort Clark was later established.[1] According to Clark, there were two Mandan villages 4 miles above Fort Mandan, on opposite sides of the Missouri; and 6 miles above the winter encampment was "Knife River on which the Minetarre and the Mahar has villages . . ." (Thwaites, 1904–5, vol. 6, p. 61). There was frequent contact between the Indians and expedition members during the winter, and it was evidently during this time that the pottery vessels, among other items, were acquired by Lewis. As a matter of fact, when the party was preparing to resume its journey upstream, Clark wrote under date of April 3, 1805, that ". . . we are all day engaged packing up Sundery articles to be sent to the President of the U. S." Then follows a listing of contents of the 4 boxes, 1 trunk, and 3 cages required for this material. Included in the list for box No. 4 is "1 Earthen pot Such as the Mandans manufacture and use for culinary purposes" (Thwaites, 1904–5, vol. 1, p. 281). I have no way of knowing whether this entry refers to one of the two pieces here under consideration, or how there came to be two specimens in the material that has survived under Lewis' name. In any case, the two pieces are at present deposited in the University Museum, Philadelphia, on a long-term loan from the American Philosophical Society and the Academy of Natural Sciences.

These two vessels, as already indicated, are fragmentary (pl. 38, *a*, *b*). One, bearing the catalog No. L–83–5a, consists of a nearly complete rim and neck, plus about 14 body sherds; the other, numbered L–83–5b, includes an incomplete rim and neck and 6 body sherds. In practically every essential detail, these two pieces parallel each other, and it would seem very probable that they are the products of a single potter.

[1] "Fort Mandan, the wintering-place of the expedition, was located on the left bank of the Missouri, seven or eight miles below the mouth of Knife River; it was nearly opposite the site of the later Fort Clark . . . [where] a fortified trading post was built in 1822 . . ." (Thwaites, 1904–5, vol. 1, p. 217, n. 1).

In both pieces, the paste is variable in color, ranging from gray to red brown. Inclusions consist of quartz and other siliceous particles; and this, plus the presence of flecks of mica, suggests that the tempering material was probably a crushed or burned granite. The ware impresses me as fairly hard and well fired, though no scratch tests were attempted. Surfaces are unevenly smoothed, and thickness of the vessel walls varies considerably.

Vessel shape cannot be fully determined; but full-bodied, medium-sized pots with constricted necks and small orifices seem to be clearly indicated. Vessel L–83–5a has a neck diameter of 11 cm. as mended; the other has a mouth diameter of 12 cm. Body surfaces from the neck downward carry an overall simple stamping, with the impressions seemingly running laterally rather than vertically to the upright vessel. The rim in each case consists of two slightly bulging parallel bands bearing diagonal single-cord impressions slanting downward to the right. These bands are separated by a plain shallow depressed zone about half as wide. From the lower corded band, two flattened handles on opposite sides of the vessel descend to the upperbody; each has crossed single-cord impressions forming an X. Alternating with the handles are two oppositely placed lugs or tabs protruding from the lower corded rim band, and each lug is ornamented with two oppositely slanted single-cord impressions to form a V.

Among the very limited and incompletely representative Mandan materials in the collections of the Division of Archeology, United States National Museum, there are none that parallel very closely the rim form and decoration of these two specimens. Search in the published literature on the Mandan region has also disclosed nothing similar, with possible exception of what appears to be a small rimsherd illustrated by Strong (1940, pl. 6, *k*) from one of the Hidatsa village sites on the Knife River. There is also a general resemblance to one or two rimsherds figured by Will and Hecker (1944, pl. 15, extreme right, second and fourth rows) in a series of Later Heart River pieces. So far as may be judged from the incomplete Lewis and Clark specimens, they appear to be closer to the Later Heart River period Mandan wares than to any other defined series; and they impress me as appreciably more like Mandan or Hidatsa pottery than like Arikara ware of the time period involved. The body treatment present is, of course, the same simple stamping so characteristic of central and northern Plains Indian potterywares of the historic period.

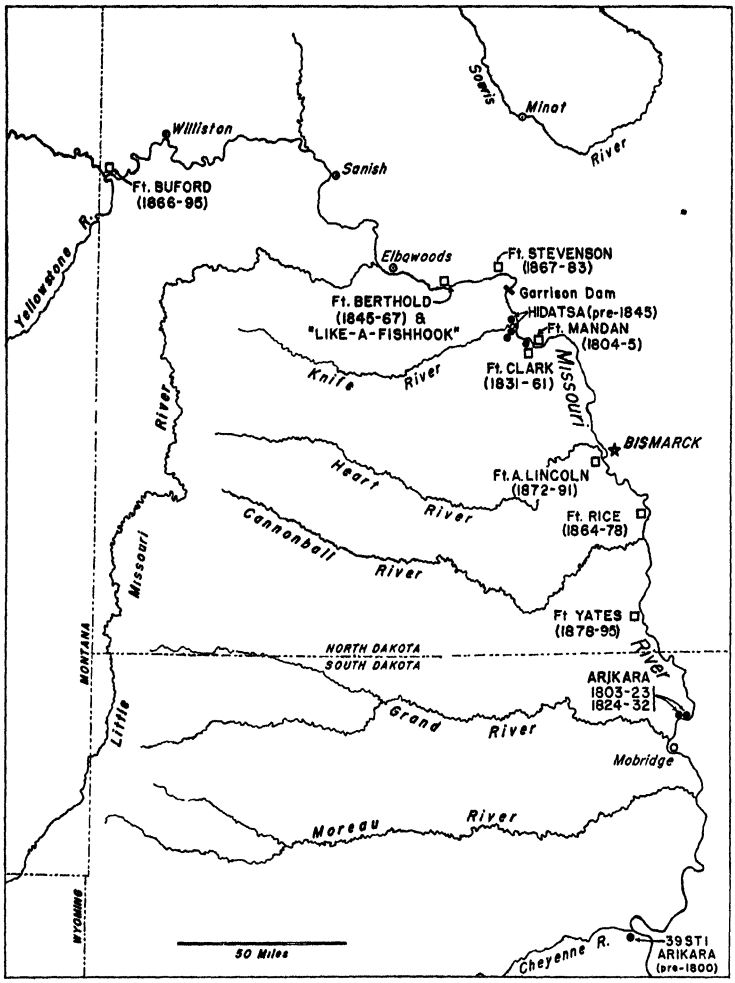
VESSELS FROM THE FORT BERTHOLD PERIOD

The remaining specimens, all probably manufactured many years after the time of Lewis and Clark, were collected in post-Civil War days. Some are specifically attributed to the Mandan or the Arikara;

but these two tribes and the Hidatsa were for years intimately associated and in later days, particularly after the smallpox epidemic of 1837, tended to live in mixed or composite communities. There would seem to be some reason, then, for questioning the specific tribal identifications offered. In point of fact, few of the vessels conform very closely in all particulars to the wares often regarded as typical of the tribes named, and it seems likely that, as Will and Hecker suggest, the tribal distinctions that unquestionably existed before 1800—at any rate as regards Arikara and Mandan wares—had pretty well broken down by the time these specimens were made. It may be worthwhile to review briefly the recorded movements of the tribes concerned after the time of Lewis and Clark.

As already indicated, the Mandan and Hidatsa villages seen by Lewis and Clark were within a few miles of one another in the vicinity of the juncture of the Knife River with the Missouri. The Hidatsa were in three villages on the Knife, the Mandan in two others a few miles down the Missouri on opposite sides of the river. Still farther downstream, some 150 miles distant by water, were the Arikara, in three villages a few miles above the Grand River (Wedel, 1955, pp. 77–81). Until 1837 the principal Mandan town, where Henry, Catlin, and Maximilian also visited, was located at the Fort Clark site, now a State park. In that year, a devastating smallpox epidemic swept away the greater part of the tribe, reducing it from perhaps 1,600 to a scant 100 souls. Some of the survivors took refuge among the less severely stricken Hidatsa on the Knife; others remained in their own village, which was taken over by the Arikara in 1838. Apparently unable to live harmoniously with the more numerous Arikara, the Mandan from Fort Clark village soon established a small village of their own a few miles upstream (see, for example, Vaughan, 1855, p. 80). Under constant pressure from the hostile Sioux and other stronger tribes, these Mandan finally moved still farther upstream to settle, apparently between 1854 and 1858, near the Hidatsa who had moved about 1845 to the vicinity of Fort Berthold, an American Fur Co. post on the north bank of the Missouri. Here the Mandan and Hidatsa were joined in 1862 by the Arikara, the latter having lived for a few months previously opposite them on the right bank of the Missouri before finally crossing and uniting with the other two tribes in a single large community.[3] Since that time,

[3] According to Washington Matthews, post surgeon at Fort Berthold (1865–66), at Fort Stevenson (1867–68), and at Fort Buford (1870–72), the Fort Clark Indian village was broken up in 1860, and the Arikara from there spent the winter of 1860–61 on a point about 8 miles above Fort Stevenson. In 1861–62, they wintered in temporary quarters above Fort Berthold, and in March 1862 they began construction of a permanent village nearly opposite that post. On August 3, before the village was finished or their crops harvested, the Sioux attacked and next day the Arikara crossed the river to join the Mandan and Hidatsa. (Report on Barracks and Hospitals, with Description of Military Posts, Surgeon General's Office, Washington, 1870.)



MAP 7.—Portion of the Upper Missouri River region in North Dakota and South Dakota, showing certain Indian village sites, military forts, and trading posts in the 19th century.

the three tribes have shared the tract designated in 1869 the Fort Berthold Reservation.

For the period with which we are here primarily concerned, then, the Mandan, Arikara, and Hidatsa were officially resident at and near Fort Berthold. It should be noted, however, that groups of varying size and composition apparently detached themselves from time to time and lived in other localities. Thus, in 1875, the agent at Fort

Berthold reported (Darling, 1876, p. 28) that "about 100 Gros Ventres [Hidatsa] . . . have spent all of their time for several years at and around Fort Buford, Dakota, 135 miles above this agency, on the Missouri River . . ."; and, further, that "quite a number of Rees and Gros Ventres enlisted as scouts at Forts Lincoln, Stephenson [sic], and Buford, having their families with them . . ." I have been unable to find any accounts concerning the native baggage such groups may have carried with them to these scattered posts.[3]

The Fort Berthold Indian village, Like-a-Fishhook, was the last of the native earth-lodge towns in the region. Shortly after the Arikara joined the community, it was visited by Lewis H. Morgan. Of interest is his observation (Morgan, 1871, p. 40) that—

> In 1862 the Arickarees were still using pottery of their own manufacture. It was of a dark color, nearly black. While at the new Arickaree village, I saw them use earthen pots to draw water from the river. One of these, which would hold about six quarts, with a string adjusted around the neck, was let down into the Missouri, filled and then carried to the lodge. It was of the usual shape of earthen pots or water jars, slightly contracted at the neck and bordered with a rim, around which the string was secured.

Morgan makes no mention of Mandan or Hidatsa pottery at this time, nor does he give any additional details regarding Arikara wares. His brief comments on vessel shapes and the use of a carrying cord are of especial interest in view of the several specimens about to be described from Fort Berthold.

VESSELS ASCRIBED TO THE MANDAN

In this group I have included 11 vessels, 7 of which are specifically attributed to the Mandan in the accompanying catalog or provenience records. For the others there are no tribal identifications, but since they share a good many characteristics with those called Mandan, I have chosen to consider them under this general heading. I have the impression that these 11 pieces tend to fall into two or more subgroups which may have chronological significance.

Four of the vessels are strikingly alike in size, form, and other details (pls. 39, 40). They include two specimens (USNM 6348 and USNM 8407) in the Division of Ethnology, United States National Museum; one (L–37–52) in the University Museum, Philadelphia; and one (87–11–10/40900) in the Peabody Museum of Archeology and Ethnology, Harvard University. One (or both?) of the National Museum specimens was received from the Army Medical Museum in

[3] Fort Berthold (1845–67) and its nearby Indian village, "Like-a-Fishhook", was situated about 16 miles downstream from present Elbowoods, N. Dak., on the north or left bank of the Missouri. Fort Stevenson (1867–83) was some 15 miles farther east, 9 miles southwest of present Garrison. Fort Buford (1866–95) was also on the north bank of the Missouri, opposite the mouth of the Yellowstone River and a few hundred yards east of the present Montana line. Fort Abraham Lincoln (1872–91) was 4½ miles south of present Mandan, on the right bank of the Missouri (map 7).

1868–69, in all likelihood within a year or so of the time they were actually collected. USNM 8407 (pl. 39, *a*) is identified in the accompanying catalog record as "Fort Stevenson. Mandans. Dakota Territory"; USNM 6348 (pl. 39, *b*) is designated "Mandan. Dakota Territory." Both are credited to Drs. C. C. Gray and Washington Matthews. In the annual report of the Smithsonian Institution for 1869, in an account of ethnological collections received, I find the following:

> . . . The post surgeons stationed at the military posts on the Upper Missouri, chiefly within the Territory of Dakota, have shown much zeal in collecting objects to illustrate the pursuits and customs of the numerous tribes occupying the country bordering on this river. First among these, in point of interest, are the collections of Surgeon C. C. Gray and Dr. Matthews, United States Army, stationed for some time at Fort Berthold . . .

In the listing of specimens that follows, there is mention of "an earthen pot," which would seem to be Gros Ventre, i. e., Hidatsa, in origin. If this refers to either of the two National Museum pieces, I am inclined to suspect it is USNM 8407.

The University Museum piece, L–37–52 (pl. 40, *a*), is cataloged merely as "Upper Missouri. Mandan"; and it is reported to have been "collected by Franklin Peale (Brevet General Alfred Scully)." So far as I have been able to ascertain, Franklin Peale was never in the Upper Missouri region; and my efforts to identify Brev. Gen. Scully through the military records at National Archives have been wholly unsuccessful. I suspect that the officer in question is actually Gen. Alfred Sully, who campaigned against the Sioux in the Upper Missouri country from, approximately, 1863 to 1866, and who established Forts Sully and Rice. In the course of his campaign from Fort Rice to Devils Lake in 1865, Sully wrote at least one letter, dated August 8, 1865, from Fort Berthold, signing this document as Brevet Major General. In 1867, reporting on a council with the Sioux at Fort Sully, he signed as Brevet Brigadier General, President of Commissioners. General Sully might, thus, have had opportunity to acquire materials from the Fort Berthold Indians; on his subsequent relationships with Franklin Peale I have no information (see also Peale, 1869, p. 433 and pl. 10, fig. 1).

The Peabody Museum specimen, 87–11–10/40900 (pl. 40, *b*), was collected by the Reverend C. L. Hall in 1886. The original entry in the catalog gives as its locality "Fort Berthold Mission, Sioux Reservation, Dakota"; but at some later date, the word "Sioux" has been crossed out and the following added: "Probably Mandan or Hidatsa." There is also a further notation in the catalog, "Made about 20 years ago—no longer in use." If, as seems likely, this note is from Hall, the piece would date from about the same time as the Gray-Matthews

vessels in the National Museum and the Sully-Peale specimen in the University Museum.

I have personally examined the first three vessels discussed above; data regarding the Peabody Museum piece have been furnished me by James Gunnerson through Dr. J. O. Brew. The first three are made of hard, well-mixed, and well-fired clay, ranging in color from light buff or orange gray to very dark gray. All are thick walled and relatively heavy. Firing clouds are apparent on all, especially on the National Museum specimens. Quartz and mica particles are visible in the paste, and tempering was probably derived from crushed or burned granite. In form the vessels may be described as full bodied and nearly globular, with constricted neck and wide mouth, a braced or collar-like rim 20 to 24 mm. wide, and a thick flat lip. All have the exterior body surfaces covered with simple stamping, in which the impressions run vertically toward or to the base. So far as I can judge, the Peabody Museum piece shares practically every feature so far enumerated here and fits well into the series. The following measurements indicate the relative uniformity in size and proportions:

	USNM 6348	USNM 8407	UM L-37-52	PM 40900
	Cm.	*Cm.*	*Cm.*	*Cm.*
Body diameter, maximum	16. 8	17. 8	17. 2	23
Diameter of orifice	13. 8	14. 5	16. 5	
Height, maximum	15. 8	16. 5	15. 2	22

The similarities also extend to the rim decoration and appendages, though there is some variation in details. On all four vessels, the panellike outer rim surface is decorated with slanting single-cord impressions. USNM 8407, UM L–37–52, and PM 40900 have two oppositely placed loop handles extending from the rim down to the upperbody; alternating with these and also oppositely placed are two triangular areas formed by drawing the lower edge of the rim downward to form short lugs or tabs. On the loop handles of the first two (USNM 8407 and UM L–37–52) and bordering the triangular areas above them are two crossed single-cord impressions forming an X. In the upper angle formed by these crossed impressions is a round punctate and still higher up, just below the vessel lip, is a row of 5 such punctates (UM L–37–52) or of 3 punctates (USNM 8407). The triangular space above the lugs on USNM 8407 has 3 round punctates, 1 below and 2 above; on UM L–37–52 there are 4 punctates in these spaces, 1 below and 3 above. PM 40900 has the upper part of the handles bordered by single vertical cord impressions; between these, the triangular area is filled with three rows of punctates. The lugs and the small area immediately above also carry punctate decoration. The fourth specimen, USNM 6348, resembles the above three, except that the two loop handles have been replaced

by two additional lugs. On these, the triangular area is set off by two parallel single-cord impressions forming a V with a single round punctate in the bottom angle and three round punctates across the top just below the lip. The other two lugs are marked, as in USNM 8407, with three punctates.

In all four of these specimens, the decorated areas just described above each handle and lug separate the rim panel into four equal segments in which the single-cord impressions slant downward to the right in one segment, to the left in the next, and so on alternately around the pot. PM 40900 is unique in having the flat inward-sloping-lip relieved by a line of punctates, and in having "four dots of red paint on the shoulder."

Of the three specimens I have handled, two seem to have been used very little and show no evidence of protracted service over the fire. The third, UM L–37–52, has a partial coating of charred organic matter, possibly scorched foodstuff. It would seem to me that, as utility or culinary vessels, any of these pieces would have been fully as serviceable and quite as durable as much of the pre-1800 potteryware found on Upper Missouri village sites. Except as to size, they could well be the sort of vessels Morgan saw in use among the Arikara in 1862.[4]

There is a fifth pot which closely resembles the foregoing pieces in its basic form, size, and proportions, but lacks rim ornamentation and appendages. It carries the United States National Museum No. 167144, and is one of a series of ethnological specimens acquired from the widow of Brig. Gen. W. B. Hazen, who was stationed at Fort Buford in 1872 and after. There are no other details as to provenience or tribal origin. The vessel (pl. 43, *a*) measures 17.6 cm. in maximum diameter, 16.3 cm. in height, and 14 cm. in orifice diameter. Simple stamping covers the entire body below the neck; the collared and slightly out-curved rim and the lip are plain. The piece is fire or smoke blackened, and bears traces of charred carbonaceous matter on the upper interior and exterior surfaces. I am inclined to suspect that the vessel is approximately contemporaneous with the four described in the foregoing series and may have been manufactured at about the same time.

A second series of three vessels from Fort Berthold includes pieces that are smaller and less carefully made than those just described, but

[4] In recent excavations for the North Dakota Historical Society at Like-a-Fishhook village, Howard (MS.) reports two kinds of potsherds, neither abundant, which he designates Fishhook A (unsmoothed) and Fishhook B (smoothed). He notes that "A highly decorated wedge-shaped rim, having a design consisting of chevrons and triangles formed by cord-impressed lines, and sometimes punctate dot designs in addition, is associated with the Fishhook A (unsmoothed) body treatment". There may be some relationship between Howard's Fishhook A (unsmoothed) ware and the four vessels just described, though both samples are rather limited for definitive comparisons.

still show certain definite similarities. One is in the University Museum and carries the No. 10884 (pl. 41, *a*); the other two are in the collections of the North Dakota Historical Society and are numbered 553 and 8294 (pl. 41, *b*, *c*). The University Museum specimen was collected by H. N. Rust and is said to have come "from the Mandans at Berthold, the only one I have ever had of the Sioux." I have no further information as to when or how it was gotten from the Indians; but a letter from Rust, dated May 9, 1877, in the correspondence files of the National Museum, says that he had gathered "many specimens in the past twenty years." Whether this particular vessel was obtained by Rust during the period specified or later, there appears to be no way of determining at this time. For the two North Dakota vessels, the source is given as Fort Berthold, but without date or tribal identification.

All three of these vessels have globular, somewhat asymmetrical, bodies, constricted necks, and wide mouths; the rims are thickened and heavy, with plain rounded lip. At four evenly spaced points, the lower edge of the rim has been drawn downward to form triangular lugs which rest flat against the neck. The bodies are simple stamped; in UM 10884 the impressions are vertical, whereas in ND 553 and ND 8294 they are horizontal and partially obliterated. In size, they range as follows:

	UM 10884 *Cm.*	ND 553 *Cm.*	ND 8294 *Cm.*
Body diameter	14. 2	15	13. 7
Height, maximum	13. 5	13. 7	14

Decoration, simple and crude, is confined to the rims and lugs. On UM 10884 it consists of two parallel horizontal single-cord impressions, uneven and sloppily done, which bend downward at each lug to form a double V; in this V, about on a line with the upper cord impression, are two carelessly made round punctates. On ND 8294 there are also two horizontal single-cord impressions which dip at each of the four lugs but lack the punctates here. On ND 553 each of the lugs is set off by an upward-bowed "rainbow" of two or three single-cord impressions; otherwise the rim is undecorated.

The general shape and size of these three pieces, the use of simple stamping on the body, the thickened rim with four flat lugs, and the use of single-cord impressions on rim and lugs, are all reminiscent of the better done vessels in the preceding series. Despite their crudeness and generally clumsy look, there is no doubt that they belong to the same ceramic tradition that produced the better made pieces. All three, and particularly the two North Dakota Historical Society pieces, can be fairly described as decadent. It would be most inter-

esting to know at what date they were obtained from the Indians, and how long they had been in use at that time.[5]

In marked contrast to the foregoing specimens are the next three (pl. 42), which are also attributed to the Mandan at Fort Berthold. These include one (pl. 42, *a*) from the University Museum (No. 38258B); and two (pl. 42, *c*, *d*) from the Museum of the American Indian.

The University Museum specimen was collected by Thomas Donaldson from John S. Murphy, Indian agent at Fort Berthold, in July 1890. An accompanying statement, evidently by Murphy, identifies it as a—

> Specimen of Mandan pottery. This kind of pottery has been used by the Mandans for centuries. The smallest of these three [sic] pots is said to be 62 years old. It was secured from Big [or Bad?] Gun, Chief of the Mandans.

This is a thick-walled globular piece with flattish bottom and heavy rounded lip, generally more or less reminiscent of the so-called "coconut" jars (pl. 42, *a*). It is heavily tempered with angular siliceous particles, and gives evidence of having been much used. Beginning at the lip and running down the sides are partially obliterated markings which I cannot certainly identify; they suggest cord roughening rather than simple stamping. Measurements include: body diameter, 12.2 cm.; orifice diameter, 10.5 cm.; height, 10 cm.

What is presumably another of the three pots mentioned by Murphy, originally bearing the University Museum catalog No. 38258A, was subsequently exchanged with the Museum of the American Indian and now carries that institution's No. 1/6697 (pl. 42, *d*). I am advised (Burnett to Wedel, letter of January 15, 1953) that the information supplied at the time of the exchange is that "this piece was a part of the Thomas Donaldson Collection." I have not seen the vessel; but the photograph provided by the Museum of the American Indian identifies it as "black ware," 12.7 cm. high, with a rim diameter of 12.7 cm. In form it is globular and round bottomed, with constricted neck, outcurving rim, and thick rounded lip. Below the neck there are partially obliterated markings, both vertical and crisscrossed, that suggest cord roughening but may be simple stamping. This piece would appear to be slightly larger than the University Museum piece, 38258B; which, if either, was the 62-year old vessel mentioned by Murphy I cannot say.

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[5] Since completion of this manuscript, I have had opportunity to examine briefly at the American Museum of Natural History another group of pottery vessels from the Upper Missouri. Among these, one collected by Wissler in 1904 and described as an "unfired Mandan pot," closely resembles the two in Bismarck (Weltzner to Wedel, letter of May 18, 1954). Less obvious resemblances are shown by other vessels, collected by Wilson in 1909–11. All this suggests that these "decadent" vessels were actually made and in use later than the several specimens (USNM 6348, USNM 8407, UM L–37–52, and PM 40900) I have described from the period of the 1860's at Fort Berthold.

The third piece, No. 13/7826 (pl. 42, *c*) in the collections of the Museum of the American Indian, is also described as "black ware"; it is 13.4 cm. high and has a rim diameter of 10.8 cm. The body is globular, the neck constricted, and the rim outcurved to suggest the familiar S-shaped rim found on earlier Mandan wares. It, too, appears to be a relatively thick-walled vessel with heavy plain rounded lip. Below the neck there are vertical impressions from a simple stamp, the markings apparently extending downward onto the base. No ornamentation is visible on the rim. There is no documentation for this piece, which was acquired in 1926 through purchase and is "presumed to be Mandan" (Burnett to Wedel, letter of January 15, 1953).

An interesting group of six pottery vessels is shown in an old photograph sent me by Alan Woolworth of the North Dakota Historical Society. According to Mr. Woolworth (letter of February 12, 1954), they are on "an old stereo photograph which was in the collection of a D. W. Longfellow, who was a trader at Fort Berthold reservation from 1877–79. The photographs were made by an O. S. Goff, who was a pioneer photographer at Bismarck in the 1870's and 1880's. On the back of this stereo was the notation, 'Pottery made by Mandan women.'" In a later letter, Woolworth observes that "I am quite sure that this photo was taken in the late summer of 1879 at Like-a-Fishhook Village. Several of the Goff photos of this same series bear dates of that period."

In the group shown here (pl. 43, *b*), there are two double-mouthed vessels that have no counterpart in form, so far as I am aware, in other late pottery reported to date from the Fort Berthold locality or elsewhere on the Upper Missouri. The other four pieces apparently present no anomalies, unless perhaps in the somewhat unusual type of lug suggested on the uppermost piece in the pile. The squarish rim on the specimen in the foreground is of some interest, but is probably within the range of variation that might be expected in the local tradition. Most or all of the vessels have body markings, which I would presume represent simple stamping or, less probably, cord roughening.

VESSELS ASCRIBED TO THE ARIKARA

These may be divided into two groups. One, consisting of two vessels, includes pieces made during the 19th century; the other, including about a dozen specimens, comprises products of the present century. Altogether, they may be said to epitomize the history of native pottery making on the Upper Missouri in the past century and a half.

The two earlier vessels include one in the Division of Ethnology, United States National Museum (No. 167141), and one in the Museum of the American Indian (No. 20/1401). The first (pl. 44, *a*) is among the objects presented in 1892 by Mrs. Mildred M. Hazen, widow of Brig. Gen. W. B. Hazen. The circumstances surrounding Brig. Gen. Hazen's acquisition of the vessel are not stated; but his service record indicates that he was stationed at Fort Buford, Dakota Territory, intermittently from 1872 until the mid-1880's. It is presumed that he secured the vessels during that period.[6] There is no tribal identification in the record.

The vessel is globular and round bottomed, with constricted and relatively high neck, narrow collared rim, thin sharpish lip, and wide mouth. The surface color is blotchy, ranging from dull orange to nearly black. Quartz inclusions, many of them rounded, suggest sand tempering; few mica flecks are visible. The piece is hard and well fired. Measurements are: body diameter 18.7 cm.; height 19.7 cm.; orifice diameter 13.5–15 cm. There is some restoration but this in no way affects the measurements or form of the piece. Traces of unburned organic matter adhere to the lower interior surface.

Beginning at the base of the high plain neck, the body is covered with simple stamping in which the impressions run vertically to the base. The rim is collared, 10–12 mm. wide, and bears short single-cord impressions slanting downward to the right. Two narrow, flattened strap handles, oppositely placed, extend from the lower edge of the collar to join the vessel about halfway down the neck. The slanted cord impressions are carried down over the upper part of the handles. Alternating with the handles are two slight projections from the lower edge of the rim collar—tabs rather than lugs, whose decoration is merely a continuation of that on the rim generally. The vessel, as a whole, is about as well made as any of those discussed in this paper, and the cord impressions are appreciably finer than those in the two "Mandan" pots in the national collections.

Despite the lack of any tribal identification in the record, it seems very probable that this vessel is Arikara. In shape and decoration, the rim is characteristically Arikara of the latter 18th century; and judging from the collections made by myself for the River Basin Surveys in a contact Arikara village site (39ST1) at the mouth of the Cheyenne River in 1951, small loop or strap handles and rim tabs or lugs also occur with some frequency. On the whole, the piece conforms much more closely to what is generally regarded as Arikara than it does to Mandan wares of the Upper Missouri region.

[6] Bushnell (1922, pl. 41, *b*) illustrates this specimen but gives incorrectly both the catalog number and the collector. The legend accompanying his figure cited pertains to USNM 8407, described elsewhere in this paper.

The vessel in the Museum of the American Indian (No. 20/1401; pl. 44, *b*) is credited to De Cost Smith, with the further identification as Arikara from the Fort Berthold Reservation. Described as "brown ware," it was "made in June 1886 by a woman said to be the last potter in the tribe." The piece stands 19 cm. high and has a rim diameter of 12.7 cm. It has a globular body, constricted neck, and outcurving thickened (or S-shaped?) rim. The body is covered with simple stamping, but in contrast to the preceding piece, this has the impressions running horizontally. On the rim are single-cord impressions, apparently slanting downward slightly to the right. There are four evenly spaced tabs extending out from the lower edge of the collar; the only one clearly visible in front view has two crossed single-cord impressions which I presume are repeated on the other three tabs. My impressions, derived from the photograph, are that this piece is generally somewhat cruder than is the Hazen specimen described immediately above.

In sharp contrast to the 19th-century pottery we have been considering are the recent products of the Fort Berthold Indians. A series of these late creations, most of them collected by Melvin R. Gilmore for the Museum of the American Indian (Gilmore, 1925), is illustrated herewith (pl. 45); there is another specimen, collected by Frances Densmore in or before 1923, in the Division of Ethnology, United States National Museum (No. 361907).[7] Generally, they are thick heavy plainware pieces, ranging in maximum dimension from 8 to 13 cm., up to 12 or 15 mm. thick, and representing chiefly bowl forms or small globular jars. Rims show little or no elaboration and are without ornamentation; body stamping is absent or extremely rare. One small jar has two horizontally pierced lugs or small handles. The National Museum piece is red and highly polished, but very thick and heavy. All doubtless were fashioned by lump modeling, as described by Gilmore (1925, p. 287). By comparison with the 19th-century wares, this is a crude, clumsy, and generally unattractive product; and it shows little or no resemblance to the better pottery of the old days.

GENERAL OBSERVATIONS

The pottery vessels considered in this paper represent a time span of something more than a century—from Lewis and Clark in 1804 to M. R. Gilmore and Frances Densmore about 1920. To what extent they truly sample the potterywares produced on the Upper Missouri

[7] Attached to this specimen is the following handwritten label: "Jar made by 'Kate,' an Arickara woman living on the Fort Berthold reservation in N. D. She is said to be the only woman of her tribe, in this locality, who can make pottery. She makes it entirely 'in the old way.' She surrounds the process with considerable mystery. She makes very few pieces—only making one once in a while, 'when she feels just like it.' She allows no one to see a jar until it is finished."

during this period I am unable to say. In general, the fieldwork done here to date would seem to indicate that native pottery was both scarce and of poor quality. I would suppose, therefore, that the present series may give disproportionate prominence to the better pieces of the time as compared to the general run of such domestic ware as was still being made. For a wider random sampling and fuller details, we shall still have to await publication of full reports on recent archeological salvage operations at Fort Berthold and other mid-19th century village sites along the Missouri above Bismarck.

Whatever the shortcomings of the present series, it seems to me that the vessels nevertheless afford some interesting insights into the late stages of aboriginal pottery making on the Upper Missouri. The two pieces credited to Meriwether Lewis may or may not be representative of early 19th-century Mandan-Hidatsa wares; with respect to form, decoration, and workmanship, they still carry the marks of an industry in which there were both technologic competence and a measure of artistic ability. I suspect they would not be at all out of place in pottery collections from late 18th- and early 19th-century Mandan and Hidatsa village sites, though they might constitute a minority ware or rim style. The first group of vessels described from Fort Berthold (pls. 39, 40), perhaps related to Howard's Fishhook A (unsmoothed) ware, seems to carry on the old tradition with regard to paste, tempering, rim ornamentation, and the presence of handles and lugs; but the decoration is coarser, the workmanship less competent, and the product is utilitarian rather than esthetic. Since these pots were collected in the 1860's, they suggest that some of the potters, at least, were still fairly capable technologists, even though the artistic standards to which they labored were obviously lower than those of an earlier day. The cruder and more carelessly made pieces (pls. 41, 42), still retaining the quartered rim with four appendages, are yet further along the road to decadence in all particulars, although it is not entirely certain that they were all actually of later manufacture than the better Fort Berthold vessels. That these specimens were actually of Mandan manufacture, as a good many of the records allege, is by no means established; they may represent the dominance of a Hidatsa variant of the old Mandan-Hidatsa tradition, itself not yet very clearly or adequately defined.

The vessels ascribed to the Arikara illustrate even more strikingly the falling apart of the old tradition. The Hazen piece, which may be a well cared for heirloom or perhaps was made to order by some old potter, impresses me as close to the Arikara products of the late 18th century. The De Cost Smith vessel shows relationships in rim form and other details, but can hardly be called anything else than decadent, even though there is no way of saying how far apart this and the

Hazen piece were in time of manufacture. The last group of specimens, Arikara-made in the early 20th century, is a long way indeed from the traditional products of this tribe in early white and pre-white days.

As a group, the vessels here considered help to document the view of a steadily degenerating native craftsmanship throughout the 19th century among the Arikara, Mandan, and Hidatsa pottery makers. Whether this decline began as early as Will and Hecker (1944, p. 70) suggest will depend on studies of a larger sampling than is here available. It would appear, however, that their conclusion that after 1825, "the ceramics of the three tribes was reduced to coarse pots used as storage containers, unfit for cooking . . . and of little value either for culinary use or as decorative accessories . . ." is perhaps a bit too strong. Some, at least, of the native potters as late as the 1860's were capable of producing highly serviceable, if not very ornamental, potteryware.

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EXPLANATION OF PLATES

PLATE 38

Fragmentary pottery vessels collected by Lewis and Clark near mouth of Knife River, N. Dak., about 1804–5. *a*, University Museum No. L–83–5a; *b*, University Museum No. L–83–5b. Photographs from University Museum.

PLATE 39

Pottery vessels collected by Drs. C. C. Gray and Washington Matthews before 1868; probably from Like-A-Fishhook village, Fort Berthold, N. Dak., and said to be Mandan. *a*, United States National Museum No. 8407, height 16.5 cm.; *b*, United States National Museum No. 6348, height 15.8 cm.

PLATE 40

Pottery vessels, probably from Like-A-Fishhook village, Fort Berthold, N. Dak. *a*, University Museum No. L–37–52, height 15.2 cm.; Franklin Peale collection. *b*, Peabody Museum of Archeology and Ethnology, Harvard University, No. 87–11–10/40900, height 22 cm.; collected by Rev. C. L. Hall on Fort Berthold Reservation, 1886, and said to have been "made about 20 years ago."

PLATE 41

Pottery vessels from Fort Berthold, N. Dak. *a*, University Museum No. 10884, height 13.5 cm.; collected by H. N. Rust; *b*, North Dakota Historical Society No. 553, height 13.7 cm.; *c*, North Dakota Historical Society No. 8294, height 14 cm.

PLATE 42

Pottery vessels from Fort Berthold, N. Dak. *a*, University Museum No. 38258–B, height 10 cm.; collected by Thomas Donaldson from John S. Murphy, Indian agent, Fort Berthold. *b*, MAI–HF No. 1/3801, height 12.7 cm.; collected by Gilbert Wilson from Long Fight, Mandan, at Fort Berthold reservation. *c*, MAI–HF No. 13/7826, height 13.3 cm.; Mandan; by purchase. *d*, MAI–HF No. 1/6697, height 12.7 cm.; Mandan, Fort Berthold, by exchange from University Museum.

PLATE 43

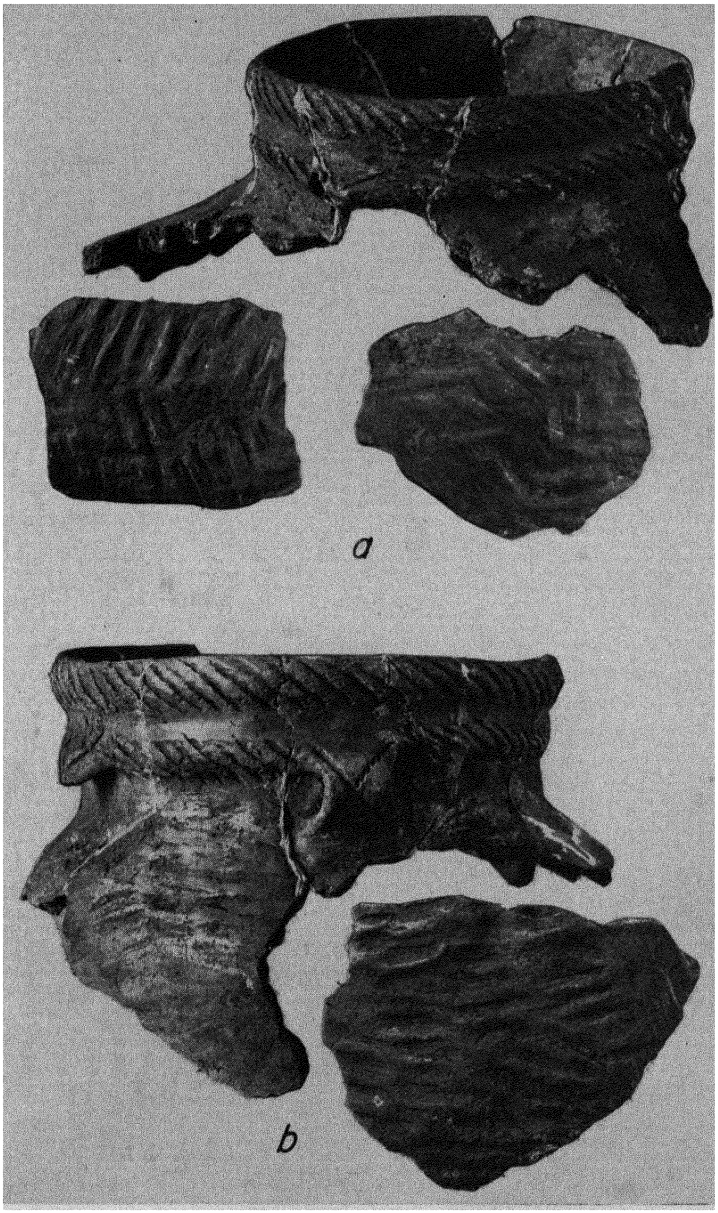
Pottery vessels from Fort Berthold, N. Dak. *a*, United States National Museum No. 167144, height 16.4 cm.; Hazen collection, exact provenience unknown. *b*, Group of pottery vessels "made by Mandan women"; photographed by O. S. Goff, probably at Like-A-Fishhook village in the summer of 1879.

PLATE 44

Pottery vessels, probably Arikara, from Fort Berthold, N. Dak. *a*, United States National Museum No. 167141, height 19.8 cm.; "Dakota Territory, probably Fort Buford"; Hazen collection. *b*, MAI–HF No. 20/1401, height 19 cm.; "made in June 1886 by woman said to be last potter in tribe"; collected by De Cost Smith, Fort Berthold Reservation, N. Dak.

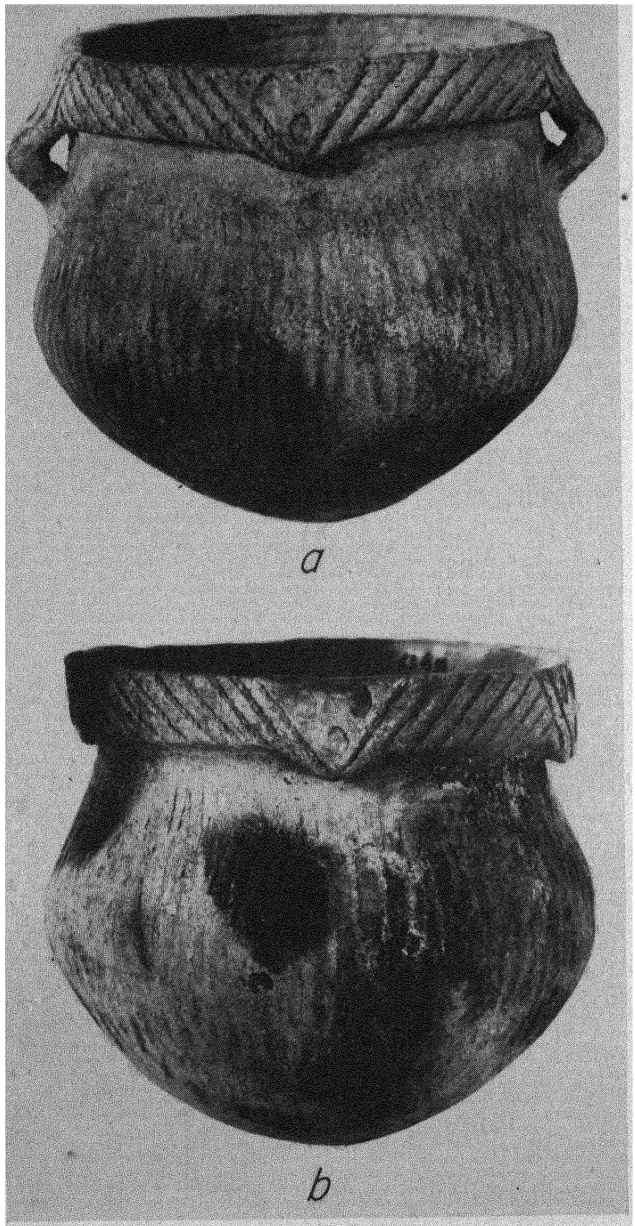
PLATE 45

Recent pottery vessels from the Arikara, Fort Berthold, N. Dak., collected by M. R. Gilmore; photographs from Museum of the American Indian, Heye Foundation. *a*, Pottery medicine cup, height 4.5 cm.; MAI–HF No. 12/3050. *b*, Pottery jar made by Mrs. Red Tail, 1920, height 8.3 cm.; MAI–HF No. 13/9445. *c*, Pottery bowl, height 7 cm.; MAI–HF No. 13/2840. *d*, Pottery jar made by Mrs. Red Tail, September 1916; height 8.3 cm.; MAI–HF No. 12/3047. *e*, Pottery bowl, height 9.2 cm.; MAI–HF No. 13/2838. *f*, Pottery jar, height 13.3 cm.; MAI–HF No. 14/1689. *g*, Pottery bowl, height 9.5 cm.; MAI–HF No. 12/3051. *h*, Pottery bowl, height 8 cm.; MAI–HF No. 13/2839.



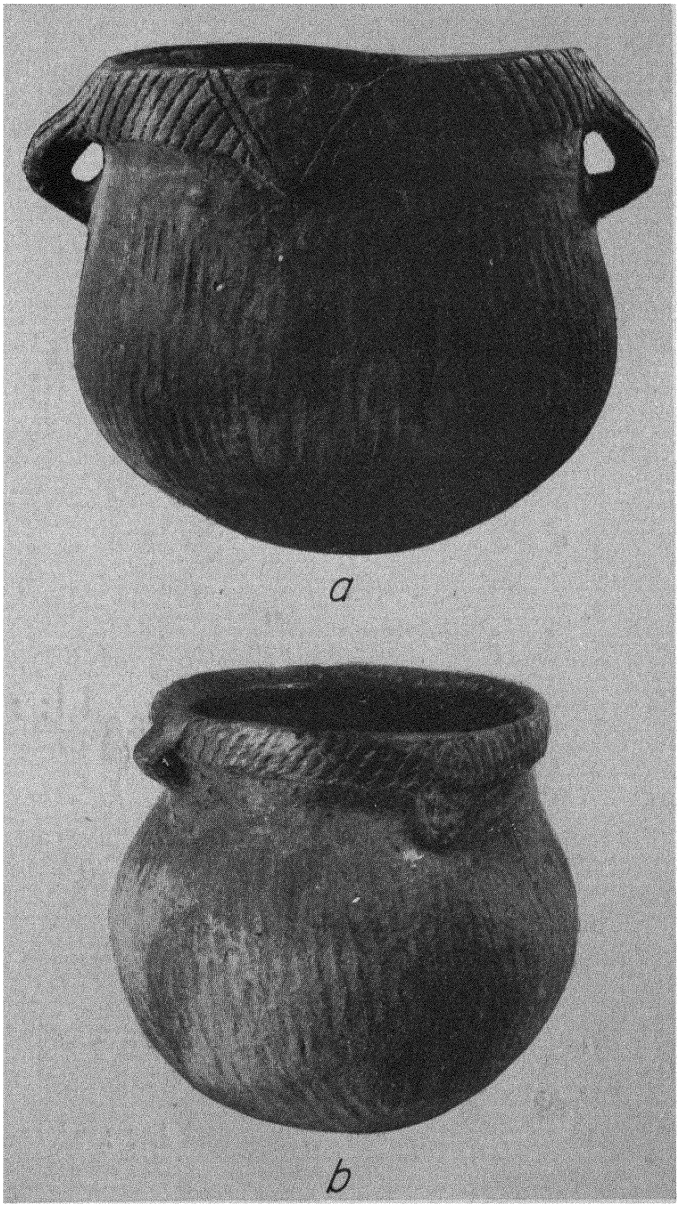
Fragmentary pottery vessels collected by Lewis and Clark near mouth of Knife River about 1804–5. (Photograph from University Museum.)

(For explanation, see p. 113.)



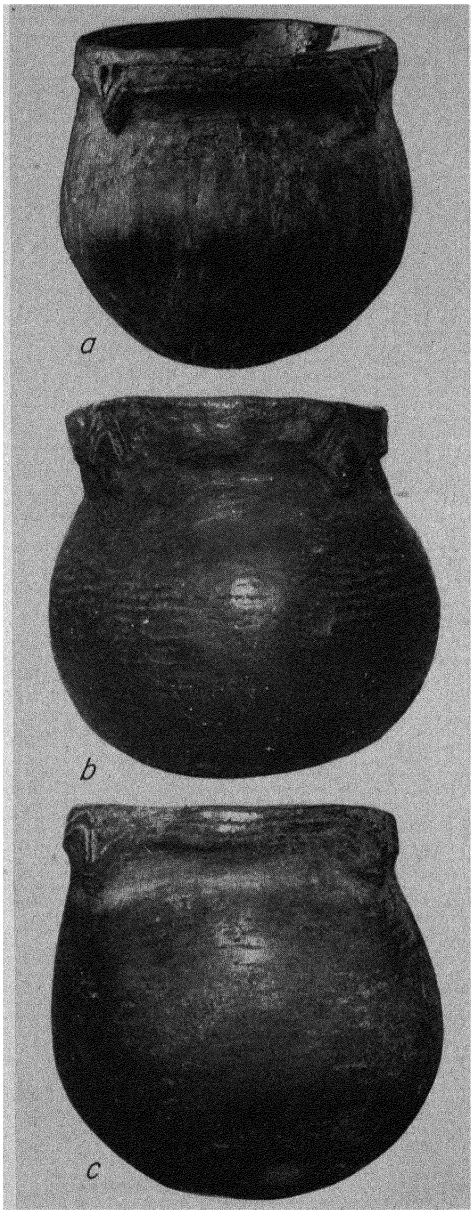
Pottery vessels collected by Drs. C. C. Gray and Washington Matthews, probably at Fort Berthold, N. Dak.

(For explanation, see p. 113.)



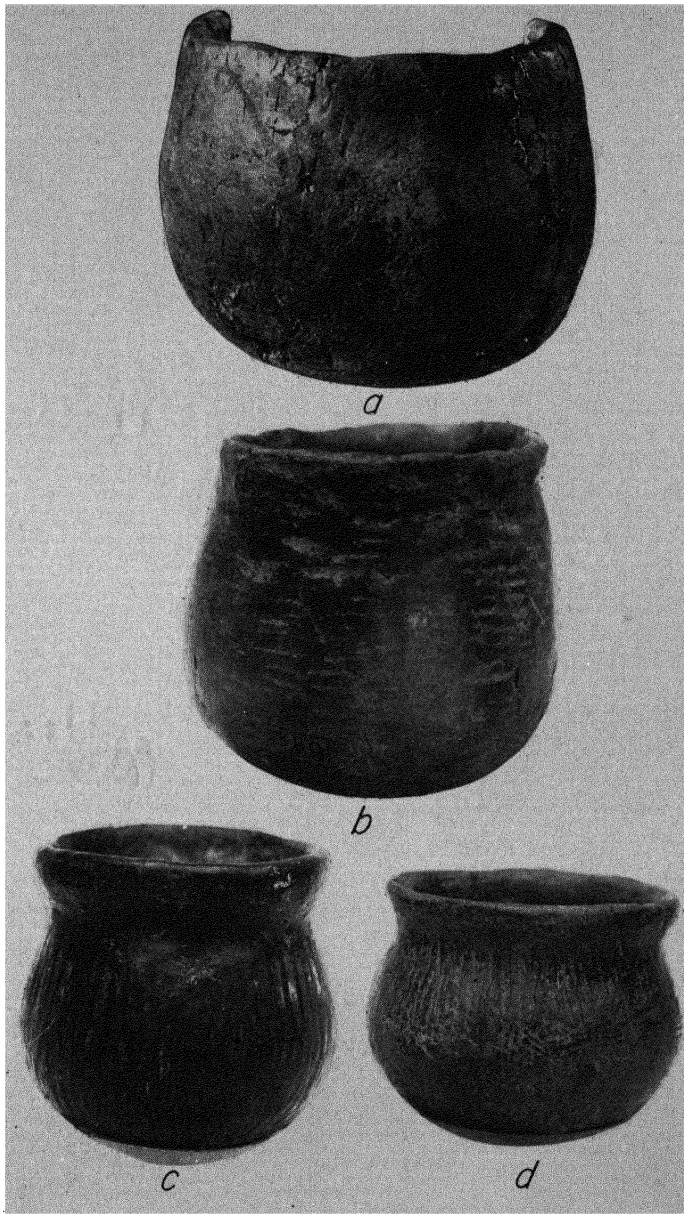
Pottery vessels probably from Fort Berthold, N. Dak. (Photographs from (*a*) University Museum and (*b*) Peabody Museum, Harvard University.)

(For explanation, see p. 113.)



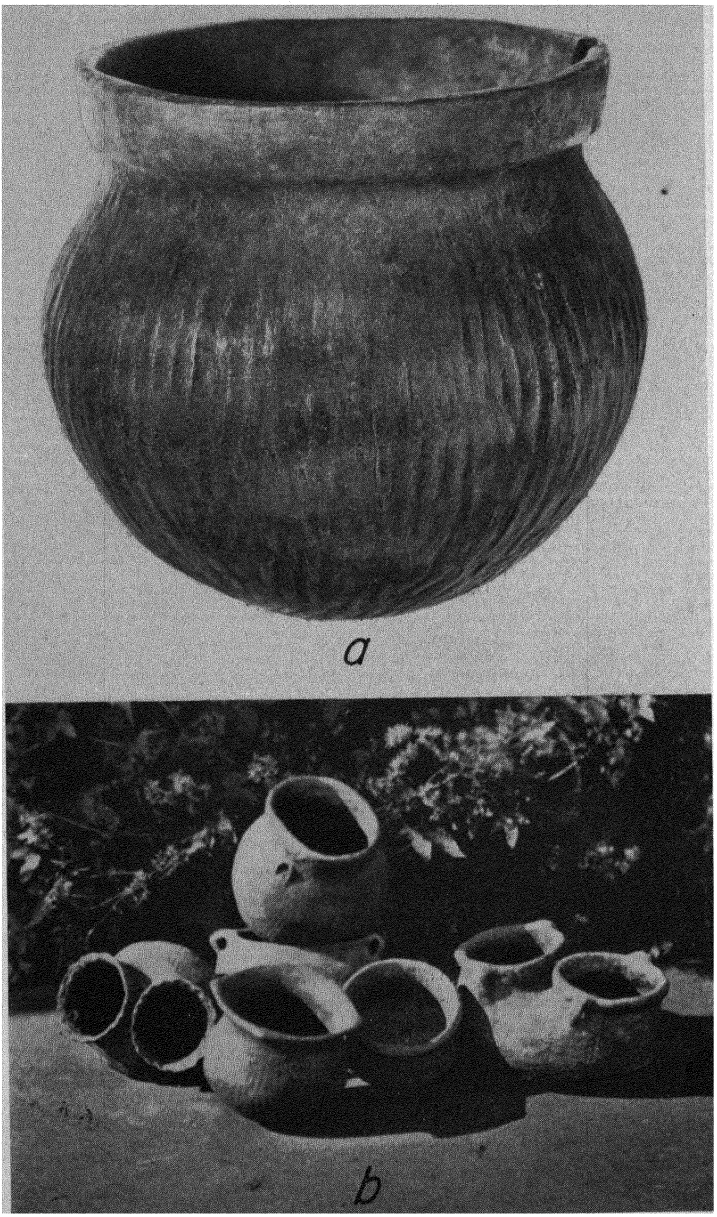
Pottery vessels from Fort Berthold, N. Dak. (Photographs from (*a*) University Museum, and (*b*, *c*) North Dakota Historical Society.)

(For explanation, see p. 113.)



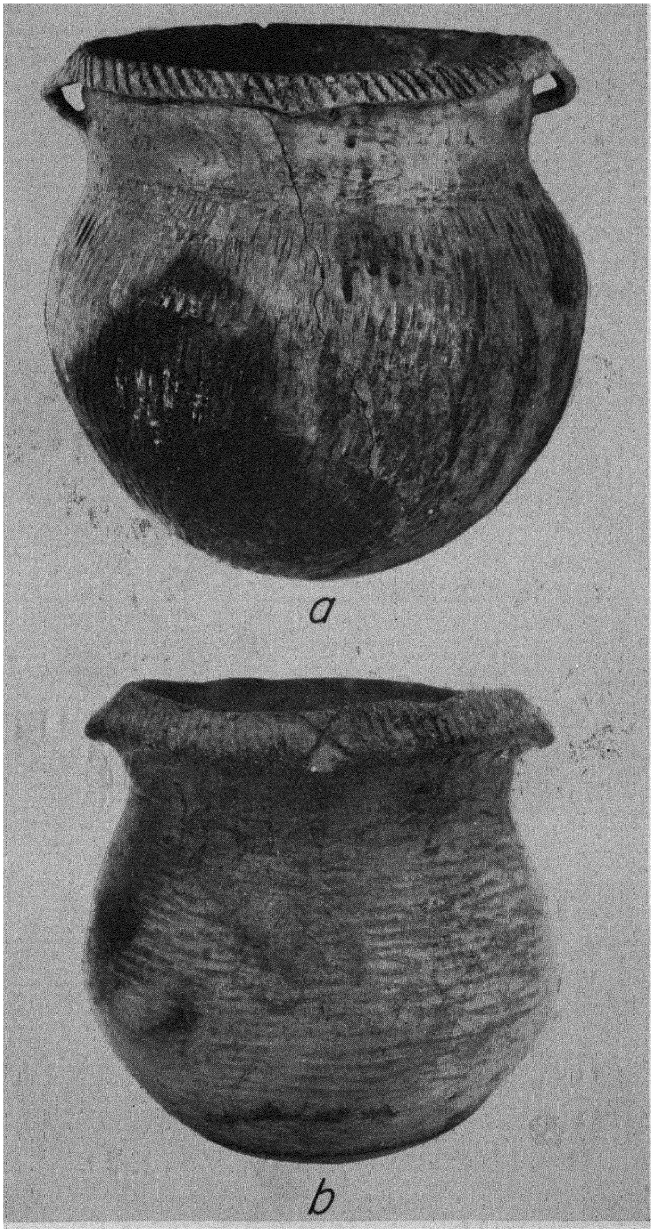
Pottery vessels from Fort Berthold, N. Dak. (Photographs from (*a*) University Museum, and (*b–d*) Museum of the American Indian, Heye Foundation.)

(For explanation, see p. 113.)



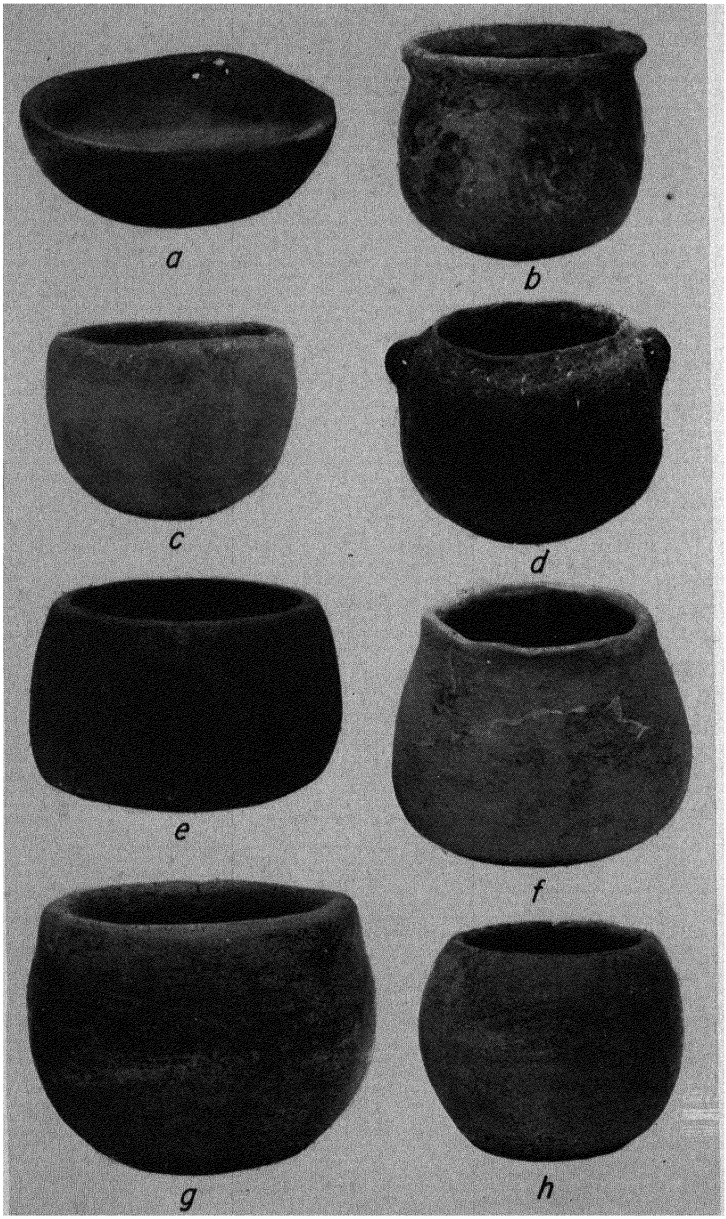
Pottery vessels from Fort Berthold, N. Dak. (*b*, Photograph from North Dakota Historical Society.)

(For explanation, see p. 113.)



Pottery vessels, probably Arikara, from Fort Berthold. (*b*, Photograph from Museum of the American Indian, Heye Foundation.)

(For explanation, see p. 114.)



Recent pottery vessels from the Arikara, Fort Berthold, N. Dak. (Photographs from Museum of the American Indian, Heye Foundation.)

(For explanation, see p. 114.)

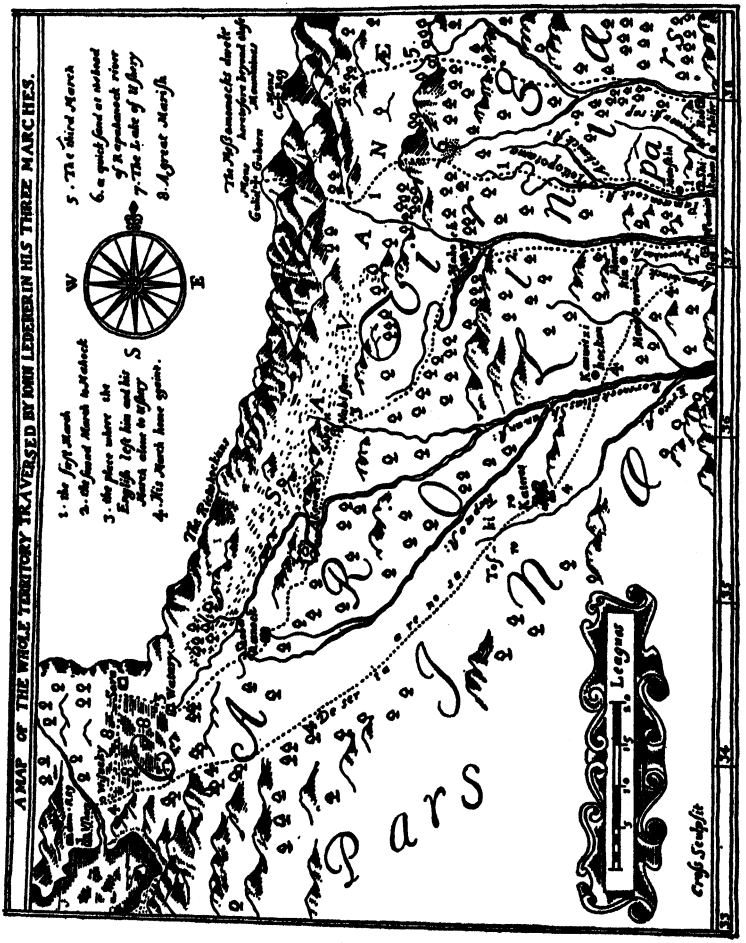
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REVALUATION OF THE EASTERN SIOUAN PROBLEM WITH PARTICULAR EMPHASIS ON THE VIRGINIA BRANCHES—THE OCCANEECHI, THE SAPONI, AND THE TUTELO

By CARL F. MILLER

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MAP 8.—Facsimile of John Lederer's map, 1672.

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PREFACE

After spending three seasons in the field in the Buggs Island-John H. Kerr Reservoir in southern Virginia and obtaining considerable ceramic and other artifactual remains from a number of sites in the area, I started to examine this material preparatory to writing a report of my results when a question arose regarding the origin of the pottery and the ethnic group to which it was attributed. The solution of this question was not in the field of archeology, directly, but rather in the field of ethnology and linguistics.

The recovered pottery assemblage was not recognized as that usually attributed to Siouan-speaking peoples, and since they were listed as the probable occupants of this section of Virginia it necessitated a perusal of the literature dealing with this group—especially the Occaneechi, Saponi, and Tutelo—from the earliest incursions by whites up to the present day in order to see whether the solution could be found. This same peculiarity was also noted by Manson (1948) in the Potomac River area. Indian tradition is highly unreliable, hence plays a very small role in the investigations of these tribes.

The earliest of the writers consulted was Captain John Smith, who was known for the veracity of his statements. Never making actual firsthand contact with the group of peoples living in southern and central Virginia, he learned about them through Algonquian sources. From these he deduced that certain groups occupied areas indicated on his map of 1624, but so far the ones indicated have never been satisfactorily identified or related with known Indian groups.

William Strachey, secretary of the colony from 1609 to 1612, tells about Algonquian habits and economy, and lists a number of Indian words, giving their English equivalents, which have a direct bearing upon the study underway.

Others of this early period include John Lederer, Batts and Fallam, Needham and Arthur, Robert Beverley, and John Lawson. These were followed by the interpretative school, including among others, James Mooney, David I. Bushnell, Jr., Dr. John R. Swanton, and Dr. William N. Fenton, which brings us up to the present day. These are the principal writers upon whom we rely in the following account. Rather than change or reinterpret their statements, we have decided to use their own words in order to convey the exact meaning intended

by the original writer so that no bias of the present writer could creep into the text to color it in any manner. None of the modern writers can equal in authority, nor surpass in interest, the statements made in the original records by the men who not only saw these Indians in their natural habitat but actually had dealings with them, all of which were recorded and should be evaluated exactly as presented without letting inferences, assumptions, and preconceived concepts steal into the picture.

Since the source material of this area is much scattered, it is hoped that the presentation of most of the pertinent data here will serve a broader purpose than the immediate requirements of this paper.

CARL F. MILLER.

REVALUATION OF THE EASTERN SIOUAN PROBLEM, WITH PARTICULAR EMPHASIS ON THE VIRGINIA BRANCHES—THE OCCANEECHI, THE SAPONI, AND THE TUTELO

By Carl F. Miller

HISTORICAL DOCUMENTATION

Recently a review of the literature dealing with the Occaneechi, the Saponi, and the Tutelo, three branches of the so-called Siouan family, has been made, and a number of interesting facts have come to light. The first two members of this group were first mentioned in 1651 by Edward Bland. They were again mentioned in 1670 by John Lederer, and in 1671 Batts and Fallam (Fallow) mentioned the Tutelo or Toteros. References to these three tribes keep appearing in reports from time to time in Virginia and North Carolina until it is apparent they either migrated northward or were assimilated by other groups. The question as to whether these three tribes can be rightfully classified as Siouan linguistically has arisen and an examination of the whole premise has been made.

Historically, the method has been to go over the original sources and to see what each author based his authority upon in constructing his premise: if inferential—how valid were these inferences; if factual—from what sources were they gathered.

Quoting the original sources chronologically, the earliest is Edward Bland's account, in 1651, in which he states:

1651.—At Blandina River we have some discourse with our Appamattuck Guide concerning that River, who told us that the branch of Blandina River ran a great way up into the Country; and that about three dayes journy further to the South-West, there was a far greater Branch so Broad that a man could hardly see over it, and bended it selfe to the Northward above the head of James River unto the foot of the great Mountaines, on which River there lived many people upwards, being the Occanacheans and the Nessoneicks, and that where some of the Occanacheans lived, there is an island within the River three dayes journy about, which is of a very rich and fertile soile, and that the upper end of the Island is fordable, not above knee deepe, of a stony bottome, running very swift, and the other side very deepe and navigable: Also we found many of the people of Blandina River to have beards, and both there, and at Woodford River we saw many very old men, and that the Climate according to our opinions were far more temperate than ours of Virginia, and the inhabitants full of Children; they also told

us that at the bottome of the River was great heaps of Salt; and we saw among them Copper, and were informed that they tip their pipes with silver. of which some have been brought into this country, and 'tis very probable that there may be Gold, and other Mettals amongst the Hils. [Salley, 1911, p. 16.]

What is particularly interesting about this quotation from Bland is the description of the island upon which the Occaneechi lived. He gave us an actual fact—the "upper end of the Island is fordable, not above knee deepe, of a stony bottome, running very swift." As we go along let us keep this in mind in order to compare it with the statements of other observers.

1670.—John Lederer, in 1670, first contacted the Sapon (Saponi) and later the Akenatzy (Occaneechi). After parting company with Major Harris and the rest of the Englishmen near the south fork of the James River, he started out on his own. (See map 8, p. 116.)

The fifth of June, my company and I parted good friends, they back again, and I with one Sasquesahanough—Indian, named Jackzetavon, only, in pursuit of my first enterprize, changing my course from west to southwest and by south to avoid the mountains. . . .

From the fifth, which was Sunday, until the ninth of June, I travelled through difficult ways, without seeing any town or Indian; and then I arrived at Sapon, a village of the Nahyssans, about an hundred miles distant from Mahock; scituate upon a branch of Shawan, alias Rorenock-river . . . [Alvord and Bidgood, 1912, p. 152.]

Sapon is within the limits of the Province of Carolina . . . [Ibid., p. 153.]

Not far distant from hence, as I understand from the Nahyssan Indians, is their kings residence, called *pintahae* from the same river, and happy in the same advantages both for pleasure and profit . . . [Ibid., p. 153.]

From hence, by an Indians instructions, I directed my course to Akenatzy, an island bearing south and be west, and about fifty miles distant, upon a branch of the same river, from Sapon. The countrey here, though high, is level, and for the most part a rich soyle, as I judged by the growth of the trees; yet where it is inhabited by Indians, it lies open in spacious plains, and is blessed with a very healthful air, as appears by the age and vigour of the people; and though I travelled in the month of June, the heat of the weather hindered me not from riding at all hours without any great annoyance from the sun. By easie journeys I landed at Akenatzy upon the twelfth of June. The current of the river is here so strong, that my horse had much difficulty to resist it; and I expected every step to be carried away with the stream.

This island, though small, maintains many inhabitants, who are fix't here in great security, being naturally fortified with fastnesses of mountains, and water on every side. Upon the north-shore they yearly reap great crops of corn, of which they always have a twelve-months provision aforehand, against an invasion from their powerful neighbours. [Ibid., pp. 153–154.]

1671.—The following year, Batts and Fallam, two traders sent out by General Wood, reported on their western trip. Thomas Batts, Thomas Wood, and Robert Fallam left Apomatacks town on September 1, 1671. They wrote on September 4:

We set forward and about two of the clock arriv'd at the Sapiny town. We travelled south and by west course till about even(ing) and came to the Saponys

west. Here we were very joyfully and kindly received with firing of guns and pleanty of provisions. We here hired a Sepiny Indian to be our guide towards the Teteras, a nearer way than usual.

Sept. 5. Just as we were ready to take horse and march from the Sapiny's about seven of the clock in the Morning we heard some guns go off from the other side of the River. They were siven Apomatack Indians sent by Major General Wood to accompany us in our Voyage. We hence sent back a horse belonging to Mr. Thomas Wood, which was tired, by a Portugal, belonging to Major General Wood, whom we here found. About eleven of the clock we set forward and that night came to the town of the Hanathaskies which we judge to be twenty-five miles from the Sapenys, they were lying west and by north in an island on the Sapony River, rich Land.

Sept. 6. About eleven of the clock we set forward from the Hanathaskies . . . [Ibid., p. 185.]

Sept. 9. . . . we came to a very steep descent, at the foot whereof stood the Tetera Town in a very rich swamp between a branch and the main River of Roanoke circled about with mountains. [Ibid., p. 186.]

1674.—In 1674 Major General Wood reports on the "Journeys of Needham and Arthur" (Alvord and Bidgood, 1912, pp. 209–226). In a letter to Mr. John Richards, he says:

about ye 25th of June they mett with ye Tomahitans as they were journying from ye mountains to ye Occhonechees. . . . they journied nine days from Occhonechees to Sitteree: west and by south, past nine rivers and creeks which all end in this side ye mountaines and emty them selves into the east sea. Sitteree being the last towne of inhabitance and not any path further until they came within two days journey of ye Tomahitans; they travelled from thence up the mountaines upon ye sun setting all ye way, and in foure dayes gett to ye toppe, sometimes leading theire hourses sometimes rideing. [p. 211.]

He places Aeno (Eno)—

an Indian towne two dayes jorny beyond Occhoneeche . . . [Ibid, pp. 214–215.]

. . . from Aeno hee journied to Sarrah, with his companions ye Tomahitons and John ye Occhoenechee accompanied with more of his countrey men which was to see ye tragady [Needham's killing] acted as I suppose, it happened as they past Sarrah river. . . . Ochenechee Indian John tooke up Mr. Needham very short in words and so continued scoulding all day untill they had past ye Yattken towne and so over Yattken river . . . [pp. 216–217.]

In this account is hidden a piece of ethnology. It is stated that—

Now ye king must goe to give ye monetons a visit which were his friends, *mony signifing water and ton great in theire language.* [The king referred to was the king of the Tomahitans who went visiting his friends the Monetons or Monacans.] Ye monyton towne situated upon a very great river att which place ye tide ebbs and flowes. . . . This river runes northwest and out of ye westerly side of it goeth another very great river about a days journey lower where the inhabitance are an inumarable company of Indians, as the monytons told my man which is twenty days journey from one end to ye other of ye inhabitance, and all these are at warr with the Tomahitans. [Ibid., pp. 221–222.]

Gabriel, a white trader captured and held captive by the Tutelo or Tomahitan Indians, in making his escape—

waded over into ye iland where ye Occhenechees are seated, strongly fortified by nature and that makes them soe insolent for they are but a handful of people,

besides what vagabonds repaire to them it beeing a receptackle for rogues. . . . now wee come again to ye king of ye Tomahittans. With his two sonns and one more who tooke thire packs with them and comes along by Totero under ye foot of ye mountains, untill they mett with James river and there made a cannoe of barke and came downe the river to the Manikins. from thence to Powetan by land, and across the neck and on ye 20th of July at night arrived att my house . . . [Ibid., pp. 224–225.]

In this last paragraph we have a bit more information concerning the Occaneechi. He accounts for their insolence not only from the location and position of their island home but to their internal makeup of "vagabonds."

1705.—Robert Beverley in his "The History and Present State of Virginia," which was first published in 1705, devotes a part to the language of the peoples, in which he says:

Their Lanugage differs very much antiently in the several parts of Britain; so that Nations at a moderate distance, do not understand one another. However, they have a sort of general Language, like what Lahontan calls the Algonkine, which is understood by the Chief men of many Nations, as Latin is in most parts of Europe, and Lingua Franca quite thro the Levant.

The general Language here us'd is said to be that of the Occaneeches, tho they have been but a small Nation, ever since those parts were known to the English; but in what this language may differ from that of the Algonkines, I am not able to determin. [Beverley, 1947, p. 191.]

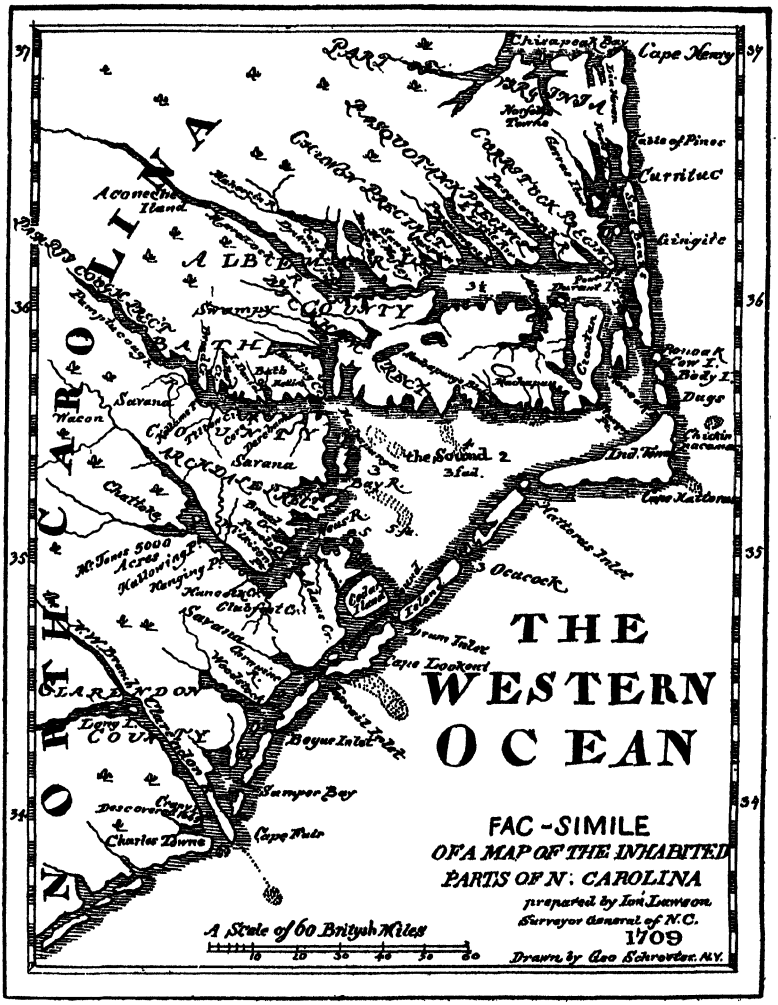
The language aspect is the most important part of the whole research, for it is upon this factor that these groups were identified, supposedly, as Siouan-speaking peoples. Lawson (1937), in his history of Carolina, etc., states:

I once met with a young Indian woman that had been brought from beyond the Mountains, and was sold a Slave into Virginia. She spoke the same language as the Coramine Indians, that dwell near Cape Lookout, allowing for some few Words, which were different, yet no otherwise than that they might understand one another very well. [Ibid., pp. 180–181.]

Lawson did not bother to tell the tribal affiliations of this young Indian woman, but he pointed out that those groups living "beyond the mountains" were able to converse and understand the Indians living around Cape Lookout, "allowing for some few Words." The only conclusion that can be drawn from this is that this general language spread from the coastal region into the back country beyond the mountains. These "few words" can be accounted for on regional differences; therefore, the Algonquians of the coast spoke the same language as the Indian groups in between them and the mountains as well as those occupying portions of the mountains.

1714.—Lawson, in describing the experiences of his journey (see map 9), says:

. . . it proving delicate Weather, three of us separated ourselves from the Horses, and the rest of the Company, and went directly for Sapona town. . . . We passed by the Sepulchres of several slain Indians. Coming that day about



MAP 9.—Facsimile of John Lawson's map, 1709.

thirty Miles, we reached the fertile and pleasant Banks of Sapona River, whereon stands the Indian Town and Fort. . . . These Indians live in a clear Field about a Mile square, . . . One side of the River is hemmed in with mountainy Ground, the other side proving as rich a Soil to the Eye of a knowing Person with us, as any this Western World can afford. . . . The Sapona River proves to be the West Branch of Cape Fair, or Clarendon River . . .

The Saponas had (about ten days before we came thither) taken Five Prisoners of the Sinnagers or Jennitos, a Sort of People that range several thousands

of Miles, making all Prey they lay their Hands on. These are feared by all the savage Nations I ever was among, the Westward Indians dreading their Approach. . . .

The Toteros, a neighboring Nation, came down from the Westward Mountains to the Sapona's, desiring them to give them those prisoners into their Hands, to the Intent they might send them back into their own Nation, being bound in Gratitude to be serviceable to the Sinnagers, since not long ago, those Northern Indians had taken some of the Toteros Prisoners and done them no Harm, but treated them civilly whilst among them, sending them, with Safety, back to their own People, and affirming that it would be the best Method to preserve Peace on all Sides. At that time these Toteros, Saponas, and the Keyauwees, three small Nations, were going to live together, by which they thought they should strengthen themselves and become formidable to their Enemies. The Reason offered by the Toteros being heard, the Sapona King, with the Consent of his Counsellors, delivered the Sinnagers up to the Toteros to conduct them home. [Ibid., pp. 44–45.]

On Monday Morning our whole Company, with the Horses set out from the Sapona-Indian Town . . . Going over several Creeks, very convenient for Water-Mills, about eight Miles from the Town we passed over a very pretty River, called Rocky River, a fit Name, having a Ridge of high Mountains running from its Banks to the Eastward and disgorging itself into Sapona-River . . . [Ibid., p. 47.]

Next day we had fifteen Miles farther to the Keyauwees . . . At Noon we passed over such another stony River, as that eight Miles from Sapona. This is called Heighwaree and affords as good blue Stone for Mill-stones as that from Cologn . . .

Five Miles from this River, to the N W., stands the Keyauwees town. They are fortified in with wooden Puncheons, like Sapona, being a People much of the same Number. Nature has so fortified this Town with Mountains, that were it a Seat of War, it might easily be made impregnable; having large Corn-Fields joining to their Cabins, and a Savanna near the Town at the Foot of these Mountains, that is capable of keeping some hundred Heads of Cattle. And all this environed round with very high Mountains, so that no hard Wind ever troubles these Inhabitants. . . . [Ibid., p. 48.]

At the Top of one of these Mountains is a cave that one hundred Men may sit very conveniently to dine in . . . [Ibid., pp. 48–49.]

After a bit of travel, Lawson and his group decided to "set out for Achonechy-Town, it being by Estimation, twenty Miles off, which I believe is pretty exact" (ibid., p. 53). En route, they met a Mr. Massey, an Indian trader, and his helpers, who told them about Sinnagers (Iroquois) activities in the area. This changed their plans and instead they went "to call upon one Enoe Will, as we went to Adshusheer, for that he would conduct us safe among the English . . ." (ibid., p. 53). Thus they missed making contact with the Occaneechi.

Much later, Lawson states that: "These five Nations of the Totero's, Sapona's, Keiuwee's, Aconechos, and Schoccories, are lately come amongst us, and may contain in all, about 750 Men, Women and Children" (ibid., p. 255).

1732–1740.—Long known only in manuscript form, the histories of the survey of the dividing line between Virginia and North Carolina and other items from the pen of William Byrd written during the years

1732–1740 have provided considerable source material on the early colonies. The "History of the Dividing Line" was first printed in 1841, while the "Secret History" went unpublished until 1929. In the 1929 edition of the histories Dr. William Boyd writes in the introduction:

> William Byrd's History of the Dividing Line Betwix't Virginia and North Carolina has long been regarded as a classic of the colonial period of American literature, an invaluable source for the social history of that time, and a comprehensive and dependable account of the first successful effort to establish the boundary between North Carolina and Virginia. *This estimate, however, must be revised.* [Italics here used are the present writer's, rather than Boyd's.] Only the literary merits of the work can withstand criticism. In all other respects, the History of the Dividing Line must be accepted with reservations. As a description of the frontier region along the Virginia–North Carolina border its general tone is true to nature; but certain details leave on the mind of the reader misconceptions regarding conditions and policies in North Carolina. [Byrd, 1929, p. xi.]

Byrd's writings of his experiences encountered while surveying the Dividing Line, reported as "The History and The Secret History," contain a number of interesting statements. He gives us a number of Indian words and their equivalents in English. These are:

Moni-seep	Shallow water.
Yaypatsco, Yapatoco, Yatapsco	Beaver Creek.
Massamoni	Paint Creek.
Ohimpamony, Uhimpamony	Fishing Creek.
Tewahominy, Tewaw-hommini, Tewakominy	Tuscarora Creek.
Hicootomony	Buzzard or Turkey Buzzard River
Wicco-quoi	Rock Creek.

In some of these he states that they are of Saponi origin, but in others he just states that such and such a word "is called by the Indians ——, which signifies, in their Jargon, ——" (ibid., p. 158). Whether philologists have taken these also to be Saponian in origin is unknown. One thing which can be easily noted is that "moni" or "miny" can appear as either a prefix or a suffix and may mean creek or water, but if so it is lacking in both Beaver Creek and Rock Creek formation.

Byrd locates for us the great falls in the Roanoke River in relation to the confluence of the Dan and Staunton Rivers where they merge to form the Roanoke River. He states it this way:

> The great Falls of Roanoak lie about 20 Miles lower, to which a Sloop of Moderate Burthen may come up. There are, besides these, many Smaller Falls above, tho' none that entirely intercept the Passage of the River, as the great Ones do, by a Chain of Rocks for 8 Miles together.
>
> The River forks about 36 Miles higher, and both Branches are pretty equal in Breadth where they divide, tho' the Southern, now call'd the Dan runs up the

farthest. [See map 10.] That to the North runs away near Northwest, and is call'd the Staunton, and heads not far from the Source of Appamatuck River, while the Dan stretches away pretty near West & runs clear thro' the great Mountains. [Ibid., p. 156.]

When Byrd speaks of the Saponi, he really waxes eloquent:

All the Grandes of the Sappony Nation did us the Honour to repair hither to meet us, and our Worthy Friend and Fellow Traveller, Bearskin, appear's among the gravest of them in his Robes of ceremony. Four Young Ladies of the first Quality came with them, who had more the air of cleanliness than any copper-Colour'd Beauties I had ever seen . . .

This people is now made up of the Remnant of Several other Nations, of which the most considerable are the Sapponys, the Occaneches, and Steukenhocks, who not finding themselves Separately Numerous, enough for their Defense, have agreed to unite into one Body, and all of them now go under the Name of Sapponys.

Each of these was formerly a distinct Nation, or rather a Several clan or Canton of the Same Nation, Speaking the Same Language, and using the same Customs. But their perpetual Wars against all other Indians, in time, reduc'd them so lo as to make it Necessary to join their Forces together.

They dwelt formerly not far below the Mountains, upon Yadkin River, about 200 Miles West and by South from the Falls of the Roanoak. But about 25 years ago they took Refuge in Virginia, being no longer in condition to make Head not only against the Northern Indians, who are their Implacable enemies, but also against most of those to the South. All the Nations round about, bearing in mind the Havock these Indians us'd formerly to make among their Ancestors in the Isolence of their Power, did at length avenge it Home upon them, and made them glad to apply to this Government for protection.

Col. Spotswood, our then lieut. governor, having a good Opinion of their Fidelity & Courage, settled tham at Christanna, ten Miles north of Roanoak, upon the belief that they wou'd be a good Barrier on that Side of the Country, against the Incursion of all Foreign Indians. [Ibid., pp. 308, 310.]

In regards to the Tutelo, he has this to say:

The Daughter of the Tetero King went away with the Sapponys, but being the last of her Nation, and fearing she Shou'd not be treated according to her Rank, poison'd herself, like an Old Roman, with the Root of the Trumpet-Plant. Her Father dy'd 2 Years before, who was the most intrepid Indian we had been acquainted with. He had made himself terrible to all other Indians by his Exploits, and had escaped so many Dangers that he was estemm'd invulnerable. But at last he dy'd of a Pleurisy, the last Man of His Race and Nation, leaving only the unhappy Daughter behind him, who would not long survive Him. [Ibid., pp. 310, 312].

Whether this information was gathered during the time he was making the survey between the two States is not known, but it must have been around the year 1728.

Additional information on the Occaneechi, Saponi, and Tutelo is found in "The Writings of 'Colonel William Byrd of Westover in Virginia Esqr.'" The entries are in diary form with each event dated:

[15th Sept., 1733] . . . we rode on 7 Miles farther to Blue Stone Castle 5 whereof were thro' my own Land, that is to say, all above Sandy Creek. My Land there

Roanoke River
Stanton River
Fitzwilliam River
Dan River
Clermont's Side
Obanoke Creek
Mulberry Creek
Great Creek
Mount Sharp's Creek
Indian Creeks
Sauk
Peters Creek
Sandy Creek
Pigeon roost Creek
Island Creek
Shoulder Hill Creek
Stanton Creek
Blundering Creek
Jeffords Creek
Stanton Creek
Mulberry Creek
Obanoke Creek
Peters Creek
Great Creek
Mount Sharp's Creek
Indian Creeks
Sauk
Pigeon roost Creek
Island Creek
Shoulder Hill Creek
Stanton Creek
Blundering Creek
Jeffords Creek
Dan River
Fitzwilliam River
Stanton River
Clermont's Side
Obanoke Creek
Mulberry

in all extends 10 Miles upon the River; [Roanoke] and 3 charming Islands, namely Sapponi, Occaneeche, and Totero, run along the whole length of it. The lowest of these Islands is three Miles long, the next 4, and the uppermost 3, divided from each other by only a Narrow Strait. The Soil is rich in all of them, the Timber large, and a kind of Pea, very grateful to Cattle and Horses, holds green all the Winter Roanoke River is divided by these Islands; that part which runs on the North Side is about 80 Yards and that on the South more than 100. A large Fresh will overflow the lower part of these Islands, but never covers all, so that the cattle may always recover a Place of Security. The Middlemost Island, called Occaneeche Island, has several fields in it where Occaneeche Indians formerly lived, and these are still some remains of the Peach Trees they planted. [Byrd, 1901, p. 286.]

17 Sept. 1733. We set off about nine from Blue Stone Castle, and rode up the River 6 Miles, (one half of which distance was on my own Land,) as far as Major Mumford's Quarter, where Master Hogen was Tenant upon Halves. Here were no great Marks of Industry, the Weeds being near as high as the Corn. My Islands run up within a little way of this Place, which will expose them to the Inroade of the Major's Creatures. That call'd Totero Island, lyes too convenient not to receive Damage that way; but we must guard against it as well as we can. . . . We returned downward agains about 4 Miles, and a Mile from the Point found a good Ford over the North Branch, into the upper end of Totero Island. . . . There is a Cave in this Island, in which the last Totero King, with only 2 of his Men, defended himself against a great Host of Northern Indians, & at last oblig'd them to retire. We forded the Streight out of this into Occaneechy Island, which was full of Large Trees, and rich land, and the South part of it is too high for any flood less than Noah's to drown it . . . [Ibid., pp. 288, 289, 290.]

19 Sept. 1733. Because I detested Idleness, I caus'd my Overseer to paddle me up the River as far as the Streight that divides Occaneechy from Totero Island, which is about 20 Yards wide. There runs a Swift Stream continually out of the South part of the River into the North, and is in some places very deep. [Ibid., p. 291.]

This is in contrast with the entry made for the 17th of September in which Byrd tells about fording the strait between these two islands without any mention of this deep water.

1775.—James Adair (1930, p. 67) in his "History of the American Indian," first published in 1775, states: "In Virginia, resides the remnant of an Indian tribe, who call themselves Sepone . . ." A footnote at the bottom of this same page, inserted by Samuel Cole Williams, editor of the publication, noted: "Saponi, mentioned by Lawson and Byrd; later incorporated into the Catawbas and now extinct."

The great trading path often referred to by the early explorers and traders has been identified by Williams (ibid., p. 234, footnote) as: "The great trading path from Virginia to Georgia passed through the country of the Catawbas, and was known as the 'Catawba Path.' This brought the tribe into close contact with the whites, which was unfortunate for the redmen, as it tended to their enfeeblement and decline."

1836.—In consulting "A Synopsis of the Indian Tribes," etc., by Albert Gallatin (1836), we find:

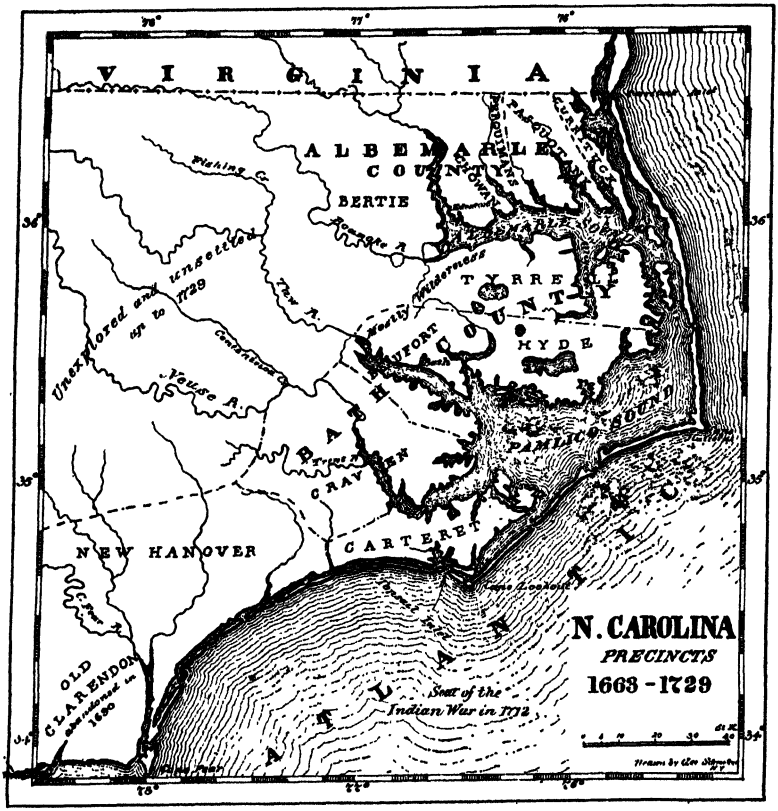
No further mention is made of the Esaws, and no other populous nation is ever alluded to in that quarter but the Catawbas, there cannot, it seems, be any doubt to their identity with the Esaws of Lawson, who probably mistook a local for the generic name of the nation. Between them and the Tuscaroras of the river Neuse, he [Lawson] places the Saponas on a branch of Cape Fear River, (or rather on the Great Pedee, which he does not mention, and some branches of which he evidently mistook for tributary streams of Cape Fear River) and in their vicinity of the Toteros and Keyauwees, three small tribes amounting together to seven hundred and fifty souls, which had but lately been driven away from the west into that quarter. He was shown, near the Sapona town, the graves of seven Indians 'lately killed by the Sinnegars or Jennitos' (Senecas or Oneidas), and the three tribes had determined to unite in one town for their better security. East of them and west of the Tuscaroras, he mentions the Sissipahaus on the waters of Cape Fear River, and the Enoes on a branch of the Neuse. *With the exception of the Catawbas, we have not the least knowledge of the language of any of those tribes.* [Italics are the present writer's.]

The records of North Carolina would probably throw some light on the subject (of the disappearance of many small tribes.) We learn from Williamson that the Saponas and the Chowans, about the year 1720, obtained leave to join the Tuscaroras. The Wyanokes, whom he mentions as having lived on the river Nottoway and formerly emigrated from the Susquehanna, were probably a tribe connected with the Nottoways and Chowans. To the names already mentioned may be added the upper and lower Sawara towns, laid down, south of the Dan River, in all the early maps of North Carolina. In Jeffrey's map, a tribe called Saluda, is also laid down, south of that river, near the present site of Columbus in South Carolina, with a note, that it had removed to Conestoga in Pennsylvania. [Ibid., pp. 85–86].

The difference between the languages of those several tribes struck Lawson forcibly. He observes that he could find but one word common to the Tuscaroras and the Woccons, who lived but two leagues apart. In the absence of vocabularies, it is now impossible to ascertain, whether most of those several communities spoke languages radically different from each other, or dialects of the same. But we are indebted to Lawson for those of the Tuscaroras, of the Pamlicos, and of the Woccons; and they certainly belong to three distinct languages. He did not suspect that of the Tuscaroras to be an Iroquois dialect, and that his short specimen of that of the Pamlicos would enable us to ascertain how far the Lenape tribes extended towards the south. On comparing the vocabularies of the Woccons and the Catawbas, out of fifty-one words found in both, sixteen appear to have more or less remote affinities; and the Woccons have accordingly been designated as belonging to the same family of languages. [Ibid., p. 87.]

Gallatin gives us a bit of contradictory evidence when talking about the Meherrins and Tuteloes. (See map 11.) He states:

The southern Iroquois tribes occupied Chowan River and its tributary streams. They were bounded, on the east, by the most southerly Lenape tribes, who were in possession of the low country along the seashores, and those of Albemarle and Pamlico Sounds. Towards the south and the west they extended beyond the river Neuse. They appear to have been known in Virginia, in early times, under the name of Monacans, as far north as James River.



MAP 11.—Facsimile of F. L. Hawks' map, 1663–1729.

A powerful chief of the Chowans is mentioned in the accounts of the first attempts to establish a colony on Roanoke Island and its vicinity. Lawson, in his account of the North Carolina Indians, enumerates the Chowans, the Meherrins, and the Nottoways, as having together ninety-five warriors in the year 1708. But the *Meherrins or Tuteloes* and the Nottoways inhabited respectively the two rivers of that name, and were principally seated in Virginia. We have but indistinct notices of the Tuteloes. It has been seen that they had migrated to the north and joined the Six Nations, who brought them forward, in 1758, as one of the younger members of the confederacy. Evans, in the Analysis of his Map, says that the Six Nations had allotted lands on the Susquehanna to several tribes, amongst which he enumerates the Tuteloes from Meherrin River in Virginia; and he further states, that they (the Six Nations) laid no claim to the country of the Tuscaroras who had been driven away, but were not so well satisfied as to the lands of the Tuteloes and Meherrins, whom they had received under their protection. *We have no vocabulary of that tribe, and no knowledge that they still exist under that name.* [Ibid., p. 81; italics are the present writer's.]

Samuel G. Drake (1848), in his book on Indians, tells us that the Occaneeches were in Virginia in 1607 and that they had at times been a powerful group but by 1607 their numbers had been greatly reduced. The Saponies (Wanamies) were known to be living on the Sapona River in North Carolina in 1700 and to have joined the Tuscaroras in 1720. The Toteros made their home in the mountains north of the Saponies in North Carolina in 1700. One interesting note is the correlation of the Mangoacs, or Tuteloes, with the Iroquois who once lived on the Nottoway River but are now extinct. Drake says that the Mannahoaks once lived on the upper waters of the Rappahannock River and were extinct long ago. "Dahcota (or Dacota) was the name by which the Sioux knew themselves."

1858.—Consulting the history of North Carolina, by Hawks (1858), we find that he says:

> The Mahocks, from Lederer's map, would appear to have been living near the dividing line of Nelson and Albemarle counties, at the junction of the Rockfish and James rivers. The locality of the Nahyssans appear, from Robert Morden's map of Carolina (1687), and also from Ogilby's, to have been west of the Mahocks, between them and the first range of mountains. [1858, p. 44.] [See map 12.]

He goes on to explain that—

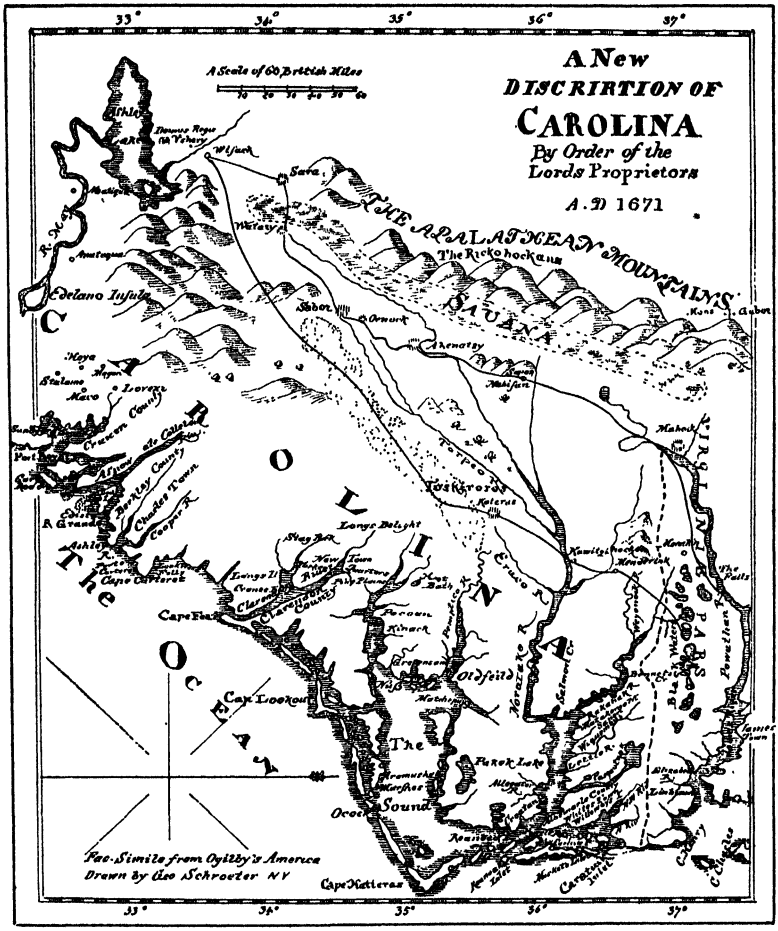
> By Shawan, Lederer means Chowan, which he here confounds with Roanoke. On Morden's map of 1687, and Ogilby's (1671), the Chowan is called *Rokahak*, while the Moratoc or Roanoke is called *Noratoke*. The Staunton and the Dan form the latter river, and it was probably on some of the tributaries of the first-named stream he struck, perhaps on the Staunton itself, just before its junction with the Dan. He had changed his course, as he tells us to S. W. by S. to avoid the mountains, and the only streams to which this course would bring him are the Staunton and its northern tributaries. [Ibid., p. 45.]

In explaining the location of the "Sapon," he says:

> We must here remember that the dividing line between the present States of Virginia and Carolina was not then established as it is now recognized. From Lederer's map, it appears that all that part of Virginia lying south of James River, and extending as far westward as the Blue Ridge, was considered by him as part of Carolina, and is so designated on his map. Sapon, however, would appear from his map to have been in North Carolina, or just beyond the boundary in Virginia. Morden places it just south of the dividing line, in Carolina, on the upper waters of what we call the Roanoke. It was the chief town of the Nahyssans. [Ibid. p. 46.] [See map 13.]

In speaking of the Occaneechi, he states:

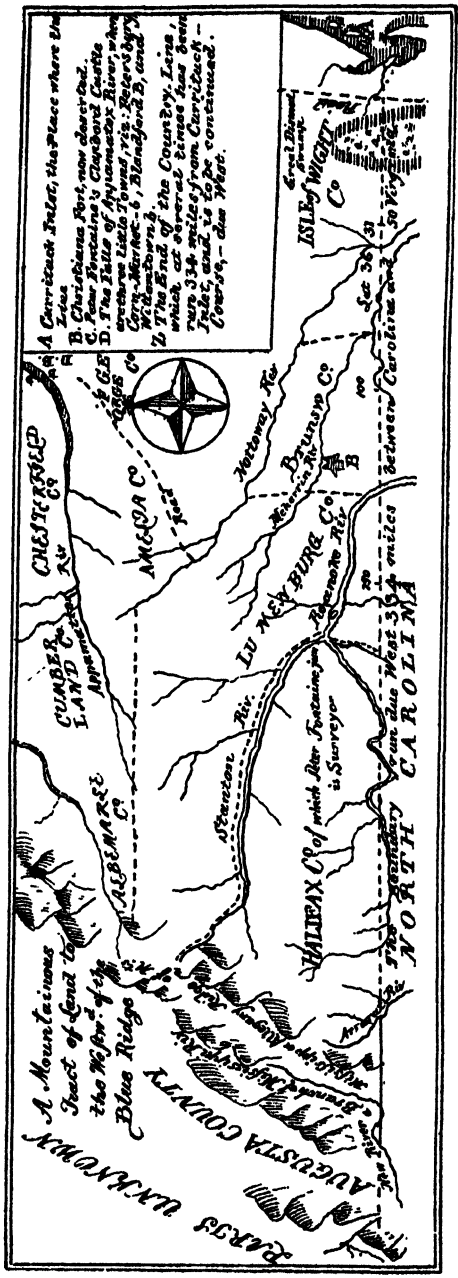
> This island *Akenatzy* is possibly what is found on Lawson's map of 1709, under the name of Oconeche, in the Roanoke River. [Ibid., p. 47.]
>
> From Lederer's account, the conjecture that seems most probable is, that taking a course southwest and by south from the falls of the James River, he came upon the Roanoke in North Carolina, and crossed it at the island which he calls Akenatzy, if he crossed it at all. This island is between Halifax and Northampton, I apprehend. His wandering then took him into some of those counties where our swamp lands are most abundant, and he certainly was in



MAP 12.—Facsimile of Ogilby's map, 1671.

Bertie, from which pursuing a northeast course, he returned to Virginia . . . He, however, was not the first European who had seen that land. Eighty-five years before, the hardy adventurers under Lane had placed their feet upon it, though their inland explorations were much less extensive than those of Lederer. [Ibid., p. 52.]

Up to this point Occaneechi Island has been placed on the Moratock River in North Carolina by Swanton (1922, pl. 3); at the confluence of the Staunton and Dan Rivers by William Byrd in 1733; on Mitchell's map of 1765 it appears at the confluence of these same two rivers since the basic information was drawn from Byrd; on the Fry



MAP 13.—Facsimile of map of the Rev. Peter Fontaine, Jr. (1787), who accompanied the Commissioners as a chaplain.

and Jefferson's map of 1775 a group of islands labeled "Occoneachey Islands" appear at the confluence of these same two rivers and on both the latter maps "Aconeechy" and "Akonichi" Town were placed on the Eno River east of "Old Haw Fields" and just a short distance south of "The Trading Path Leading to the Catawban and Cherokee Indian Nations"; while Hawks in 1858 placed it somewhere between Halifax and Northampton Counties.

1883.—At this period we come to a most important source, Horatio Hale. In 1872 the Reverend Joseph Anderson reported upon the findings of Hale in his article entitled "The Newly Discovered Relationships of the Tuteloe to the Dakotan Stock," which was only a preview of a later revelation published by Hale in 1883. I quote him at length, since most of the later studies stress his findings. In this article he says:

> The fact, which has been recently ascertained, that several tribes speaking languages of the Dakota stock were found by the earliest explorers occupying the country east of the Alleghenies, along a line extending through the southern part of Virginia and the northern portion of North Carolina, nearly to the Atlantic ocean, has naturally awakened much interest. . . . Careful researches seem to show that while the language of these eastern tribes is closely allied to that of the western Dakotas, it bears evidence of being older in form. *If* this conclusion shall be verified, the *supposition*, which at first was natural, that these eastern tribes were merely offshoots of the Dakota stock, must be deemed at least improbable. . . . As a means of solving this interesting problem, the study of the history and language of a tribe now virtually extinct assumes a peculiar scientific value. . . . [Italics are writer's.]
>
> In the year 1671 an exploring party under Captain Batt, leaving "Apomatock Town" on the James River, penetrated into the mountains of Western Virginia at a distance, by the route they travelled, of two hundred and fifty miles from their starting point. At this point they found "the Tolera Town in a very rich swamp between a breach (branch) and the main river of the Roanoke, circled about by mountains." (Batt's Journal and Relation of a New Discovery, in N. Y. Hist. Co. vol. iii, p. 191). There are many errata in the printed narrative, and the circumstances leave no doubt that "Tolera" should be "Totera." On their way to this town the party passed the Sapong (Sapony) town, which, according to the journal, was about a hundred miles east of the "Toleras." A few years later we shall find these tribes in closer vicinity and connection.
>
> At this period the Five Nations were at the height of their power, and in full flush of that career of conquest which extended their empire from the Georgian Bay on the north to the Roanoke River on the south. They had destroyed the Hurons and the Eries, had crushed the Andastes (or Conestogas Indians), had reduced the Delawares to subjection, and were now brought into direct collision with the tribes of Virginia and the Carolinas. The Toteras (whom we shall henceforth know as the Tuteloes) began to feel their power. In 1686 the French missionaries had occasion to record a projected expedition of the Senecas against a people designated in the printed letter the "Tolere,"—the same misprint occurring once more in the same publication. (Lamberville to Bruyas, November 4, 1686, in N. Y. Hist. Col., vol. iii, p. 484.) The tradition of the Tuteloes record long continued and destructive wars waged against them and their allies by the Iroquois, and more especially by the two western nations, the Cayugas

and Senecas. To escape the incursions of their numerous and relentless enemies, they retreated further to the south and east. Here they came under the observation of a skilled explorer, John Lawson, the Surveyor-General of South Carolina. In 1701, Lawson traveled from Charleston, S. C. to Pamlico sound. . . . At the Sapona river, which was the west branch of the Cape Fear or Clarendon river, he came to the Sapona town, where he was well received. (Gallatin, 1836, suggests that Lawson was in error here, and that the Sapona river was a branch of the Great Pedee which he does not mention, and some branches which he evidently mistook for tributaries of the Cape Fear River, p. 85) He there heard of the Toteros as "a neighboring nation" in the "western mountains." "At that time," he adds, "these Toteros, Saponas, and Keyauwees, three small nations, were going to live together, by which they thought they should strenghten themselves and become formidable to their enemies." They were then at war with the powerful and dreaded Senecas—whom Lawson styles Sinnagers. While he was at the Sapona town, some of the Toteras warriors came to visit their allies. Lawson was struck with their appearance. . . . In another place he adds: "These five nations of the Toteros, Saponas, Keiuwees, Aconechos and Schoicories are lately come amongst us, and may contain in all about 750 men, women and children." It is known that the Toteroes (or Tuteloes) and Sapones understood each other's speech, and *it is highly probable* that all the five tribes belonged to the same stock. They had doubtless fled together from southwestern Virginia before their Iroquois invaders. The position in which they had taken refuge might well have seemed to them safe, as it placed between them and their enemies the strong and warlike Tuscarora nation, which numbered then, according to Lawson's estimate, twelve hundred warriors, clustered in fifteen towns, stretching along the Neuse and Tar rivers. Yet, even behind this living rampart, the feeble confederates were not secure. Lawson was shown, near the Sapona town, the graves of seven Indians who had been lately killed by the "Sinnegars or Jennitos"—names by which Gallatin understands the Senecas and Oneidas, though as regards the latter identification there may be some question.

. . . . . .

The protection which the Tuteloes had received from the Tuscaroras and their allies soon failed them. In the year 1711 a war broke out between the Tuscaroras and the Carolina settlers, which ended during the following year in the complete defeat of the Indians. After their overthrow the great body of the Tuscaroras retreated northward and joined the Iroquois, who received them into their league as the sixth nation of the confederacy. A portion, however, remained near their original home. They merely retired a short distance northward into the Virginia territory, and took up their abode in the tract which lies between the Roanoke and the Potomac rivers. Here they were allowed to remain in peace, under the protection of the Virginia government. And here, they were presently joined by the Tuteloes and Saponas, with their confederates. In September, 1724, the governors of New York, Pennsylvania, and Virginia, held a conference at Albany with the chiefs of the Iroquois, to endeavor to bring about a peace between them and the southern tribes. On this occasion Governor Spotteswood, of Virginia, enumerated the tribes for which the government of his province would undertake to engage. Among them were certain tribes which were commonly known under the name of the "Christanna Indians," a name derived from that of a fort which had been established in their neighborhood. These were "the Saponies, Ochineeches, Stenkenoaks, Meipontskys, and Toteroes," all of whom, it appears, the Iroquois were accustomed to comprehend under the name of Todirichrones. (N. Y. Hist. Col., vol. v, p. 655 et seq.)

Some confusion and uncertainty, however, arise in consulting the colonial records of this time, from the fact that this name of Todirichrones was applied by the Iroquois to two distinct tribes, or rather confederacies, of Southern Indians, belonging to different stocks, and speaking languages totally dissimilar. They were, on the one hand, the Tuteloes (or Toteroes) and their allies, and, on the other, the powerful Catawba nation. The Catawba occupied the eastern portion of the Carolinas, south of the Tuscarora nation.

. . . . . .

One result of the peace thus established was that the Tuteloes and Saponas, after a time, determined to follow the course which had been taken by the major portion of their Tuscarora friends, and place themselves directly under the protection of the Six Nations. Moving northward across Virginia, they established themselves at Shamokin (since named Sunbury) in what is now the center of Pennsylvania. . . .

The last surviving Tutelo lived among the Cayuga, and was known to them by the name of Nikonha. . . . His Tutelo name was said to be Washiteng; its meaning could not be ascertained, and it is perhaps merely a corruption of the English word mosquito.

He was married to a Cayuga wife, and for many years had spoken only the language of her people. But he had not forgotten his proper speech, and readily gave us the Tutelo rendering of *nearly a hundred words.* [Italics are writer's.] At that time my only knowledge of the Tuteloes had been derived from the few notices comprised in Gallatin's Synopsis of the Indian Tribes, where they are classed with the nations of the Huron-Iroquois stock. At the same time, *the distinguished author,* with the scientific caution which marked all his writings, *is careful to mention that no vocabulary of the language was known.* [Italics are writer's.] That which was now obtained showed beyond question, that the language was totally distinct from the Huron-Iroquois tongues, and that it was closely allied to the languages of the Dacotan family.

The discovery of a tribe of Dacota lineage near the Atlantic coast was so unexpected and surprising that at first it was natural to suspect some mistake. The idea occurred that the old Tutelo might have been a Sioux captive, taken in the wars which were anciently waged between the Iroquois and the tribes of the far west. With the view of determining this point, I took the first opportunity, on my next visit to the Reserve, in October 1870, of questioning the old man about his early history, and that of his people. His answers soon removed all doubt. [In what manner Hale did not bother to explain.] He believed himself to be a hundred and six years old; and if so, his earliest recollections would go back to a time preceding by some years the Revolutionary War. At that time his people, the Tuteloes, were living in the neighborhood of two other tribes, the Saponies and the Patshenins or Botshenins. *In the latter we may perhaps recognize the Occaneeches,* [italics are writer's.] whom Governor Spotteswood, in 1702, enumerated with the Saponies, Toteroes, and two other tribes, under the general name of Christanna Indians. The Saponies and Tuteloes, old Nikonha said, could understand one another's speech. About the language of the Patshenins, I neglected to inquire, but they were mentioned with the Saponies as a companion tribe. His father's name was Onusōwa; he was a chief among the Tuteloes. His mother (who was also a Tutelo) died when he was young, and he was brought up by an uncle. He heard from old men that the Tuteloes formerly lived on a great river beyond Washington, which city he knew by that name. In the early times they were a large tribe, but had wasted away through fighting. Their war parties used to go out frequently against various enemies. The tribes they most commonly

fought were the Tuscaroras, Senecas, and Cayugas. Afterwards his tribe came to Niagara (as he expressed it), and joined the Six Nations. He knew of no Tutelo of the full blood now living, except himself.

This, with some additions to my vocabulary, was the last information which I received from old Washiteng, or Nikonha. He died a few months later (on the 21st of February, 1871), before I had an opportunity of again visiting the Reserve. There are, however, several half-castes, children of Tutelo mothers by Iroquois fathers, who know the language, and by the native law (which traces descent through the female) are held to be Tuteloes.

From this chief, and from his aunt, an elderly dame, whose daughter was the wife of a leading Onondaga chief, I received a sufficient number of words and phrases of the language to give a good idea of its grammatical framework. Fortunately, the list of words obtained from the old Tutelo was extensive enough to afford a test of the correctness of additional information thus procured. The vocabulary and the outlines of grammar which have been derived from these sources may, therefore, as far as they extend, be accepted as affording an authentic representation of this very interesting speech.

There is still, it should be added, *some uncertainty in regard to the tribal name.* [Italics are writer's.] So far as can be learned, the word Tutelo or Totero (which in the Iroquois dialects is variously pronounced Tiūterih, or Tehōtirigh, Tehūtili, Tiūtei and Tūtie) has no meaning either in the Tutelo or Iroquois language. It may have been originally a mere local designation, which accompanied the tribe, as such names sometimes do, in its subsequent migrations. Both of my semi-Tutelo informants assured me that the proper national name—or the name by which the people were designated among themselves—was Yesáng or Yesáh, the last syllable having a faint nasal sound, which was sometimes barely audible. In this word we *probably* [italics are writer's] see the origin of the name, Nahyssan, applied by Lederer to the tribes of this stock. [The present writer wishes to insert a statement to the effect that Lederer never alluded to the Nahyssan as inferred by Hale, but rather as definitely to the Saponi.] . . . In these Akenatzies we undoubtedly see the Aconechos of Lawson, and the Ochineeches mentioned by Governor Spotteswood. Dr. Brinton, in his well known work on the "Myths of the New World," has pointed out, also, their identity with the Occaneeches mentioned by Beverly in his "History of Virginia," and in doing so has drawn attention to the very interesting facts recorded by Beverley respecting their language. (See the note on p. 303 of Dr. Brinton's volume, 2d edition.)

According to this historian, the tribes of Virginia spoke languages differing so widely that natives "at moderate distance" apart did not understand one another. They had, however, a "general language," which people of different tribes used in their intercourse with one another, precisely as the Indians of the north, according to La Hontan, used the "Algonkine," and as Latin was employed in most parts of Europe, and the Lingua Franca in the Levant. These are Beverley's illustrations. He then added the remarkable statement: "The general language here used is that of the Occaneeches, though they have been but a small nation ever since these parts were known to the English; but in what their language may differ from that of the Algonkins I am not able to determine." Further on he gives us the still more surprising information that this "general language" was used by the priests and conjurors "of the different Virginian nations in performing their religious ceremonies, in the same manner (he observes)" as the Catholics of all nations do their Mass in the Latin."

The Akenatzies or Occaneeches *would seem to have been*, in some respects, *the chief or leading community among the tribes of Dakotan stock who formerly inhabited Virginia.* [Italics are writer's.] That these tribes had at one time a large and

widespread population *may be inferred* from the simple fact that their language, like that of the widely scattered Algonkins (or Ojibways) in the northwest, became the general medium of communication for the people of different nationalities in their neighborhood. That they had some ceremonial observances (or, as Beverley terms them "adorations and conjurations") of a peculiar and impressive cast, like those of the western Dakotas *seems* [italics are writer's] evident from the circumstance that the intrusive tribes adopted this language, and *probably* [italics are writer's] with it some of these observances, in performing their own religious rites. We thus have a strong and unexpected confirmation [?] of the tradition prevailing among the tribes both of the Algonkin and the Iroquois stocks, which represents them as coming originally from the far north, and gradually overspreading the country on both sides of the Alleghanies, from the Great Lakes to the mountain fastnesses of the Cherokees. They found, *it would seem*, Virginia, *and possibly the whole country east of the Alleghanies, from the Great Lakes to South Carolina, occupied by tribes speaking languages of the Dakotan stock. That the displacement of these tribes was a very gradual process and that the relations between the natives and the encroaching tribes were not always hostile*, MAY BE INFERRED *not only from the adoption of the aboriginal speech as the general means of intercourse, but also from the terms of amity on which these tribes of diverse origin, natives and intrusives, were found by the English to be living together.*

That the Tutelo tongue represents this "general language" of which Beverley speaks—this aboriginal Latin of Virginia—*cannot be doubted. It may therefore, be deemed a language of no small historical importance. The* FACT (?) *that this language, which was first obscurely heard of in Virginia two hundred years ago, has been brought to light in our day on a far-off reservation in Canada, and there learned from the lips of the latest surviving member of this ancient community, must certainly be considered one of the most singular occurrences in the history of science.* [Italics are writer's.]

Apart from the mere historical interest of the language, its scientific value in American ethnology entitles it to a careful study. As has been already said, *a comparison of its grammar and vocabulary with those of the western Dakota tongues* HAS LED TO THE INFERENCE *that the Tutelo language was the older form of this common speech.* [Italics are writer's.] This conclusion was briefly set forth in some remarks which I had the honor of addressing to this Society at the meeting of December 19, 1879, and is recorded in the published minutes of the meeting. [Hale, 1883, pp. 1–13.]

1886.—Edward Neill tells us about events of Bacon's Rebellion and the part played by various Indian groups. He relates:

In the hope of composing difficulties, the Governor (Berkeley), on the 3d of May, 1676, with an escort of three hundred men proceeded to visit the upper part of York and James Rivers, and found that Bacon had gone with a force of two hundred persons *to the great village of the Okinagees on an island, in a river, two hundred miles southward*, [italics are writer's] and there while the Indians were friendly in disposition, provoked a quarrel in which the Indians lost fifty, and he eleven men. [Neill, 1886, pp. 350–351.]

Leading up to this event the following had occurred:

In early summer of 1675, the Doegs, a tribe of the Potomac River, charged a planter, named Mathews, with unfair dealings, and retaliated by stealing his swine. The Indians were pursued, and some killed. Then Robert Henn, a herdsman was found wounded, at the door of his cabin, in Stafford County, Vir-

ginia, who lived long enough to say, that his assailants were savages. A party in July, under Colonel George Mason, and Captain Brent, crossed the Potomac, in pursuit and divided their forces. The horsemen, under Brent, found a wigwam of Doegs, surrounded it, and killed the chief and ten others as they came out. Colonel Mason found an encampment also near by, and with those on foot, killed fourteen, when a chief ran up, and told him that they were friendly Susquehannas, and that the murder which had incensed the whites was committed by a band of wandering Senecas.

After this, great excitement prevailed upon the Maryland, as well as the Virginia shores of the Potomac, and a joint movement against the Indians was arranged. The Virginians were under Colonel John Washington, Colonel George Mason and Major Isaac Allerton; and the Marylanders, were commanded by Major Thomas Trueman. The latter reached a fort of the Susquehannas, on Sunday morning, September 25th, 1675, and was informed that the marauding Senecas had done the injury to the settlers, but, they had left four days before, and were probably near the head of the Patapsco River. The next morning there was a junction of the Marylanders and Virginians, and the officers of the latter were Col. John Washington, Col. George Mason, and Major Allerton. About six of the principal Indians came out of their earth fort, and showed by their certificates and medals that they held friendly relations with the people of Maryland, but Col. Washington said "Why keep them any longer? Let us knock them on the head".

The rash suggestion was adopted, and the fort in marsh ground, surrounded with limbs of trees, was besieged. The outraged savages held out, for six weeks, and then upon a moonlight night, stole away. The indignity heaped upon them was quickly avenged, and ten white people were speedily killed for each chief that had been murdered. The authorities of Maryland were shocked at what they termed the "barbarous and inhuman" act of Major Trueman and his associates, and he was impeached by the Assembly, and debarred from holding office, while all possible reparation was made to the Indians. Virginia was requested to censure the act of Col. Washington, and others, and it is said that Governor Berkeley was willing, but no steps were taken by the Council and Burgesses. Passing round the rude stockades erected at the heads of the principal rivers, the Indians commenced the work of retaliation, and from the Falls of the Potomac, to the Falls of the James, steadily crept, scalping the isolated planter, and mutilating the bodies of helpless women, and babes, and among other who fell, was the overseer of younger Nathaniel Bacon.

For the protection of frontiersmen, the Assembly which convened, in March, 1676, declared war against those savages, who had lately committed murders, and robberies, and arrangements were made for the raising of five hundred men, in the older, and more secure counties, to be paid by the Colony, and stationed at points, liable to attacks from the savages. [Neill, 1886, pp. 346–348.]

Others were chagrined because they received neither appointments as officers of the forces to operate against the Indians, nor profits from the erection of the several stockades. Throughout the Colony, moreover, there was a good deal of discontent because the Governor gave the offices and contracts, to a few favorites, and Bacon determined to lead this element, and intimidate the Governor. As one of the council, he told his neighbors, that he would pursue the Indians, without any expense to the public, and thus rallied them to his support. He then applied for a commission to lead a force against the Indians, but Berkeley did not grant it, but ordered the military officers, of each county, to appoint officers necessary to suppress Indian hostilities. [Ibid., p. 350.]

1892.—J. W. Powell, in his "Indian Linguistic Families of America North of Mexico," which was largely influenced by James Mooney, states:

> The Tutelo habitat in 1671 was in Brunswick County, southern Virginia, and it probably included Lunenburgh and Mecklenburg counties. The Earl of Bellomont (1699) says that the Shateras were "supposed to be the Toteros, on Big Sandy River, Virginia," and Pownall, in his map of North America (1776) gives the Totteroy (i. e., Big Sandy) River. Subsequently to 1671 the Tutelo left Virginia and moved to North Carolina. They returned to Virginia (with the Sapona), joined the Nottoway and Meherrin, whom they and the Tuscarora followed into Pennsylvania in the last century, thence they went to New York, where they joined the Six Nations, with whom they removed to Grand River Reservation, Ontario, Canada, after the Revolutionary War. The last full-blood Tutelo died in 1870. For the important discovery of the Siouan affinity of the Tutelo language we are indebted to Mr. Hale. [Powell, 1892, p. 114.]

This whole statement reflects not Powell's but Mooney's ideas entirely, which are stated in his article on the Siouan tribes of the East.

1894.—At this period, we come to Mooney's classic report. Since this work has been so liberally quoted by subsequent writers, we are taking the same liberty.

Speaking about the Siouan tribes, he says:

> The Siouan tribes, to the contrary, although generally cultivating the ground to a limited extent, were essentially a race of hunters, following the game—especially the buffalo—from one district to another, here today and away tomorrow. Their introduction to the horse on the prairies of the west probably served only to give wider opportunity for the indulgence of an inborn roving disposition. Nomads have short histories, and as they seldom stopped long enough in one place to become identified with it, little importance was attached to their wanderings and as little was recorded concerning them.
>
> . . . War, pestilence, whisky and systematic slave hunts had nearly exterminated the aboriginal occupants of the Carolinas before anybody had thought them of sufficient importance to ask who they were, how they lived, or what were their beliefs and opinions.
>
> The region concerning which least has been known ethnologically is that entending from the Potomac to the Savannah and from the mountains to the sea, comprising most of Virginia, North Carolina and South Carolina. Of some of the tribes formerly within this area the linguistic connection has long been settled; of some others it is a matter of recent discovery; of others again it is still a matter of doubt; while some must forever remain unclassified, for the tribes have perished from the earth without leaving a word of their language behind. [Mooney, 1894, pp. 6, 7.]
>
> The tribes between the mountains and the sea were of but small importance politically; no sustained mission work was ever attempted among them, and there were but few literary men to take an interest in them. [Ibid., p. 6.]
>
> In Virginia this territory includes all west of a line drawn through Richmond and Fredericksburg, up to the Blue Ridge, or about one-half the area of the state. In North Carolina it includes the basins of the Roanoke, the Tar, the Cape Fear, the Yadkin, and the upper Catawba rivers, comprising more than two-thirds of the area of that state. In South Carolina it comprises nearly the whole central and eastern portion. In the three states the territory in question comprises

an area of about 70,000 square miles, formerly occupied by about forty different tribes. [Mooney never names these.]

Who were the Indians of this central area? For a long time the question was ignored by ethnologists, and it was implicitly assumed that they were like their neighbors, Iroquoian or Algonquian in the north and "Catawban" in the south. It was never hinted that they might be anything different, and still less was it supposed that they would prove to be a part of the great Siouan or Dakotan family, whose nearest known representatives were beyond the Mississippi or about the upper lakes, nearly a thousand miles away. [Ibid, p. 9.]

. . . the great agents in the expulsion or extermination of the eastern Siouan tribes were the confederate Iroquois of New York. With these may be included the Tuskarora, who, though established on the Neuse river in North Carolina, retained the clear tradition of their common origin and were regarded as an outlying tribe of the confederacy with which they afterward united as an integral part. . . . When their warfare against the southern tribes was inaugurated we do not know. It was probably continuous with the expulsion of the Cherokee from the upper Ohio, and was in full progress nearly three centuries ago. As early as 1608 John Smith found the Iroquois, known to the Powhatan tribes as Massawomek, regarded as "their most mortall enemies" by all the tribes of Virginia and Maryland. The Susquehanna ("Sasquesahanock") or Conestoga at the head of the bay, who had nearly six hundred warriors, all "great and well-proportioned men," he found "pallisadoed in their Townes to defend them from the Massawomekes their mortall enemies" (Smith, 1). Sixty-five years later these giant-like men, notwithstanding their palisaded defenses, were forced to abandon their country to the conquering Iroquois and come down upon the frontiers of Virginia, thus precipitating the Indian war which resulted in Bacon's rebellion. . . . Byrd, about 1730, says that the northern Indians were the implacable enemies of these Siouan tribes, and that the frequent inroads of the Seneca had compelled the Sara to abandon their beautiful home on the banks of the Dan and take refuge on the Pedee (Byrd, 2). [Ibid., pp. 9, 12, 13.]

Up to 1670 the Monacan tribes had been but little disturbed by the whites, although there is evidence that the wars waged against them by the Iroquois were keeping them constantly shifting about. Their country had not been penetrated, excepting by a few traders who kept no journals and only the names of those living immediately on the frontiers of Virginia were known to the whites. Chief among these were the Monacan proper, having their village a short distance above Richmond. In 1670 Lederer crossed the country in a diagonal line from the present Richmond to Catawba river, on the frontier of South Carolina, and a year later a party under Batts explored the country westward across the Blue ridge to the headwaters of New River. Thenceforward accounts were heard of Nahyssan, Sapona, Totero, Occaneechi, and others, consolidated afterward in a single body at the frontier, Fort Christanna, and thereafter known collectively as Saponi or Tutelo. The Monacan proper form the connecting link between the earlier and the later period. The other tribes of this connection were either extinct or consolidated under other names before 1700, or were outside of the territory known to the first writers. For this reason it is difficult to make the names of the earlier tribes exactly synonymous with those known later, although the proof of lineal descent is sometimes beyond question.

We shall deal first with the Monacan and confederated tribes mentioned by Smith. According to this explorer the Monacan confederacy in 1607 held the country along James river above the Powhatan, whose frontier was about the falls at which Richmond was afterward located. Among the tribes of the confederacy Smith enumerated the Monacan proper, the Mowhemenchugh, Massin-

nacack, Monahassanugh, and Monasickapanough, and says there were others, which he does not name. . . . He seems to imply that the Monacan tribes named spoke different languages, although in another place (Smith, 8) *we are led to infer* [writer's italics] that they had but one. The difference was probably only dialectic, although the cognate and confederate tribes farther southward probably used really different languages.

Strachey derives the name Monacan from the Powhatan word *monahacan* or *monowhauk*, "sword," while Heckewelder, through the Delaware language, translates it "spade" or "digging instrument." It is more probable that the word is not Algonquian at all, but that the tribal names given Smith are approximations to the names used by the tribes themselves. . . . Monahassanugh is the Nahyssan of Lederer and Monasickapanough may possibly be the origin of Saponi. [Ibid., pp. 26–27.]

The first actual contact into the Monacan territory was made in the fall of 1608 when a party led by Newport, together with 120 men, marched about 40 miles up the river where they discovered two of the Monacan villages, Massinacack and Mowhemenchouch. Not that the English wanted to make overture to the Indians since this was purely an exploratory trip primarily in search for rich minerals. Not finding any they returned in about a week satisfied that the Monacan country held nothing which they desired for the time being. Indirect pressure by the English caused them to abandon several of their villages and the inroads made by the Rechahecrian or Rickohockan who descended from the western mountains with the intention of settling near the falls of the James precipitated a war with the English and their Pamunkey allies in which the latter were badly defeated.

Mooney further suggests that "the Powhatan to the east probably kept up the desultory raids so long as they themselves were in condition to fight" (ibid., p. 28). This is contrary to the idea expressed by Smith and others, who stated that the Monacan were the offensive ones and whenever they appeared the Powhatan trembled with fear. Mooney also suggests that the Monacan—

were directly in the track of the Rechahecrian (Rickohockan, Cherokee) who in 1656 (or 1654) descended from the mountains and ravaged the country as far as the falls of the James where they defeated the combined forces of the English and Pamunkey. . . . A remark by Lederer indicates that the Saponi were at this time carrying on a war with the whites. [Ibid., p. 28].

In another place Lederer states that the country between the falls of the river and the mountains was formerly owned by the "Tacci" or "Dogi" who were then extinct, and their place occupied by the Mahoc (not identified), Nuntaneuck or Nuntaly (not identified), Nahyssan (Monahassano or Tutelo), Sapon (Saponi), Managog (Mannahoac), Mangoack (Nottoway), Akenatzy (Occaneechi), and Monakin. All these, he says, had one common language, in different dialects. *This was probably true, except as to the Nottoway, who were of Iroquoian stock.* [Italics are the present writer's.] [If this common language was assigned to the whole lot, according to Lederer, and does not apply to the Nottoway, according to Mooney, why not exceptions within the rest or the grouping? Mooney goes on to make a flat statement that the:] Linguistic evidence indicates that the

eastern tribes of the Siouan family were established upon the Atlantic slope long before the western tribes of that stock reached the plains. [Ibid., p. 29.]

In this same work, Mooney states:

In another place he (Lederer) observes that Totopotomoi, the Pamunki chief had been killed while fighting for the English against the Mahock and Nahyssan. . . . if Lederer's statement be true it would prove that the Siouan tribes of Virginia had aided the Cherokee in this invasion. [Ibid., p. 30.]

In checking over two different copies of "The Discoveries of John Lederer," etc.—Humphrey's edition of 1902, and Alvord and Bidgood of 1912—neither one follows through as indicated by Mooney in identifying "a great Indian king called Tottopottoma." Mooney makes a number of assumptions which he attributes to earlier writers that seem somewhat dubious. This is noticeable throughout the whole of the dissertation on the eastern Siouan problem.

After leaving Major Harris on the James River, Lederer and his Susquehanna guide, Jackzetavon, set forth and arrived at "Sapon, a town of the Nahyssans." Mooney interprets this to mean: "The name Sapon or Saponi may possibly have a connection with the Siouan (Dakota) word *'sapa,'* 'black,'" (ibid., p. 30). Lederer tells of the chief of the Sapon residing in another village called *pintahae* which was not far from Sapon and situated upon the same river. Mooney thinks that—

In Nahyssan we have the Monahassanugh of Smith, the Hanohaskie of Batts, and the Yesand of Hale. Pintahae was the local name of another tribe or settlement included under the same generic designation. Thus from Lederer's statement that Sapon was a Nahyssan town we understand that the Saponi were a subtribe or division of the people who knew themselves as Yesang. [Ibid., p. 31.]

Not only has he mistakenly attributed statements to Lederer but he has confused Lederer with Hale, for Lederer never indicated that he knew that the Saponi were supposed to have called themselves "yesang." It is upon Hale's statement that the Saponi were supposed to have called themselves by this word, and even on his say-so, it was acquired under pretty questionable circumstances.

Mooney's provocative statement on top of page 33: "Lederer's account of their religion is too general to be definite, and he neglects to state to what particular tribal language the Indian names quoted belong," a common practice in those times as well as in his own. Lederer was an explorer-trader, pure and simple, and he preserved in his journal happenings which struck his fancy and recorded events which occurred during his various expeditions. The information recorded during this particular trip was given to him mostly by his Susquehanna guide and this information would be colored by this fact. Names of places, of other Indian groups, rivers, etc., would necessarily be given in pure Susquehanna (Iroquois) terms.

Adding further confusion to the issue, Mooney states:

The Hanohaskie village [which he interpreted in an earlier paragraph as a misprint of Manohaskie and which are the Monahassanugh of Smith's map of 1609, on which they are located indefinitely southwest of the junction of the James and Rivanna rivers] of Batts may be the Pintahae of Lederer. The latter did not meet the tribe here designated as the Tolera, as they were far remote from the regular lines of travel, and after leaving the village which he calls Sapon he turned off to strike the trail (?) which crossed the Roanoke at the Occaneechi village about Clarksville, Virginia. [Mooney's interpretation as to the location of the Occaneechi village and the trail are unsupported by facts as revealed by maps of the period shortly after Lederer made his famous trip and appear to be supported only by suppositions and inferences on the part of Mooney.] The chief difficulty in comparing the narratives arise from the fact that the names Yesang and Tutelo (of Hale's), in their various forms, are used both specifically and collectively. [Ibid., p. 35.]

The Hanohaskie of Batts and Fallam was, according to their own statement, located to the north and west of Sapony, a distance of 25 miles. Lederer never indicated either the direction or the distance from Sapon for the location of his "pintahae."

Mooney states further:

The Tutelo and Saponi tribes must be considered together. Their history under either name begins in 1670. . . . The name Saponi (Monasickapanough ?) was generally limited to a particular tribe or aggregation of tribal remnants, while the Iroquois name Tutelo, Totero, or Todirich-roone, in its various forms, although commonly used by the English to designate a particular tribe, was really the generic Iroquois term for all the Siouan tribes of Virginia and Carolina, including even the Catawba. . . . In deference to Hale, who first established their Siouan affinity, we have chosen to use the form Tutelo, although Totero is more in agreement with the old authorities. . . . As the name is used by Batts and Lawson it probably belongs to some southern language and was adopted by the Iroquois. [First Mooney states that it is "really the generic Iroquois term" and now he states that the Iroquois borrowed it from the southern Indians.] It frequently happens that Indian tribes can not interpret their common tribal designations, but know themselves simply as "the people." [Ibid., p. 37.]

Referring to William Byrd, Mooney continues:

Unable to withstand the constant assaults of their northern enemies, the two western tribes abandoned their villages and removed (some time between 1671 and 1701) to the junction of the Staunton and the Dan, where they established themselves adjoining their friends and kinsmen the Occaneechi, whose history thenceforth merges into theirs. The Occaneechi . . . although now themselves reduced by the common enemy, had been an important tribe. [Inferred.] They occupied at this time a beautiful island about 4 miles long, called by their tribal name, lying in the Roanoke a short distance below the forks of the stream, in what is now Mecklenburg county, Virginia. Above and below Occaneechi island, in the same stream, were two other islands, of nearly equal size. The Saponi settled on the lower of these, while the Tutelo took possession of the upper one just at the confluence of the two rivers. How long they remained there is not definitely known. . . . They may have been driven from their position on the Roanoke by that general Indian upheaval, resulting from the conquest of the Conestoga or Susquehanna by the Iroquois about 1675, which culminated in Virginia in the Bacon

rebellion. In 1733 Byrd visited the islands, and found tall grass growing in the abandoned fields. [Ibid., p. 38.]

Mooney places—

Hale in error in supposing from Lawson's narrative that the Tutelo and Saponi in 1701 had found shelter from the Iroquois by placing between themselves and their destroyers the "living rampart" of the Tuskarora. The error grows out of Lawson's supposition that Sapona river is identical with the Cape Fear, while, as a matter of fact, he had in mind the Yadkin; and the Tutelo and Saponi were then at least a hundred miles west of the Tuskarora and direct line of the Iroquois war parties sent out against the Catawba. As the Tuskarora were friends and kinsmen of the Iroquois, who made their villages a resting place on these southern incursions, the smaller tribes had nothing to expect from them until the war, a few years later, had broken the power of the Tuskarora and rendered them dependent on the whites. [Ibid., p. 40]

From all accounts it appears that there was always bad feeling between the Saponi and their confederates on the one side and the Tuskarora, Nottoway, and Meherrin—all Iroquoian tribes—on the other, after they became near neighbors, so that it required the constant effort of the English to adjust their quarrels and prevent them from killing one another. [Ibid., p. 42.]

Again Mooney digresses from his initial statement as to the location of Occaneechi Island. He states that this island is:

Situated at the confluence of two large rivers, midway between the mountains and the sea, and between the tribes of Virginia and Carolina, the Occaneechi were an important people, if not a numerous one, and their island was the great trading mart, according to a writer of this period, "for all the Indians for at least 500 miles." (Mass. 1). [Ibid., p. 54.]

This is the first indication that the Occaneechi were ever traders and controlled the trade over an area 500 miles in extent. This statement is attributed to an anonymous writer of 1676.

Mooney developed a number of interesting statements in his "Siouan Tribes of the East," which will not bear critical examination.

1895.—We will next consult William Wallace Tooker who published a paper on "The Algonquian Appellatives of the Siouan Tribes of Virginia" in 1895. In this he asks a number of questions and tries to supply the answers to each of them. We are particularly interested in his *third* and *fourth* questions and answers; i. e.: "Third, Can any of the Mannahoacks be identified with tribes or peoples of a later historic period? Fourth, To what language must we assign these and other names of Captain John Smith?" (Tooker, 1895, p. 378).

These appellatives were bestowed upon them by their neighbors on the east, the Powhatans and their confederates, who are well known to have been a branch of the Algonquian linguistic stock. Therefore there ought to arise no question whatever in the mind of the critical student of Smith's work against the dictum now submitted, that every one of these terms, without a single exception, are necessarily Algonquian, and consequently should be analyzed and translated by the aid of that language, no matter what the nativity of the people themselves may have been. This declaration will also apply to every aboriginal name occuring upon Smith's map of Virginia, for he was never in contact with other than

an Algonquian long enough to learn a name. Besides, the historical evidence would seem to indicate that the greater number of these terms were heard spoken from the lips of the Powhatan long before the colonists saw a Monacan. For instance, Captain Newport's guide and interpreter was a savage of Powhatan called Namontack. Newport named a mine six miles above the falls after him because he discovered it. Smith's interpreter while among the Mannahoacks was an Algonquian, as was also his Tockwogh interpreter while interviewing the Susquehanoughs. His very brief parley with the Massawomecks, as he relates, was entirely by signs. Therefore it seems to me that failure would be necessarily foreordained in seeking for other than Algonquian elements in any of the aboriginal names of Virginia as bequeathed to us by Captain John Smith.

William Strachey, secretary of the colony, 1609–1612, who was more or less familiar with the language of the Powhatan and has left us a valuable vocabulary of that dialect derives the name Monacan from Monohacan (or Monowhauk), "a sword," while Heckewelder, through the Delawares, translates it as "a spade or any implement for digging the soil," corrupted from Monahacan. Heckewelder is so rarely correct in his place-name etymologies that he should have due credit for this suggestion, for the fact appears that both of these authorities are correct in their identification of the verbal element of the name, but not in the grammar, application, or true analysis of the term as applied to a people.

The prefix Mona is undoubtedly the verb signifying "to dig" occurring in the same primitive form in many Algonquian dialects, from the Cree Móona, in the far north, to the Narragansett Mona, on the east, and is reproduced at the south in the Powhatan Monahacan, "sword," literally a digging instrument, from Mono, "to dig," prefixes to -hacan, an instrumentive noun suffix used only as a terminal in compound words denotive of things artifical, so designated because so used by the Indians when purchased from the settlers. The same verb figures in other Powhatan cluster words, thus revealing its identity; for instance in Monascunnemŭ; Delaware Munaskamen, "to weede." It will be found by analyzing carefully the various synonyms of the term Monacans, or Monanacans, with its English plural as displayed, that it resolves itself into the components of Monaach-anough, from Mona, "to dig," "ack," "land or earth," with its generic plural of -anough, "nation, or people"—that is "people who dig the earth" the phonetic sounds of which were shortened into Monacans by the English, which may be freely and correctly translated as the "diggers or miners." This abbreviation of the sounds of tribal appelatives is characteristic of English notation, as in Mohawk, from Mauquouog; Mohegans, from Manhigan-euck; Pequot, from Pequttoóg, and others. [Ibid., 1895, pp. 378–381.]

Tooker further points out that after studying the word "Saponi" he finds that its possible derivation was from "Monasukapananough (diggers of ground nuts)" (ibid., p. 384).

The Whonkentyaes or Whonkenteas are another tribe of the Mannahocks or tributary to them who are unplaced on Smith's map. The phonetic sounds of this appellative suggests that they were probably the ancestors of the Akenatzies, or Occaneeches, as it is varied, who were living, as Mr. Mooney has indicated, on an island just below the confluence of the rivers Dan and Staunton, in Mecklenburg county, Virginia, when visited by John Lederer in 1670. I would suggest that the derivation of the term Whon-kenté-as or Whon-kenchi-aneas as from the Narragansett awáun, Massachusetts auwon, "there is somebody," i. e., who is strange or different from those speaking. The second component, -kentie, -kenatzie, or -caneeche, seems to have its parallel in various forms of the verb "to talk" or "to speak," as in the Long Island unkenchie, "the strange talker;" Nar-

ragansett awáun-ken-tauchem? "Who are you that discourses?" Delaware niechsin, "to speak;" Powhatan kekaten, "you tell," which, with its terminal gives us whon-kentie-anies, "people of a strange talk, or another speech." This analysis confirms Smith's statement that the Mannahocks were "many different in language." Again in noticeable corroboration of this derivation, the Occaneeches seem to have been of a different linguistic stock to their Siouan neighbors. . . . Now, it appears to me, on careful consideration of this statement of Beverley's in all its aspects that it is open to only one construction—that is to say, if the term Whomkenties is a translation of an Algonquian interpreter of a Siouan description of a nation of another or different speech, residing among and tributary to them, and is also, as I suggest, a synonym for Occaneeche or Akenatzie, it would surely lead us *to infer* that the language of the Occaneeches was not Siouan, but was really nothing more nor less than a dialect of the Algonquian. [Ibid., p. 389.]

This explanation in itself appears rather farfetched.

The fact that Beverley, as he remarks, was unable to determine the difference between the language of the Occaneeches and that of the Algonkians would indicate to my mind that they were practically identical, with only an archaic difference—a difference similar to that mentioned by Mr. Mooney as existing between the Cherokee language and that used in the sacred formulas of their shamans. [Ibid., p. 391.]

1896.—Daniel Brinton, in discussing Beverley's "Historie de la Virginie" (p. 266):

The dialect he specified is "celle d'Occaniches," and on page 252 he says, "On dit que la langue universelle des Indiens de ces Quartier est celle des Occaniches, quoiqui'ils ne soient qu'une petite Nation, depuis que les Anglois connoissent ce Pais; mais je ne sais pas difference qui'l y a entre cette langue et celle des Algonkins." (French trans. Orleans, 1707) This is undoubtedly the same people that Johannes Lederer, a German traveller, visited in 1670, and calls *Akentazi.* They dwelt on an island, in a branch of the Chowan River, the Sapona, or Deep River (Lederer's *Discovery of North America,* in Harris, Voyages, p. 20). Thirty years later the English surveyor, Lawson, found them in the same spot, and speaks of them as the *Acanechos.* Their totem was that of the serpent. Mr. Mooney identifies them with the Occaneechi, a tribe of Siouan affinities. . . . The travellers Balboa and Coreal mention that the temple services of Peru were conducted in a language not understood by the masses, and the incantations of the priests of Powhatan were not in ordinary Algonkin, but some obscure jargon.

The same peculiarity has been observed among the Dakotas and Eskimos, and in these nations, fortunately, it fell under the notice of competent linguistic scholars, who have submitted it to a searching examination. The results of their labors prove that in these two instances the supposed foreign tongues were nothing more than the ordinary dialects of the country modified by an affected accentuation, by the introduction of a few cabalistic terms, and by the use of descriptive circumlocutions and figurative words in place of ordinary expressions, a slang, in short, such as rascals and pedants invariably coin whenever they associate. [Brinton, 1896, footnote 2 and text, p. 326.]

1897.—James Owen Dorsey in "Siouan Sociology" reports that—

Among the tribes of the Siouan family the primary unit is the clan or gens, which is composed of a number of consanguinei, claiming descent from a common

ancestor and having common taboos; the term clan implying descent from the female line, while gens implies descent in the male line. Among the Dakotas, as among the cegiha and other groups, the man is the head of the family. [Dorsey, 1897, p. 213.]

This is an important point in determining the designation of the individual's classification as to tribe when the amalgamation was in effect, such as the Tutelo in relation to the Iroquois groups.

1912.—Alvord and Bidgood (1912, p. 152, footnote) quoted Mooney as to the location of the Indian Sapony village or town. As for the "Rickahockans or Richecrians," they refer to Neill (1886, pp. 245–246) who told about their attempt at colonization near the falls of the James River and the subsequent battle between them and the English and their Indian allies in which the chief of the Pamunkeys, Tottopottomoy, was killed. Lederer tells about this same event in relating experiences while on "The First Expedition" (Alvord and Bidgood 1912, p. 146). Mooney (1894, p. 30), on the other hand, gives an entirely different version of this event.

1913.—Leo Frachtenberg, in 1913, published "Contributions to a Tutelo Vocabulary," in which he says:

> Besides the present list, there are in existence two other Tutelo vocabularies. Of these, the earliest was collected by Horatio Hale on the Grand River reservation, Ontario, in 1883, while the latest attempt to obtain a vocabulary of this extinct dialect was made by Dr. Edward Sapir. My own material was collected under the auspices of the Bureau of American Ethnology, on the Grand River reservation, Ontario, in July, 1907. My informant was Lucy Buck, an old Tutelo woman, who remembered only the few words and phrases that are herein recorded. As she was unfamiliar with English, it was necessary for me to obtain this scanty material by using as an interpreter *Andrew Sprague, a Cayuga, who in his early youth had been adopted by the Tutelo tribe.* [Writer's italics.]
>
> As is well known, Tutelo (and Saponi) form a subdivision of the great Siouan family. They lived in North Carolina at a very early date. During one of their frequent raids, the Iroquois took these two tribes along with them northward. According to information obtained from Andrew Sprague, the Tutelo were admitted into the Confederacy of the Iroquois, thereby forming the sixth nation of the Iroquois League—by which we may assume that the Tutelo and the Saponi were adopted with the Tuscarora. Sprague also informed me that at the Iroquois festivals it is customary to sing a few Tutelo songs in deference to that tribe.
>
> At the time this material was collected, only two Tutelo families survived, namely, the Williams and Buck families. No members of the Williams family remembered a single word of their former tongue. Of the Buck family, Lucy was the only one who seemed to know a few words of her language. She told me, however, that the head of her family, John Buck, who at that time was a fugitive from the reservation, could speak Tutelo fluently. I made several fruitless attempts to locate him.
>
> This material is presented in the form in which it was given to me. No attempt to verify the words by means of other vocabularies has been made, owing chiefly to the fact that *I deemed the material obtained highly unreliable* [writer's italics], as a glance at the various confusing terms given for the different cardinal numerals will show.

The appended song was rendered toward the close of the Iroquois Strawberry festival, at which I happened to be present. Sprague told me that it was a Tutelo song. No translation could be obtained. [Frachtenberg, 1913, pp. 477–478.]

During this same year (1913) Edward Sapir reported on "A Tutelo Vocabulary", which was obtained on the—

White or Six Nations Reserve, Ontario, in August, 1911. I was told of a Cayuga Indian named Andrew Sprague, who had had opportunity during his childhood to hear Tutelo spoken fluently and who was supposed to remember considerable of it. As Tutelo is an extinct language, I thought it imperative to rescue from oblivion what was still to be obtained and thus add, if only a mite, to what had already been put on record. As a matter of fact, it turned out that Andrew remembered only very little indeed of Tutelo, and what small amount of material could be obtained from him was extorted with some difficulty. No attempt will here be made to discuss the data. They are given for what they are worth in the hope that they may at some future time prove of use to the student of comparative Siouan linguistics. If in nothing else, perhaps the words listed are of value because they have been recorded with greater phonetic accuracy than is generally attained in mere vocabularies. [Sapir, 1913, p. 295.]

Both Frachtenberg and Sapir placed very little stress upon these last two vocabularies, as they deemed the sources to be very unreliable. An examination of these in comparison with other vocabularies would soon show wide discrepancies which would tend to invalidate Tutelo as belonging to the Siouan linguistic family.

1914.—W. H. Holmes, discussing "Areas of American Culture Characterization," etc., pertaining to the Algonquian, Iroquoian, and Siouan stocks, remarked:

. . . the aborigines, largely of the Algonquian, Iroquoian and Siouan stocks, were primarily hunters and fishers, although agriculture was practiced successfully in many of the fertile valleys. The native culture of both colonial and precolonial times, so far as known, though varying with the widely distributed centers of habitation, was quite uniform in grade and general characteristics. It is well differentiated from that of the south and middle west, but passes with no abrupt change into that of the upper lakes and the great interior region of the north. The changes from north to south were due in large measure to differences in food resources and the influence of neighboring cultures. [Holmes, 1914, p. 417.]

These statements would indicate that the material culture of a group would depend somewhat upon what other culture groups surrounded them and the influence this would bear upon each other. The basic material culture would tend to follow a definite cultural pattern with modifications depending upon geographical location and outside influences.

1914.—John R. Swanton and Roland B. Dixon published a paper dealing with "Primitive American History" in which they discussed the "Indians of the Siouan Stock." They said:

When first encountered by Europeans the great Siouan linguistic family occupied two large and two small areas. Of the former one lay along the eastern skirts of the Appalachian mountains, between them and the tidewater region of the

Atlantic coast, from about the great falls of the Potomac to Santee River, South Carolina. [Swanton and Dixon, 1914, p. 383.]

They then go on to say:

It is a striking fact that, in contrast with both the Muskhogean and Siouan peoples, *the migration legends which have been preserved from the Indians of this stock are meager and unsatisfactory* [writer's italics]. According to colonial documents the Meherrin were a band of refugee Conestoga which fled south after the destruction of that tribe by the Iroquois about 1675, but one form of their name occurs in the census of Virginia Indians taken in 1669. Thus it is evident either that some Conestoga had replaced an Algonquian tribe of similar designation or else that the tribe antedated the destruction of the Conestoga and the reputed influx of population at that time. Possibly, as Mooney suggests, an original small Iroquoian tribe was practically submerged by later immigrations of Conestoga. At all events the whole question of origin is left in uncertainty. . . . So far as this evidence goes, however, it indicates a northern origin for the southern Iroquoian group. [Ibid., p. 390.]

Swanton admitted, in 1923, that "there is much of speculation in all this" (1923, p. 43) regarding the early history of any of these eastern groups, especially that of the Siouan peoples.

1927—An interesting tie-in with Frachtenberg's report on the Tutelo occurred in J. N. B. Hewitt's report on fieldwork in 1926 in which he says:

With the aid of Chief *John Buck*, an Onondaga–Tutelo mixed blood, as an Onondaga informant and interpreter, and Chief (retired) Alexander G. Smith, a Mohawk speaker and informant, Mr. Hewitt obtained a fine Mohawk version and literal translation of the remarkable Requickening Address of this famous Council. [Hewitt, 1927.]

Frachtenberg would indicate that John Buck was a full-blood Tutelo very fluent in the Tutelo tongue; Hewitt, on the other hand, recorded him as a mixed blood, without any mention as to his knowledge of the Tutelo language.

1929.—Hewitt, reporting on the "League of Nations of the Iroquois Indians of Canada," stated:

From a capable informant [*Chief John Buck, Jr.*] [writer's italics] an Onondaga-Tutelo mixed blood, I recorded in Onondaga text a most interesting historical detailing the northward migration of the Tutelo (Siouan) tribe from its southern habitat in Virginia and North Carolina to the country of the Cayuga in what is now the state of New York and the negotiations preceding it. This tradition is of unusual interest because it embodies references to a number of customs and especially intertribal amenities at an early day and customary precautions taken for such a journey of a tribal people through the lands of other hostile peoples. [Hewitt, 1930, p. 201.]

The tradition related by John Buck, Jr., would seem to be at odds with what Frachtenberg indicated. As we recall, Frachtenberg told about the Iroquois taking the Tuscarora, Saponi, and Tutelo north with them on their return trip, which would indicate that they were

escorted back to the Cayuga country. Hewitt's informant would indicate that the Tutelo made their own arrangements of a northward journey. To the present writer, it would appear that Frachtenberg's source of information is the more reliable.

On top of this, if John Buck, Jr., was so fluent in the Tutelo language, why was it necessary for him to make use of the Onondaga language to relate a Tutelo tradition of migration?

1930.—Along about this time David I. Bushnell, Jr., wrote about the "Five Monacan Towns in Virginia, 1607." We will quote him rather fully here, reserving comments for later.

> How long the country had been occupied by the Siouan tribes can never be determined. Others had preceded them, but who they were or whence they came may ever remain unknown. The earlier habitat of the Siouan tribes, to which stock the Monacan belonged, is believed to have been in the Valley of the Ohio [indicating Swanton—1923], from which region they crossed the mountains to the eastward and later occupied the lands where they were encountered by the Virginia colonists early in the 17th century. A comparison of the material to be recovered from sites eastward from the Ohio makes it possible to trace the line of migration of these tribes; this would require much time and careful study, but if successful would prove of the greatest interest. . . .
>
> Powhatan's statement to Captain Newport at the time of their first visit in 1608 that the Monacan 'came Downe at the fall of the leafe and invaded this Country' would indicate that the Monacan rather than the Algonquian dominated the region and did not fear the latter. [Bushnell, 1930, p. 5.]

Bushnell, quoting Smith in 1612, states:

> 'Upon the head of the Powhatans are the Monacans, whose chief habitation is at Russawmeake,' but all his knowledge of the place had been derived from Indians. It stood evidently at the confluence of the James and Rivanna, some miles beyond the point where Newport turned to retrace his way to Jamestown, in the autumn of 1608. The site had been abandoned before white settlers entered the region and consequently its exact position may never be known. [Bushnell, 1930, p. 12.]

Yet, Bushnell places it at the confluence of the two named rivers.

One new facet of identification is here displayed. Bushnell says:

> 'The name Rechacherian or Rickohockan has been applied to them, (?), believed by some to have been the Cherokee, although it was Mooney's later belief that they were Erie who had come southward. However, a statement by Lederer makes it appear they were a people of two Monacan groups, the Massinacack and Monahassanugh, who may have come from farther up the James to settle a new home more protected from the war parties of the Iroquois. [Ibid., p. 16.]
>
> Lederer, on his map, gave the name Rickohockans to a tribe then living far to the westward beyond the mountains. The name or term has never been clearly understood or translated, and with slight variation of spelling has been used to designate several tribes in widely separated parts of the country. But the word may have been a term applied under certain conditions and not the definite name of any tribe or group of tribes. If this belief is correct it could have been applied to Siouan as well as to Iroquoian or other tribes. [Ibid. pp. 16–17.]

This assumption on Bushnell's part may be nearer the truth than the various explanations offered in the past.

The Rickohockans, so-called, were to Lederer a vague group, evidently known to him only during his travels away from the English settlements. Had he associated them in any way with the great battle he would undoubtedly have mentioned them in that connection, but this he failed to do. The Algonquian and Monacan tribes had ever been enemies, it was known as early as 1608, and this fact may explain the willingness with which Totopotomi and his Pamunkey warriors joined the English in attacking their ancient tribal enemies. [Ibid., p. 17.]

Mooney was of the belief that Monasukapanough was possibly "the original of Saponi." There is little reason to doubt the correctness of this belief. Lederer stated that he "arrived at Sapon, a village of the Nahyssans." The latter . . . were the Monahassanugh whose name appears on the map of 1624. Therefore it is quite evident that at the time of the settlement of Jamestown, 1607, the site on the bank of the Rivanna was occupied by the Saponi, closely allied with the Monahassanugh or Tutelo, whose village stood on the banks of the James some miles away in a southwesterly direction.

Had it not been for the work and interest of Jefferson, no account of the great burial mound which once stood at the ancient village of Monasukapanough would now be available. It would have disappeared as have the burial places once belonging to other villages of the Siouan tribes and no reference to it would have been preserved. The site of the Indian town was visible from Monticello, and the burial mound stood near the south, or right bank of Rivanna. . . . [Ibid., p. 18.]

Strachey (1849, pp. 48–49), on the other hand, stated that: "Monahassanugh, which stands at the foote of the mountains" does not mention the presence of any river in the vicinity of the village. The mountains alluded to were either the Blue Ridge or the Alleghanies and were probably the latter.

A few paragraphs farther on, Bushnell says: "The exact position of the mound [which Jefferson excavated] may never be determined, but it certainly stood on the low ground, on the right bank of the Rivanna, evidently nearer the river than the cliffs, and it may have been some distance above the ford" (Bushnell, 1930, p. 20). This is quite different from the positive statement which is quoted above.

As for the exact location of the old Indian village of Monasukapanough, Bushnell states:

There is no known record of a white man having visited Monasukapanough, the ancient Saponi village on the banks of the Rivanna, and consequently no description of the settlement has been preserved.

Bushnell continues correlating the Saponi with Monasukapanough and the Tutelo with Monahassanugh even though such associations were never proved to be true. He made the same assumption in regard to the Saponi on the Rivanna River. Both placements were built upon assumptions on Mooney's part and here they are quoted as "gospel truths." He goes on to say:

It is believed [by Bushnell] that some time before the year 1670 the people, or at least the greater part of them moved from the valley of the Rivanna and went

southward to establish a new village which, according to Mooney, "was probably on Otter River, (but never verified), a northern tributary of the Roanoke, in what is now Campbell county, Virginia, nearly south of Lynchburg." Here they were visited by Lederer in 1670, and by Batts party during the following year, but these explorers failed to describe the settlement. Soon the movement was resumed; they wandered far, nearly reaching the center of North Carolina, later returning to Virginia. [Ibid., p. 28.]

This whole bit of testimony is purely inferential, not only on Bushnell's part, but on Bushnell's acceptance of Mooney's assumptions regarding the correlation of Smith's names of groups with the Saponi and Tutelo and placing them upon the James River system when no positive identification of such has ever been made.

If, as has been pointed out and proved upon observation—that the Siouan groups are of a nomadic trend, always on the move depending upon wild game to sustain life—why should they change their pattern of living to establish themselves long enough in a place to erect a fairly large-sized burial mound in which were placed the remains of their dead in the vicinity of the Rivanna? This would seem to refute Bushnell's contention that the mound excavated by Jefferson was of Siouan origin.

1934.—Ludwik Krzywicki, in his study of "Primitive Society and its Vital Statistics," etc., used Mooney's study of the "Siouan Tribes of the East" as his basic source of information. In this work he lists a number of Indian tribes referred to in earlier works. These groups are the: Adshusheer, Biloxi, Eno, Keyauwee, Occaneechi, Saponi, Shakori, and Tutelo. He says:

As regards the petty eastern Siouan tribes, we have deemed it sufficient to cite the estimates of J .Mooney . . . Four earlier sources give the names of the same tribe variously: sometimes these various versions are extremely unlike and often differ greatly from the designations commonly accepted today. These sometimes quite numerous variants of tribal names do not appear in our statistics of tribal population. [Krzywicki, 1934, p. 520.]

These estimates on Mooney's part are not based on factual knowledge, but are figures either from early listings of Indians or from what he thought the group to be at that particular time.

1935.—In this year Bushnell dealt with "The Manahoac Tribes in Virginia." He makes one statement which is worth calling attention to:

As yet it has not been possible to translate the names as given by Smith and Strachey. They were undoubtedly in some Siouan dialect and were told to the English by an Algonquian Indian. The latter appear to have attempted to translate the Siouan word into his own language, and this resulted in the names as recorded by the English being a combination of Siouan and Algonquian, making it difficult, if not impossible, ever to learn their true meaning. [Bushnell, 1935, p. 8.]

This is not a new conception on Bushnell's part, but the very wording

makes it appear as some modern "gobbledygook" whose meaning is beyond fathoming.

In this same year (1935), Frank Speck reported on the Siouan tribes of the Carolinas, etc., and states:

Among the Six Nations Iroquois of Ontario a reminiscence of the Tutelo, which has escaped recording by those who have questioned the Iroquois on the subject was offered me in 1925 by Joe Henry, the oldest Cayuga living at that time. This addition to our knowledge of the Tutelo relates that the name of the last Tutelo chief was Ka'stq'hagu, the term referring to his "Dwelling in Stone." [Footnote: We learn that John Key, a Tutelo of the Six Nations Reserve, Ontario, one of the last to speak the language, bore the name Gostango, "Beloe the Rock." He is evidently the person referred to above.] Legend states that he had killed a number of people; that he was the "first Tutelo who came to the Six Nations," and that he had formerly lived in a cave having a room perpendicular to the entry passage in which recess he lived for protection. The cave was so formed that only one invader at a time could enter and turn the corner. Intrenched in this cavern he had accounted for his enemies. The interesting tale of this old Cayuga is apparently a native version of a tradition recorded in 1733 by Byrd in reference to a cave that he found on an island in Roanoke River [Mecklenburg County, Va.] lying above Occaneechi Island, inhabited by the Tutelo before 1701; in which cave the last Tutelo king with only two men had defended himself against a large party of Iroquois and at last forced them to retire. Tradition among the Iroquois at times dies hard! [Speck, 1935, p. 206.]

Speck develops a new aspect.

Such an attitude toward cultural history here could be held to account for the allocation of the Powhatan peoples in the lower country to the eastward and the Siouan peoples in the piedmont region, their hostility toward each other, the survival of the language of the Occaneechi as a trade language of the region and the language of religious ritual, which facts we learn from Strachey (1948, p. 161; Hale, 1883, p. 12; Beverley, 1705, p. 191). If accordingly, my inferences for a more easterly habitat of certain Siouan peoples, the Shoccoree and possibly Eno, are accepted, then we have a trend of evidence hinting at the conclusion that Siouan peoples were earlier residents in eastern Virginia and Carolina and were invaded several centuries before the coming of the Europeans by the Powhatan, and gradually dispossessed of their territories by them. [Ibid., p. 202–203.]

The identification of these two tribes (Saponi and Tutelo) in the historical period with the Monahassanugh and Monasickapanough (Smith, 1607), divisions of the Monacan group, as residents in the Virginia foothills has been undertaken by Mooney and concluded by Bushnell (Mooney, 1894, p. 37; Bushnell, 1919, pp. 13, 17). Their exodus from Virginia, their wanderings southward and then their return to Virginia to settle for a while at Fort Christanna have been succinctly traced by Mooney. As yet, however, we have no mention of their association with the Catawba as allies or as incorporated units. Nevertheless there must have been at one time an association between the northern (Tutelo and associated peoples) and the southern (Catawba, Woccon, and others) divisions of the Siouan tribes in the region. Swanton thinks that the incursion of the Spaniards in to the Carolinas in the 16th century resulted in forcing certain of them to the northward.

Catawba tradition is silent in regard to the Tutelo. A single echo of the once important name Saponi possibly comes down to us through Catawba memory in the mention by Margaret Brown of a tribe whose name was remembered as (ye)

pa'na spoken of by her mother. She knew nothing more of the term or its meaning.

Of the proper names denoting Tutelo (Toteri, Yesang, Nahissan, etc.) there is no hint of cognizance among the Catawba. . . .

The words of Mooney applying to the Saponi seem to be the last that can be said of the tribe. . . . [Ibid., pp. 205–206.]

Speck would infer here that the word (*ye*) *pa'na* brought forth from deep memory by Margaret Brown correlated with the word *yesang* recorded by Hale to refer either to the Tutelo or to the Saponi. Since Margaret Brown did not recollect its meaning or to which tribe or group this name applied, it probably would have been better unrecorded, for then no one would draw meaningless inferences to its probable or possible correlation with either the Tutelo or Saponi or with the whole so-called northern Siouan-speaking group.

Under another form of the tribal name, Mohetan, a village of this affinity is indicated on Alvord and Bidgood's map (1673–4), visited by Needham and Arthur, a days journey from the Great Kanawha River, West Virginia. At present we may admit that this reference means an earlier wider extension toward the west in the Alleghenies or a move toward the end of the 17th century in that direction, after which the village may have acquired a name derived from some other tongue.

The association of the Mannahoac with the Monacan brings up another aspect of the problem before us. Both peoples are described as occupants of the piedmont and mountain slopes of Virginia, and they have been regarded as related tribes, by all the authorities who speak about them since Hale and Mooney, both as concerns the characteristics of speech and culture. Since, therefore, we possess a vocabulary from only the one language of Virginia area, namely Tutelo, it may be profitable to apply the lexical forms of Tutelo to the half dozen terms reserved by Captain Smith as place or tribal names of the Mannahoac confederacy. . . . Without intending to assume a positive attitude concerning the interpretation of Mannahoac names written in Smith's manuscript three hundred years ago, by a stranger to the Indian tongue, explained through the medium of the small Tutelo vocabulary (spoken by a Siouan tribe about one hundred miles distant from them) of about one hundred fifty words recorded by Hale in 1870, the above suggestions will be accepted merely as such.

Occaneechi. The term Occaneechi (with its variants Akenatzy, Occanacheans, Patshenins) comes down to us as the tribal designation of an early people of the Virginia-Carolina frontier, dwelling (1670) on a large island in Roanoke River just below the confluence of the Staunton and the Dan Rivers, near the site of Clarksburg, (Clarksville), Mecklenburg County, Virginia. [In this, Speck refers to Mooney's article in Bulletin 30, pt. 2, of the Bureau of American Ethnology's publication in which Mooney is supposed to be referring to Lederer. Mooney, as before, misquotes Lederer, fitting a premise of his own.—Present writer's comment.] It is undoubtedly, as Mooney has shown, the designation of a Siouan-speaking tribe affiliated with the Saponi and Tutelo. *Yet we have no linguistic proof of such an affinity beyond the statement that their languages were similar, which is supported by testimony given to Hale by Nikonha, the Tutelo. (Hale, p. 10) Nor is it possible to add anything to its meaning or history from Catawba sources.* [Writer's italics.] Its connections, were, however, definitely with the northern (Saponi, Tutelo, or Nahissan) branch of the eastern Siouan tribes with

whom they finally combined. Bland (1650) writes of the Occanecheans and Nessoneicks (which I have already noted is a synonym for Nahissan) as living together on a branch of the Roanoke (Bland, p. 16). [Ibid., p. 212.]

The hope entertained since 1893 among students of native history and institutions, that the confusion of tribal names mentioned in the early narratives of the Carolinas would sooner or later be cleared up has not as yet been realized. Nor are the prospects very favorable, now that the last remaining persons speaking any of the Siouan languages of the Southeast have dwindled to the number of two of the Catawbas. As Mooney points out in summarizing the results of his study of Siouan tribes of the east, the actual identity of only the Tutelo and Catawba languages can be ascertained with certainty, whereas twenty-two other of his Siouan classifications were so determined only through the inference of [*their*]*political relations with the Catawba.* [Writer's italics.] Later Swanton described grounds upon which Woccon, of the extreme eastern North Carolina region, could be linked by lexicon with the Catawba as a Siouan idiom, and subsequently, I was encouraged by him to suggest a similar solution for the identity of Duhare, spoken about Winyaw Bay, south of Cape Fear River. Mooney (1893), following Hale (1870) and Gatschet (1880), concluded that historical sources were sufficient to remove doubt as to the Tutelo relationship of Saponi and Occaneechi, finally reducing the totally unattached languages of the Carolinas to some fifteen. No lexical terms from these latter are known to exist for purpose of classification except for three or four chief's names in Cheraw and Santee, and the river and village names from which the tribes themselves derived their proper names. [Ibid., p. 201.]

[Speck pointed out that:] Several Muskhogean names can be construed into meaning in Catawba without these, however, being in any way responsible for their origin. (Ibid., pp. 221–222.)

Can this indicate a possible linkage linguistically with the Muskhogean? Muskhogean, on the other hand, were Creek and heretofore were never linked with the Catawba linguistically. This is one relationship which should be reviewed in the future by competent linguists.

1936.—John R. Swanton indicated that—

The Siouan linguistic stock was given its place and name in the Powellian classification [primarily by Mooney's aid] mainly on the basis of papers by Albert Gallatin published in 1836 and 1848. . . . By a curious accident the Catawba Indians of South Carolina are given the same color as the Siouan tribes generally, though Gallatin does not appear to have recognized any connection between Catawba and Muskhogee or even Choctaw. Ultimately, it will probably be shown that he was not entirely astray here though considerably ahead of his time. . . .

Horatio Hale, the Canadian linguist, was first to suggest the existence of a Siouan dialect east of the Appalachians. In 1870 he interviewed an old Tutelo man living among the Cayuga Indians and obtained a vocabulary from him which "showed beyond question . . . that it was closely allied to the languages of the Dacotan family." The discovery was so unexpected that Hale at first thought this individual might have been a Dakota captive. A second visit, however, in October of the same year, removed all doubts and the language was recognized as that of the old Tutelo of Virginia. On December 19, 1879, Hale set forth his conclusions briefly at a meeting of the American Philosophical Society, and at a later meeting, March 2, 1883, made a complete presentation accompanied by a historical account of the tribe, a grammatical sketch, and comparisons be-

tween Tutelo words and corresponding terms in Dakota and Hidatsa. This paper placed the relationship of the Tutelo beyond question, and it was further confirmed through material collected by Hewitt,[1] Sapir,[1] and Frachtenberg.[1] . . . [Swanton, 1936, p. 371.]

As has already been noted, Gallatin, as far back as 1836, had suggested that the Woccon and several other tribes of the Carolinas were perhaps connected with Catawba, and Hale had been told by his old informant Nikonha that the Tutelo and Saponi could understand each other's speech. Nikonha knew of another tribe associated with these which he called Patshenins or Botshenins, and which *Hale was probably right in identifying with the Occaneechi. He also assumed* that the speech of these last was connected with the two others, though unfortunately he neglected to ask Nikonha about it. . . .

The results of the work of Hale, Gatschet, and Dorsey, and further information derived from a careful study of historical sources, were incorporated by James Mooney into a small, now classic, bulletin which appeared in 1895 (1894). In this paper Mooney demonstrated very satisfactorily the Siouan connection of the following tribes: the Indians of the Manahoac and Monacan confederations, including the Tutelo and Saponi, Occaneechi, Eno, Shakori or Shaccoree, Sissipahaw, Keyauwee, Woccon, Catawba, Sugeree, Waxhaw, Cheraw or Sara, Wateree, Congaree, Santee, Sewee, Pedee, Winyaw, Waccamaw, Cape Fear Indians, and a tribe he called Mohetan. *He* suggested, indeed that the Eno and Shakori might not be Siouan and *admitted that the relationship of several others rested on rather tenuous circumstantial evidence*, but, as we shall see presently, the peculiarities of the Eno and Shakori may be otherwise explained, and all additional evidence has tended to confirm the correctness of Mooney's classification. [Writer's italics.]

The word Mohetan, however, is now known to be a misprint of Monetan, a tribe located much farther toward the northwest than the position Mooney assigns to it, probably on the Kanawha river. To the west of these again were the Ofo or Mosopelea; farther down the Ohio, according to tradition, was the former home of the Quapaw; and there is evidence of an ancient residence of the Biloxi and Osage in adjoining territories. Modern research has, therefore, tended to extend the domain of the "Siouan tribes of the west" farther west and that of the Siouan tribes of the west farther east at a not remote period. This, of course, is merely confirmatory of the evidence furnished by community in language and current traditions.

We now come to a point of particular significance regarding the Eastern Siouans, but one upon which insufficient emphasis has hitherto been placed. Because, when first known to Europeans, they occupied one continuous geographical area, and were separated by a considerable interval from those in the west, it has naturally been assumed that the former were all more closely related to one another than to any of the trans-Mississippi Siouans. On the contrary, the eastern Siouans must be sharply separated into two groups, the Virginia Siouans, including the Manahoac, Monacan, Nahyssan, Saponi, Tutelo, Occaneechi, and Moneton, and the Carolina Siouans embracing all the rest.

Even a superficial comparison of the Tutelo and Catawba vocabularies on one hand and the western dialects on the other is sufficient to show that Catawba stands clearly apart from all of them, and that Tutelo is nearer Dakota, Hidatsa, and others of the western languages than it is to Catawba. Indeed, Catawba may prove to have been more closely connected with one or more of the western and southern dialects than with Tutelo. In this conclusion I am supported by

[1] See articles referred to in present paper.

the leading Catawba specialist of today, Professor Frank G. Speck. [Ibid., pp. 373–374.]

The last sentence in Swanton's conclusions reads:

There is evidence, which has not yet been thoroughly marshaled, that the Siouan and Muskhogean linguistic families are related and that the Catawba tongue occupies an intermediate position between the extreme branches of each (ibid., p. 380).

This same thought had been pointed out by Speck in 1935, so does not represent a new thought at this time.

1940.—By 1940 we get a number of elaborations, an example of which is readily found in "Red Carolinians," by Chapman Milling (1940, p. 218):

On the following Saturday morning the party (Lawson's) set out for Sapona passing "seven Heaps of Stones, being the Monuments of seven Indians that were slain in that Place by the Sinnegers or Iroquois. Our Indian Guide added a Stone to each Heap."

Here Milling has changed the seven Indian graves to *monuments* which were accretional by the adding of stones to each heap by the Indian guide, an elaboration which was never mentioned in the original document.

During the same year (1940) David Bushnell brought out his "Virginia before Jamestown," in which he points out:

The northern Siouan group, those in Virginia at the beginning of the seventeenth century, occupied the piedmont beyond the country claimed by the Algonquian tribes; but they may not have been there many generations, having moved into the valleys from the west and southwest. The Monacans and Manahoac confederacies, whose villages were in the valleys of the James, Rivanna, Rappahannock, and lesser streams, were Siouan peoples. This was as far north as the tribes advanced, and soon after the middle of the century they were returning southward, having been forced to abandon their scattered settlements by the invasion of the Susquehanna and others from the north. [Bushnell, 1940, p. 134.]

There does not occur in the records any incursion of the Susquehanna against the settlements of the Indians at any time, but rather the joining of the Susquehanna with some, especially the Occaneechi. This mistaken interpretation is characteristic of Bushnell.

Continuing, he says:

Little was recorded about the people of the piedmont section. There is no known reference to a European having visited a native village in the valleys beyond the falls of the Rappahannock; nor was the valley of the James, beyond the mouth of the Rivanna, reached by the colonists until after the Indian settlements had been abandoned.

Few, if any, Indians remained in the piedmont in 1670. When Lederer, Colonel Catlet, and their party of "nine English horses, and five Indians on foot" traversed the country westward from the falls of the Rappahannock, they did not mention encountering a native camp. But on August 24, so the journal states, "we travelled thorew the Savanae amongst vast herds of red and fallow deer which stood

gazing at us; and a little after, we came to the Promontories or spurs of the Apalataean-mountains."

A check against the reprint consulted by Bushnell reveals that they were on an expedition to the "Apalataean Mountains" from the falls of the Rappahannock River, and tells very little about the country in between these two points with the exception of describing the foothill country and some of the nearby fauna, and a harrowing experience from a spider bite. There was no intimation that the Indians had vacated the country traversed, so it is difficult to understand why Bushnell made such an inference. [See Lederer, as given in Talbot, 1902, pp. 23–25.]

Bushnell states:

In the year 1682, twelve years after Lederer explored the valley of the Rappahannock, Cadwalader Jones, then in command of the Rappahannock Rangers, traversed the same country. When near the headwaters of the Rapidan he "saw an Indian y^t made a periuger at the mountain and brought her down to the Garison with Skins and venison." The garrison was at the falls of the Rappahannock. . . .

The villages in the piedmont were composed of clusters of bark or mat-covered lodges, probably more scattered than in the towns nearer the coast. There were no large structures in the villages that would have resembled the council houses of the tribes farther south. [Bushnell, 1940, p. 134.]

Since Bushnell never conducted an excavation of any of these sites to which he refers, there is no wonder that he can make such sweeping statements regarding the internal structure of the villages.

He then goes on to say:

As no description of a Siouan settlement in the Virginia piedmont has been preserved it is not known to what extent the villages were palisaded. However, after the Tutelo and Saponi had moved away from the banks of the James and Rivanna, their towns were so protected.

In 1701 the Tutelo village stood on the bank of the Yadkin River, in central North Carolina, where it was visited by Lawson. One night there was a severe storm accompanied by a strong wind from the northwest and, so wrote Lawson: "The first Puff blew down all the Palisadoes that fortified the town."

Lawson continued his journey, soon passed through the Saponi village and some miles beyond arrived at the Keyauwee town, "fortified in with Wooden Puncheons, like Sapona, being a People much of the same Number." Mooney located the Keyauwee village about the present High Point, Guilford County, N. C. The Tutelo and Saponi belonged to the northern, and the Keyauwee to the southern group of Siouan tribes.

Settlements on the headwaters of the James and Rappahannock may, at an earlier time, have been similarly protected. [Ibid., p. 134.]

. . . the tribes then settled at Fort Christanna had moved down from the north, from the valleys of the James and Rivanna, to join the kindred Occaneechi about the year 1670. They settled on islands below the junction of the Staunton and Dan Rivers, in the present Mecklenburg County, Va., but moved to several other localities before reaching Fort Christanna. However, many of the customs practiced by the earlier generations at the villages in the north were undoubtedly

followed by the people gathered at Fort Christanna. . . . They "live entirely upon their hunting and the corn which their wives cultivate." Such were the conditions at Fort Christanna, about 10 miles north of Roanoke River, in the present Brunswick County, Va., during the month of April 1716. [Ibid., p. 135.]

1942.—An important bit of added information was brought out by Frank G. Speck in 1942 in the "Tutelo Adoption Ceremony." In the introduction to this work, we find Claude E. Schaeffer saying:

A brief statement should first be made regarding the language of the Tutelo and their congeners. Recognition of the existence of a group of Siouan languages in the Atlantic area first came about through the Tutelo. In 1870 Horatio Hale gathered from one of the last fluent Tutelo speakers on the Six Nations reserve a list of about 200 native words. After comparing this vocabulary with similar lists taken from western Siouans, Hale was able to show the relationship of the Tutelo language to the trans-Mississippi phylum of the stock. Subsequently, Catawba of South Carolina, Biloxi of Mississippi and a number of other eastern languages were assigned to the Siouan stock. Swanton recently argued for separation of eastern Siouan into two distinct divisions, a northern group represented by the Tutelo, Saponi, Occaneechi and related tribes of Virginia and a southern one composed of Catawba and kindred peoples of the Carolinas; Tutelo, Saponi and less certainly Occaneechi, of the Virginia division, are thought to be closely similar in character. Of the three only Tutelo, from the limited vocabulary collected by Hale, is known to any degree. [Speck, 1942, p. xvi.]

The proper names of the second series, however, fail to yield any discernible Siouan affinities nor on the other hand do they lend themselves to analysis from the standpoint of Iroquoian phonetics as determined from living Seneca speakers on the Cornplanter reserve. . . . It must, therefore, be admitted that for the time being, the second series linguistically remains an unknown quantity. Recalling, however, that the Occaneechi are believed to have accompanied the Tutelo–Saponi on their migration northward, the possibility confronts us that these terms, otherwise unidentifiable, may belong to that Siouan language. Support of such an assumption, apart from Mooney's (55–56) tentative identification of the "Botshenins" mentioned by Hale's informant as the Occaneechi, is not strengthened by the total absence of documentary reference to this tribe in the north. An alternative possibility remains that the second series is representative of Saponi, *except for the presumed similarity of that language to Tutelo* and the stated presence of the Saponi on Seneca river at this date (1789). In view of these difficulties, the question for the present remains unresolved.

Thus it has been beyond the scope of this introduction to present the various conflicting opinions of students as to the earlier home of the Virginia-North Carolina Siouans, *a question which must wait upon archeology for its final answer.* [Italics are writer's.] [Ibid., p. xvii.]

Speck states:

It is now, however, time to realize that while the manifold cultural pattern of the Iroquois supervened, from all that we may deduce, in the subsequent life of the Tutelo there remained a national tradition continuously operating in the Tutelo minority among the Cayuga to preserve part of its cultural independence from that epoch down to the present. The political agenda of the Iroquois tolerated, even fostered, the retention of tribal institutions among those minority bodies of natives who voluntarily came to ally themselves with the Long House, notwithstanding the circumstances that they be of alien speech-stock and extrac-

tion. The Tutelo were evidently of a temper to enjoy this form of institutional freedom with the added dignity of social and political equality accorded them. Their emigration to the north must have radically affected the structure of their economic life through coresidence with a confederacy of progressive tribes already long adjusted to the conditions of existence on the southern border of the Canadian zone. But, as we infer substantially from tradition among the Cayuga as well as among the Tutelo descendants themselves, the Tutelo preserved the ritualistic and ceremonial solemnities which they cherished distinctly as their own. They have even been responsible for the introduction of some elements of the same into the ritual systems of their Iroquois hosts, if we are to credit the Cayuga priest-chiefs. . . . [Ibid., pp. 2–3.]

The rites in almost all of these cases are characterized by (1) adoption after the death of a person, of an individual of the same age and sex by the family of the deceased, (2) the clothes of the deceased are turned over to the adoptee, and (3) the adoptee takes on privileges and responsibilities of a member of the bereaved family. [Ibid., p. 8.]

The rite to which we are now to devote attention bears the proper names djudadiy atl hahrôni, "they are going to redress him," or sôsayatl hahrôni, "they are going to redress her," (according to the sex of the person to be adopted). These denotations are in the Cayuga language. The Tutelo of the Six Nations, it may be recalled, have not only lost their idiom but the proper name of the ceremony in their own tongue.

Briefly stated, the avowed purpose of the ceremony is to bring back the soul of a defunct Tutelo tribe member who has died recently, within approximately a year, into association with the living for the space of one night. The ritual reinstates the deceased among the living by the appointment, through adoption, of a beloved one in his or her place as an earthly representative. At its conclusion with the approach of daylight a final adieu is formally enacted to the departed spirit, sending it upon its final journey over the pathway of the rising sun's rays to the permanent celestial abode of spirits. [Ibid., p. 10.]

The frequency of occasions for the celebration of the Adoption Rite depends entirely upon the occurrence of the death of *those who carry Tutelo descent; either blood descent or that derived from previous adoption into the name-registry of the group.* [Italics are present writer's.] [Ibid., p. 12.]

In this same year (1942), James Griffin brought out an article "On the Historic Location of the Tutelo and the Mohetan in the Ohio Valley." Here he makes use of a number of the same sources of information used in this paper. He says:

One interpretation of their former habitat is that the Tutelo came into the Piedmont area from the Ohio Valley. In a recent article Swanton has located the Tutelo in the Big Sandy Valley, near Williamson, West Virginia, and has shown on his map the movement of the Tutelo from that point to near Salem, Virginia, and from there to a site near Clarksville, Virginia. The evidence for this movement is given in the text.

In the meantime another Siouan tribe, known as Tutelo or Totero, which, near the end of the seventeenth century, seems to have been on the Big Sandy, and which Fallam and Batts had visited in a town somewhere near the present Salem, Virginia, moved to an island just above that of the Occaneechi at the junction of the Staunton and the Dan. Before 1701 all of them had abandoned that region in turn and retired into North Carolina, where the Saponi and Tutelo

were found by Lawson on the headwaters of the Yadkin and the Occaneechi on Eno river near the present Hillsboro.

The footnote reference in the above quotation is to Volume IV of the Documents Relative to the Colonial History of the State of New York published in Albany in 1854 and edited by E. B. O'Callaghan, M. D. The same reference is cited for the following quotation taken from Swanton which presents the evidence used for the historic seventeenth century location of the Tutelo in the Ohio Valley. [Griffin, 1942, p. 275.]

A check of Swanton's article to which Griffin refers was made to determine the source of this statement regarding the Tutelo. Swanton refers to page 488 of volume IV, but when a careful perusal of this page has been made no mention of the Tutelo or Totero and their ever appearing upon the Big Sandy near the end of the 17th century is to be found. As for the Fallam and Batts statement, see their exact description as earlier presented in this paper (pp. 122–123). Griffin continues:

As the Earl of Bellomont, in 1699, says the "Shatteras" were "supposed to be the Toteras, on Big Sandy River, Va.,"[29] it may be that the Virginia Siouans had advanced up that stream, but it is more likely that most of them came by the great trail along the Kanawha." [Ibid., p. 275].

Again we find an inconsistent reference in that his "29" in the quotation above is supposed to refer to Alvord and Bidgood, 1912, page 218. When checked against Alvord and Bidgood, page 218, we find that this page is devoted to "Journeys of Needham and Arthur," and the Earl is not mentioned in any portion of the message on this particular page.

Griffin states:

This quotation by Swanton is supposed to be from a letter of the "Earl of Bellomont to the Lords of Trade" written in "New Yorke, April the 13th 1699."

In this letter the Earl refers to certain Indian tribes which could be more easily reached from the colony of Carolina than from the colony of New York. His letter is significant because it reveals his lack of knowledge of the location of some of the contemporary Indian tribes. The entire section in which he refers to the Tutelo is given below.

But as it 'tis the interst of England I chiefly meditate I reckon I should abuse your Lordships if I did not freely own to you that Carolina lyes infinitely more commodious for a trade with those Nations of Indians which are called the Shateras Twichtwicht and Dowaganhas Indians and a world of other nations, which some of our Indians at Albany told me were as numerous as the sand on the sea shoar. [Ibid., pp. 275–276.]

Griffin in his concluding paragraph points out that—

This is not to deny the hypothesis that the central Ohio Valley could have been such an area. If it was, however, it must have been at a period far removed from that of the Fort Ancient occupation. Such a reconstruction can only be made by comparing the material from known Siouan sites in the east with that from known Siouan sites in the Chiwere, Dhegiha, Dakota, and Akansa areas and checking back to discover if there is archeological material in the Ohio Valley at the correct

time horizon which would indicate a generic connection to the remains of these dispersed Siouan tribes. I venture to predict that such a search will be unsuccessful. [Ibid., p. 280].

Again referring to James Griffin, in 1945, we find him saying that—

A re-examination of the historic locations and movements of the Siouan tribes of the Piedmont may provide a firmer background for the understanding and interpretation of the archaeological material found on the sites occupied by these tribes. Since it is impossible at this time to make a critical examination of the primary sources of this historical information, it is necessary to rely on the available secondary sources. A division into southern and northern Piedmont Siouan groups has been accepted by Speck and Swanton. . . . Because of this, it would be well to speak of the "Virginia" Siouans as the Tutelo division and the "Carolina" Siouans as the Catawba division. No one has yet given any very accurate idea of the degree of divergence of these two linguistic units or the meaning, historically, of this divergence. However, the recognized local bands or tribes of the Catawba division were differentiated by 1520–1540, those of the northern, or Tutelo, division, by 1600.

It has been suggested that the Siouan tribes of the Catawba division found in North Carolina by Lederer and Lawson had moved in shortly before 1670. It was Swanton's opinion in 1936 that this movement of some of the Catawba Siouans (Sara and Keyauwee) into North Carolina was the result, partly of Pardo's journeys into the interior in 1566, and partly of an assumed movement of the Cherokee Nation from some point on the upper Ohio, up the Kanawha and New Rivers to the headwaters, and then down the Clinch and Holston as far as Chattanooga. This Cherokee movement took place before the arrival of the Spaniards—hence at some time before 1540. The Cherokee found Muskhogean people to the south of them and Siouan tribes of the Catawba division to the east of them. According to this interpretation, the movement of the Catawba out of their postulated home in the Ohio Valley probably took place not later than about 1450.

The story of the historic movements of the Tutelo division is somewhat different. The Manahoac and Monacan units were already located along the Rappahannock-Rapidan and James valleys, between the fall-line and the mountains, in about 1600. We do not hear of the Tutelo-Occaneechi-Saponi as such until some time later, namely around 1670, when they were south of the territory occupied by the Manahoac and Monacan at the beginning of the seventeenth century. Bushnell has called some of the Monacan groups Tutelo and Saponi. Swanton has suggested that the location of a village called Mohetan, which may or may not have been Siouan, in the lower Kanawha Valley in 1674 indicates a movement of the Mohetan tribe from the Ohio Valley into Virginia. It is known, however, that this tribe was on the eastern side of the mountains in 1669–1670 and hence was going westward. In any event, an east to west movement in 1670–1673 can hardly be used as evidence for the location in Virginia in 1600 of tribes that came from the Ohio Valley. Nor can an erroneous location of the Tutelo on the Big Sandy in 1699 be used as historical evidence for an Ohio Valley home of the Tutelo.

A different view of the location of the pre-1600 homes of the Tutelo division is suggested by Speck, who feels that the Powhatan and other Algonquian tribes of the Tidewater area displaced the Siouan groups, forcing them into the Piedmont section some 200 years or more before the coming of the Europeans. If this hunch were correct, any movement of the Tutelo division out of the Ohio Valley would necessarily have occurred some time before 1400.

In any event, the historical evidence suggests that the late seventeenth—and early eighteenth—century merging of the Tutelo and Catawba groups in north-

central North Carolina and south-central Virginia was the result of pressure on the Catawba division from the south and east and of pressure on the Tutelo division from the north and east. [Griffin, 1945, pp. 322–323.]

Griffin states in his conclusions:

The study of cultural remains from sites attributed to eastern Siouan tribes was undertaken in order to obtain an idea of their cultural homogeneity and to indicate their cultural position with regard to artifacts attributed to neighboring contemporaneous groups and to the prehistoric cultures of the same and adjoining areas. The main cultural affiliations of the northern division of the Siouan tribes are with the complex of artifacts from the coastal region known to belong to the Algonquian tribes of the Powhatan confederacy and related groups. . . . .

Archeological material now attributed to the Siouan tribes of the Piedmont could have been derived as well from antecedent cultural stages in that area as from any other area. . . . pottery of Woodland type known to belong in the Hopewell period in a number of known sites in North Carolina, such as the Puette site in Transylvania County and the Hardaway site in Stanley County, strongly suggests that they belong in the Hopewellian period. At present, they look as though they were contemporary with, and not derived from, Ohio Hopewellian sites. [Ibid., pp. 328–330.]

Swanton (1946) reiterates what has been said earlier and compiles this under one cover. No new point of view is presented.

Douglas Rights, in 1947, brought out his book "The American Indian in North Carolina" in which he referred to James Needham and Gabriel Arthur:

With their Indian escort they traveled to the island home of the Occaneechee at the confluence of the Dan and Staunton rivers. The island-dwellers were a strong tribe, fierce and warlike, and their power was feared by neighboring tribes. So great was their influence that the religious ritual of the Indians for miles around was in their tongue. They controlled the back country trade, forcing traders to pass through their island gateway to the hinterland of the Piedmont, and compelling the westward Indians to transport their furs via Occaneechee Town. Their advantage in trade resulted in prosperity that later caused their downfall. [Rights, 1947, p. 67.]

Contrary to the position in which the early narrators found the Saponi, Rights says that:

These Saponi Indians had been met by Lederer in Virginia. They had later moved to one of the islands at the forks of the Staunton and Dan rivers to become close neighbors of the Occaneechee. Forced to move again, they migrated to the Trading Ford location, which has been previously vacated by the Saura, who had lived here as late as 1673, when Needham and Arthur were on the trail, but had since deserted the Yadkin and had sought a home on Dan River. [Ibid. p. 79.]

Continuing with the Saponi, he goes on to say:

This people is now made up of the Remnant of Several other Nations, of which the most considerable are the Sappons, the Occaneches, and Steukenhocks [probably Conèstoga], who not finding themselves Separately Numerous, enough for their Defence, have agreed to unite into one Body, and all of them go under the Name of Sapponys. [Ibid., pp. 105.]

This is more or less a direct quote from William Byrd.

Later, while discussing the islands in the Roanoke, Rights says:

This middle island was the former home of the Occaneechee to which we traced Lederer and Needham and Arthur. On the *uppermost* island the *Saponi* dwelt. The *Tutelo* had settled *on the lowest island* . . . [Ibid., p. 109.] [Italics are writer's.].

Here Rights switched ends with the Saponi and Tutelo. William Byrd placed the Tutelo on the uppermost island and the Saponi on the lowest island.

In his latest report, "The Indian Tribes of North America," Swanton (1952) modified some of the former statements of yesteryear, but he still adhered to a number of the "die-hard" statements without any qualifications of them. In this work he presents a very brief summary of the main events in the history of the Occaneechi, Saponi, and Tutelo. Of the Occaneechi, he says:

Meaning unknown.

Connections.—The Occaneechi belonged to the Siouan linguistic stock; their closest connections were probably the Tutelo and Saponi.

Location.—On the middle and largest island in Roanoke River, just below the confluence of the Staunton and the Dan, near the site of Clarksville, Mecklenburg County, Va.

History.—Edward Blande and his companions heard of them in 1650. When first met by Lederer in 1670 at the spot above mentioned, the Occaneechi were noted throughout the region as traders, and their language is said to have been the common speech both of trade and religion over a considerable area (Lederer, 1912). Between 1670 and 1676 the Occaneechi had been joined by the Tutelo and Saponi, who settled upon two neighboring islands. In the latter year the Conestoga sought refuge among them and were hospitably received, but, attempting to dispossess their benefactors, they were driven away. Later, harassed by the Iroquois and English, the Occaneechi fled south and in 1701 Lawson (1860) found them on the Eno River, about the present Hillsboro, Orange County, N. C. Later still they united with the Tutelo and Saponi and followed their fortunes, having, according to Byrd, taken the name of the Saponi.

Connection in which they have become noted.—The name Occaneechi is associated particularly with the Occaneechi Trail or Trading Path, which extended southwest through North and South Carolina from the neighborhood of Petersburg, Va. [Swanton, 1952, pp. 65–66.]

Regarding the Saponi, he says:

Evidently a corruption of Monasiccapano or Monasukapanough, which, as shown by Bushnell, is probably derived in part from a native term "moni-seep" signifying "shallow water." Paanese is a corruption and in no way connected with the word "Pawnee."

Connections.—The Saponi belonged to the Siouan linguistic family, their nearest relations being the Tutelo.

Location.—The earliest known location of the Saponi has been identified by Bushnell (1930) with high probability with "an extensive village site on the banks of the Rivanna, in Albemarle County, directly north of the University of Virginia and about one-half mile up the river from the bridge of the Southern Railway." This was their location when, if ever, they formed a part of the Monacan confederacy. [Note the conditioning here!]

History.—As first pointed out by Mooney (1894), the Saponi tribe is identical with the Monasukapanough which appears on Smith's map as though it were a town of the Monacan and may in fact have been such. Before 1670, and probably between 1650 and 1660, they moved to the southwest and probably settled on Otter Creek, as above indicated. In 1670, they were visited by Lederer in their new home and by Thomas Batts (1912) a year later. Not long afterward they and the Tutelo moved to the junction of the Staunton and Dan Rivers, where each occupied an island in Roanoke River in Mecklenburg County. This movement was to enable them to escape the attacks of the Iroquois, and for the same reason they again moved south before 1701, when Lawson (1860) found them on Yadkin River near the present site of Salisbury, N. C. Soon afterward they left this place and gravitated toward the White settlements in Virginia. They evidently crossed Roanoke River before the Tuscarora War of 1711, establishing themselves a short distance east of it and 15 miles west of the present Windsor, Bertie County, N. C. A little later, they along with the Tutelo and some other tribes, were placed by Governor Spotswood near Fort Christanna, 10 miles north of Roanoke River about the present Gholsonville, Brunswick County. . . . By the treaty of Albany (1722) the Iroquois agreed to stop incursions on the Virginia Indians and, probably about 1740, the greater part of the Saponi and the Tutelo moved north stopping for a time at Shamokin, Pa., . . . [Ibid., pp. 71–72.]

As for the Tutelo, he says:

Significance unknown but used by the Iroquois, who seem to have taken it from some southern tongue.

Connections.—The Tutelo belonged to the Siouan linguistic family, their nearest connections being the Saponi and probably the Monacan.

Location.—The oldest known town site of the Tutelo was near Salem, Va., though the Big Sandy River at one time bore their name and may have been an earlier seat.

History.—In 1671 Fallam and Batts (1912) visited the town above mentioned. Some years later the Tutelo moved to an island in Roanoke River just above the Occaneechi, but in 1701 Lawson found them still farther southwest, probably about the headwaters of the Yadkin (Lawson, 1860). From that time forward they accompanied the Saponi until the latter tribe separated from them at Niagara as above noted. [Ibid., p. 73.]

In the Archives of the Bureau of American Ethnology are a number of undated papers. Among these is a notebook of James Mooney's (MS. Doc. No. 1901). Pages 1 and 2 are devoted to the "Acconechi." Here he tells us that in 1701 Lawson found them—

living on the headwaters of the Neuse, about Hillsborough, N. C. & apparently in leag with some other small tribes (Lawson 96–7). By 1710 They had moved down nearer the settlements, in company with the Tutelos, Saponis, Shoccori & Keyauwees, the five tribes numbering altogether only about 750 souls (Lawson 384). Occaneechee neck & swamp on the north bank of the Roanoke, apposit Halifax, may indicate their location at this period. In 1717 the friendly Tuscaroras were assigned a reservation on the north bank of the Roanoke in Bertie county (N C Rec II 283). The Saponis had a town, under their protection, upon the same reservation & it is probable that the Acconechis etc liv'd with or near them. [Mooney, MS.]

Here let us quote an undated letter written by Cyrus Thomas to Mr. (J. N. B.) Hewitt in its entirety (MS. Doc. No. 4014):

Dear Mr. Hewitt:

I am still tied up and will be this week, but could do some work if I had the Yuman cards and have written Mr. Clayton to send them to me but to have you pick out the boxes. I want all of them including the cross references. Please see that whoever brings them wraps them up well.

I sent you one part of our De Soto paper for you to look over and have a copy made—then return the copy I sent, to me by mail with your notes & suggestions on separate sheet. You had better have a copy made for you to keep.

It is rather strange that a Uchean cacica or chieftainess should have as a part of her dominion and of her most trusted subjects the country and people of a Siouan tribe. The whole thing is ridiculous. *I am becoming impressed with the idea that there is much rotten timber in the "Siouan Tribes of the East."* [Italics are writer's.]

Yours truly

s/d Cyrus Thomas
1316 Kenesaw Street.

Apparently this was written shortly after Mooney's work on the "Siouan Tribes of the East" came off the press, for apparently he did not get a chance to look over the manuscript before it was printed.

Associated with this letter were a number of notes headed "Siouan tribes of the East." These are presented in the following pages:

On page 29, the writer reaches the conclusion that "the upper region of the Ohio—Alleghany, Mongahela and Kanawha country"—was the "original home" of the Siouan stock—"from which one branch crossed the mountains to the waters of Virginia and Carolina, while the other followed along the Ohio and the lakes toward the west."

On pg. 11: He has those going west—first crossing the mountains and following "down the valleys of New River and the Big Sandy to the Ohio." Yet, as he informs us their homes were on the upper Ohio. The route taken to go west seems a rather strange one.

Pg. 11: He says "the theory of a Siouan migration down the Big Sandy is borne out by the fact that this stream was formerly known as the Totteroy a corruption of the Iroquois name for the Tutelo." Yet in the quotation from pg. 29 given above, the eastern branch is said to have crossed the mountains from upper Ohio region to the waters of Virginia and Carolina.

Pg. 9—The statement that "the concurrent testimony of the Siouan tribes themselves to the effect that they had come from the East." is not true as here used. The western Sioux claim to have come from a more eastern locality, but this does not reach farther east than Lake Michigan. The statement given above is therefore misleading and the truth concealed, to maintain a theory.

Pg. 9—"The inference that the region west of the Mississippi was the original home of the Siouan tribes" is a man of straw set up by the writer to be knocked down. No acceptable authority, if any, ever held such a theory.

Pg. 10—The statement that "As early as 1701 Gravier stated that the Ohio was known to the Miami and Illinois as the "River of the Akansea" is untrue. Gravier says the Ouabache (Wabash) and expressly distinguishes between it and the Ohio—continuing the Wabash and the Mississippi and making the Ohio a tributary to it. It was from this erroneous interpretation of Gravier's words that the Sibley Osage tradition—in all its various forms grew up.

Pg. 10—The statement that Dorsey found the tradition of an eastern origin (in the sense here used) as "common to almost all the tribes of that [Siouan] stock" is incorrect. Dorsey also contradicts himself on this point—moreover his statements do not include the Dakota group.

Pg. 10—De Soto found the Quapaw only a short distance above the locality occupied when the French descended the Mississippi. De Soto did not pass through any portion of the Osage country.

Pg. 11—No Ohio tribe, so far as known, had any tradition regarding the Quapaw (or Akansa)—This was limited, so far as known to some Illinois tribes.

It is not true that the Quapaws were "in the vicinity of that stream [Ohio] when encountered by De Soto." This is apparent from the fact that they were then somewhere in the vicinity of the site of Helena, Arkansas.

Pg. 11—After stating that the cause of the exodus of the Siouan tribes from their original home, was probably pressure by northern and southern alien tribes, he says "they retreated across the mountains, the only direction in which a retreat was open to them." Does this refer to those who went west or those who went east into "Virginia and Carolina"?

Pg. 12—The statement that "within this period, traditional and historical evidence point out as the cradle of the Algonquian race the coast region lying between Saint Lawrence river and Chesapeake bay"; is untrue. The most "coherent" tradition points to some locality north of the lakes as their original home. The Leni Lenape were the "grandfather", and that was their original home.

Pg. 12—"When their [Iroquois] warfare against the southern tribes was inaugurated we do not know. It was probably continuous with the expulsion of the Cherokee from the Upper Ohio." As the Cherokee were in their southern home in 1540—it may be safely assumed that their expulsion could not have occurred later than the latter part of the 15th century. Were the Iroquois already raiding the southern tribes at this early date?

Pg. 19—Compare the statements in the first paragraph of this page as regards the information respecting the Manahoacs and subdivisions with what is stated near the bottom of page 22 and top of page 23.

The inference of relationship of Manahoac with Monacan on pg. 23, is changed to certainty on pg. 26—"the cognate Manahoacs" . . .

Pg. 30—The statement that the Dogi of Lederer "have no relation to the Doeg named in the records of the Bacon rebellion in 1675", is wholly gratuitous as it is more than probable that Lederer obtained the name from the history of the Bacon rebellion." [Thomas, MS.]

Among the lot were a series of notes by James O. Dorsey (MS. Doc. No. 3804) on the Eastern Siouans. In these he refers to volume 13, number 3, of the American Antiquarian, page 147:

The earliest known migrations of the Dakotas were from the east . . . The Tuteloes having once been located in Northern Georgia, not far from where the bird effigy is; other tribes—such as the Iowas and Mandans—having, according to tradition, carried their symbols to Dakota. The effigy mounds of southern Ohio, especially the great serpent, the bird mounds of Northern Georgia, the effigies of Wisconsin, and the stone effigies of Dakota are assigned by some to different branches of the Dakotas—the Tuteloes having, etc., as above.

Up to this time no one has mentioned the Tuteloes as having lived in northern Georgia. Who could have mistakenly supplied this bit of misinformation?

Included in this batch of Dorsey notes were some on "Migrations of certain tribes of the Siouan family." Herein he says:

Some authors speak of a series of migrations of these tribes from the west toward the east; but the writer has not been able to learn of what authority such statements have been made; nor has he ever found any tradition of such eastward migrations among the tribes that he has visited.

This statement upsets Mooney's theory, since Dorsey is the outstanding authority on the Sioux.

Dorsey then lists some pertinent comments on Mooney and his "Siouan tribes of the East."

Mooney [in the Siouan Tribes of the East, Galley 4 AL] says: "The theory of a Siouan migration down the valley of the Big Sandy is borne out by the fact that this stream was formerly known as the Totteroy, a corruption of the Iroquois name for the Tutelo and other Siouan tribes of the South."

(Big Sandy, the Big Totteroy; and Little Sandy, the Little Totteroy). If Mooney accepts this traditional name of the Big Sandy as good evidence (see above), why should he reject the traditional name of the Kentucky R. (a stream near the Big Sandy), Cuttawa, Cuttawo, or Catawba River? He says in Galley 26 AL: "The Shawano and other tribes of the Ohio Valley made the word (i. e., Catawba) Cuttawa."

Catawba in Carolina as early as 1569 (La Vandera)	Kwapa on the Mississippi in 1540–41 (De Soto)
Yet	Yet
Kentucky R. given as 'Cuttawa' on Vaugondie's Map (1755)	Ohio given as 'R. d'Acansea' on De L'Isle's Map (1722)

Big Sandy called Totteroy in 1746

Mooney says (The Siouan Tribes of the East (p. 70) Galley 26 AL),

"The Catawba were found living about where we have always known them, as early as 1567. Kentucky river was called by that name among the Shawano and other northern tribes because up that river lay the great war trail to the Catawba country."

This may be so; but what proof have we of this. If proof can be given, that settles the question of the origin of this name for Kentucky river; but if no proof (no authority) can be given for this statement, if it be a mere inference on the part of Mr. Mooney, it is in order to call attention to another explanation of the origin of that appellation, i. e., that it referred to a traditional or prehistoric occupation of that region by the Catawba tribe, just as the name Totteroy, applied to the Big Sandy, referred to a traditional or prehistoric occupation of that region by the Tutelo tribe or confederacy.

[Referring to the American Antiquarian, vol. xiii, number 4, July, 1891, p. 236:]

I find that Dr. Morgan is disposed to classify the Catawba among the Dakotas, as also all Iroquois dialects. This brings out a new idea, for which the Saponas, Toteros, Nottoways, and Catawbas added to the Tuscaroras, we have an aggregation of Dakotas east of the Alleghenies numbering many thousands, and to these may be possibly added a half dozen other or small tribes in the immediate neighborhood.

Take the Saponies, for instance, known to contemporary writers under half a dozen different names and whom Gallatin classed among the Iroquois; called by the Troquois, Todericks; by the French, Panis; west of the Mississippi, Pawnees,

alias Naudowasses, alias Dakotas, alias Sioux. These purely Dakota tribes were on the Atlantic coast in 1700.

In comparing the notes made by Thomas with those of Dorsey's, one will see that there is a similarity in criticism running throughout, but an elaboration along certain lines in which each authority has specialized.

Dr. Swanton left with the Bureau of American Ethnology a number of notes which were placed in the Archives under No. 4234. In this group he lists the "Results of the comparison of 117 terms in 6 Siouan languages. The number of closest resemblances is indicated in each case." These were listed in chart forms, most of which incorporated a basic foundation with either additions to or subtractions from each. These are shown as he has listed them without any attempt made to incorporate all three under a common chart. In reading over these charts one is immediately struck with the inconsistencies of the number of resemblances between the Tutelo and the other dialectic groups.

[Chart 1]

Between	Biloxi	and	Ofo	there are	38	resemblances	
"	"	"	Hidatsa	"	36	"	
"	"	"	Dakota	"	33	"	
"	Ofo	"	Dakota	"	26	"	
"	Gidatsa	"	Dakota	"	24	"	
"	Biloxi	"	Tutelo	"	23	"	19.7%
"	Hidatsa	"	Mandan	"	20	"	
"	Hidatsa	"	Tutelo	"	19	"	16.2%
"	Tutelo	"	Dakota	"	18	"	15.4%
"	Hidatsa	"	Ofo	"	17	"	
"	Biloxi	"	Mandan	"	13	"	
"	Ofo	"	Mandan	"	11	"	
"	Tutelo	"	Mandan	"	9	"	7.7%
"	Tutelo	"	Ofo	"	8	"	6.8%
"	Dakota	"	Mandan	"	20	"	

[Chart 2]

Biloxi	and	Ofo	38	
"	"	Hidatsa	36	
"	"	Tutelo	34	29.1%
"	"	Dakota	33	
Tutelo	"	Hidatsa	29	24.8%
Ofo	"	Dakota	26	
Tutelo	"	Dakota	25	21.3%
Hidatsa	"	Dakota	24	
Biloxi	"	Tutelo	23	19.7%
Hidatsa	"	Mandan	20	
Dakota	"	Mandan	20	
Hidatsa	"	Ofo	17	
Biloxi	"	Mandan	13	
Tutelo	"	Mandan	13	11.1%
Tutelo	"	Ofo	12	10.2%
Ofo	"	Mandan	11	

Swanton's third chart was as follows:

117 terms

Osage	and	Winnebago	40	resemblances	[*Note.*—Pen line was drawn through this entry.]
Biloxi	"	Ofo	38	"	
Biloxi	"	Hidatsa	36	"	
Biloxi	"	Tutelo	34	"	[[1] 29.05%]
Biloxi	"	Dakota	33	"	
Tutelo	"	Hidatsa	29	"	[[1] 24.8%]
Osage	"	Dakota	27	"	
Ofo	"	Dakota	26	"	
Tutelo	"	Dakota	25	"	[[1] 21.3%]
Hidatsa	"	Dakota	24	"	
Hidatsa	"	Mandan	20	"	
Dakota	"	Mandan	20	"	
Ofo	"	Hidatsa	17	"	
Biloxi	"	Mandan	13	"	
Ofo	"	Tutelo	12	"	[[1] 10.2%]
Ofo	"	Mandan	11	"	
Osage	"	Tutelo	10	"	[[1] 8.5%]
Osage	"	Biloxi	9	"	
Osage	"	Hidatsa	5	"	
Osage	"	Ofo	3	"	
Osage	"	Mandan	3	"	

On the back of one of these charts were the following notes:

Gallatin established the Siouan stock, 1836. Tutelo language discovered and identified by H. Hale in 1870; discovery announced at a meeting of the Am. Philos. Soc., Dec. 19, 1879. More complete statement made Mar. 2, 1883 before same Society.

Catawba vocabulary collected by Gatschet in 1881 and classed with Siouan languages in First Ann. Report of the Bureau [of American Ethnology] in 1881 but Gatschet was still in doubt in 1882. Finally examined and pronounced Siouan after 1890 by J. O. Dorsey.

Gallatin classed Woccon with Catawba, 1836.

EVALUATION AND INTERPRETATION OF THE FACTS REGARDING THE SIOUAN QUESTION

We have given in the foregoing section, in a brief summary fashion, the whole historical background of the Siouan question consisting of a number of the primary and the bulk of the secondary sources which were based on reports given out by explorers, traders, and historians. The whole "tapestry" of the Eastern Siouan question evolved out of implications, inferences, hypotheses, and assumptions wherein the premise is: a Siouan-speaking people occupied not only southern Virginia but central Virginia as well. These data were interpretations to fit a somewhat modified preconception that such a group was

[1] Percentage was determined by the present writer.

in existence in Virginia, North Carolina, and possibly Carolina during protohistoric and historic times.

First, let us point out how the whole thing started and developed out of statements issued by Captain John Smith, William Strachey, Edward Bland, John Lederer, and General Wood's reports of the experiences of Thomas Batts, Robert Fallam, James Needham, and Gabriel Arthur. John Smith never contacted the Indian groups above the Falls of the James River but he did receive word about them from a captive Indian in sign language. Most of his information came from members of the Powhatan confederacy and was colored by a number of factors involving both groups, such as differences in language, the enmity of each group for the other, etc. NO FIRSTHAND OBSERVATIONS WERE EVER MADE AMONG THOSE INDIAN GROUPS OCCUPYING THE AREA WEST OF THE FALLS OF THE JAMES RIVER.

Strachey, secretary of the Jamestown colony from 1609 to 1612, depended to a great extent on Smith and his reports of the country and on firsthand information gleaned from the Algonquian groups which were in contact with the colonists. He compiled a list of words from the Indian together with their English equivalents which supplements Smith's works.

Edward Bland actually went among the Meherrin group to the west of the falls of the James River, trading with them for their various commodities. He was the first to report on certain Indian groups occupying central and south-central Virginia. He either contacted the Occaneeches directly or otherwise received word from Indian sources regarding them.

A few years later, John Lederer's expeditions into this section of Virginia not only gave distances but directional position of one group from the other as well as bits of Indian tradition.

The following year two Indian traders, Batts and Fallam, covered a portion of this same country as well as a section to the west, where they came upon a new Indian group, the Toteros or Tutelo. At this time they were not in association with any other known Indian group and resided beyond two ridges of mountains.

Later, two other Indian traders, Needham and Arthur as a team, were sent out by General Wood to this same area, and they contacted not only the Saponi and Occaneechi, but the Tutelo as well. During this time Arthur was captured but after a number of experiences succeeded in returning to the white settlements. General Wood reported upon their experiences, divulging additional Indian data.

Most of these data are supported by Robert Beverley, but the outstanding contribution was that concerning the "general language" that all these people talked about. Beverley has definitely pinned it down as belonging to the Occaneechi and as used not only during

religious rites but also during trading transactions by the people of the entire area.

John Lawson, James Adair, and William Byrd noted further refinements which were from not too reliable sources. Byrd, it seems, is given over to fanciful statements. Adair went in for the "lost tribes of Israel" theory to account for the origin of the American Indian, while Lawson was pretty well mixed up in his geography.

To support the statement regarding William Byrd a quotation from William Boyd's Introduction is given (see p. 127, this paper).

By the time we get to Byrd the clear picture has become muddied somewhat by unreliable Indian traditions of fairly recent origin and imagination. By this we allude to his statement about the cave supposedly located on the island occupied by the Tutelo in the Roanoke, if they ever lived there, wherein the supposed last king of the Tutelo, together with two of his men, stood off a larger northern Indian group for several days and later compelled them to give up and go home. Then too, there is the placement of the Occaneechi, Saponi, and Tutelo on the island group at the confluence of the Dan and Staunton Rivers in the vicinity of Clarksville, Mecklenburg County, Va. Up to this time the Occaneechi were said to have occupied an island in the Roanoke River, but just where this island lay was never stated. The topography surrounding this island does not correspond with that surrounding the island assigned by Byrd as the island home of the Occaneechi. Now, Byrd not only places the Occaneechi on one of the three islands at the confluence of the Dan and Staunton Rivers, but he brings the Saponi and Tutelo down to join them. By the time he reports on this so-called fact, the three groups have long been identified by Lawson as being down in North Carolina. Then, too, there is his description of the topography of these islands together with the dividing straits, none of which conforms to present-day conditions before they were inundated by the lake of the John H. Kerr reservoir.

In the first place, there was never a cave anywhere on the uppermost island, which was assigned to the Tutelo by Byrd. If such cave ever existed its presence was so cleverly hidden that no evidence of it remained. The present writer walked over every foot of this island hoping to find any tangible remains of this cave. Engineers were consulted regarding the same and they, as well as the writer, failed to note that any cave could have existed owing to the nature of the island—its topography and innate structure.

In the second place, it would be impossible for anyone to ford "the Streight out of this (Tutelo Island) onto Occaneechy Island" for the river bed is from 20 to 25 feet deep at this spot and the head of Occaneechi Island is a straight bluff about 22 feet above normal river

level. Not only does he contradict himself in this but later on he says (Byrd, 1929, p. 291):

> Because I detested Idleness, I caus'd my Overseer to paddle me up the River as far as the Streight that divides Occaneechy from Totero Island, which is about 20 Yards wide. There runs a Swift Stream continually out of the South part of the River into the North, and is in some places very deep.

This second statement is mostly correct, while the first statement probably did not apply to that body of water separating the two islands of Occaneechi and Tutelo. What he was talking about in this instance, only William Byrd knew.

To Edward Bland must be given the credit for first mentioning the "Occancheans." He never made direct contact with this group, but he received word about them from his Appommotoc guide Pyancha, while on the banks of the Blandina River. This was in 1651. John Lederer, the German Indian trader, is credited with making first physical contact with this group in 1670, but before he could contact the Occaneechi he had to pass through the Saponi town which lay 50 miles northeast of "Akenatzy." With Lederer was his Susquehanna Indian guide Jackzetavon, who accompanied him on this particular expedition. It is only natural for both Bland and Lederer to rely on their Indian guides to give them the desired information, and this must have been rendered in their own particular dialects. The Appomatoc is listed as one of the constituents of Powhatan's confederacy—an Algonquian group; while the Susquehanna is a recognized tribe of the Iroquoian stock.

Lederer mentions that he heard about the "Akenatzy" from the Indians, supposedly the Saponi. Later, inferences have linked the Saponi with the Occaneechi and Tutelo linguistically, but no direct proof that such was ever the case has been uncovered. Batts and Fallam, after leaving the Saponi town, arrived at the "Hanathaskies town," which in this instance is located 25 miles northwest of the Saponi town. Whether these "Hanathaskies" were another group of the "Akenatzy" is not known, for Lederer found his "Akenatzy" 50 miles southwest of the Saponi.

According to Lederer, the Saponi "was a village of the Nahyssans, about a hundred miles distant from Mahock, scituate upon a branch of the Shawan, alias Rorenock river." The residence of the king of the Saponi was to be found in a village called "pintahae" upon this same river. Mooney infers from this statement that the "Pintahae was another tribe of the Saponi" and that the Saponi and Nahyssans were two different groups. Since no one else has ever mentioned this village, he had to refer to Lederer; but instead of telling it like Lederer did, he implied an altogether different meaning, giving a different

slant to the data. Not only does Mooney become so involved with this question, but he contradicts himself, as has been pointed out in the historical section of this paper.

The initial statement concerning the island occupied by the Occaneechi and the "Nessoneicks" was given to Bland by Pyancha, his Indian guide. Bland stated that—

> There is an island within the River three days journy about, which is of a very rich and fertile soile, and that the upper end of the Island is fordable, not above knee deepe, of a stony bottome, running very swift, and the other side very deepe and navigable.

Compare this with a statement issued by Lederer:

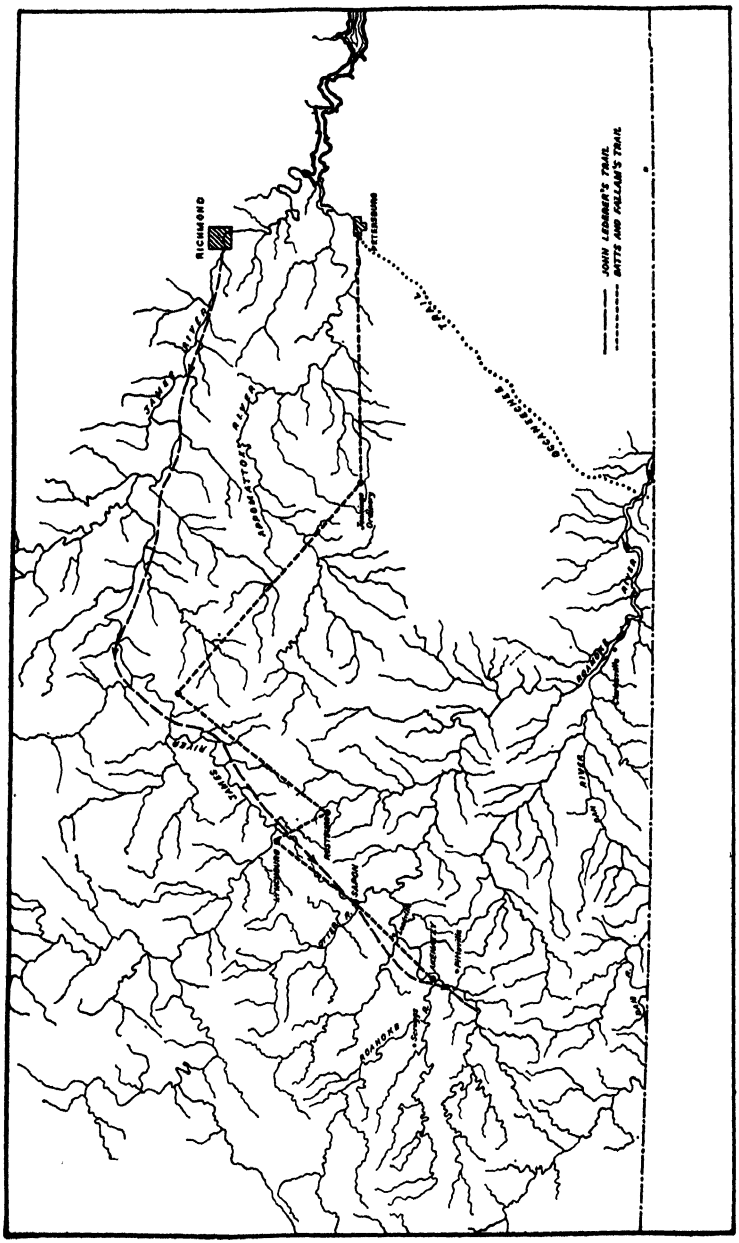
> This island, though small, maintains many inhabitants, who are fix't here in great security, being naturally fortified with fastnesses of mountains, and water on every side. Upon the north shore they yearly reap great crops of corn, of which they always have a twelve-month provision aforehand, against invasion from their powerful neighbours. [These powerful enemies are not mentioned by name.] Their government is under two kinds, one presideing in arms, the other in hunting and husbandry. They hold all things, except their wives in common; (Socialism) and their custome in eating is, that every man in his turn feasts all the rest; and he that makes the entertainment is seated betwixt the two kinds; where having highly commended his own chear, they carve and distribute it among the guests.

We are told that this island is located in the "Shawan alias Rorenock river" and that the occupants lived under a socialistic form of economy and were preyed upon by powerful enemies who were their neighbors. It is known that members of the Iroquois confederacy sent war parties foraging as far south as this region during historic times. Whether these "powerful neighbours" were Iroquois is not known for certain.

If one is careful in plotting Lederer's course of travel taken during this particular expedition to the Saponi and Occaneechi and points beyond, maintaining directions and distances traveled, one does not land on the islands at the confluence of the Staunton and Dan Rivers for the location of "Akenatzy," as contended by Byrd, Mooney, Bushnell, Swanton, and others, but rather on the upper reaches of the Staunton River where the river makes a very noticeable bend directly south of Lynchburg. This is "arm chair" research and therefore is not very reliable, but it does indicate the impossibility of Lederer's landing on the islands at the confluence of the two rivers in order to meet up with the Occaneechi. (See map 14.)

Another bit of information was learned from the "Journeys of Needham and Arthur" concerning the Occaneechi. Arthur, in escaping from his Indian captors:

> Ye next day came before night in sight of ye Occhenechees towne undiscovered and there hid himselfe until it was darke and then waded over to ye island where



MAP 14.—Modern map projecting the routes taken by Lederer and by Batts and Fallam.

ye Occhenechees are seated, strongly fortified by nature, and that makes them so insolent for they are but a handful of people, besides what vagabonds repaire to them in beeing a receptackle for rogues.

Thus, we learn in 1674, that the Occaneechi were not only a mixed lot made up of vagabonds and rogues, but that they were small in numbers and still living upon an island which was well fortified by nature—the same as indicated by Lederer.

Robert Beverley, like John Lederer, speaks of a common language used by the inhabitants of the land. Lederer stated it this way: "One language is common to them although they differ in dialects." Beverley puts it this way:

Their Language differs very much, as antiently in the several parts of Britain; so that Nations at a moderate distance, do not understand one another. However, they have a sort of general Language, like what Lahontan calls the Algonkine, which is understood by the Chief men of many Nations, as Latin is in most parts of Europe, and Lingua Franca quite thro the Levant.

The general Language here us'd, is said to be that of the Occaneeches tho they have been but a small Nation, ever since those parts were known to the English; but in what this Language may differ from that of the Algonkines, I am not able to determin.

As the reader will notice, Beverley makes a positive statement that this "general language" is that used by the Occaneechi and adopted by the surrounding groups. Along comes Horatio Hale in 1879 and 1883, warping this initial statement of Beverley's, and attributing the language to the *Tutelo* instead of the *Occaneechi*, and crediting Beverley as the source of this information. Just because Hale wanted to prove that the vocabulary gathered on the Six Nations Reserve, from a so-called Tutelo, was the "general language" to suit his premise, he apparently stretched a point in his own favor. This error affected the subsequent trend of thought concerning the existence of a Siouan-speaking people east of the Alleghenies and in Virginia.

Gallatin, in 1836, stated that there was no knowledge of the language of the Tutelo or any of the other Indians in their vicinity. To be specific, let us refer to the quotation from Gallatin:

As no further mention is made to the Esaws, and no pupulous nation is ever after alluded to in that quarter but the Catawbas, there cannot, it seems, be any doubt of their identity with the Esaws of Lawson, who probably mistook a local for the generic name of the nation. Between them and the Tuscaroras of the river Neuse, he places the *Saponas* on a branch of Cape Fear River, [or rather on the Great Pedee, which he does not mention, and some branches of which he evidently mistook for tributary streams of Cape Fear River] and in their vicinity of the *Toteros* and the *Keyauwees*, three small tribes amounting together to seven hundred and fifty souls [see Lawson's original statement about this group], which had but lately been driven away from the west into that quarter. He was shown, near the Sapona town, the graves of seven Indians "lately killed by the Sinnegars or Jennitos" [Senecas or Oneidas], and the three tribes had determined to unite in one town for their better security. East of them and west of the Tuscaroras, he

mentions the Sissipahaus on the waters of Cape Fear River, and the Enoes on a branch of the Neuse. *With the exception of the Catawbas, we have not the least knowledge of the languages of any of those tribes.* [Italics the writer's.] [Gallatin, 1836, pp. 85–86.]

This was more fully elaborated on page 131 of this paper.

Earlier, Byrd wrote that—

The Daughter of the *Totero King* went away with the Sapponys, but *being the last of her Nation*, and fearing she Shou'd not be treated according to her Rank, poison'd herself, like an Old Roman, with the Root of the Trumpet-Plant. *Her Father dy'd 2 years before*, who was the most intrepid Indian we had been acquainted with. He had made himself terrible to all other Indians by His Exploits, and had escaped so many Dangers that he was esteem'd invulnerable. But at last he dy'd of a Pleurisy, *the last Man of his Race and Nation*, leaving only that unhappy Daughter behind him, who would not long survive him. [Byrd, 1929, pp. 310, 312.]

Byrd wrote this in his "History of the Dividing Line" and in his "Secret History" of events that took place around 1733.

Whether Gallatin was referring to Byrd when he stated that the Tutelo were extinct is not known, but Byrd was rather positive about this fact.

Powell (1892, p. 14) states: "The last full-blood Tutelo died in 1870." This follows along with Hale, owing to Mooney's influence on Powell.

Whether the "most intrepid Indian Tutelo king" who died 2 years before his daughter poisoned herself was truly *the last man of his race and nation* is not known. It would seem that there must have been some reason for this statement, but we have found Byrd mistaken before.

Three sources—Lederer, Beverley, and Needham and Arthur—all agree that the Occaneechi were a small group or nation. Beverley goes one better in that he is more definitive as to time: "ever since those parts were known to the English," which must have been in the early part of the 17th century.

One language aspect which has never been satisfactorily explained appeared in Lawson's history of Carolina. He says:

I once met with a young Indian Woman that had been brought from beyond the Mountains, and was sold a Slave into Virginia. She spoke the same language as the Coramine Indians [?] that dwell near Cape Lookout, allowing for some few Words, which were different, yet no otherwise than that they might understand one another very well. [Lawson, 1937, pp. 180–181.]

Could they have been using the "general language" of the Occaneechi or were they of the same linguistic stock and kin—Algonquian—each speaking a dialect of the same stock which would and could account for the differing of the few words? The only Indian group living beyond the mountains was the Tutelo, the Mohetan, or the

Cherokee; the latter were members of the Iroquoian linguistic stock.

One attribute never stressed about these Indians is their means of recording events. Lederer alludes to this by saying:

> Before I treat of their ancient manners and customs, it is necessary I should shew by what means the knowledge of them has been conveyed from former ages to posterity. Three ways they supply their want of letters: first by counters, secondly by emblems of hieroglyphicks, thirdly by tradition delivered in long tales from father to son, which being children they are made to learn by rote.
>
> For counters, they use either pebbles, or short scantlings of straw or reeds. Where a battle has been fought, or a colony seated, they raise small pyramid of these stones, consisting of the number slain or transplanted. Their reeds and straws serve them in religious ceremonies: for they lay them orderly in a circle when they prepare for devotion or sacrifice; and that performed, the circle remains still; for it is sacriledge to disturb or to touch it: the disposition and sorting of the straws or reeds, shew what kind of rites have there been celebrated, as invocation, sacrifice, burial, etc.
>
> The faculties of the minde and body they commonly express by emblems. By the figure of a stag, they imply swiftness; by that of a serpent, wrath; of a lion, courage; of a dog, fidelity: by a swan, they signifie the English, alluding to their complexion, and flight over the sea.
>
> An account of time, and other things, they keep on a string or leather thong tied in knots of several colours. I took particular notice of small wheels serving for this purpose amongst the Oenocks, because I have heard that the Mexicans use the same. Every nation gives his particular ensigne or arms: The Sasquesahanaugh a Tarapine, or a small tortoise; the Akenatzy's a serpent; the Nahyssans three arrows, etc. In this they likewise agree with the Mexican Indians. [Alvord and Bidgood, 1912, p. 142.]

Lawson, too, in 1714, tells about the Indians making records of events.

> To prove the times more exactly, he produces the Records of the Country, which are a parcel of Reeds of different Lengths, with several distinct Marks, known to none but themselves, by which they seem to guess very exactly at Accidents that happened many Years ago: nay, two or three Ages or more. The Reason I have to believe what they tell me on this Account, is, because I have been at the Meeting of several Indian Nations, and they agreed, in relating the same Circumstances as to Time, very exactly; as for Example, they say there was so hard a Winter in Carolina 105 Years ago, that the great Sound was frozen over, and the Wild Geese came into the Woods to eat Acorns, and that they were so tame [I suppose through Want], that they killed abundance in the Woods by knocking them on the Heads with Sticks. [Lawson, 1937, 191–192.]

As for the Saponi, Lawson tells us that they occupied a village and fort

> in a clear field about a Mile square on the banks of the Sapona River. One side of the River is hemmed in with mountainy Ground, the other side proving as rich a Soil to the Eye of a knowing Person with us, as any this Western World can afford. . . . The Sapona River proves to be the West Branch of Cape Fear, or Clarendon River, whose inlet, with other advantages, makes it appear as noble a River to plant a Colony in, as any I have met withal.

Of the Tutelo, he says:

> The Toteros, a neighboring Nation, came down from the Western Mountains to the Saponas . . .;

so the Saponi were living apart from them during the time he first refers to them. Later on:

> These five Nations of the Totero's, Sapona's, Keiauwee's, Aconechos, and Schoccories, are lately come amongst us, and may contain in all, about 750 Men, Women and Children.

What was the determining factor that made these groups decide to pull up stakes and move into North Carolina is a mute question which has never been satisfactorily settled. It has been inferred that powerful enemies, possibly the Iroquois, had so decimated their numbers that they had to band together for mutual protection and to move into a locality which would be more easily protected. Since the Occaneechi occupied a "natural fortress," with the mountains on most sides and water all around it, it does not seem logical for them to seek out a new location. There must have been other factors involved which were never mentioned or determined.

The team of Batts and Fallam was the first to indicate the existence of the "Occaneechi Trail." They did not tell us where the path ran, neither did they tell the extent of the trail, its head or anything about it, but we know that there was a trail known to traders as the Occaneechi Trail. William Byrd indicated on his map where this trail crossed the Roanoke River in the vicinity of the Great Falls, which are 36 miles below the confluence of the Staunton and Dan Rivers and hence never passed across the group of islands found in the vicinity of Clarksville, Mecklenburg County, Va. William Myer (1928), in his study of Indian trails, originally indicated the crossing of this path in the same vicinity as indicated by Byrd, Mitchell, Jefferson, and Fray and other cartographers and surveyors. Swanton, on the other hand, while editing the manuscript prior to posthumous publication of Myer's article, changed the course of the path so that it crosses in the vicinity of the islands at the confluence of the Dan and Staunton Rivers in order to fit a statement issued by Byrd that at one time the Occaneechi, Saponi, and Tutelo occupied these three islands. Mooney goes along with Byrd; Bushnell quotes Mooney; and Swanton and later writers quote both Mooney and Bushnell without going back and checking the original sources as to the validity of the later studies. With this as the case we have no actual proof: (1) that the three tribes ever actually occupied contiguous islands at the confluence of the two rivers in Mecklenburg County, Va.; (2) that the so-called Occaneechi Trail ever passed across the middle island of the group—the one attributed to the Occaneechi; and (3)

that the Path originated in the vicinity of Petersburg and ended up on the Savannah River as later suggested. What we do find is that a number of inferences were suggested which were later converted to the status of "actuality."

While the Occaneechi were occupying the middle island, so to speak, a group of Conestoga (Susquehanna) overcome by the Iroquois were seeking a place to settle. They received permission from the Occaneechi to settle with them since they were both possibly of the same linguistic kin. How long they were joined with their hosts is not known, but it has been supposed that the Conestoga tried to chase out their host from their island home and to repossess it for themselves. They could not have been with the Occaneechi very long, for about this time Nathaniel Bacon, with his followers, caught up with them and, with the aid of the Occaneechi, proceeded to whip the Conestoga. As stated previously, this act is known as Bacon's Rebellion.

The Susquehanna Indians then moved over to the Meherrin River and apparently took over a smaller group, known as the Meherrin, both as to location and name. (See Hodge 1907, p. 839, for article by Mooney.) In the meantime Bacon and his followers decided to subdue the Occaneechi, mostly in order to secure for themselves the rich furs and other commodities in the possession of the Indians. But this time the English were not so lucky. The Occaneechi Indians proceeded to whip the English and in so doing lost 50 warriors while the English lost 10 men. The Occaneechi, fearing reprisals, fled southward, without mentioning the Saponi and the Tutelo as partaking in the battle or occupying adjoining islands. The Occaneechi saved their prized possessions and the English lost their pride.

The Occaneechi, without the Saponi and Tutelo, settled on the Eno River where Lawson found them. In the meantime the Saponi and Tutelo were occupying separate villages on the Yadkin well within the sphere of the Tuscarora. No reports tell about the Tuscarora ever fighting these newcomers, and this may indicate that there was a rather close affiliation, probably linguistically, with the Tuscarora, an Iroquoian group.

Fenton (1953, p. 159) suggests "from the records that the Tuscarora, who left the Neuse River in Carolina about 1711" returned to the fold of the Five Nations in 1714. If this be true, then the events which lead to the downfall of the Tuscarora occurred in the interval between 1700 and 1711 and the Tutelo and Saponi must have wandered from place to place seeking a haven after the Tuscarora no longer afforded them protection from their enemies.

Rights (1947) on the other hand, would lead one to believe that there was some connection between the Nottoway, an Iroquoian group, and

the Saponi. Sometime during 1709 the Nottoway proposed to the Saponi that they combine forces in exterminating the Tutelo, in settlement of a number of killings on both sides. When the Saponi tried to shift the blame of their killings upon the Tutelo, the "Nottoway answered that they were both as one people" (Rights, 1947, p. 114). This would seem to imply that the Nottoway recognized the Tutelo as being of the same linguistic kin.

Fenton continued:

> Throughout the first half of the eighteenth century the Iroquois were at war with the "Flathead" or Catawba in Carolina, a cause in which their young men gained prestige by taking scalps and bringing home prisoners to replenish losses of manpower, although many Catawba were tortured. French agents among the Five Nations greatly aided and abetted these campaigns to the great distress of the English colonists (and the Indian groups which were to be found approximate to the path taken by the Iroquois) who suffered depredations along the Warrior's Path, which roughly followed the fall line east of the mountains from Pennsylvania to Carolina. British policy was to secure these Indians against the French, and the Colonial governors were instructed to make peace between the warring tribes. [Fenton, 1953, p. 165.]

The adoption of outsiders to take the place of those who were either killed or died a natural death appears to have been generally practiced not only in the east but in other parts of the west as well. The above statement made by Fenton strengthens Speck's work on the Tutelo Spirit Adoption Ceremony (1942), in which the rites were put into practice for a Mrs. James Hess who was born an Onondaga of the Crane sib. Her family was of an unknown tribal group but was definitely not Tutelo. Through family intermarriage with the Cayuga she had been classified most of her life with that nation. Her formal seating at the convening of the group was with the members of the Wolf Moiety. Early in life she was adopted as a living substitute for a deceased Tutelo. No one seemed to remember when such an adoption took place and she only revealed it at the close of her life but failed to pass on the personal name given to her at that time; hence the rite was given but no mention of a personal name was used. This may mean that a great many persons who pass themselves off as Tutelo are only Tutelo by adoption rather than by birth and, of course, cannot pass themselves off as pure blood. Whether such was the case with Nikonha was never revealed; in fact, Hale knew of no such ritual when he was investigating the Tutelo on the Reserve.

Nikohna, or Nikungha, whose so-called Tutelo name was said to be Washiteng, which Hale (1883) thought a corruption of the English word mosquito, a rather farfetched interpretation, was married to a Cayuga wife and "for many years spoke only the language of her people." But the fact that he was 106 years old at the time of ques-

tioning would tend to throw a beam of doubt upon the validity of his statement because of his age. The factor which must be taken into account here is that the human mind, up to a certain age, tends to subtract years from one's age, and beyond that to add years. Whether Nikonha was truly 106 years old at the time of the interview is not too important, but what is of utmost importance is that he spoke Cayuga for a number of years and since he knew of one other full-blooded Tutelo except himself—which is to be doubted at such a late date—how could he have suddenly remembered the Tutelo language sufficiently to divulge nearly a hundred words to his interviewer. The interview must have been given in Cayuga, for Hale did not recognize that the words given him were in a form of what had later been termed "Dacotan." The age factor and the paucity of the words would tend to question the validity.

Hale recapitulating Tutelo history from other sources states:

> In the year 1671 an exploring party under Captain Batt, leaving "Apomatock Town" on the James River, penetrated into the mountains of Western Virginia at a distance, by the route they traveled, of two hundred and fifty miles from their starting point. At this point they found "the Tolera Town in a very rich swamp between a breach [branch] and the main river of the Roanoke, circled about by mountains." [Batt's Journal and Relations of a New Discovery, in N. Y. Hist. Co., vol. III, p. 191.]

Gallatin would have brought the Tutelos far to the east upon the Meherrin River (1848, pp. 80–81), while Hale placed them in the vicinity of the Tuscarora and more or less under their protection. Hale (1883, p. 4) says:

> The protection which the Tuteloes had received from the Tuscarora and their allies soon failed them. In the year 1711 a war broke out between the Tuscaroras and the Carolina settlers, which ended during the following year in the complete defeat of the Indians.

This would make it appear that the Tutelos went to their own linguistic kin for protection and received it for a while until the Tuscarora got into trouble with the settlers in Carolina.

When the main portion of the Tuscarora migrated into Virginia under the protection of the Virginia government, "the Tutelo, Saponi and their confederates" joined them in their new quarters. This is indicated by Hale and would strengthen the inference that the Tuscarora, Tutelo, and Saponi were of one and the same linguistic stock of a common ethnic group.

If one critically reads the article by Hale (1883) on "The Tutelo Tribe and Language," one is immediately struck with the large number of inferences and assumptions which were used to build up the whole picture of the Tutelo language affiliation with that of the Dacotan

or Sioux. Again, let us quote Hale here to point out these inferences, assumptions, etc. (italics are the present writer's):

> The Akenatzies or Occaneeches *would seem to have been*, in some respects, *the chief or leading community among the tribes of Dacotan stock* who formerly inhabited Virginia. *That these tribes had at one time a large and widespread population may be inferred from the simple fact that their language*, like that of the widely scattered Algonkins (or Ojibways) in the northwest, *became the general medium of communication for the people of different nationalities in their neighborhood.* That they had some ceremonial observances [or, as Beverley terms them, "adorations and conjurations"] of a peculiar and impressive cast, like those of the western Dakotas,[3] *seems evident from the circumstance that the intrusive tribes adopted this language, and probably with it some of these observances, in performing their own religious rites.* We thus have a strong and unexpected confirmation of the tradition prevailing among the tribes both of the Algonkin and the Iroquois stocks, which represents them as coming originally from the far north, and gradually overspreading the country on both sides of the Alleghanies, from the Great Lakes to the mountainfastness of the Cherokees. They found, *it would seem, Virginia, and possibly the whole country east of the Alleghanies, from the Great Lakes to South Carolina, occupied by tribes speaking languages of the Dakotan stock. That the displacement of these tribes was a very gradual process and that the relations between the natives and the encroaching tribes were not always hostile, may be inferred not only from the adoption of the aboriginal speech as the general means of intercourse, but also from the terms of amity on which these tribes of diverse origin, natives and intrusives, were found by the English to be living together.*
>
> *That the Tutelo language represents this "general language" of which Beverley speaks*—this aboriginal Latin of Virginia— *cannot be doubted. It may therefore, be deemed a language of no small historical importance.*

The statement quoted that the English found the various Indian tribes or groups living at peace with one another is very far from being true. Captain John Smith reported in 1607 that the Powhatan group told him about the Indians living beyond the falls of the James River; how they were constantly at war with one another, and how this group would come down river, at the fall of the leaf, to invade Powhatan's country. Other travelers reported on strong feelings between other groups. We also know that at the coming of the white man to this continent various Indian groups were in the process of forming confederacies and alining themselves into positions of influence which brought pressures upon smaller groups of their kindred and unaffiliated groups, causing them to thrash around for new homes and for protection as well as for hunting grounds. With the coming of the white man this process became intensified and feelings ran high; as for amiable relationships between groups of this whole area, it just did not exist—even among linguistic kin.

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[3] Why choose the Dakotan language? There are many other stocks in which a common language has been used. In the East, the Delaware and the Muskhogean or Creek languages were rather widely used.

Birket-Smith (1930) in discussing the Five Nations and Post Columbian Migrations put it this way:

The Five Nations waged a merciless war both against the Iroquois tribes outside of the confederation and the neighboring Algonkian peoples. . . . The middle of the 17. century witnessed the climax of their power.

At the same time as the Five Nations made all tribes between the Atlantic and the Mississippi tremble, fresh actors made their appearance on the stage, a group of Algonkians, which at a later period separated into the three different tribes of Ojibwa, Potawatomi, and Ottawa, advancing from the north in the direction of the Great Lakes. [Birket-Smith, 1930, p. 2.]

To the forces of the Iroquois and the Algonkians just mentioned should also be added the European colonisation which did not only assert its influence directly but also indirectly played an even more considerable part, because the Whites gradually supplied the neighboring natives with fire-arms. Particularly for the Iroquois it meant an invaluable advantage that they were furnished with guns at a very early period by trading with the Dutch colonies of New Netherland.

The outcome of these events was a series of movements radiating from the Lawrentic regions. The swell reached as far as the Rocky Mountains and the Polar Sea, and it might be noticed even for centuries later.

The tribes living in closest contact with the Five Nations were rapidly more or less annihilated without getting an opportunity, as it were, of seeking new places of living. . . .

In 1675 the Conestoga at Susquehanna River were also subjugated, whereas the Tuscarora voluntarily sought admission to the league as did also some foreign tribes (Tutelo, Nanticoke, Saponi, etc.). This event, however, marked the limit of its power; farther south the Cheroki and Catawba formed an insurmountable barrier to its progress. [Ibid., p. 3.]

The post-Columbian migrations . . . have a double significance. In the first place they show the distribution of certain tribal groups as it actually was at certain times; but besides they also contribute toward the understanding of the character of the folk wanderings themselves. This is of course of paramount importance if we turn to the problems connected with migrations in prehistoric times.

Haddon says that "it is probable that a migration induced by an attraction is rare as compared with that produced by an expulsion." Probably this is true in a general way, but it is otherwise when the surroundings for some reason or other assume a new aspect. . . . the historical migrations in North America go to show the importance of new acquirements within material culture when they involve a revolution in the way of living of a tribe, or a change of its military relations to the neighbors. . . . [Ibid., p. 10.]

Among the Algonkian nations south of the Great Lakes agriculture had entirely upset the principles of economic life, but when eliminating the latter we find an old hunting foundation evidently corresponding to the ice-hunting culture. In the Southeast outside the Algonkian area elements consistent with those of the ice-hunting culture may be found, but there they do not occur under such circumstances that it is justifiable to regard them as constituting a joint complex. This is also true of the culture preceding the Algonkian within the area that in later times fell to the lot of these Indians. I will return to this later and at present only emphasize that south of the Great Lakes the ice-hunting culture is probably a complex introduced by the Algonkians. [Ibid., p. 13.]

The main thing for us, however, is how the primitive basic culture should be understood. Of course, ice-hunting is precluded for purely geographical reasons, but on the other hand the culture has so many elements characteristic of this complex that the general aspect is essentially the same. Fritz Krause (1921) has expressed the same opinion. It is hardly improbable that a very old and primitive hunting and fishing culture underlies the later development everywhere in northern and western North America. As to its age nothing can be said with certainty, but some facts suggest a connection with late paleolithic or epipaleolithic culture in Europe (Birket-Smith, 1929). [Ibid., p. 14.]

Among the Algonkian tribes still more to the south the ice-hunting layer seems to have been preserved beneath the agricultural complex adopted from without. From the northwest to the southeast the foundation of Algonkian culture assumes a more and more primitive aspect. [Ibid., p. 21.]

It would no doubt be a mistake if this circumstance was taken as evidence of a southern origin of the Algonkians. This appears from the fact that typical methods of Algonkian economic life are missing in the south, whereas old-fashioned features as might be expected in an outlying border region are retained (Birket-Smith, 1918). Again, nearly all fundamental elements in Algonkian culture are of northern origin (Speck, 1926). Even with the southernmost Algonkian tribe the northern character of the culture is evident (Swanton, 1928).

In the southern Algonkian area there is, therefore, a disharmony between culture and environment that cannot be explained otherwise than by assuming the tribes in question to be immigrants from the north, a view also held by Speck (1926). This agrees with the archeological facts.(?) In the whole area between the Mississippi and the Atlantic, though most abundantly in Ohio and the southern states, we find the famous remains of the old mound builder civilisation, which, in several respects, was at a higher level than the culture encountered by the early explorers among the trans-Appalachian Algonkians. [Ibid., p. 22.]

In the piedmont area of the Appalachians in Virginia and the Carolinas there was another group of Siouans (Catawba a. o.) that is now nearly extinct, and separated from the rest of the stock were the Biloxi at the Gulf Coast (Mooney, 1894). [Birket-Smith, 1930, p. 24.]

Hale made a great impression upon the linguists and ethnologists of America by his declaration of a Siouan-speaking group east of the Mississippi River. He was taken literally at face value and no actual critical examination of his material was evidently ever undertaken. From here on to the present day his word has been accepted as "gospel truth" and not questioned. The same can be said about Mooney (1894) and his study of the "Siouan Tribes of the East."

While the writer was conducting a rather intense archeological program within the area supposed to have been occupied by Siouan-speaking groups—the Occaneechi, Saponi, and Tutelo—a revaluation of the whole situation was undertaken so as to either corroborate or disprove that these Siouan-speaking groups actually occupied this portion of southern Virginia at the time they were supposed to have been here. The results of the study are presented in the present paper.

Powell, reflecting James Mooney, gave a very brief historical summary of the movements of the Tutelo.

The Tutelo habitat in 1671 was in Brunswick County, southern Virginia, and it probably included Lunenburgh and Mecklenburg counties. The Earl of Bellomont (1669) says that the Shateras were "supposed to be the Toteros, on Big Sandy River, Virginia," and Pownall, in his map of North America (1776), gives the Totteroy (i. e., Big Sandy) River. Subsequently to 1671[4] the Tutelo left Virginia and moved to North Carolina, (Lawson, 1714; reprint 1860, p. 384). They returned to Virginia (with the Saponi), joined the Nottoway and Meherrin, whom they and the Tuscarora followed into Pennsylvania in the last century; thence they went to New York, where they joined the Six Nations, with whom they removed to Grand River Reservation, Ontario, Canada, after the Revolutionary War. [Powell, 1892, p. 114.]

Now, we come to Mooney's important paper "Siouan Tribes of the East." Mooney, like Hale, continued the inferences and assumptions together with possibilities and probabilities, and upon these ethereal statements he has constructed the whole Siouan problem of the east. Not only does he delimit the area of influence dominated by this so-called Siouan group but he gives the extent—"an area of about 70,000 square miles, formerly occupied by about forty different tribes" (Mooney, 1894, p. 9). Who these 40 different tribes were or are he does not bother to mention.

Mooney set up a number of "straw men" to be knocked down. The best example is:

Who were the Indians of this central area? For a long time the question was ignored by ethnologists, and it was implicitly assumed that they were like their neighbors, Iroquoian or Algonquian in the north and "Catawban" in the south. It was never hinted that they might be anything different, and still less was it supposed that they would prove to be a part of the great Siouan or Dakotan family, whose nearest known representaties were beyond the Mississippi or about the upper Lakes, nearly a thousand miles away. Yet the *fact* is now established that some at least of these tribes, and these the most important, were of that race of hunters, while the apparently older dialectic forms to be met with in the east, the identification of the Biloxi near Mobile as part of the same stock, and concurrent testimony of the Siouan tribes themselves to the effect that they had come from the east, all now render it extremely probable that the original home of the Siouan race was not on the prairie of the west but amidst the eastern foothills of the southern Alleghanies, or at least as far eastward as the upper Ohio region. [Mooney, 1894, p. 9.]

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[4] Birket-Smith stated that the Conestoga were expelled in 1675 from their home on the Susquehanna River. This same year they received permission from the Occaneechi to settle with them. Then came Bacon's rebellion, and then the so-called migration of the group into North Carolina. Either Powell or Mooney got his dates confused, for no one knows when the actual migration took place; but it did take place sometime between 1673, after Needham and Arthur's experience with the Occaneechi, and Lawson's expedition when he found the various groups in northern North Carolina.

No one has ever assumed such a premise before and this is ably demonstrated by Cyrus Thomas' notes (MS., Doc. No. 4014), now in the Archives of the Bureau of American Ethnology. Let us here quote from these notes since they have a direct bearing upon this phase of Mooney's theory:

On pg. 11—He has those going west—first crossing the mountains and following "down the valleys of New River and the Big Sandy to the Ohio." Yet, as he informs us their homes were on the upper Ohio. The route taken to go west seems a rather strange one.

Pg. 11—He says "the theory of a Siouan migration down the Big Sandy is borne out by the fact that this stream was formerly known as the Totteroy a corruption of the Iroquois name for the Tutelo." Yet in the quotation from pg. 29 [quoted earlier], the eastern branch is said to have crossed the mountains from upper Ohio region to the waters of Virginia and Carolina.

Pg. 9—The statement that "the concurrent testimony of the Siouan tribes themselves to the effect that they had come from the East" is not true as here used. The western Sioux claim to have come from a more eastern locality, but this does not reach farther east than Lake Michigan. The statement given above is therefore misleading and *the truth concealed, to maintain a theory.*

Pg. 9—"The inference that the region west of the Mississippi was the original home of the Siouan tribes" is a man of straw set up by the writer to be knocked down. No acceptable authority, if any, ever held such a theory.

Pg. 10—The statement that "As early as 1701 Gravier stated that the Ohio was known to the Miami and Illinois as the 'river of the Akansea' is untrue." Gravier says the Ouabache [Wabash] and expressly distinguishes between it and the Ohio—continuing the Wabash and the Mississippi and making the Ohio a tributary to it. It was from this erroneous interpretation of Gravier's words that the Sibley Osage tradition—in all its various forms—grew up.

Pg. 10—The statement that Dorsey found the tradition of an eastern origin (in the sense here used) as "common to almost all the tribes of that [Siouan] stock", is incorrect. Dorsey also contradicts himself on this point—moreover his statements do not include the Dakota group.

Pg. 10—De Soto found the Quapaw only a short distance above the locality occupied when the French descended the Mississippi. De Soto did not pass through any portion of the Osage country.

Pg. 11—No Ohio tribe, so far as known, had any tradition regarding the Quapaw (or Akansa)—This was limited, so far as known to some Illinois tribes.

It is not true that the Quapaw were "in the vicinity of that stream [the Ohio] when encountered by De Soto." This is apparent from the fact that they were then somewhere in the vicinity of the site of Helena, Arkansas.

Pg. 11—After stating that the cause of the exodus of the Siouan tribes from their original home, was probably pressure by northern and southern alien tribes, he says "they retreated across the mountains, the only direction in which a retreat was open to them." Does this refer to those who went west or those who went east into "Virginia and Carolina"?

Pg. 12—The statement that "within this period, traditional and historical evidence point out as the cradle of the Algonkian race the coast region lying between Saint Lawrence river and Chesapeake bay" is untrue. The most "coherent" tradition points to some locality north of the lakes as their original home. The Leni Lenape were the "grand-father", and that was their original home.

Pg. 12—"When their [the Iroquois] warfare against the southern tribes was inaugurated we do not know. It was probably continuous with the expulsion of the Cherokee from the Upper Ohio." As the Cherokee were in their southern home in 1540—it may be safely assumed that their expulsion could not have occurred later than the latter part of the 15th century. Were the Iroquois already raiding the southern tribes at this early date?

Pg. 19—Compare the statements in the first paragraph of this page as regards the information respecting the Manahoacs and subdivisions with what is stated near the bottom of page 22 and top of page 23.

The inference of relationship of Manahoac with Monacan on page 23 is changed to certainty on page 26—"the cognate Manahoac."—[. . . were "very barbarous" and subsisted chiefly by hunting and by gathering wild fruits. They were in alliance with the Manahoac and at constant war with the Powhatan, and in mortal dread of the Massawomeke or Iroquois beyond the mountains (Smith, 7). He seems to imply that the Monacan tribes named spoke different languages, although in another place (Smith, 8) we are led to infer that they had but one. The difference was probably only dialectic, although the cognate and confederate tribes farther southward probably used really different languages. (Mooney, 1894, p. 26.).]

From the quotations given above it can be seen that Thomas did not go along with Mooney and his theories concerning the Siouan origin of the tribes in Virginia and the Carolinas as is shown in an undated letter to Mr. J. N. B. Hewitt which has already been quoted on page 169.

Dorsey's notes (MS., Doc. No. 3804) in the Archives of the Bureau of American Ethnology bearing upon this Siouan problem reveal that he, too, did not go along with Mooney and his migration theory. He says:

Some authors speak of a series of migrations of these tribes from the west toward the east; but the writer has not been able to learn on what authority such statements have been made; nor has he ever found any tradition of such eastward migrations among the tribes that he has visited.

Mooney [in the Siouan Tribes of the East, Galley 4 AL] says:—"The theory of a Siouan migration down the valley of the Big Sandy is borne out by the fact that this stream was formerly known as the Totteroy, a corruption of the Iroquois name for the Tutelo and other Siouan tribes of the South."

(Big Sandy, the Big Totteroy; and Little Sandy, Little Totteroy.) If Mooney accepts this traditional name of the Big Sandy as good evidence (see above), why should he reject the traditional name of the Kentucky R. (a stream near the Big Sandy), Cuttawa, Cuttawo, or Catawba River? He says in Galley 26 AL: "The Shawano and other tribes of the Ohio Valley made the word (i. e., Catawba) Cuttawa."

Catawba in Carolina as early as 1569 (La Vandera)	Kawapa on the Mississippi in 1540–41 (De Soto)
Yet:—	Yet:—
Kentucky R. given as "Cuttawa" on Vaugondie's Map (1755)	Ohio given as "R. d'Acansea" on De l'Isle's Map (1722)
Big Sandy called Totteroy in 1746.	

Mooney says (The Siouan Tribes of the East, (p. 70) Galley 26 AL).

"The Catawba were found living about where we have always known them as early as 1567. Kentucky river was called by that name among the Shawano and

other northern tribes because up that river lay the great way trail of the Catawba country."

This may be so; but what proof have we of this. If proof can be given, that settles the question of the origin of this name for Kentucky river; but if no proof (no authority) can be given for this statement, if it be a mere inference on the part of Mr. Mooney, it is in order to call attention to another explanation of the origin of the appellation, i. e., that it referred to a traditional or prehistoric occupation of that region by the Catawba tribe, just as the name Totteroy, applied to the Big Sandy, referred to a traditional or prehistoric occupation of that region by the Tutelo tribe or confederacy.

Thus spoke two of Mooney's contemporaries.

William Tooker (1895) in "The Algonquian Appellatives of the Siouan Tribes of Virginia," pointed out that there are four questions which must be answered in relation to these.

The questions that now arise, and which I shall endeavor to answer, are these: First, What were the commodities of the Monacans that Smith was instructed to search for? Second, What was it that gave rise to lasting impressions in the minds of the Virginia colonists that valuable mines of copper, iron, gold, and silver were to be found in the same region? Third, Can any of the Mannahoacks be identified with tribes or peoples of a later historic period? Fourth, To what language must be assigned these and other names of Captain John Smith?

. . . . . .

I will proceed to analyze those terms, descriptive in their character, which we have found applied to these people in the early days of the period of colonization. These appellatives were bestowed upon them by their neighbors on the east, the Powhatans and their confederates, who are well known to have been a branch of the Algonquian stock. Therefore, there ought to arise no question whatever in the mind of the critical student of Smith's works against the dictum now submitted, that every one of these terms, without a single exception, are necessarily Algonquian, and consequently should be analyzed and translated by the aid of that language, no matter what the nativity of the people themselves may have been. This declaration will also apply to every aboriginal name occurring upon Smith's map of Virginia, for he was never in contact with other than an Algonquian long enough to learn a name. Besides, the historical evidence would seem to indicate that the greater number of these terms were heard spoken from the lips of the Powhatan long before the colonists saw a Monacan. For instance, Captain Newport's guide and interpreter was a savage of Powhatans called Namontack. Newport named a mine six miles above the falls after him because he discovered it. Smith's interpreter while among the Mannahoacks was an Algonquian, as was also his Tockwogh interpreter while interviewing the Sasquesahanoughs. His very brief parley with the Massawomecks, as he relates, was entirely by signs. Therefore, it seems to me that failure would be necessarily foreordained in seeking for other than Algonquian elements in any of the aboriginal names of Virginia as bequeathed to us by Captain John Smith.

William Strachey, secretary of the colony, 1609–1612, who was more or less familiar with the language of the Powhatans and left us a valuable vocabulary of that dialect, derives the name Monacan from Monohacan (or Monowhauk), "a sword," while Heckewelder, through the Delaware, translates it as "a spade or any implement for digging the soil," corrupted from Monohacan. Heckewelder is so rarely correct in his place-name etymologies that he should have due credit

for this suggestion, for the fact appears that both of these authorities are correct in their identification of the verbal element of the name, but not in the grammar, application, or true analysis of the term as applied to a people.

The prefix Mona is undoubtedly the verb signifying "to dig" occurring in the same primitive form in many Algonquian dialects, from the Cree Móna, in the far north, to the Narragansett Mona, on the east, and is reproduced at the south in the Powhatan Monohacan, "sword" literally a digging instrument, from Mono, "to dig," prefixed to hacan, an instrumentive noun suffix used only as a terminal in compound words denotive of things artificial, so designated because so used by the Indians when purchased from the settlers. The same verb figures in other Powhatan cluster words, this revealing its identity; for instance in Monascunnemū, "to cleanse the ground to fit it for seed," making it the equivalent of the Narragansett Monaskúnneumun; Delaware Munáskamen, "to weede." It will be found by analyzing carefully the various synonyms of the term Monacans, or Monanacans, with its English plural as displayed, that it resolves itself into the components of Moná-ackánough, from Mona, "to dig"; ack, "land or earth," with its generic plural of -anough, "nation, or people"—that is, "people who dig the earth" the phonetic sounds of which were shortened into Monacans by the English, which may be freely and correctly translated as the "diggers or miners." The term as such probably designated the whole confederacy collectively. This abbreviation of the sounds of tribal appellatives is characteristic of English notation, as in Mowhawk, from Mauguauog; Mohegans, from Manhigan-euck; Pequot, from Pequttoóg, and others. [Tooker, 1895, pp. 378–380.]

Saponi derived from Monasukapananough [diggers of ground nuts]. [Ibid., p. 384.]

The Whonkentyaes or Whonkenteas are another tribe of the Mannahocks, or tributary to them who are unplaced on Smith's map. The phonetic sounds of this appellative suggests that they were probably the ancestors of the Akenatzies, or Occaneeches, as it is varied, who were living, as Mr. Mooney has indicated, on an island just below the confluence of the rivers Dan and Staunton, in Mecklenburg County, Virginia, when visited by John Lederer in 1670. I would suggest that the derivation of the term Whon-kente-as or Whon-kenchi-aneas as from the Narragansett awaun, Massachusetts auwon, "there is somebody," i. e., who is strange or different from those speaking. The second component, -kentie, -kenatzie, or -caneeche, seems to have its parallel in various forms of the verb "to talk" or "to speak," as in the Long Island unkenchie, "the strange talker;" Narraganset awáun-kéntauchem? "Who are you that discourses?" Delaware n'iechsin, "to speak;" Powhatan kekaten, "you tell," which, with its terminal, gives us whon-kentie-anies, "people of a strange talk, or another speech." This analysis confirms Smith's statement that the Mannahocks were "many different in language." Again, in noticeable corroboration of this derivation, the Occaneeches seem to have been of a different linguistic stock to their Siouan neighbors. . . . Now, it appears to me, on careful consideration of this statement of Beverley's in all its aspects that is open to only one construction—that is to say, if the term Whomkenties is a translation of an Algonquian interpreter of a Siouan description of a nation of another of different speech, residing among and tributary to them, and is also, as I suggest, a synonym for Occaneeche or Akenatzie, it would surely lead us to infer that the language of the Occaneeches was not Siouan, but was really nothing more or less than a dialect of the Algonquian. [Ibid., p. 389.]

The fact that Beverley, as he remarks, was unable to determine the difference between the language of the Occaneeches and that of the Algonquians would indicate to my mind that they were practically identical, with only an archaic difference—a difference similar to that mentioned by Mr. Mooney as existing

between the Cherokee language and that used in the sacred formulas of their shamans. [Ibid., p. 391.]

Whether Tooker's explanation is a valid one relies upon the reexamination of the whole linguistic problem by capable linguists and is not based upon inferences but upon direct linkage and correlations with known and valid vocabularies.

Daniel Brinton's explanation of this ceremonial language, as indicated by Beverley, runs thus:

> The travellers Balboa and Coreal mention that the temple services of Peru were conducted in a language not understood by the masses, and the incantations of the priests of Powhatan were not in ordinary Algonkin, but some obscure jargon.
>
> The same peculiarity has been observed among the Dakotas and Eskimos, and in these nations, fortunately, it fell under the notice of competent linguistic scholars, who have submitted it to a searching examination. The results of their labors prove that in these two instances the supposed foreign tongues were nothing more than the ordinary dialects of the country modified by an affected accentuation, by the introduction of a few cabalistic terms, and by the use of descriptive circumlocutions and figurative words in places or ordinary expressions, a slang, in short, such as rascals and pedants invariably coin whenever they associate. [Brinton, 1896, footnote, p. 326.]

Whether this was the actual case of this language as used by the priests in their religious rites cannot be vouched for, since the language is defunct.

Hale states that the Tutelo he studied trace their descent through the female. James O. Dorsey, on the other hand, says:

> Among the tribes of the Siouan family the primary unit is the clan or gens, which is composed of a number of consanguinei, claiming descent from a common ancestor and having common taboos; the term clan implying descent in the female line while gens implies descent in the male line. Among the Dakota, as among the Cegiha and other groups, the man is the head of the family.

In 1907 Leo Frachtenberg went up to the Grand River Reservation in Ontario, Canada, where Hale had earlier collected. Using one Lucy Buck, "an old Tutelo woman," he collected a few phrases and words. As Frachtenberg put it:

> As she was unfamiliar with English, it was necessary for me to obtain this scanty material by using as an interpreter Andrew Sprague, a Cayuga, who in his early youth had been adopted by the Tutelo tribe. . . .
>
> This material is presented in the form in which it was given to me. No attempt to verify the words by means of other vocabularies has been made, owing chiefly to the fact that I deemed the material obtained highly unreliable, as a glance at the various confusing terms given for the different cardinal numerals will show. [Frachtenberg, 1913, pp. 477–478.]

This demonstrates that Frachtenberg placed no emphasis upon this material, but only presented it as given him so as to clear the records. Apparently he thinks that Lucy Buck confused the issue by giving him a number of words whose meanings are unknown since they did not correlate with recognizable forms.

Edward Sapir, while on the Six Nations Reservation in 1911, heard about a Cayuga Indian named Andrew Sprague—

who had had opportunity during his childhood to hear Tutelo spoken fluently and who was supposed to remember considerable of it. As Tutelo is an extinct language, I thought it imperative to rescue from oblivion what was still to be obtained and thus add, if only a mite, to what had already been put on record. As a matter of fact, it turned out that Andrew remembered only very little indeed of Tutelo, and what small amount of material could be obtained from him was extorted with some difficulty. No attempt will here be made to discuss the data. They are given for what they are worth in the hope that they may at some future time prove of use to the student of comparative Siouan linguistics. [Sapir, 1913, p. 295.]

A great many of the terms recorded by Sapir occur in the list submitted by Frachtenberg, so there appears to have been some collusion attempted on the part of the Indians of the Grand River Reservation.

W. H. Holmes in speaking about the Indians of Virginia and North Carolina states that—

the aborigines, largely of the Algonquian, Iroquoian, and Siouan stocks, were primarily hunters and fishers, although agriculture was practiced successfully in many of the fertile valleys. The native culture of both colonial and precolonial times, so far as known, though varying with the widely distributed centers of habitation, were quite uniform in grade and general characteristics. It is well differentiated from that of the south and middle west, but passes with no abrupt change into that of the upper lakes and the great interior region of the north. The changes from north to south were due in large measure to differences in food resources and the influence of neighboring cultures. [Holmes, 1914, p. 417.]

As we all recognize, language does not predict archeological remains but may in fact differ so radically that there may appear, on the surface, to be no similarity or connection. Whether such will prove to be the case in Virginia remains to be determined at a later date.

Swanton and Dixon's "Primitive American History" reveals that—

It is a striking fact, that, in contrast with both the Muskhogean and Siouan peoples, the migration legends which have been preserved from the Indians of this stock are meager and unsatisfactory. According to colonial documents the Meherrin were a band of refugee Conestoga which fled south after the destruction of that tribe by the Iroquois about 1675, but one form of their name occurs in the census of Virginia Indians taken in 1669. Thus it is evident either that some Conestoga had replaced an Algonquian tribe of similar designation or else that the tribe antedated the destruction of the Conestoga and the reputed influx of population at that time. Possibly, as Mooney suggests, an original small Iroquoian tribe was practically submerged by later immigrations of Conestoga. At all events the whole question of origin is left in uncertainty. . . . So far as this evidence goes, however, it indicates a northern origin for the southeastern Iroquoian group. [Swanton and Dixon, 1914, p. 390.]

Whether this same applies to the "Tutelo-Meherrins" of Gallatin is not known.

Later Swanton in throwing "New Light on the Early History of the Siouan Peoples" admits "much speculation in all this, but I have considered that the facts are of sufficient importance to both the ethnologist and the archaeologist of the Ohio region to present them in a usable form" (Swanton, 1923, p. 43).

Hewitt (1927), while working among the Iroquois Indians living on their reserve in the vicinity of Brantford, Ontario, and at Caughnawaga near Montreal, Quebec, Canada, contacted John Buck, "an Onondaga-Tutelo mixed blood, as an Onondaga informant and interpreter" and as a consequence "obtained a fine Mohawk version and literal translation of the remarkable Requickening Address of this famous Council." John Buck, brother of Lucy Buck was supposed to be most affluent in the Tutelo tongue. Instead of checking against the list of words and phrases volunteered by the sister, Hewitt used John as an informant and interpreter in Mohawk. Lucy, according to Frachtenberg, was a Tutelo, supposedly of unmixed blood while her brother is of mixed Onondaga-Tutelo stock. Later, in 1929, Hewitt made use of John Buck (this time a "Junior") of Onondaga-Tutelo mixed blood, detailing the Tutelo migration tradition, *in Onondaga,* from Virginia and North Carolina to the Cayuga country in which a number of allusions were made to customs "and especially intertribal amenities at an early day and customary precautions taken for such a journey of a tribal people through the lands of other hostile peoples" (Hewitt, 1930, p. 201). Heretofore, it has been recorded that the Tutelo, in company with the Tuscarora, Nottoway, and Meherrin, migrated northward to the Cayuga. In another instance, it has been stated that while the Iroquois were down in this area they took these tribes under their protection and brought them into the Cayuga country. What really happened? It would seem strange that a mixblood Indian had to give a Tutelo tradition in Onondaga rather than in his native tongue, if ever such were the case.

It is noticeable at this stage that there are a number of extraneous details which do not fit into a well-rounded picture of the so-called Siouan tribes, namely linguistic deviations based on inferences and assumptions. To further befog the issue we have assumptions by Bushnell in his several papers on the Indians of Virginia. Occasionally we do retrieve a grain of truth as such:

> How long the country had been occupied by the Siouan tribes can never be determined. Others had preceded them, but who they were or whence they came may ever remain unknown. [Bushnell, 1930, p. 5.]
>
> Powhatan's statement to Captain Newport at the time of their first visit in 1608 that the Monacan "came Downe at the fall of the leafe and invaded his Countrye," would indicate that the Monacan rather than the Algonquian dominated the region and did not fear the latter. [Ibid., p. 5.]

Bushnell mentions the inaccuracies of Lederer as to distances traveled, but this is the usual thing noted on travel accounts not only by Lederer, but by Batts and Fallam, John Smith, De Soto, ad infinitum. But he agrees that Lederer is accurate as far as names of streams and places are concerned. If inaccurate in one instance, why not in the other? If such an attitude were universally adopted, we would then have to discard all the early narratives by explorers and traders which constitute our whole basic stock of knowledge.

Bushnell is of the opinion that these so-called Siouan tribes of Virginia followed the burial customs of the western branch—either tree or scaffold burials.

> It is believed . . . that all disposed of their dead as did the people of Monasukapanough, whose village stood on the banks of the Rivanna far above Rassawek. Consequently the discovery of other sites along the course of the James, where the dead had been buried in shallow pits scattered through the village, suggests that some other tribe or tribes may have preceded the Monacan. [Bushnell, 1930, p. 13.]
>
> Mooney was of the belief that Monasukapanough was possibly "the original of Saponi." There is little reason to doubt the correctness of this belief. Lederer stated that he "arrived at Sapon, a village of the Nahyssans." The latter, as previously shown, were the Monahassanugh whose name appears on the map of 1624. (Strachey, pp. 48–9) says: That Monahassanugh, which stands at the foote of the mountaines.) Therefore, it is quite evident that at the time of the settlement of Jamestown, 1607, the site on the banks of the Rivana was occupied by the Saponi, closely allied with the Monahassanugh or Tutelo, whose village stood on the banks of the James some miles away in a southwesterly direction. [Ibid., p. 18.]

This whole placement of the Saponi and Tutelo in relation with the Monasukapanough and Monahassanugh is purely assumptive on the part of Mooney and Bushnell.

Bushnell continues:

> Had it not been for the work and interest of Jefferson, no account of the great burial mound which once stood at the ancient village of Monasuckapanough would not be available. It would have disappeared as have the burial places once belonging to other villages of the Siouan tribes and no reference to it would have been preserved. The site of the Indian town was visible from Monticello, and the burial mound stood near the south, or right bank of the Rivana. [Ibid., p. 18.]

A few paragraphs further on he says:

> The exact position of the mound [excavated by Jefferson] may never be determined, but it certainly stood on the low ground, on the right bank of the Rivanna, evidently nearer the river than the cliffs, and it may have been some distance above the ford. [Ibid., p. 20.]

The former is a positive statement while the latter is a conditional one. We either know or we do not know where this mound stood. The discordant note is the presence of mounds attributed to Siouans.

In the area under consideration mounds are the exception rather than the rule and as a consequence cannot be attributed directly to any of the so-called Siouan groups under consideration. If the Sioux buried their dead within mounds, such structures would have to appear more often and not as isolated entities.

> There is no known record of a white man having visited Monasukapanough, the ancient Saponi village on the banks of the Rivanna, and consequently no description of the settlement has been preserved. . . . It is believed [by whom?] that some time before the year 1670 the people, or at least the greater part of them moved from the valley of the Rivanna and went southward to establish a new village which, according to Mooney, "was probably on Otter river, a northern tributary of the Roanoke, in what is now Campbell county, Virginia, nearly south of Lynchburg." Here they were visited by Lederer in 1670, and by Batts party during the following year, but these explorers failed to describe the settlement. Soon the movement was resumed; they wandered far, nearly reaching the center of North Carolina, later returning to Virginia. [Ibid., p. 28.]

At this point inferences have become positive statements. Mooney only inferred that Monasukapanough might be the ancient village of the Saponi without showing any proof whatsoever. Bushnell comes along and makes a positive statement out of this, as well as attributing Monahassanugh to the Tutelo. These villages were noted by Smith and hence any correlation between them and the Tutelo and Saponi is only inferential and must be accepted as such. What we do know is that the Saponi were located northeast of the Occaneechi, as noted by Lederer, and the Tutelo were located a considerable distance west of the Saponi in the "western mountains." After that they were located by Lawson in North Carolina either on the Eno River or on the Yadkin River. Sometime later they were gathered up and installed at Fort Christanna by Governor Spotswood and from there on they migrated northward out of Virginia and never appeared again in Virginia's history.

Ludwik Krzywicki in his study "Primitive Society," etc., sums up this whole situation regarding place names rather well. He states:

> Earlier sources give the names of the same tribe variously; sometimes these various versions are extremely unlike and often differ greatly from the designations commonly accepted today. These sometimes quite numerous variants of tribal names do not appear in our statistics of tribal population. [Krzywicki, 1934, p. 520.]

In 1935 Bushnell acknowledges that—

> As yet it has not been possible to translate the names as given by Smith and Strachey. They were undoubtedly in some Siouan dialect [who never having had contact with any Siouan—how could they possibly have given a Siouan equivalent for any place or tribal name?] and were told to the English by an Algonquian Indian. The latter appears to have attempted to translate the Siouan word into his own language, and this resulted in the names as recorded by the English being a combination of Siouan and Algonquian, making it difficult, if not impossible, ever to learn their true meaning. [Bushnell, 1935, p. 8.]

This brings to mind a book review of Bushnell's "Native Cemeteries and Forms of Burial East of the Mississippi" made by Alson Skinner (1921). In it he says:

Owing to the lack of space required for an exhaustive critique of Mr. Bushnell's paper, the writer will confine himself largely to a few observations on one of the regions which the archaeology and history in which he is somewhat familiar, namely the Iroquois and Algonkian area of the Middle Atlantic States. [Ibid., p. 366.]

We hereby refer him [Bushnell] to Dr. Beauchamp's observations on the lack of identity between the Iroquois and the builders of the mounds found in their territory. . . . Otherwise it would not have escaped his notice that the Iroquois were not the pristine inhabitants of the region in question, and that there are evidences of, not one, but several peoples of different culture who preceded them. [Ibid., p. 367.]

If, as Bushnell states, on unknown authority, a piece of mica is proof positive that a mound opened near Chenango, N. Y., was of Tuscarora origin, then on this evidence the makers of the shellheaps at Shinnecock Hills, Long Island, and at Tottenville, Staten Island, hitherto considered Algonkian on mere cultural and historical evidence, were Tuscarora, and so were the inhabitants of what we considered to be an ancient pre-Iroquoian Algonkian burial village and burial site at Cayuga, N. Y., for mica has been found in all these places. The mystery of the origin of certain Ohio mounds will also be dissipated by this token. [Ibid., p. 368.]

Bushnell's attempt to explain this so-called Siouan occupancy is put this way:

Although Siouan tribes were occupying villages on the banks of the James and Rivanna rivers at the beginning of the seventeenth century, they are believed not to have been there many years; consequently all the small camp sites and numerous objects of native origin discovered in the region should not be attributed to the Monacan. Algonquian tribes may have preceded them as occupants of the same territory. The latter had evidently been pushed eastward by the Siouan people coming from the direction of the Ohio, and the pressure was still being exerted in the year 1607, at which time Powhatan related to Captain Newport "that the Monanacan was his Enmye, and that he came Downe at the fall of the leafe and invaded his Countrye." With these continued invasions the Algonquian villages near the falls would soon have been abandoned, thus enabling the Monacan to have advanced still farther eastward. . . .

If the belief that the Siouan tribes moved eastward from the Ohio is correct, they must necessarily have crossed the valley of the Shenandoah—the Valley of Virginia—before entering the piedmont where they were established when first encountered by Europeans, but the rich and fertile region just west of the Blue Ridge . . . was not occupied by any native tribe when it first became known to the colonists. War parties of the northern Iroquoian tribes traversed the land, and evidently the fear of their coming had caused the less warlike to abandon the region and to seek new homes elsewhere. Thus it is believed the Siouan groups crossed the Blue Ridge and occupied the piedmont country, in turn pushing the Algonkin tribes before them. [Bushnell, 1933, pp. 2–3.]

Speck (1935) makes the suggestion that—

A question that has engaged attention for some time is that of the former wider distribution of the eastern Siouan peoples farther to the eastward and northward

of where they were found by the first explorers. I have still to find convincing proof that the Algonkian populations did not displace some of these Siouan kindreds in their expansion southward and into the Alleghenian region.

The deep-rooted hostility that prevailed between the Powhatan and the Monacan and Manahoac may be attributed to intrusions of the one upon the territory of the other in later times. And in this case it would seem to have been due to the aggression of the Powhatan, supposedly the later arrivals in the Virginia lowlands.

Such an attitude toward cultural history here could be held to account for the allocation of the Powhatan peoples in the lower country to the eastward and the Siouan peoples in the piedmont region, their hostility toward each other, the survival of the language of the Occaneechi as a trade language of the region and as the language of religious ritual, which facts we learn from Strachey. If accordingly my inferences for a more easterly habitat of certain Siouan peoples, the Shoccoree and possibly the Eno, are accepted, then we have a trend of evidence hinting at the conclusion that Siouan peoples were earlier residents in eastern Virginia and Carolina and were invaded several centuries before the coming of the Europeans by the Powhatan, and gradually dispossessed of their territories by them. [Speck, 1935, pp. 202–203.]

Saponi and Tutelo.—The identification of these two tribes in the historic period with the Monahassanugh and Monasickapanough (Smith, 1607), divisions of the Monacan group, as residents in the Virginia foothills has been undertaken by Mooney and concluded by Bushnell. Their exodus from Virginia, their wanderings outward and then their return to Virginia, to settle for a while at Fort Christanna have been succinctly traced by Mooney. As yet, however, we have no mention of their association with the Catawba as allied or as incorporated units. Nevertheless there must have been at one time an association between the northern [Tutelo and associated peoples] and the southern [Catawbas, Woccon, and others] divisions of the Siouan tribes of the region. Swanton thinks that the incursion of the Spaniards into the Carolinas in the 16th century resulted in forcing certain of them to the northward.

Catawba tradition is silent in regard to the Tutelo. A single echo of the once important name Saponi possibly comes down to us through Catawba memory in the mention of Margaret Brown of a tribe whose name was remembered as (ye)pa'na spoken of by her mother. She knew nothing more of the term or its meaning.

Of the proper names denoting the Tutelo [Toteri, Yesang, Nahissan, etc.] there is no hint of cognizance among the Catawba. Treating the village names of the Tutelo and Saponi identified as Monahassanugh and Monasickapanough, from the viewpoint of Catawba stem similarity, the element mona- is valid as the Catawba designation for "land, earth, ground" but this etymology does not apply to forms in the dialects of the northern [Monacan] eastern Siouan area. [Ibid., p. 205.]

Under another form of the tribal name, Mohetan, a village of this affinity is indicated on Alvord and Bidgood's map (1673–74), visited by Needham and Arthur, a days journey from the Great Kanawha River, W. Va. At present we may admit that this reference means an earlier wider extension toward the west in the Alleghenies or a move toward the end of the 17th century in that direction, after which the village may have acquired a name derived from some other tongue. [It is not explained what tongue is referred to.]

The association of the Mannahoac with the Monacan brings up another aspect of the problem. Both peoples are described as members of related tribes, by all the authorities who speak of them since Hale and Mooney, both as concerns the

characteristics of speech and culture. Since, therefore, we possess a vocabulary from only the one language of Virginia area, namely Tutelo, it may be profitable to apply the lexical forms of Tutelo to the half dozen terms preserved by Captain Smith as place or tribal names of the Mannahoac confederacy. . . . Without intending to assume a positive attitude concerning the interpretation of Mannahoac names written in Smith's manuscript three hundred years ago, by a stranger to the Indian tongue, explained through the medium of the small Tutelo vocabulary (spoken by a Siouan tribe about one hundred miles distant from them) of about one hundred fifty words recorded by Hale in 1870, the above suggestions will be accepted merely as such.

Occaneechi.—The term Occaneechi (with its variants Akenatzy, Occaneecheans, Patshenins) [The latter is a newly introduced synonym of Speck's not previously referred to the Occaneechi.] comes down to us as the tribal designation of an early people of the Virginia–Carolina frontier, dwelling (1670) on a large island in Roanoke River just below the confluence of the Staunton and the Dan Rivers, near the site of Clarksburg [Clarskville], Mecklenburg Co., Virginia. It is undoubtedly, as Mooney has shown [but on inferential grounds], the designation of a Siouan-speaking tribe affiliated with the Saponi and Tutelo.

Let us digress from the quotation from Speck but a moment to point out here that no historical records would validate the association of the Occaneechi with the Saponi and Tutelo until Governor Spotswood gathered the group together and took them up to Fort Christanna. After first located by Lederer on the Roanoke, not at the confluence of the Staunton and Dan Rivers, they were next located by Lawson in 1700 on the Eno, and it was from there that Spotswood enticed them to move to Fort Christanna along with the Saponi and Tutelo who occupied villages on the Yadkin River. This constitutes their first association—historically.

Now we have a really questionable statement from Speck:

Yet we have no linguistic proof of such an affinity beyond the statement that their languages were similar, which is supported by testimony given to Hale by Nikonha, the Tutelo. Nor is it possible to add anything to its meaning or history from Catawba sources. [Italics are writer's.] Its connections were, however, definitely with the northern [Tutelo, Saponi, or Nihassan] branch of the eastern Siouan tribes with whom they finally combined. Bland (1650) writes of the Occaneecheans and Nessoneicks [which I have already noted is a synonym for Nahissan] as living together on a branch of the Roanoke.

As an advance step in the attempt to explain the tribal names in this area of puzzling terms, I would make bold to suggest a possible explanation of the word Occaneechi, using Tutelo sources for the purpose, since we have accepted the conclusion offered by Hale and Mooney that Saponi, Tutelo, and Occaneechi were related and reciprocally intelligible tongues. Reverting to Tutelo vocabulary recorded by Hale we encounter the term yuhkān, "man," among five other synonyms listed. I suggest, accordingly that Occaneechi, and its related forms, are derivations from this form (occan=yuhkān) with a terminal modifier; whence Occaneechi, Occanachee(ans), Akenatzy, denote an equivalent of "people." This possibility leads even farther. In the early form Monacan, denoting, in the 17th century, the Saponi, Tutelo, and probably the Occaneechi assembled, we may have a corruption of Tutelo amāni, amai, "land," prefixed to the term yuhkān, whence

tentatively develops amān(i) (y)uhkān of Monacan, "people of the land." The sense of this meaning, as being logically applicable to native tribes in America and elsewhere in reference to themselves, is too obvious to be seriously disputed by the ethnologist. [Speck, 1935, pp. 212, 213.]

And in the meantime we are getting farther and farther away from the initial statements upon which all these statements are based. The introduction of new terms, the free use of geography, geographical names, early spelling of Indian names, and the disregarding of the ethnic sources of information is positively breathtaking. Inferences, suppositions, and assumptions were apparently the "main stock in trade" of certain ethnologists and linguists since they have managed to construct "whole cloth" from them and present them as actually proved facts when apparently they are, upon critical examination, nothing of the sort.

Paraphrasing Speck (1935, p. 216) we might justifiably say: The possibilities rising out of these sources of information lead in many directions, one of which is that the Occaneechi, Saponi, and Tutelo were either an Iroquoian-speaking or an Algonquian-speaking group that drifted away from their linguistic kin early in the 17th century, moved westward in separate groups, and were reintroduced into the parent stock early in the 18th century along with the Tuscarora, Nottoway, and Meherrin.

Speck, the leading authority on the Catawba, intimated that—

> Several Muskhogean names can be construed into meanings in Catawba without these, however, being in any way responsible for their origin. . . . Yet it should be noted that neither the Creek nor the Yemasee have been known even by name to the Later Catawba informants.
>
> While investigation of the language was going on the entire list of tribal and place names *of the supposedly Siouan area of the Carolinas* [Italics are writer's] was examined with all four speakers of Catawba, with the results given above. Except for the river names in the country adjacent to the Catawba, the results show the futility of hoping for light, through a study of the Catawba language, on the history and affinities of the dozen or so mysterious tribes whose titles only remain on the colonial records. . . . .
>
> I have already referred to several of Gatschet's attempts at explanation of tribal and river designations corresponding to the terms just given. He says, "all these local appellations, probably many more, are terms from the Catawba language." As far as the Catawba etymologies are concerned there can be no objections to the statement, but I must point out that the equivalents he offers for the geographical terms are no more than analytical renderings, derived from linguistic material, not from current traditional memories of the tribes in question among the Catawba informants. It is barely possible that Billy George, who was living at the time of Gatschet's visit to the Catawba, knew more than the present informants do; but I cannot believe that even the conditions of knowledge at that time among these Indians would have justified the acceptance of the meanings given as the actual sources of origin of the long extinct tribal eponyms: "Sweee" from sāwé, "island," and "Kayaways" (Kiawah) from ka'ia, "a species of turtle."

For several other names, whose identity will remain a puzzle for some time to come, there is at present little to be said. So with Keyauwee, Yadkin, Sissipahaw, and Woccon no treatment can be offered from Catawba sources that would enlighten the obscurity which surrounds their relationship with other Siouan tribes of the Southeast. [Speck, 1935, pp. 221, 222, 223.]

Speck's statement regarding Billy George can just as easily apply to Nikonha's relations as reported by Hale from the Six Nations Reservation, Canada.

Again referring to Kaj Birket-Smith (1930) on "Folk Wanderings and Culture Drifts in Northern North America," he stated:

In his famous Anthropogeographie Friedrick Ratzel justly complained of the ethnographical maps of North America which are generally found in anthropological and geographical text-books. When studying one of these maps—as examples I need only mention those of the Handbook of the American Indians North of Mexico and Buschan's Illustrierte Völkerkunde—you will perceive immediately that howsoever conditions were in pre-Columbian America, they certainly never appeared in the manner delineated there.

The reason is obvious. As a rule a tribe has been marked out at the place where it was living at the time when it began to be better known (not always identical with the place where it was encountered for the first time); however, history of discovery of North America has a duration of three or four centuries, and they did not pass away without leaving their traces on the distribution and way of living of the aboriginal population. An ordinary ethnographical map of North America shows conditions in Mexico about 1500 and in the region of the St. Lawrence about 1600, while in western Canada we reach the 18. and in great part of the Eskimo area the 19. century. It can hardly be denied that the intrinsic value of a map of this kind is somewhat problematic. [Ibid., p. 1.]

He then goes on to explain about the Conestoga's plight and the acceptance of the Tuscarora, Tutelo, Nanticoke, Saponi, etc., by the Five Nations as the Sixth Nation.

In 1675 the Conestoga at Susquehanna River were also subjugated whereas the Tuscarora voluntarily sought admission to the league as did also some foreign tribes (Tutelo, Nanticoke, Saponi, etc.). This event, however, marked the limit of its power; farther south the Cheroki and Catawba formed an insurmountable barrier to its progress. [Ibid., p. 3.]

This well explains the movement of the various Indian groups before and after the first introduction of white colonists along the middle and northern Atlantic area. Mooney would have us believe that all Indian nations were living in peace with each other—a mild Utopia—a state which never existed at any time, for it was not the Indian's nature to be at constant peace; they enjoyed war parties like the present-day whites enjoy the game of baseball or a good football contest.

Such incidents as the inroads of the Iroquois on the small Virginia tribes and the appearance of the Cherokee on the James River, would tend to bring about periods of tension and unrest depending upon the safety factor. Then, too, the interior of Virginia was being

probed, indirectly, by the various traders ever on the alert for new markets and possible settlement areas. Conditions such as these were bound to create an unstable feeling among such groups as our Saponi, Occaneechi, and Tutelo, not to mention the rest of the small groups in the interior of central Virginia.

Birket-Smith (1930) is not altogether correct in alluding to the presence of mound builders in this area, for mounds are the exception rather than the rule. The mound excavated and recorded by Jefferson is one of the instances where the mound builders erected such a structure, but such cases are few and far between. As for the archeological facts, not enough archeological investigations have been conducted within the area under question to make such a positive statement as that of Birket-Smith. Work has been instigated in a very small portion of this area and our information must be secured from this small segment hoping for a more widespread investigation upon which we can base our observations and facts. Then, too, in 1905, Alexander Gregg said: "Beyond this, as the track of aboriginal descent and migration begins to be traced back, even conjecture is lost in a sea of uncertainty." (Gregg, 1905, p. 2.)

Swanton, in 1936, was approaching the truth more nearly as the present writer sees it. He wrote:

> The Saponi and Tutelo have been reported to have migrated to the headwaters of the Yadkin River after the split up of residence on the Roanoke. The Occaneechi migrated to the Eno R. near the present town of Hillsboro, N. C. This case, as evidenced by history, is borne out in that these groups separated into two groups: the Saponi-Tutelo as a unit and the Occaneechi as a separate unit. The Saponi, Tutelo, and Occaneechi were brought together later on by Governor Al. Spotswood, but what we are interested in at this time is just why was the split made thus? It would appear that there was a very close affiliation between the Saponi and Tutelo and only a friendly relationship with the Occaneechi. The Occaneechi *"associated from time to time" with the SUPPOSEDLY Siouan groups of Virginia* and North Carolina but when direct pressure was brought to bear upon them by outside influences they decided to go their separate way rather than to throw in their lot with the Saponi and Tutelo. [Italics are writer's. Grasp the "supposedly" used here by Swanton.]
>
> *After the Fort Christanna episode whether the Occaneechi migrated northward with the Tutelo and Saponi has never been established.* They are not mentioned, with certainty thereafter. *What was their fate will remain forever unknown.* [Italics are writer's.] [Swanton, 1936, p. 375.]

This same line of reasoning can be applied to the association with the Tuscarora, Nottoway, and Meherrin with which the Saponi and Tutelo affiliated themselves in their migration northward to join the Cayuga. The latter are recognized Iroquoian groups and whether there was a linguistic linkage of the entire group will have to be worked out on etymological grounds.

SUMMARY AND CONCLUSIONS

A brief summary of events leading up to the identification of groups, their migrations, and final assimilation by the Iroquois is needed at this point.

In 1608 Captain John Smith indicated the probable location of a number of Indian villages, attributed by him to the Monacans, above the falls of the James River; the positive positions of these villages were not known and the probable positions were indicated on Smith's map of 1624. These positions were those indicated by Algonquian-speaking Indians with whom Smith was in contact at the time.

The same year (1608) Captain Newport and a number of men traveled 40 miles beyond the falls of the James and contacted some of the Monacans but never recorded any of their findings.

In 1651 Edward Bland, traveling in the interior of Virginia, was told by an Appomattox Indian about the Occaneechi and "Nessoneicks," but he never visited either of them.

In 1670 John Lederer not only visited the "Akenatzy" Occaneechi but also visited the Saponi, bringing back firsthand information regarding these groups. He also mentioned a group known as the "Rickohockan"—possibly Cherokee who were then living beyond the mountains.

The following year, the trading team of Batts and Fallam passed through Saponi town, Hanathaskie town, and contacted the Toteros or Tuteloes, who were reported on for the first time. They mentioned that this group lived in the "western mountains" beyond the Saponi and the two groups were not in direct contact.

Three years later (1673), another trading team, Needham and Arthur, practically doubled over the track laid down by Batts and Fallam, bringing back additional facts regarding the groups contacted. At this time we learn that the Saponi were in contact with the Tutelo on a friendly basis and that a reciprocal agreement was made to give over to the Tutelo a number of Iroquois captives which the Saponi had taken to be returned to their group. Whether this whole transaction was delivered in a common language or one recognized by both was not mentioned.

In 1705 Robert Beverley indicated that the "general language," indicated by the former explorers and traders, used in this section of Virginia was recognized as belonging to the Occaneechi and was used not only during their trading but also while performing various religious rites. The Saponi and Tutelo, as well as other surrounding groups, used this general language of the Occaneechi; that is, all occupants of Virginia.

During 1714, John Lawson started out from the coast of North Carolina and taking a circuitous loop contacted the Saponi and Tutelo on the Yadkin River; he reported the Occaneechi as occupying a site on the Eno River, but never succeeded in visiting them on account of the presence of an Iroquois war party in the area.

In 1775 James Adair wrote his "History of the American Indian." He, like others of his time, attributed the origin of the American Indian to the Lost Tribes of Israel. The rest of his history is colored accordingly.

William Byrd's account of "The Dividing Line Betwixt North Carolina and Virginia" and his "Secret History" of the same event were republished in 1929. The survey was run in 1728 and during that time Byrd made a number of observations which were colored by stories told him by his Indian guides which influenced the whole outlook of the work. Thus ends our so-called primary sources of information.

Beginning with Albert Gallatin in 1836, we get the first of the evaluation of the primary sources and the introduction of some extraneous interpretations. Samuel Drake, 1848; Francis Hawks, 1858; Joseph Anderson, 1872; Horatio Hale, 1883; Edward Neill, 1886; J. W. Powell, 1892; James Mooney, 1894; William Tooker, 1895; Daniel Brinton, 1896; James O. Dorsey, 1897; and on up to James Griffin, 1945; John Swanton, 1946; Douglas Rights, 1947; John Swanton, 1952; and William Fenton, 1953, all are included in the interpretative period when each writer based his own ideas somewhat upon his predecessor's with rarely an attempt to seek out the primary sources to check upon what had been written before. Thus, the structure of the so-called Siouan Tribes of the East was given, to all appearances, a substantial footing; but upon critical examination it has been found that the foundation was unsubstantial. Likening the study to a tapestry, we find, as we have pointed out above, that it is full of dropped stitches and wrong insertions, destroying the original pattern and creating a new one. Hale with his mistaken inferences and assumptions created the illusion of a Siouan-speaking people east of the Mississippi River—all based upon a small vocabulary gathered under rather questionable conditions. Frachtenberg and Sapir would not vouch for vocabularies gathered on the same Reserve much later from so-called Tutelo sources. Hale's conclusions were later adopted by Mooney and became an accepted part of the literature.

It is the contention of the present writer that the Occaneechi, Saponi, and Tutelo, and possibly others,[5] are not of Siouan linguistic stock but rather of a primitive Algonquian stock. This has been

[5] Similar studies should be made on the Catawba, Biloxi, and Ofo to determine whether or not they should be assigned to the Siouan linguistic family.

demonstrated etymologically and dialectically by Dr. John P. Harrington (1955, pp. 189–202). Whether these groups represented "tag ends" of tribes who amalgamated together for mutual protection and whose tribal names are meaningless is something we are not sure of. We do know that this so-called "general language" was surely not Tutelo—as stated by Hale—for Beverley specifically made a positive statement that it was Occaneechi. From the facts presented, it would appear that the Occaneechi, Saponi, and possibly the Tutelo, were a frontier group whose cultural and linguistic affiliations are of an Algonquian stock.

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AN ARCHEOLOGICAL RECONNAISSANCE IN SOUTHEASTERN MEXICO

By MATTHEW W. STIRLING

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AN ARCHEOLOGICAL RECONNAISSANCE IN SOUTHEASTERN MEXICO

By MATTHEW W. STIRLING

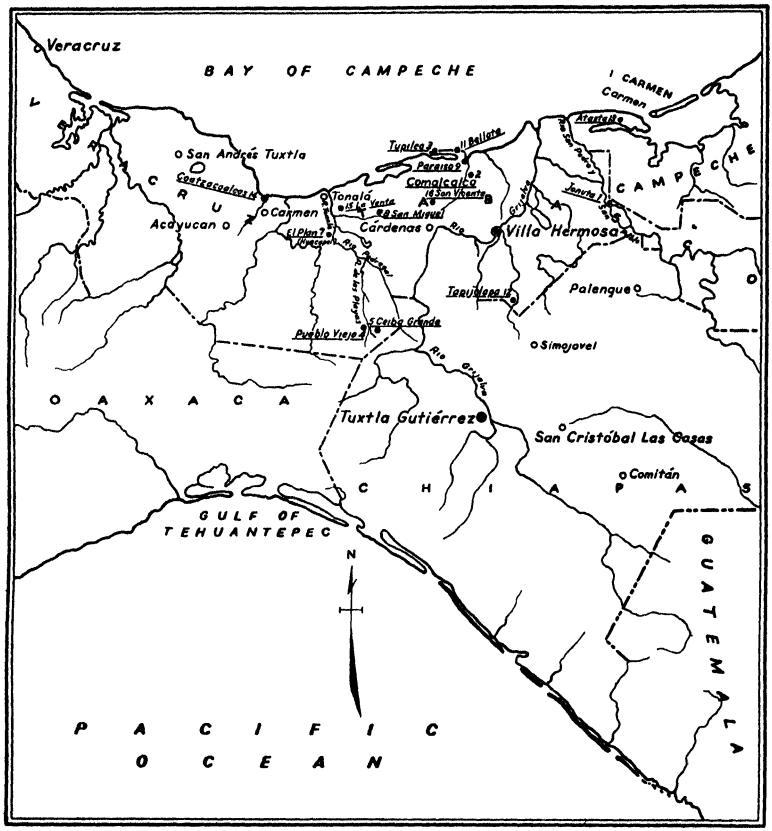
INTRODUCTION

One of the important but little-known archeological areas of Middle America is that portion of southern Mexico lying between the classic Olmec territory and that formerly occupied by the ancient Maya. In 1944 a reconnaissance was conducted in this region as part of the National Geographic Society-Smithsonian Institution archeological program, the primary purpose of which was to establish the eastern boundary of the early Olmec culture. The work was made possible by funds supplied by the National Geographic Society.

The territory covered during the months of March and April, extended from the Tonalá River eastward to the Laguna Terminos and the Candelario River. This includes a small part of southern Veracruz and northern Chiapas, most of Tabasco, and the western corner of Campeche. I was assisted on the trip by Richard H. Stewart, assistant chief of the National Geographic Photographic Laboratory, and by my wife Marion Stirling. (Map 15.)

In general in this region there are very few roads; rivers and trails supply the principal avenues of travel. Chartered small planes were utilized for several of the longer jumps, but for the most part travel was by launches, canoes, horseback, or on foot.

The coast facing the Bay of Campeche is low. A line of sand dunes fringes the water's edge and behind these dunes mangrove swamps extend many miles inland where the water is made brackish by the tides. Back of the sandy coast is a chain of large, shallow salt-water lagoons. Along most of the Tabasco coast, the mangroves give way to fresh-water swamps in the low flat interior. This low land extends almost to the Chiapas border where the mountains leading to the central plateau begin. The major portion of this territory is covered by a dense tropical rain forest, interspersed by lakes, swamps, and large rivers, which are joined by a network of connecting sloughs. The principal rivers are the Grijalva, and the



MAP 15.—Map of Tehuantepec and adjacent territory.

San Pedro y San Pablo which constitutes the lower course of the Usumacintla. In spite of what might seem an unfavorable environment, the area is fairly well populated. The 1940 census gives 12 inhabitants to the square kilometer, a figure which seems too high. The abundance of archeological remains would suggest that the population in aboriginal times was greater than at present.

A number of Maya sites are to be found in this region, the most important being Jonuta on the lower Usumacintla and Comalcalco on the Río Seco. The latter is of particular interest since it represents the westernmost-known Maya site.

Many of the prehistoric remains, however, are not yet identifiable as Maya, a fact which points up the importance of doing work in this key area. Here, theoretically, should be found the chronological

link between the established culture columns of the Maya region, on the one hand, and of the Veracruz coast, on the other. In addition, there appear to be relationships with the highlands of Chiapas. There is evidence also of Toltec influence, an item of considerable current interest. All in all, Tabasco and the adjacent territory constitute a critical region of primary archeological importance.

At Comalcalco there are a number of interesting anomalies. The architecture in many respects is typical of the Classic Maya. Rooms are narrow with extremely thick walls surmounted with steep corbeled vaults. Tombs contain figures modeled in stucco reminiscent of Palenque. The structures, however, are made of fired bricks instead of stone, and the substructures are earth mounds similar to those of Veracruz rather than stone-faced pyramids with rubble cores. At Jonuta also there are earth mounds instead of pyramids, but typical Maya stone sculpture exists, with Maya glyphs.

At Tupilco, near the coast of Tabasco, we found a site without architecture but with typical Maya figures modeled in clay. This site lies some 30 miles west of Comalcalco and is the westernmost Maya outpost yet known.

THE TONALA REGION

The Tonalá River, the boundary between the States of Veracruz and Tabasco, is formed by the junction of two streams, the Pedregal and the Río de las Playas, which originate in the rough mountains around the Cerro Mono Pelado. After flowing their separate ways through the mountains they join soon after entering the coastal plain. At the present time the region which they drain is entirely uninhabited except for the lower reaches.

While working at the site of La Venta in 1943, we heard stories of ruins known as Pueblo Viejo, located on the Río de las Playas. On many maps of Mexico this site appears in large type as though it was an existing city. Unable to find anyone who had been there, we became intrigued and resolved to make a trip up the river in an effort to locate it. Our unsuccessful attempt to do so at that time has been described elsewhere (Stirling, 1943; Weber, 1945). However, on this 1943 trip we obtained information that convinced us of the existence of the ruins of Pueblo Viejo, which we presumed was a colonial site. We were told also of a large pre-Columbian site in the vicinity known only to one man, Vicente Aguilar, a native pioneer living on the Río de las Playas, who was unavailable to us as guide on our first expedition.

On March 11, 1944, Stewart, Mrs. Stirling, and I left La Venta in a canoe with an outboard motor, in order to survey the upper reaches of the river. Having heard of a mound group near the oil camp of

Cuichapa, we made our first stop at Las Choapas and took the autovia car to the oil camp.

Here one of the engineers, Roberto Montez, led us to the site, which is about 3 miles west of Cuichapa. The group is quite impressive, consisting of a very large long mound approximately 500 feet long and 40 feet high. Just east of it is a steep conical mound about 50 feet high. South of this are several small round mounds. We found no sherds on the surface. Although the mounds had been cleared 2 years before our visit, they had again become covered with a dense second-growth jungle.

Leaving Las Choapas we continued up the river. At El Plan the first high banks appear along the river, and the mangrove swamps are left behind.

EL PLAN

At El Plan, formerly known as Huacapal, there are two mounds about 50 yards from the edge of the 50-foot-high riverbank. The largest of these is about 14 feet high and is dome shaped. In front of it, in the direction of the river, is a low irregular mound about 5 feet high. Some digging had been done on the east edge of the larger mound, but it had not been much damaged. The space lying between the mounds and the river was evidently an occupation site, since abundant sherds are revealed where digging has been done for construction purposes. These sherds are for the most part of plain buff ware with black interspace as the result of incomplete firing. They are undecorated except for simple grooves or incising near the rims. The principal shapes noted were shallow, flat-bottomed bowls with widely everted rims.

A few obsidian flakes and flint chips were scattered around. No figurine fragments were seen.

RÍO DE LAS PLAYAS

Beyond the mangroves, the country continued low, with here and there low hills and elevations. Occasional milpas along the river were planted primarily with corn but with some beans and bananas. When we entered the Río de Las Playas the riverbanks became much higher. Ascending the Playas for 1 hour we came to a low hill on the left, with a sandstone exposure at the river's edge. Just back of this on a higher elevation could be seen a group of mounds and leveled terraces silhouetted against the sky. An hour's journey beyond this point we saw another mound group on a high point back of the river on the right.

At Cerro Pilón the river emerges from the mountains, the rapids begin, and it is no longer possible to use a motor. Here the river

passes through a limestone gorge and the remainder of the trip is slow and difficult. The region being uninhabited, there is no land trail up the river. Just beyond the gorge, at the last house on the river, we picked up our guide, Vicente Aguilar. Near the house a good-sized stream, the Arroyo de Las Amates, enters the Playas on the left bank. Vicente told us that on a hunting trip he had seen a ruin farther up this stream. To reach it one goes 2 leagues up the Amates, where it is joined by the Arroyo Burro. Then one follows the Burro to the west until the Arroyo Esperanza enters it. Near the headwaters of the Esperanza is a good-sized site with stone-faced platforms, larger than Pueblo Viejo but smaller than Ceiba Grande, the two sites we examined on the Río de las Playas.

From Las Amates it is about 3 days' travel to the Arroyo Pueblo Viejo, on which are located the ruins of the site of the same name. On the third day we stopped just below a mountain, locally called the Cerro Tierra Colorado, in order to hunt game. At this place the left bank of the river is high and the land quite level for a considerable distance. Here along a small arroyo we saw a series of small mounds, the highest of which was about 10 feet. Some were circular in form and others were of an elongated oval shape. Most had sandstone slabs scattered on the surface. We saw one natural outcrop of this type of stone in the vicinity which gave us some doubt as to the artificial nature of the mounds. However their appearance and location lead me to believe that they are manmade. It would have cost us a day of travel to test them, so we did not excavate.

CEIBA GRANDE

About noon of the third day of our trip from the limestone gorge, we came to a small arroyo which enters from the left bank of the Playas opposite a high bank of blue shale topped with reddish soil. We gave it the name of Arroyo Vicente. The large prehistoric site, Vicente assured us, was located on this stream. After a 4-hour search, he found it. It is situated on the right bank of the arroyo on fairly level ground and was covered with a very high growth of virgin jungle.

A giant ceiba tree was growing on the exact center of the summit of the principal pyramid, so we named the site "Ceiba Grande."

Because of the heavy jungle cloak, the real nature and extent of the site was not apparent to us at first, but after 5 days of clearing and mapping, we found that it consisted of a principal pyramid, two adjacent courts, and a ball court (fig. 5).

The pyramid is approximately 50 feet high and is faced with sandstone slabs. A badly ruined wide stairway leads to the summit on the north side.

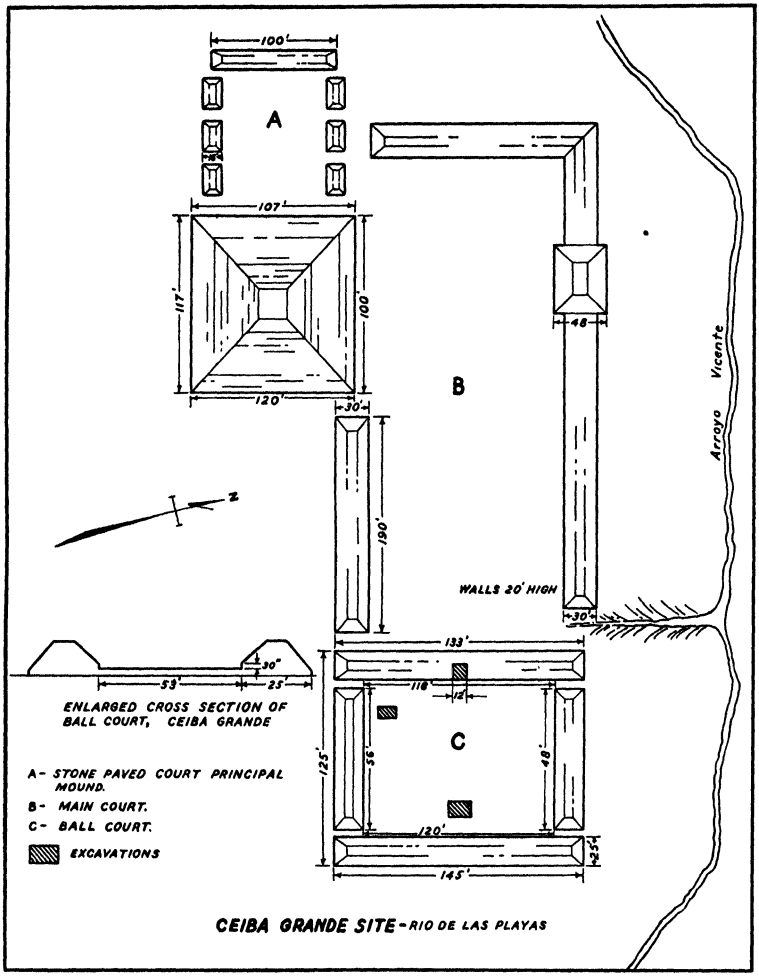


FIGURE 5.—Ceiba Grande site, Río de las Playas.

Just west of the pyramid is a rectangular court, paved with flat sandstone slabs. This is flanked on the west side by an elongated mound or embankment, and on the north and south sides by three small but fairly high mounds.

North of the pyramid is a large court about 400 feet long and 100 feet wide. This is flanked on the north and west sides by an L-shaped embankment. The long or north area of the L is enlarged, at the point opposite the pyramid, into a fair-sized mound. The

south side of the big court is flanked in part by the north wall of court "A," the principal pyramid, and by an embankment which extends eastward from the northeast corner of the pyramid for a distance of 190 feet. This embankment runs level for a distance of 140 feet and then slopes downward toward the ball court, which lies at a lower level. The east wall of the big court is formed by the west wall of the ball court.

The ball court itself, although it appears symmetrical to the eye, actually is not. The inside measurements of the north and south ends are, respectively, 48 feet and 56 feet, while the inside measurements of the east and west sides are 120 feet and 116 feet. Part of this apparent irregularity may be due to the fact that the inner paving has been buried in the talus washed down from the surrounding embankments.

The structures at the north and south ends of the ball court are somewhat shorter than the width of the floor, leaving a narrow passage at each corner. The entire surface of the walls is faced with flat slabs of sandstone, and the base of each wall has a vertical section which extends 2½ feet above the floor. From this point the walls slope upward at an angle of 45° to the top of the wall, which is about 20 feet high. The floor has been fully leveled and consists of a well-fitted paving of sandstone slabs laid on a base of clean yellow sand. This sand is not a natural formation, but was apparently carried in (pl. 49, *b*).

The only excavations we made were in the ball court. We dug two small pits into the floor and ran a trench 12 feet wide into the central section of the west wall from the floor level, in order to gain a more accurate picture of the construction of the court. This trench yielded a fair sampling of sherds. There were no figurines, but we encountered a few prismatic obsidian flakes. The great majority of the sherds were of a coarse brick Red Ware, undecorated and sand tempered. A few sherds of this type were black, which may have been an accident of firing. There were also a few thin sherds of fine untempered paste. There were no sherds on the surface nor could we find any in the bed of the arroyo adjacent to the site.

In the dense forest south of the pyramid we saw some more mounds, but did not have time to survey them.

An interesting feature of Ceiba Grande is the fact that most if not all of the mounds and embankments are faced with stone slabs. This feature, along with the paved courts and ball court, clearly indicates that this site is something quite different from the mound groups of the adjacent coastal-plain region of southern Veracruz and Tabasco. Rather, it would seem to be an outpost of a culture originating in the Chiapas highlands. The ball courts which we found

in Chiapas in the region of the La Venta River were of the expanded-end type for the most part, but nevertheless I feel that there may be some relationship.

PUEBLO VIEJO

A short distance above the Arroyo Vicente, the Arroyo Pueblo Viejo enters the river from the left bank. Directly in front of the arroyo mouth, there is a large bar. A short distance above this is a second large bar. Just back of this, the site of Pueblo Viejo is located on high level ground on the right bank of the river. The site is near the river and lies between it and a small arroyo which enters the Playas just below. The site is about 400 yards square, and consists of approximately 30 rectangular platforms with masonry walls made of flat slabs of sandstone laid without cement. They are between 2 and 3 feet high, depending on the size of the platform. The largest we measured was 66 by 30 feet and the smallest 25 by 10. We selected one for excavation which was 30 by 18 feet, with walls 2 feet 10 inches high. At a distance of 7 feet 7 inches from the northwest corner there was a stone staircase 17 inches wide consisting of 3 steps, each with a rise of 7 inches. The long axis of the platform was oriented almost exactly north and south. This appeared to be the case with the other platforms as well. The space between the stone walls was filled with earth, level with the top. We dug a trench 5 feet wide extending from the middle of the north wall to the middle of the south wall and an intersecting trench connecting the centers of the east and west walls. (Pl. 48, *a*.)

A considerable amount of plain buff potsherds and a quantity of flint chips and rejects were recovered. The only European object found was a large square hand-forged iron spike. This lay at a depth of 1 foot near the middle of the platform.

At the north edge of the site are two deep excavations or holes. On the rim of one of these are the remains of part of a stone wall. They might have been wells, but it is difficult to see why wells would have been necessary with the river so close at hand. My first impression was that this site was of colonial origin and had been occupied by mestizos or Europeans. This thought was induced primarily by the fact that we expected it to be a colonial site since it was placed on the old maps. This seemed to be confirmed by the finding of the iron spike, the stone steps, and the rather exact orientation of the structures. On the other hand, the pottery was all of native type (a fact not necessarily conclusive), and the masonry was very similar to that of structures we later found in the vicinity of Ocozocoautla in Chiapas. My present belief is that Pueblo Viejo is a late-type aboriginal site.

SAN MIGUEL

Leaving Coatzacoalcos by small plane, we went to Cardenas by way of Comalcalco and Villahermosa. From Cardenas we hired mules and a guide and rode the 42 miles to San Miguel in 12 hours. The first part of the trail is through comparatively open country and remains so until after crossing the Arroyo Limón, where it enters the forest. At Limón there is a sizable group of small mounds, and about 5 miles beyond, near the trail, is another similar group. At both of these sites, sherds are visible on the surface. Just beyond Limón the trail passes over a pair of small parallel long mounds.

San Fernando is the ruin of a former hacienda which stood at this place. The trail crosses the ruins of a brick structure. At one point it passes between two standing brick columns. A few yards back of these, hidden in the thick brush, was an aboriginal stone figure which we later learned had been brought from the site at San Miguel by a man named Villár, many years ago when the hacienda was in operation.

The figure is of basalt, representing a seated individual. It is 4½ feet high. The head is the high elongated Olmec type. The ears are rectanguloid, long and narrow. The eyes are almond shaped and slanting. The features are badly eroded and now almost indistinguishable. The base is flat. The knees and arms are broken.

The present village of San Miguel consists of a few scattered thatched huts and is located on an archeological site. It is near the headwaters of the Blasillo River, on the lower reaches of which is the site of La Venta. The archeological site of San Miguel consists of a number of good-sized mounds and a deep pond or borrow pit similar to those at Cerro de las Mesas and San Lorenzo. The most interesting monument which we saw at the site was lying in the trail between two mounds. One of these mounds many years ago had been flattened on top in order to build a church of thatch. At the time of our visit the church had been abandoned and was falling to pieces. The stone consists of the dome-shaped upper portion of a large basalt head, broken off at the level of the eyes. In its present condition it is about 3½ feet high. Scattered over the rounded head are a half dozen or more round faces, including one directly on top. Each of these faces is surrounded by a circle from which radiate five stepped elements and a long triangular point at the base. Some of the smaller faces on the back appear to have been rubbed or worn off. The rear of the head is flattened as is the case with the Olmec Colossal heads. (Pl. 50.)

About 300 yards south of this stone, well hidden in the jungle, was another fragment of what had evidently been a large stone monument. One surface of this is smooth with a deep groove in it.

Carved on this smooth surface in low relief are three "flame"- or leaf-shaped elements somewhat like the carvings in low relief back of the head of the principal figure of altar 4 at La Venta. It is impossible now to tell the nature of the monument from which this rather massive fragment was broken.

We were informed by the men of the village that a few years ago in a nearby field part of a carved basalt figure was exposed. Being curious, they dug it up and found it to be the figure of a man somewhat larger than life size. Their curiosity satisfied, they reburied it. At the time of our visit the field was covered with a heavy growth of zacate, but the men claimed they could locate the figure later in the season when the grass was burned. One man had a small pottery hollow figurine head of a jaguar with round ears. It is made of a light buff ware which had once been covered with a white slip. (Pl. 71, *a*.)

While not a particularly large site, San Miguel is important because of its obvious Olmec affiliations. Upon our arrival there we learned that the hard 12-hour ride to reach it was not necessary. A launch leaves Las Choapas on the Tonala River twice a week and goes to Arroyo Prieto not more than 5 miles from San Miguel. From there one can reach the site on foot or by horseback. It is also much closer by trail from La Venta than it is from Cardenas.

COMALCALCO AND VICINITY

From Cardenas to Comalcalco we traveled in a truck over an unimproved road. Most of this section is a rich agricultural district. The road was lined with large cacao plantations which were overgrown and neglected at the time we passed by them. Such productive lands could have supported a very large aboriginal population.

The present city of Comalcalco is located on an island in the Río Seco, and it has a population of approximately 3,000. One of our first acts upon arrival was to visit Prof. Rosendo Taracena at the Instituto Comalcalco, a school for which he was largely responsible. In the school was a considerable archeological collection that he had assembled from the region. Included in the material were many specimens recently obtained from the large shell mound at Ceiba, near Paraiso, from which was taken the shell used in building the newly completed road from Comalcalco to Paraiso. The place of honor in the collections is held by a basalt seated figure from La Venta. This was placed in a corner partly covered by a wooden frame designed to resemble the arched niches on the La Venta altars. This figure was one of five which a wealthy mahogany dealer by the name of Policarpo Valenzuela had removed from the site at La Venta more than 50 years ago and brought to his hacienda San Vicente, near Aldama in Tabasco. In Aldama the great Mexican Revolution

began, and San Vicente was the first of the haciendas of the big landowners to be destroyed. The five La Venta monuments lay among the ruins for many years until two of them were transported to Villahermosa where they were placed in the grounds of the school (pl. 53, *a*). In 1939 Professor Taracena removed a third one to his institute in Comalcalco (pl. 53, *b*). Later we made a trip to San Vicente to see and photograph the two remaining monuments. At the time of our visit, the road from Comalcalco to Aldama had pretty much gone to ruin, and it was with considerable difficulty that we reached Aldama by car. Aldama, the "Lexington" of Mexico, once a prosperous town now consists of a few scattered thatch huts and adobe houses around a large open plaza in which are a number of cement seats. Here was fought the first battle of the Mexican Revolution in 1910.

The road from Aldama to San Vicente proved to be impassable for our car, so we made most of it on foot. Along the road, just outside Comalcalco, are two small mounds where a brick factory was being built.

Halfway between Comalcalco and Aldama, on the Arroyo Seco at the site of the old Pemex camp, is a fair-sized mound and some smaller ones.

The trail from Aldama to San Vicente passes over some small mounds about three-fourths of the way from Aldama. There are sherds on the surface.

The remains of the hacienda are known locally as the "Casa Vieja." The ruins of the once fine structure are now buried in jungle. The broken brick walls wrapped in strangler figs and covered with parasitic plants look as ancient as any Maya ruin, although it was only 1913 when the hacienda was destroyed completely. Lying in the rubble of the old patio, we found the two monuments. Under the circumstances they seemed to us to epitomize the impermanence of human achievement. Policarpo took them from the wilderness which the great center of La Venta had become, and brought them to what he considered the luxurious permanence of the great hacienda. Now La Venta is, as a result of the oil industry, once more at the doorstep of civilization and easily accessible, while San Vicente, in utter ruin, is buried in a wilderness as complete as that which formerly engulfed La Venta.

One of the stones, 45 inches high, represents a man sitting cross-legged, leaning forward slightly, the hands clasping the feet. A band across the forehead passes completely around the head. The facial features are considerably eroded, and part of the upper left arm has been battered off; otherwise the sculpture is in pretty good condition (pl. 73, *a*).

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The other stone, 36 inches high, is especially interesting. It represents the Olmec anthropomorphic jaguar in part human, part animal posture. The figure is seated with the left front paw drawn under the body, the right paw lying alongside the body with the realistically carved foot lying pads up. The head is large and represented as looking upward. The elongated eyes have branching "Olmec" eyebrows and the mouth is the typical Olmec "tiger mouth." The forehead is somewhat concave and the head flat across the top, with the usual notch in the middle of the forehead. The tail is stylized and shown as branching on each side like the eyebrow conventionalization.

A fresh break showed that someone very recently had knocked off the base of the tail. The piece so removed must have been carried away, since we searched for it in vain. (Pl. 73, *b*.)

A figure quite similar in appearance was found at Arroyo Sonso, 25 kilometers southeast of Coatzacoalcos and 15 kilometers from the Tonalá River (Nomland, 1932).

These two monuments are relatively small as La Venta sculpture goes. The bases of both pieces are perfectly flat, that of the jaguar having an opening through it which passes through the lap.

COMALCALCO RUINS

The Maya ruins of Comalcalco lie on the right side of the Río Seco and less than an hour's walk from the town. Considering the relative accessibility of the site and its great importance, it is somewhat difficult to understand why it has been so neglected by archeologists. Charnay visited the ruins for 10 days in 1880, publishing several inadequate accounts, but quite properly calling attention to the importance of the site (Charnay, 1887). (Pls. 51, *a*, *b*; 52, *b*.)

In 1925 the Tulane University expedition under the direction of Frans Blom (1926–27) visited and mapped the site, excavating a tomb containing a procession of figures modeled in stucco. (Pl. 52, *a*.) Save for these two brief forays, archeologists have managed pretty successfully to detour away from the locality. The principal mound is a composite structure more or less rectangular in form with two large aprons projecting from the west corners. It is more than 100 feet high and probably measures almost 1,000 feet along the east-west axis. The remains of the buildings still standing are of large, flat well-fired bricks set in heavy mortar made from burned oyster shell. The walls are more than 3 feet thick. Although some of the rooms are still intact, the site has been pretty well denuded of all the paintings and stucco "adornos" which once embellished it.

The tomb excavated by Blom had become exposed to the weather and the stucco reliefs were deteriorating although still in fair shape.

All of the glyphs in the tomb were gone. It is possible that similar tombs occur under the corresponding apron on the northwest portion of the mound.

Many years ago the major part of the walls of the main building was torn down in order to obtain bricks to build houses near Comalcalco. Despite the wreckage of the structures which surmounted the site, there has been virtually no excavation in the mounds themselves, so in one sense the vandalism has been superficial. Because of its strategic location as the westernmost outpost of the ancient Maya civilization, Comalcalco offers a splendid opportunity for finding in juxtaposition, materials typical of the southern Veracruz cultures and those of the Maya proper. Although the buildings are architecturally pure Maya, the substructures resemble the large earth mounds of the southern Veracruz area much more than they do the stone-faced Maya pyramids. While fine stucco modeling reminiscent of that at Palenque was characteristic of Comalcalco, stone sculpture seems to be absent.

PARAÍSO

The trip from Comalcalco to Paraíso over the new shell-surfaced road required only 30 minutes by car. The road is itself an attenuated archeological site, being composed of a mixture of shell and potsherds from the great shell mound near Ceiba on the lower Río Seco.

Paraíso, a town with a population of about 1,800, has apparently not changed much from its appearance when visited by Charnay in 1880. While in town we viewed some private collections of materials that came from the shell mound during the road-building period.

The shell mound was located on the left bank of the Río Seco about a mile above Ceiba in the direction of Paraíso. The location where the mound was actually situated is known as Palma, but since Ceiba is the better known place, I am referring to it as the Ceiba Mound.

When we visited the site the bulk of the mound had been hauled away, but since the base still remained with numerous excavation pits exhibiting vertical faces 8 or 10 feet high, it was still very instructive. The body of the mound goes down well below the water table which is at the surface level of the river. At the time of our visit some shell was still being taken from the mound.

The base of the mound was about 300 yards long by 100 yards wide. Our informants told us that the highest part formerly reached a height of 15 meters. The body of the mound consisted mainly of oyster shell with occasional pockets of conch shell, sand, and stray miscellaneous shells. Floors, both of burned clay and cement, are fairly abundant in the remaining lower portion of the mound. In several instances cross sections show 3 or 4 floors superimposed (pl. 55, *a*). The layers of cement are about an inch thick and were usually the sides and tops of

rectangular platforms with shell cores. The corners of the platforms were rounded and the walls sloped toward the top so that each platform was actually in the form of a much truncated pyramid (pl. 55, *b*). A man who lived at the site all during the period of excavation said that there were usually human burials with offerings beneath these platforms, which ranged from 2 to 4 feet in height. According to his account, which accorded with what other informants told us, most of the better specimens came from the upper levels of the mound. The highest summit had immediately under the surface a large cement or stucco-covered platform, the sides of which were decorated with "alligators" modeled in stucco relief. This made a rather impressive appearance, and the workmen, hopeful of treasure, lost no time tearing it apart only to find that the interior consisted of a pure oyster-shell core. Among the finds which our informant remembered was a string of pure white, highly polished stone beads, little pinch pots filled with red paint, some legless stone metates, and a stone "idolo" about 2 feet high representing a seated man.

Here and there in the mound can still be seen deposits of white lime made by burning oyster shell. Potsherds were abundant with the base of the mound so well exposed and freshly excavated; half vessels, large rimsherds, and basal supports lay about in profusion, many in situ. This material was representative of the early period of the mound structure. Some of the sherds are of incised ware, occasionally with zoned designs set off by punctate areas. Painted ware is either monochrome, dark red (specular hematite), or polychrome consisting of orange and black on buff. A good many of the vessels had a cream slip on the exterior, but no further painting. All the painted designs we saw were geometric in character. There were parts of comales, without handles, and fragments of large ollas. There was another type of large shallow vessel with round bottom and a short incurving neck with wide everted rim. Some of these, judging from the sherds, must have been 18 inches in diameter. Figurines appear to be relatively rare, such as there are, being of the hollow variety. The finer ware consists of shallow tetrapod vessels, usually with fluted melonlike sides and flange base. Effigy or mammiform supports terminate in a flat cylindrical nubbin. Some sherds revealed that a shallow annular or ring base was sometimes used.

A common type was a round-bottomed jar with sloping shoulder and a high neck, the rounded portion below the shoulder being roughened by textile impressions or scalloping applied with the edge of a pecten shell. There was apparently no shell tempering.

The nature of the ceramics is best shown by the illustrations (pls. 56–61).

BELLOTE

From Ceiba we drove by car to the end of the road where we hired a canoe to visit the shell mounds on the Laguna Mecoacan. We passed miles of coconut groves along low mangrove flats in an area similar to that of the 10,000 island region of Florida (pl. 63, *b*).

We passed several small shell mounds with sections exposed by the waves. In a little more than 2 hours we reached Bellote, where the big mound group is situated on Andres Garcia Island. There was a thatched house at the foot of the mounds owned by R. Unolfo Cordoba, who guided us over the mounds which he had partly cleared for cultivation. (Pls. 63, *a;* 64, *b*.)

The Bellote group is quite impressive. There are four principal mounds placed in close proximity and several smaller scattered mounds, principally toward the north and east.

The sides of the mounds are steep and do not run together aimlessly in the usual manner of shell midden mounds.

The central mound is more than 40 feet high and is more or less flat on top where parts of a cement floor may still be seen. At a somewhat lower level on the east side is a flat-topped apron. Just south of this is a slightly lower, steep symmetrical conical mound. East of the central mound is a large, somewhat elongated mound about 25 or 30 feet high, while north of the central mound is another mound with two summits, probably less than 20 feet in height. North of this are three low, elongated mounds running parallel with their axis in an east-west direction.

Our guide told us that in clearing his milpa they found some glass beads of large size.

Potsherds were abundant on the surface, and on superficial examination seemed similar to the ware at Ceiba.

Although of shell, the Bellote mounds seem definitely to have been constructed, and are not simply refuse heaps.

When Charnay visited Bellote around 1880, he said there were still ruins of a temple on the summit of the principal mound, and pictured a stucco relief similar in style to those at Palenque.

When we visited the site, the only visible evidence of a structure was the remains of a cement floor.

ISLA

On our return trip from Bellote we stopped to photograph some natives burning lime in a fashion that might have been used by the aboriginal inhabitants, who also made lime from oyster shells.

A sort of crib of mangrove wood was constructed, forming a platform which was heaped high with oyster shells. This was fired, reducing the shells to lime (pl. 64, *a*).

At a place called Isla, not far from this point, we stopped to see a man by the name of Francisco Chablé. He and his son had just dug a small mound on his property, and we made photographs of the interesting material recovered.

The mound was of earth and about 5 feet high. In the body of the mound were three pottery vessels. One was a round-bodied spouted "teapot," the upper part painted dark red and highly polished, the lower part incised (pl. 65, *a*–1). The spout is unsupported, the base flat with a vestigial annular ring support. The other two vessels were incrusted with "caliche" and the painted decoration, if any, did not show. The ware of both of these was brick red in color. One was a round-bottomed, high-necked jar with the rim expanded into bowl form. It was 9 inches high (pl. 65, *a*–3). The other was a wide-mouth jar with simple incised ornamentation (pl. 65, *a*–2).

Below the base of the mound was a grave about 4 feet deep, with traces of the bones of a child. Accompanying these were a number of artifacts. There were two pottery vessels. One was a spouted effigy pot of incised buff-colored ware 11 inches high, the other a pot of exceptionally fine ware in the form of a coiled shell, 9 by 8 inches. The latter had short cylindrical tripod supports, and a short spout, and the interior was painted dark red and was highly polished. The outside was covered with a cream slip. On the side was a rectangular cartouche with an elaborately modeled design which probably represents a stylized serpent head (pl. 66, *a*, *b*).

Also with the burial was the profile of a human skull carved from shell, about 3 inches in diameter, and a pure white, well-preserved human head, beautifully carved and polished, made from a massive piece of some marine shell. It is 1½ inches in height. With it were 7 cylindrical shell beads and 15 bright green jade beads, and a pair of very small earspools of the same material. The shell head was in position as the central piece of the jade bead necklace. There was also a string of 12 polished and perforated shells (pl. 65, *b*, *c*).

TUPILCO

From Paraiso we drove to the finca of Alejandria Marques Gutierrez, widow of General Gutierrez whose father was killed in the battle of Aldama.

She had a very interesting collection made by her husband on what had formerly been his property, near Tupilco. The material consisted primarily of elaborate "adornos" in Maya style which had been broken from large cylindrical urns or incensarios. The best piece is a life-size head wearing a jaguar headdress. Part of the rim of the cylindrical urn to which it had been attached is still present. (Pls. 67, 68.)

The presence of a Maya site at Tupilco is of considerable interest, since this would make it the westernmost Maya outpost yet known.

The site consisted of small shell mounds with no other architectural features.

TAPIJULAPA

The picturesque town of Tapijulapa is situated at the base of the central mountains, at the junction of the Escalón and Oxolatán Rivers in the extreme southwestern part of Tabasco. There was formerly an archeological site here near the river, and specimens are occasionally found on a gravel bar in front of the town following floods. One such specimen (pl. 69, *b*) was a fine highly polished figurine made from a very hard reddish-brown hematite. It was 4 inches in height. The native who found it would not part with it because he said he was using it as a "santo" in his house.

We also saw a fine polished spindle whorl of blue stone and a number of quite small polished celts of blue or green stone, all found on this same bar.

We spent several days in Tapijulapa visiting a number of limestone caves and shelters in the general vicinity.

Near the airport, a stream of sulfur water flows from a limestone cavern on property formerly owned by Garrido, when governor of Tabasco. Near this stream is a good-sized, flat-topped mound on which was built a cement house that was never completed. We entered the cave for a considerable distance, but since it is a "wet" cave there was no sign of aboriginal occupation. Near this spot are the mineral springs where "Tapijulapa water" is bottled.

While at Tapijulapa we went by canoe up the Oxolatán River to the Cerro Cuesta Chica, where we visited four limestone caves and a number of rock shelters along the base of the limestone cliff where the caves occur. Two of the caves are of large size and contain beautiful stalagmitic formations, some of the curtain variety being very impressive.

In the caves, at the entrances, we found numerous potsherds of a red or buff ware. Some of these were of very good quality, red slipped and polished.

The rock shelters contain deep deposits which include quantities of snail shells brought up from the arroyo. There are also many flint chips and pieces of stone knocked from river boulders.

Excavations here would no doubt be most instructive and would yield considerable material.

In Tapijulapa we secured a fine slate ax with an Olmec design engraved on it and an alabaster bowl. The man from whom we obtained them said he had purchased them from an Indian who said he found

them in a cave at a place called Finca Chapayál near Santa Caterina, between Almendro and Simojoval, in Chiapas. (Pls. 70, *a;* 71, *b.*)

ATASTA

From Ciudad Carmen we went by launch across the Laguna de Terminos and then through a series of mangrove-lined passages to the village of Atasta, which is scattered for a considerable distance along the waterfront.

About a mile west of the town is a group of small mounds which probably mark the site of the ancient Atasta. About a year before our arrival, from one of these mounds was excavated a life-size stone figure of a standing man. A section consisting of the chest and shoulders is missing. The face is done in an unusual style and is represented as wearing a jaguar headdress and relatively small earspools. (Pl. 70, *b.*)

From this same mound, we were told, were taken several pottery vessels and a clay "tablet" elaborately engraved. These were taken away by some visiting "ingeniero."

When we visited the site, the corner of one mound had recently been dug into. This mound apparently covered a stucco-coated platform with a modeled frieze of prowling jaguars. On the rounded corner piece which had been removed was the figure of one of these jaguars about 3 feet in length (pl. 72, *a*).

The underside of the stucco coating was covered with bosses or protuberances so that the coating would adhere better to the clay core. These were probably produced by punching holes in the clay before the stucco was applied. (Pl. 72, *b.*)

This particular find is highly suggestive of Toltec influence, bringing to mind the prowling jaguar friezes at Tula and Chichen Itzá.

The schoolteacher in Atasta had a small archeological collection said to have come principally from this site. It contained one small complete bowl of brick red ware, fairly thin and quite hard. Another piece consisted of about three-fourths of a tetrapod, flange-base bowl, also of red ware. There were also a half dozen effigy legs from similar bowls, the effigies consisting of grotesque human faces and animal forms. Three copper bells were of the elongated oval variety. One, 2 inches in length, was cast to represent cord wrapping around the upper portion. The others, 1 inch in length, were plain.

The pottery, in form and design, appeared to resemble that from Ceiba, but the red-colored ware would seem to indicate that it was made from a different type of clay. We were not entirely convinced that this material came from the site described above.

A number of years after our reconnaissance Heinrich Berlin visited Atasta and has reported on it briefly (Berlin, 1952–54).

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EXPLANATION OF PLATES

PLATE 46

a, The Village of Tapijulapa is situated at the junction of the Escalón and Oxolatán Rivers at the base of the Central Mountains. At the present time the principal industry is the making of palm-fiber hats similar to the so-called panama hats.

b, A scene on the Río de las Playas, above the limestone gorge. From this point to its headwaters in the Cerro Mono Pelado region, the river is uninhabited.

PLATE 47

Three stone heads from the vicinity of San Jose del Carmen on the Tonalá River. *a*, Made of grayish basalt. *b*, *c*, Polished fine-grained stone.

PLATE 48

a, House foundation, Pueblo Viejo, Río de las Playas. The stones are sandstone slabs.

b, The west wall of the ball court, Ceiba Grande; partially cleared.

PLATE 49

a, Beginning the excavation of a cross-section trench in the west wall of the Ceiba Grande ball court, showing the capstones of the bench that lined the walls. The shovel is resting on the paved floor of the court.

b, Part of the floor of the ball court cleared, showing the pavement of sandstone slabs.

PLATE 50

Two views of the upper portion of a Colossal Head, San Miguel, Tabasco. This fragment is now in the museum at Villahermosa.

PLATE 51

a, A view of one of the mounds and structural ruins at Comalcalco.

b, Detail showing the method of using large flat bricks with thick application of mortar. Some of the plastered surface still remains in place. Note the thickness of the walls.

PLATE 52

a, Stucco figures on the wall of the tomb discovered by Frans Blom, as they appeared in 1944.

b, Wall of one of the ruined structures at Comalcalco, showing arrangement of bricks and mortar and surface plaster covered with potsherds.

PLATE 53

a, Stone monument from La Venta, now in Villahermosa.

b, Stone monument from La Venta, now in the Instituto Taracena, Comalcalco.

PLATE 54

a–d, Figurines from central Tabasco, now in the colegio in Villahermosa.
e, Figurine head, buff on the exterior, black on the interior. Deep prefired grooves vertical on the back.
f, Cross of white onyx. The end of each arm has been drilled with a conical drill.
g, Vase with annular base, of terra-cotta red ware shaped like a lamp chimney.
e, *f*, and *g* were found 10 miles west of Frontera associated with almost a ton of quicksilver that had been buried in several large pottery urns.

PLATE 55

a, Section from near the base of the large shell mound at Ceiba (near Paraiso) showing two layers of stucco floors.
b, Cover of stucco-covered platform.

PLATE 56

a, *b*, Tetrapod vessel 8½ inches wide, 5½ inches high, from the shell mound at Ceiba. It has a buff slip with remains of red paint on the surface.
c, Part of a bowl of thick reddish sand-tempered ware with heavy incised decoration, 11½ inches in diameter. From the shell mound at Ceiba.

PLATE 57

Various specimens from the shell mound at Ceiba.
a, Light buff color, female figurine 6 inches high
b, Buff color, 5 inches high.
c, Stylized head, buff ware 3 inches high.
d, Buff color, female figurine 3½ inches high.
e, Potstand 6 inches wide, stucco coated and painted green and red.
f, Incised pot 5 inches in diameter.

PLATE 58

Specimens from the shell mound at Ceiba.
a, Spouted vessel with remnants of geometric design painted in red and black, 5 inches high.
b, Small vessel with design in red and black, 4½ inches high.
c, Tetrapod bowl with rattles in legs. Geometric design, red and black on orange, 7½ inches wide.

PLATE 59

Vessels from the shell mound at Ceiba.
a, Tetrapod vessel with rattles. Has buff slip with remains of red and black painted design; 5 inches high, 8 inches wide.
b, Cylindrical vessel with slightly outflaring rim. Reddish ware, with zoned incised and punctate design.
c, Flange-base cylindrical vessel with incised design. Black surface, sand tempered, 5¼ inches high.
d, Small jar of thin yellow ware 4 inches high.
e, *f*, *h*, *i*, Dull red ware, rather thick, sand tempered; *e* is 9 inches high; *f* and *h* are each 7 inches high. These four vessels all have round bottoms which have been roughened by stamping them with the crinkled edges of pecten shells. The rims of all have been broken off. When complete they probably resembled in form, the vessel shown in plate 65, *a–3*.
g, Small pinch pot painted red and filled with red ocher—specular hematite, 2½ inches high.

PLATE 60

Hollow figurine of polished yellowish buff ware, 7 inches high, holding an animal under the left hand. From Ceiba shell mound.

PLATE 61

Pottery stamps from the shell mound at Ceiba. *a*, 6 inches long; *b*, 7 inches long; *c*, 5 inches long; *d*, 2½ inches long; *e*, 4 inches long; *f*, 1¾ inches × 1 inch; *g*, 3 inches × 3 inches; *h*, 2¾ × 2¾ inches. The 3 flat seals have stem handles on the back.

PLATE 62

Stone artifacts from the Ceiba shell mound.

a, Greenish stone, 5 inches high, perforated laterally at the top.
b, Gray igneous rock 6½ inches high.
c, Yellow sandstone, 6 inches high.
d, Celt of polished fine-grained black stone.
e, Celt of green jade.
f, Celt of hard dark-brown stone.

PLATE 63

a, View of one of the large shell mounds at Bellote, as seen from the summit of an adjacent mound.
b, A sailboat in one of the mangrove-lined channels near Bellote.

PLATE 64

a, Method of burning lime from oyster shells near Isla. The crib is made of mangrove logs. This may well be similar to the method used in making lime from oyster shell as practiced by the pre-Columbian inhabitants of the region.
b, View of one of the smaller shell mounds at Bellote, as seen from the water.

PLATE 65

Associated objects from a tomb at Isla, near Paraiso.

a–1, Spouted vessel, polished red slip on upper part, lower portion unslipped and decorated by incising, 6½ inches high.
a–2, Small bowl of brick red ware, incised and slipped. Rounded bottom, 5½ inches in diameter.
a–3, Tall jar with rim expanded to bowl shape, round bottom, roughened by textile imprint. The entire surface of the vessel covered by calcareous coating, 9 inches high.
b, 12 shell beads perforated for stringing.
c, Shell gorget, probably representing a monkey head, 3 inches wide. Beautifully carved and polished head of massive shell, 1½ inches high. 7 beads of *Spondylus* shell; 15 jade beads, the majority of bright-green jade. Pair of small green jade earspools.

PLATE 66

Associated objects from a tomb at Isla.

a, Spouted vessel with polished red slip on interior and cream slip on outside, modeled cartouche on side, probably representing a serpent head. Tripod base, 9 inches wide, 7 inches high.
b, Effigy jar of light buff ware, burned black on the bottom. Figure formed by modeling and incising, 10½ inches high.

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PLATE 67

Maya type figures from Tupilco, Tabasco.
a, Good quality, brick red ware, 3½ inches high.
b, Head formerly attached to large cylindrical urn. Brick red ware. Jaguar headdress, 12 inches high.
c, Animal head, 3 inches long.
d, Animal head, 2¾ inches high.
e, Animal head, 2¾ inches long.
f, Head, 4¾ inches high, Coarse Brown ware.
g, Alligator snout, Brick Red ware 8 inches long.

PLATE 68

Adornos from large urns, Tupilco, Tabasco. These elaborate adornos are made of thick Brick Red ware and formed ornaments attached to large cylindrical vessels. The head, shown in two views, is 8 inches high from chin to top of forehead.

PLATE 69

a, Carved celt of polished grayish green stone, 12 inches long. Found in a small mound near Escarsega Camp on the Candelario River. From a private collection in Carmen.
b, Figurine of polished reddish brown hematite found in the river bank at Tapijulapa, 4 inches high.

PLATE 70

a, Engraved black slate celt with Olmec design, found in a cave at Finca Chapayál near Santa Catarina, in the vicinity of Simojoval, Chiapas, 12¼ inches long.
b, Stone statue from a small mound at Atasta, Campeche.

PLATE 71

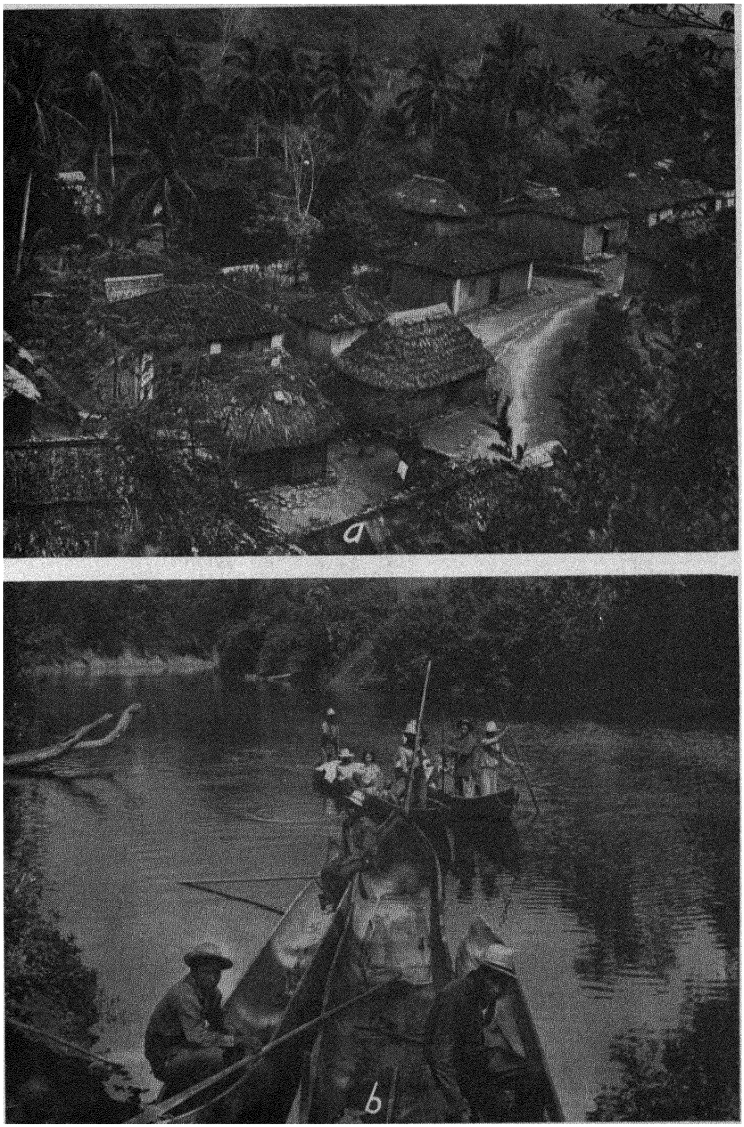
a, Pottery Jaguar head from the Olmec site at San Miguel, Tabasco. It is buff in color with a white slip.
b, Alabaster bowl 6½ inches high, tripod supports. Said to have been found with the engraved celt shown in plate 70, *a*.
c, Upper portion of a large figurine head, with small Olmec face on the headband. From the site of La Venta, Tabasco. Private collection in Coatzacoalcos.
d, Flat metate from the shell mound at Ceiba, 22½ inches long, 12 inches wide.

PLATE 72

a, Portion of a prowling Jaguar modeled in stucco from stucco-covered platform in a mound at Atasta, Campeche.
b, Stucco fragments from the same platform, showing bosses on the underside, evidently for better attachment to the clay core of the platform. Holes were probably punched in the clay before the stucco was applied.

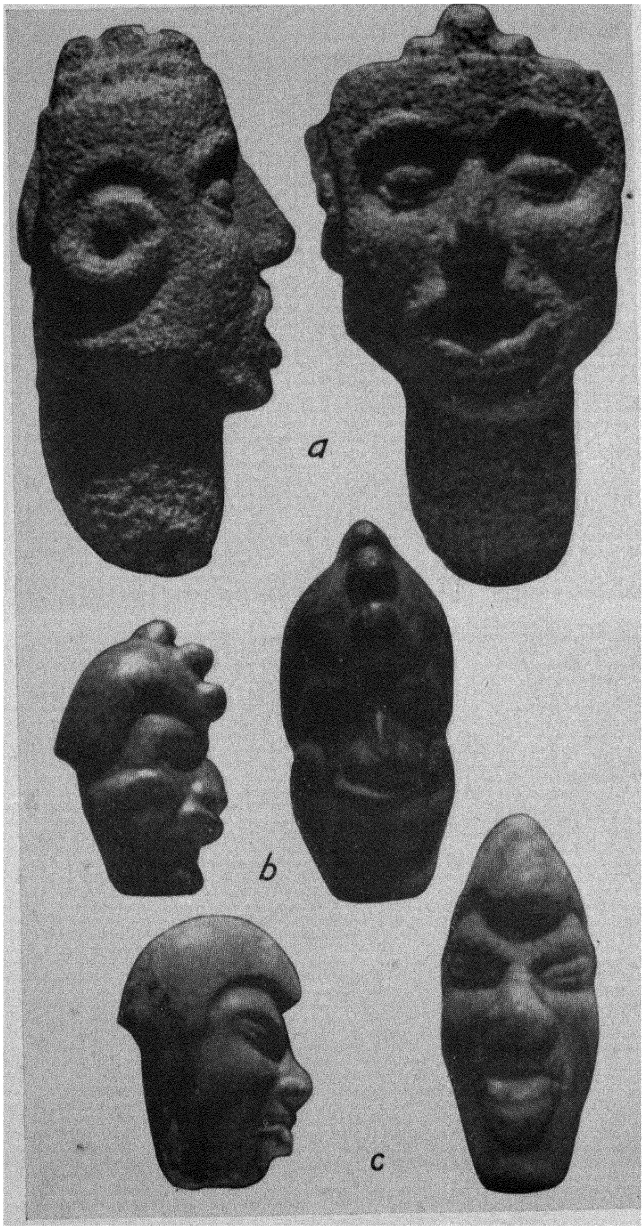
PLATE 73

Two basalt monuments from La Venta, now in the ruins of Hacienda San Vicente, Tabasco: *a*, 45 inches high; *b*, 36 inches high.



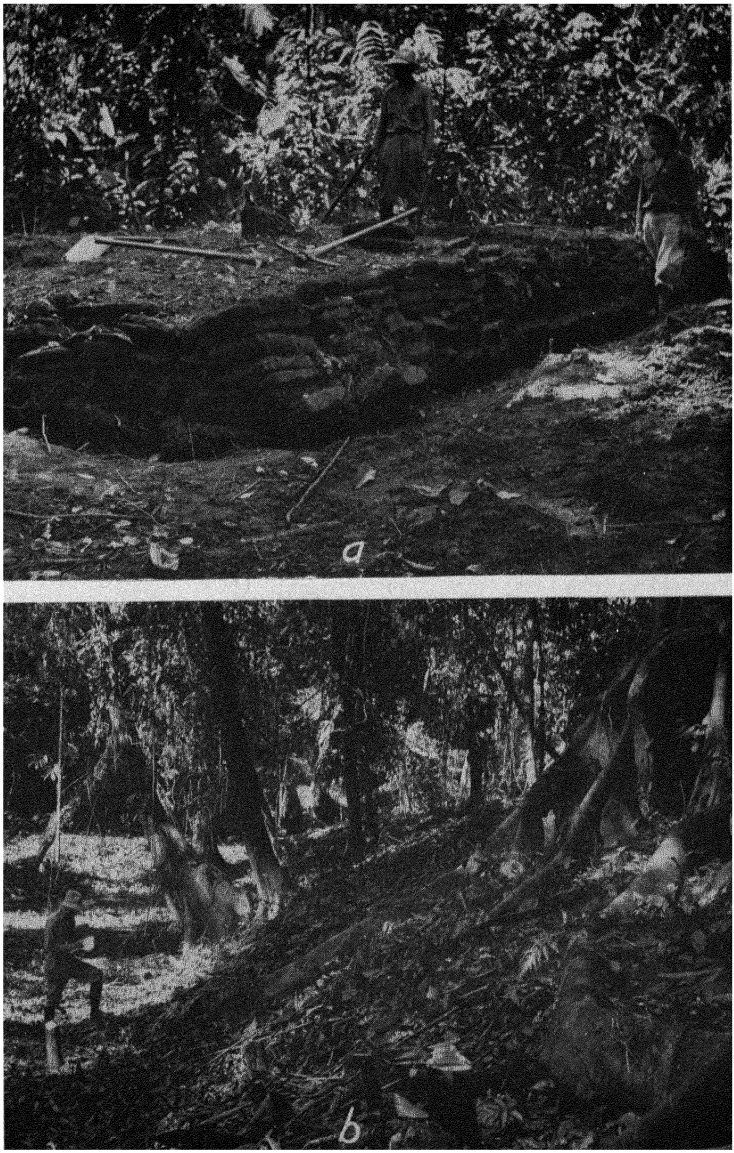
a, The village of Tapijulapa, Tabasco. *b*, The Río de las Playas, Veracruz.

(For explanation, see p. 237.)



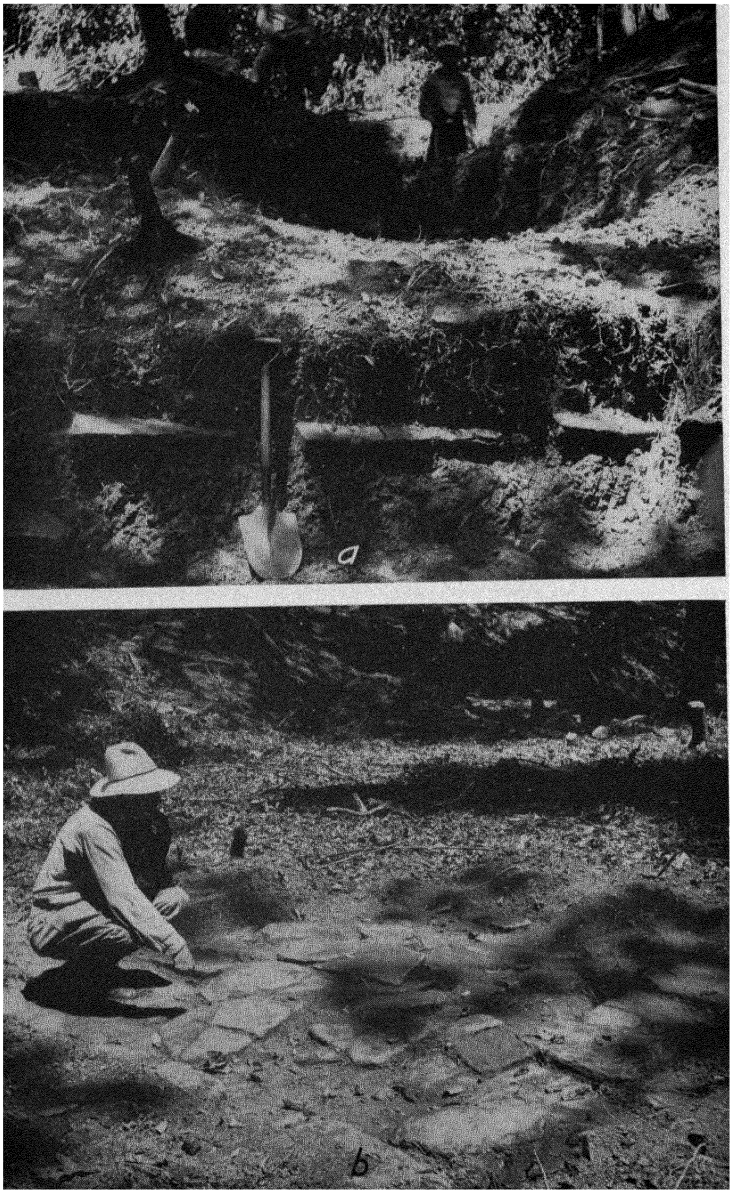
Stone heads from the vicinity of San Jose del Carmen.

(For explanation, see p. 237.)



a, House foundation, Pueblo Viejo. *b*, Ball Court, Ceiba Grande.

(For explanation, see p. 237.)



a, Part of the Ball Court, Ceiba Grande. *b*, Paved floor, Ball Court, Ceiba Grande.

(For explanation, see p. 237.)

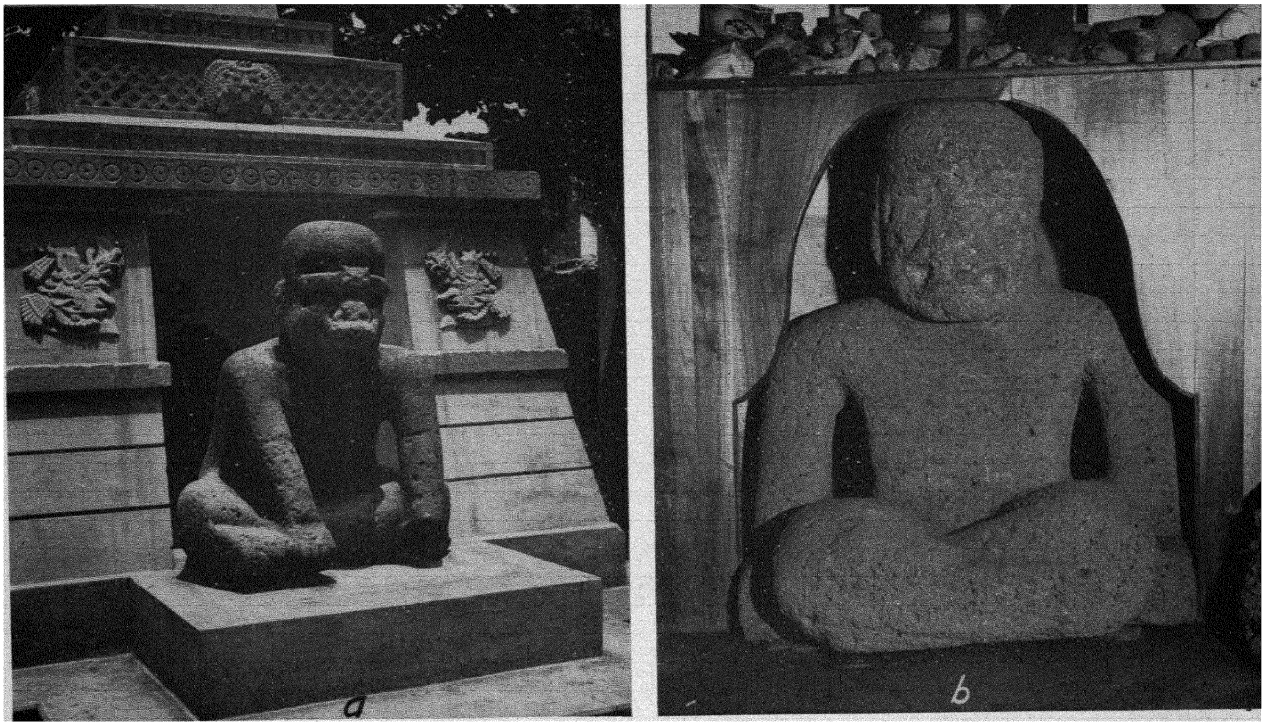
Portion of stone head, San Miguel, Tabasco.
(For explanation, see p. 257.)



a, The ruins of Comalcalco. *b*, Masonry at Comalcalco.

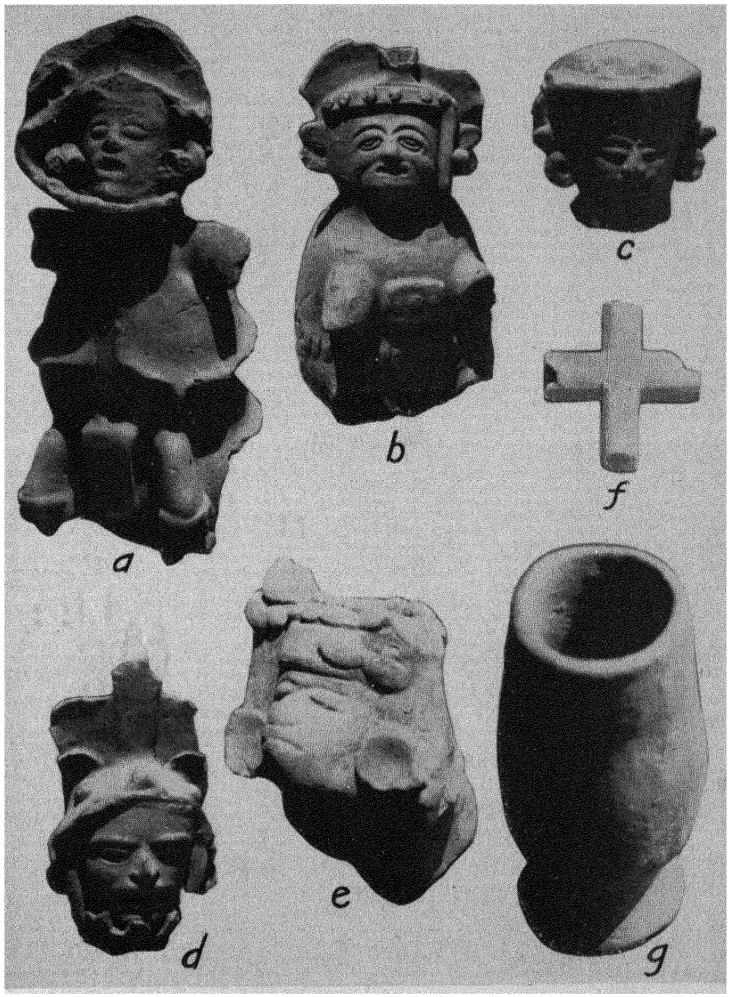
(For explanation, see p. 237.)

a, Stucco figures, tomb, Comalcalco. *b*, Potsherd encrusted masonry, Comalcalco.
(For explanation, see p. 237.)



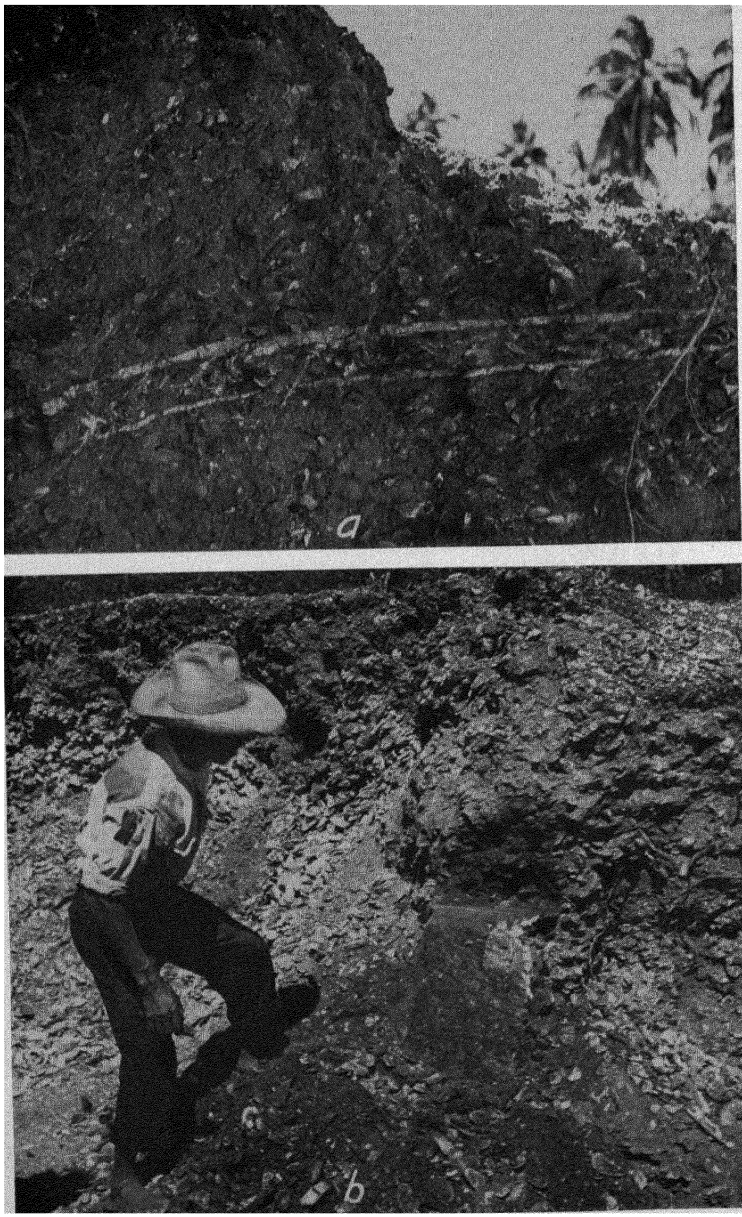
a, Monument from La Venta. Villahermosa. *b*, Monument from La Venta. Comalcalco.

For explanation, see p. 237.)



Artifacts from the vicinity of Villahermosa and Frontera, Tabasco.

(For explanation, see p. 238.)



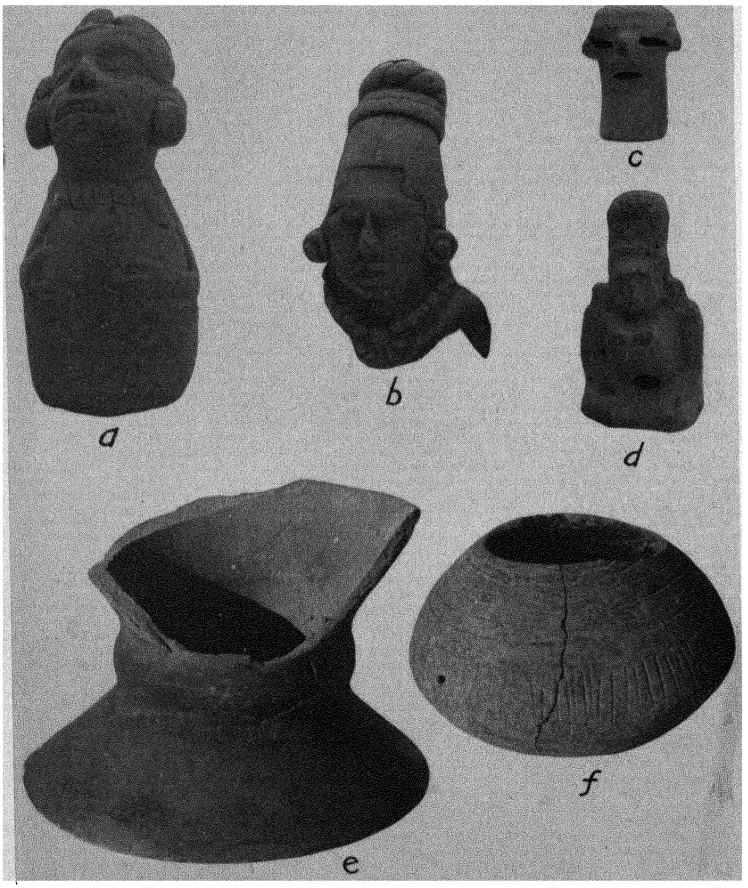
Stucco construction in the shell mound of Ceiba, Tabasco.

(For explanation, see p. 238.)



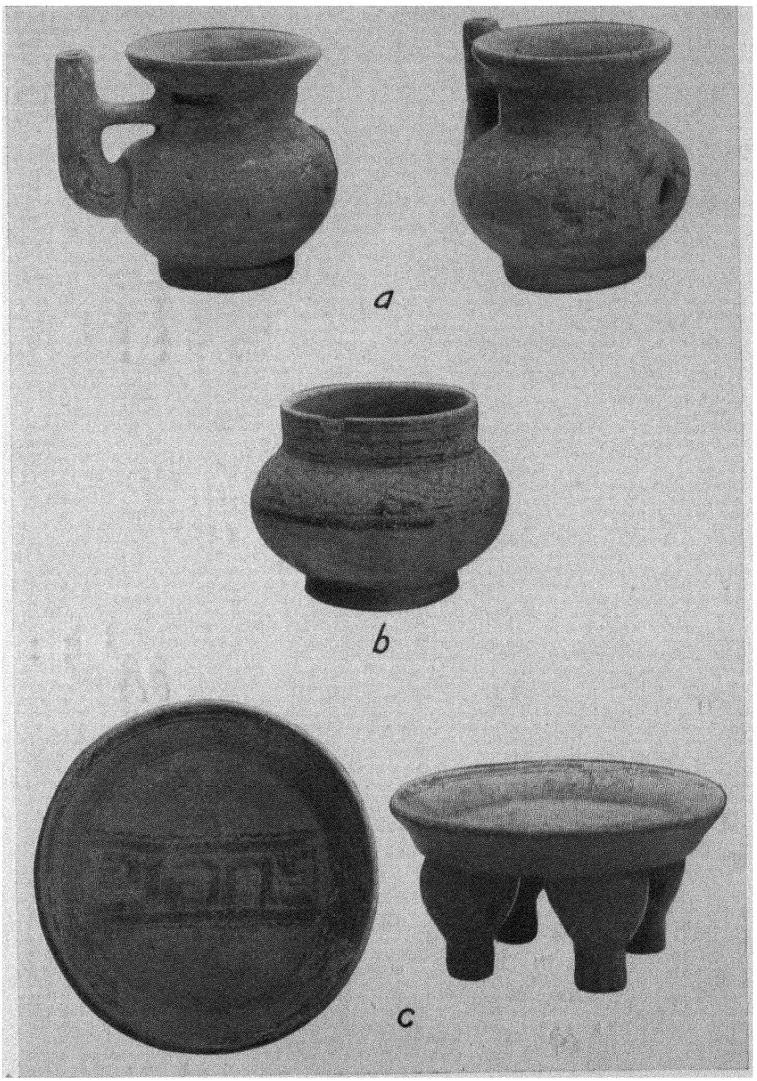
Pottery from shell mound at Ceiba.

(For explanation, see p. 238



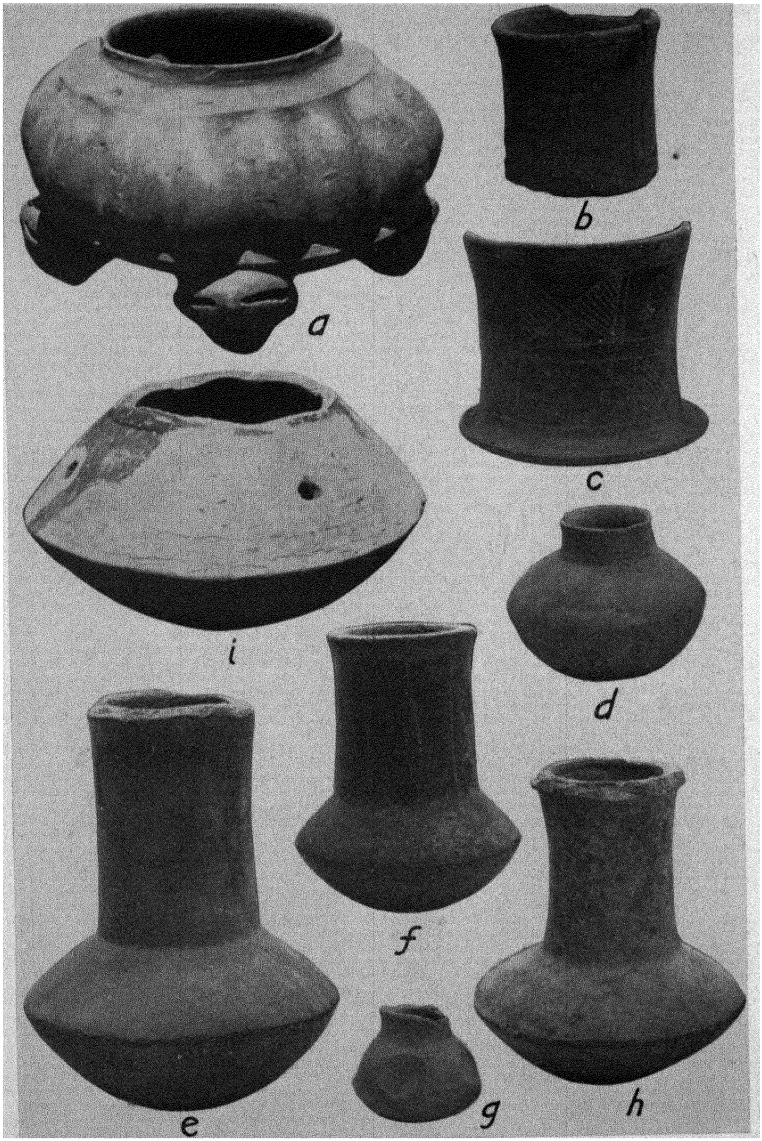
Figurines and pottery from shell mound at Ceiba.

(For explanation, see p. 238.)



Pottery from shell mound at Ceiba.

(For explanation, see p. 238.)



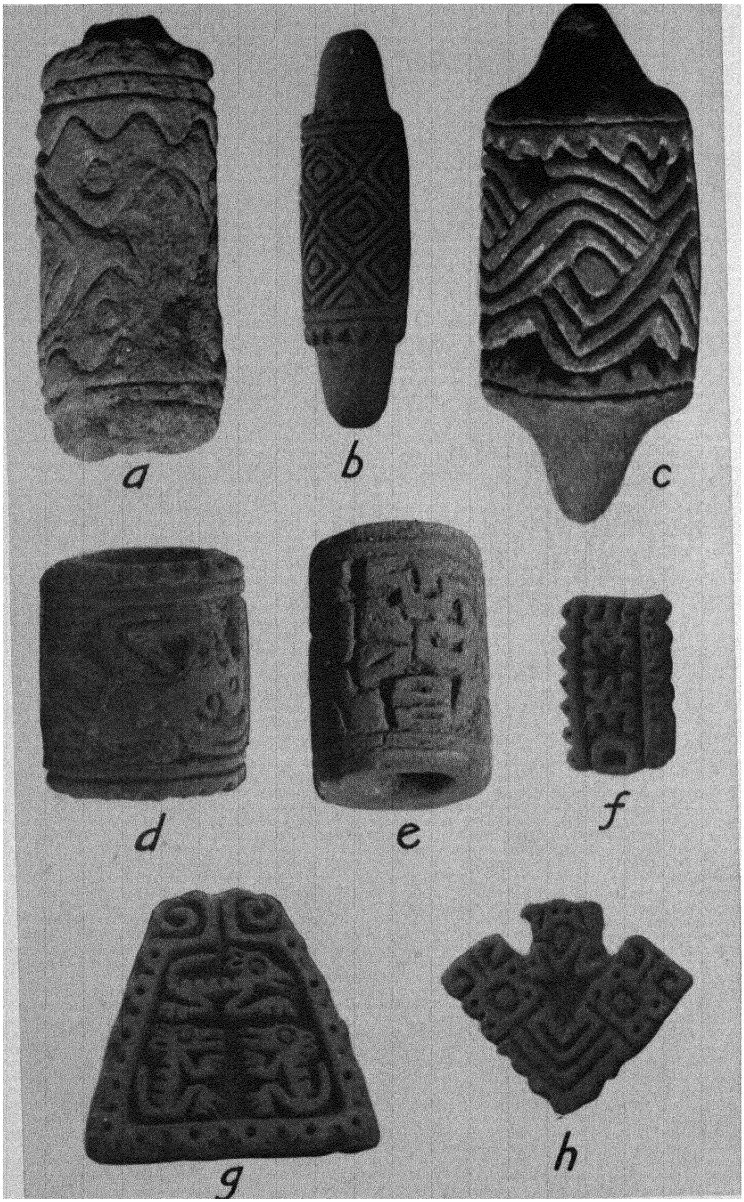
Pottery from shell mound at Ceiba.

(For explanation, see p 238.)



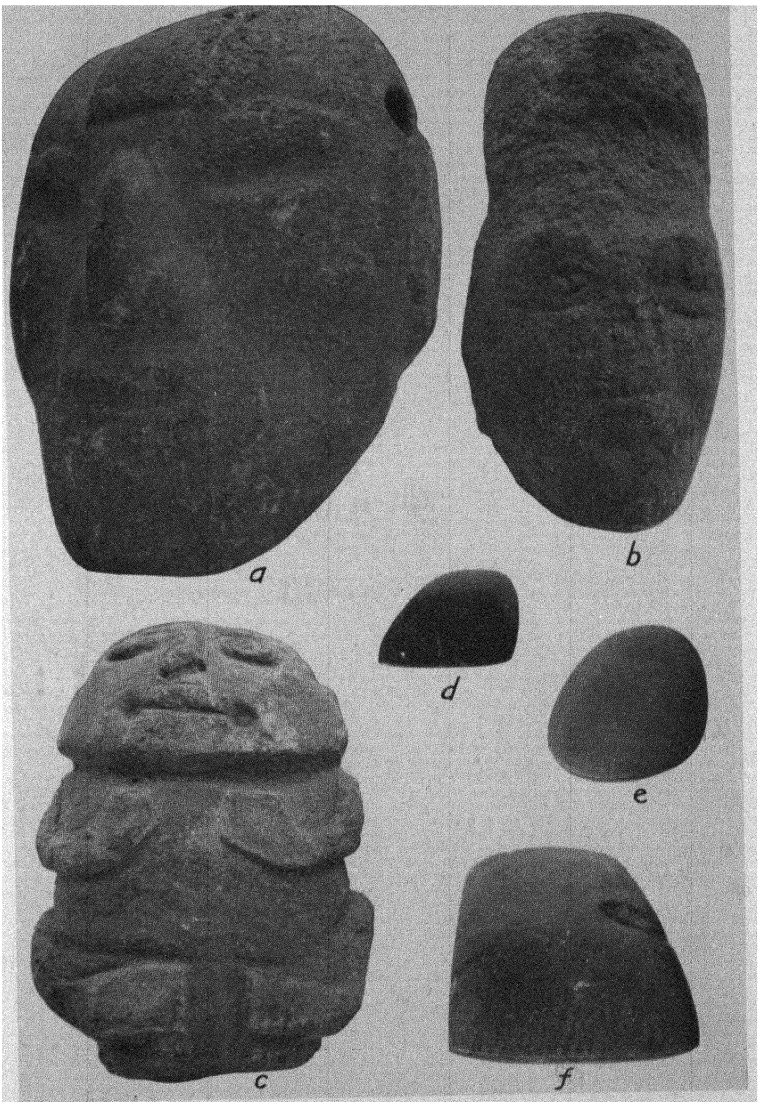
Pottery figurine from shell mound at Ceiba.

(For explanation, see p. 239.)



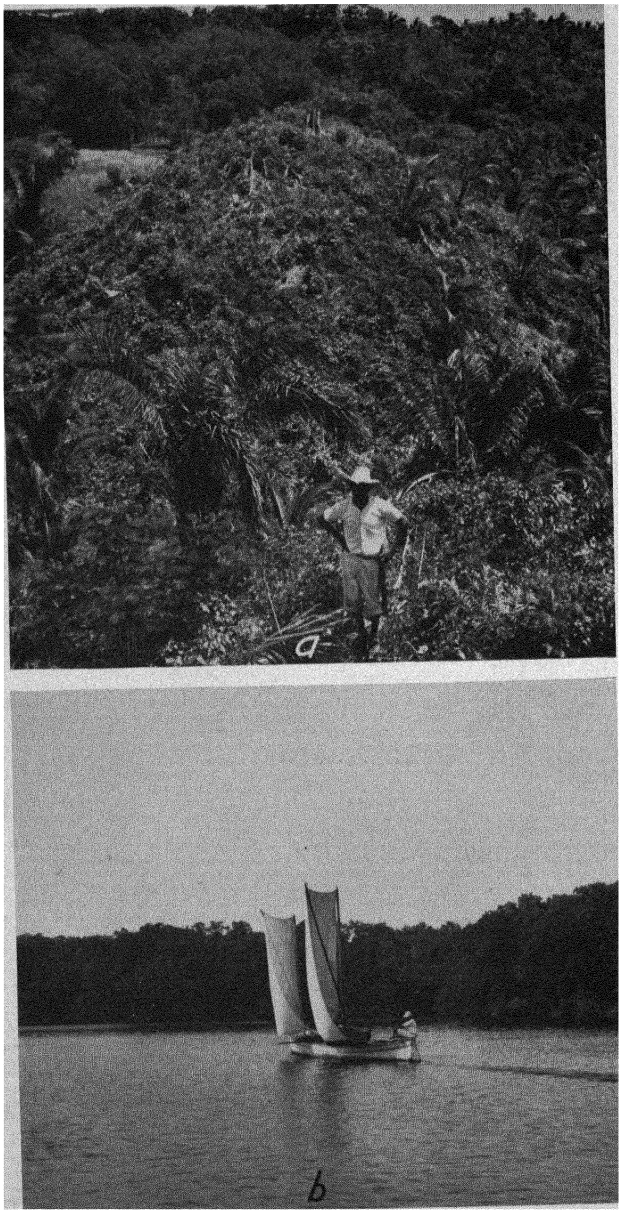
Cylindrical and flat stamps from shell mound at Ceiba.

(For explanation, see p. 239.)



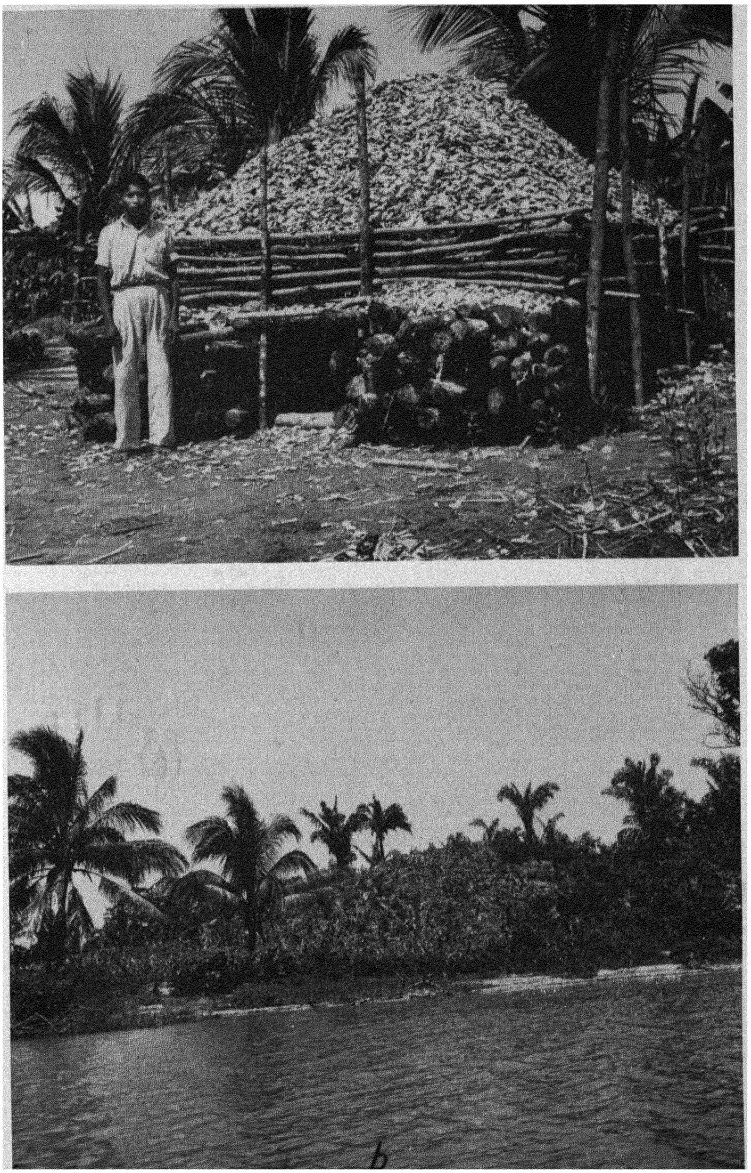
Stone artifacts from shell mound at Ceiba.

(For explanation, see p. 239.)



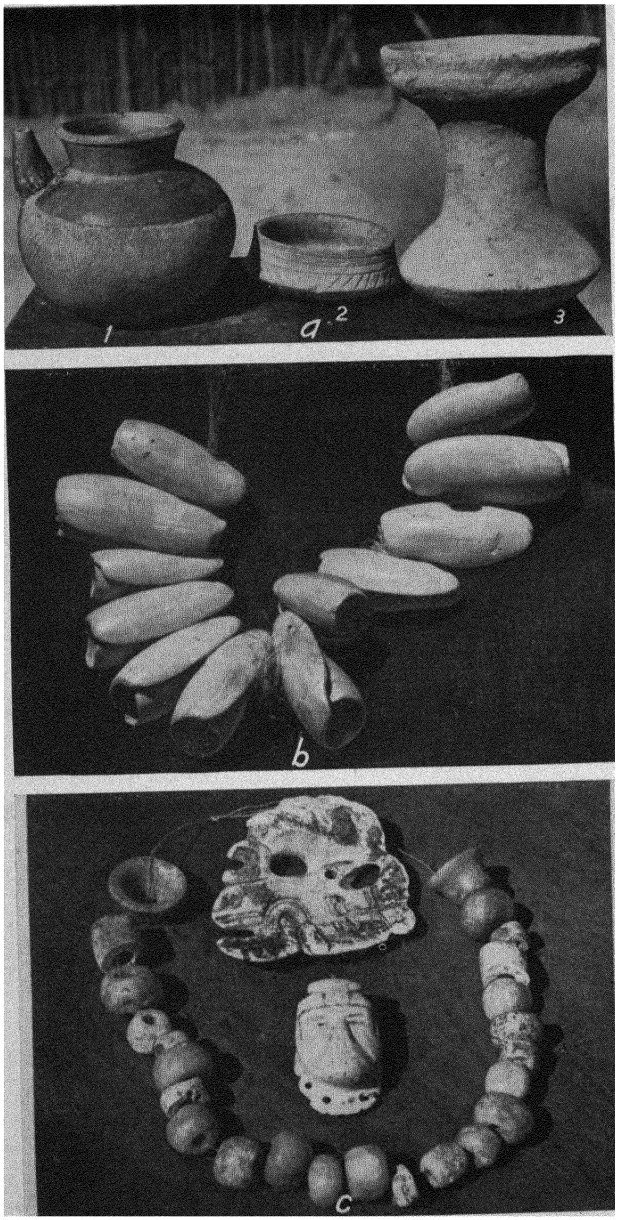
a, Shell mound at Bellote. *b*, Salt-water channel near Bellote.

(For explanation see p. 239.)



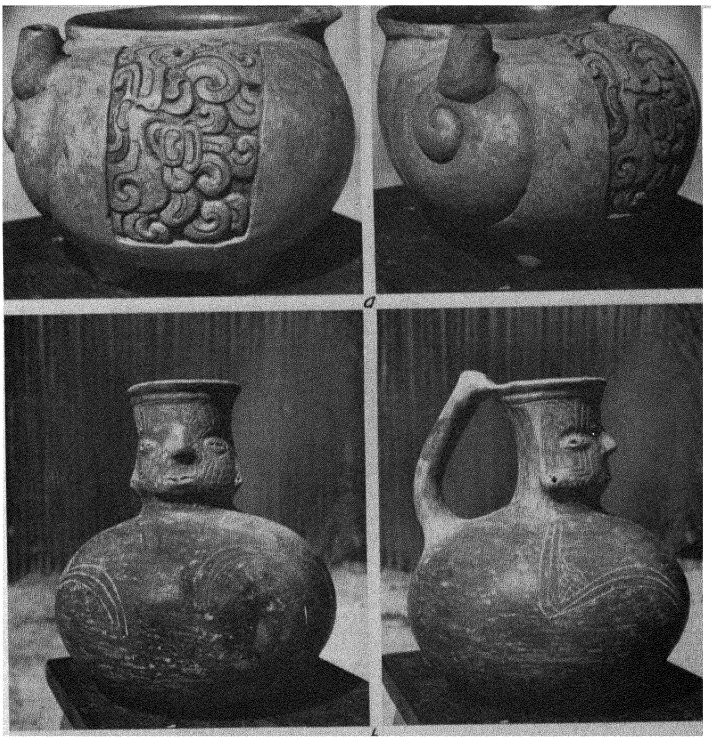
a, Making lime from oyster shell. Isla. *b*, One of the Bellote shell mounds.

(For explanation, see p. 239.)



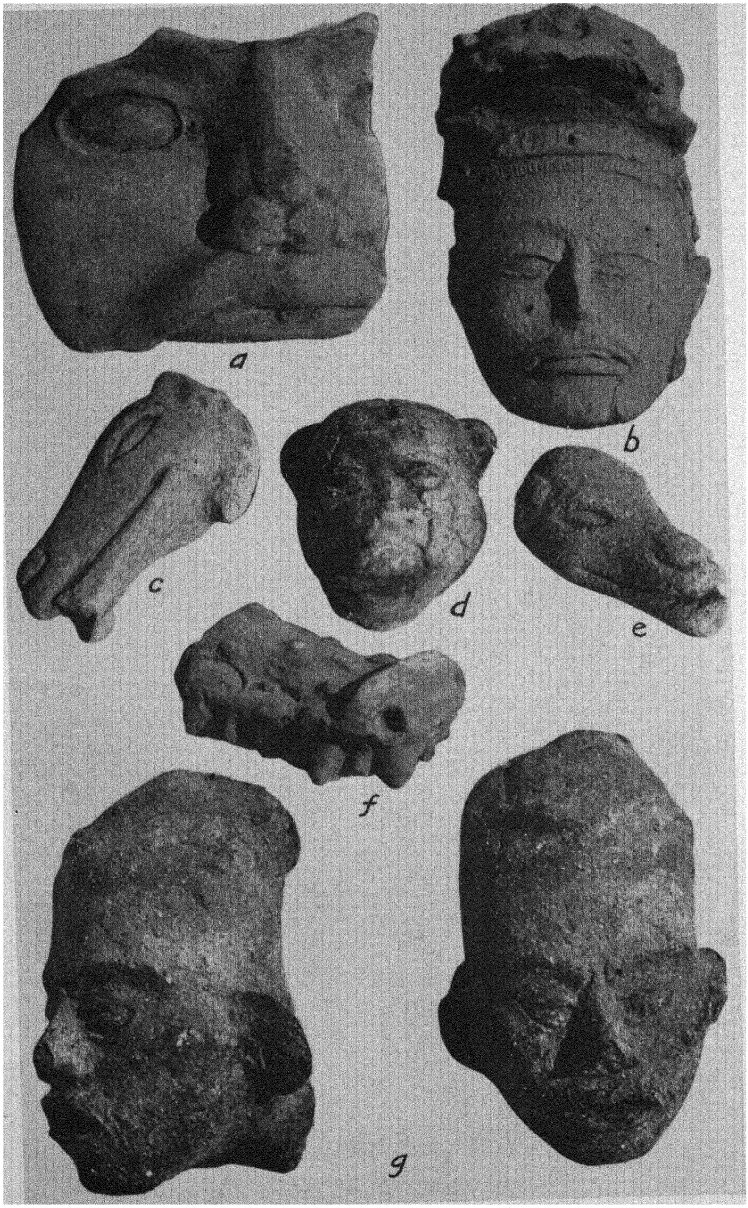
Associated artifacts of pottery, shell, and jade from a tomb at Isla.

(For explanation, see p. 239.)



Associated pottery vessels from a tomb at Isla.

(For explanation, see p. 239.)



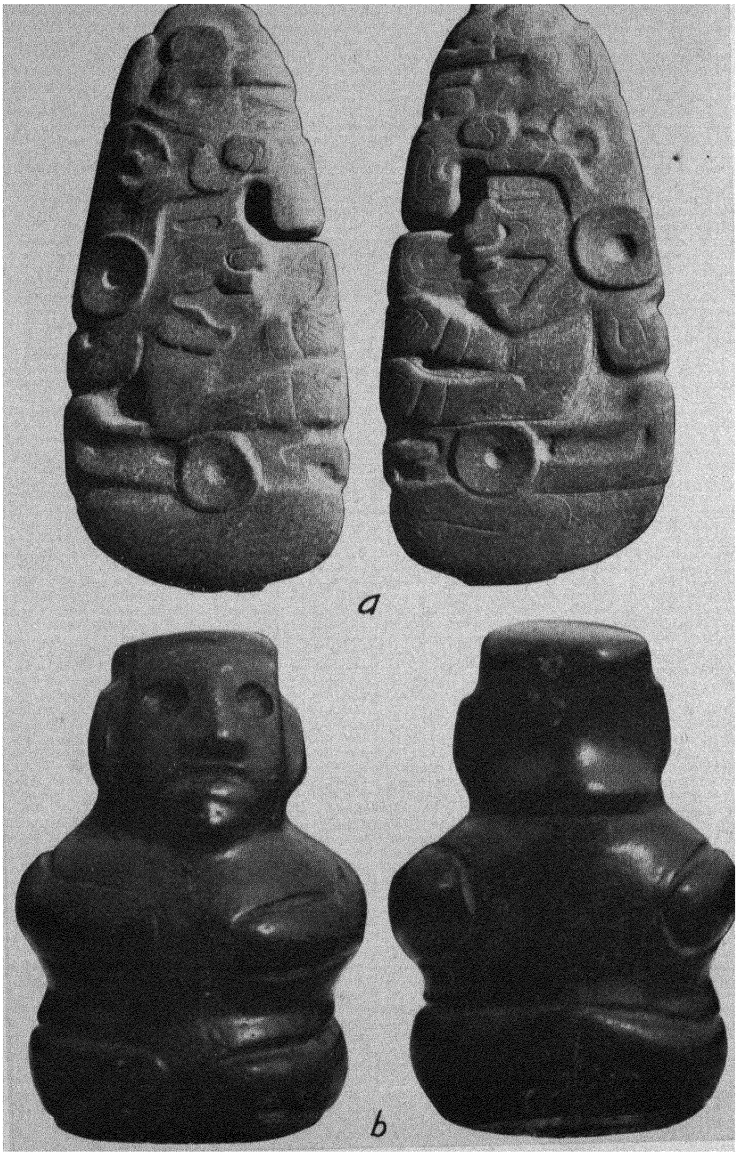
Pottery figures of Maya type from Tupilco.

(For explanation, see p. 240.)



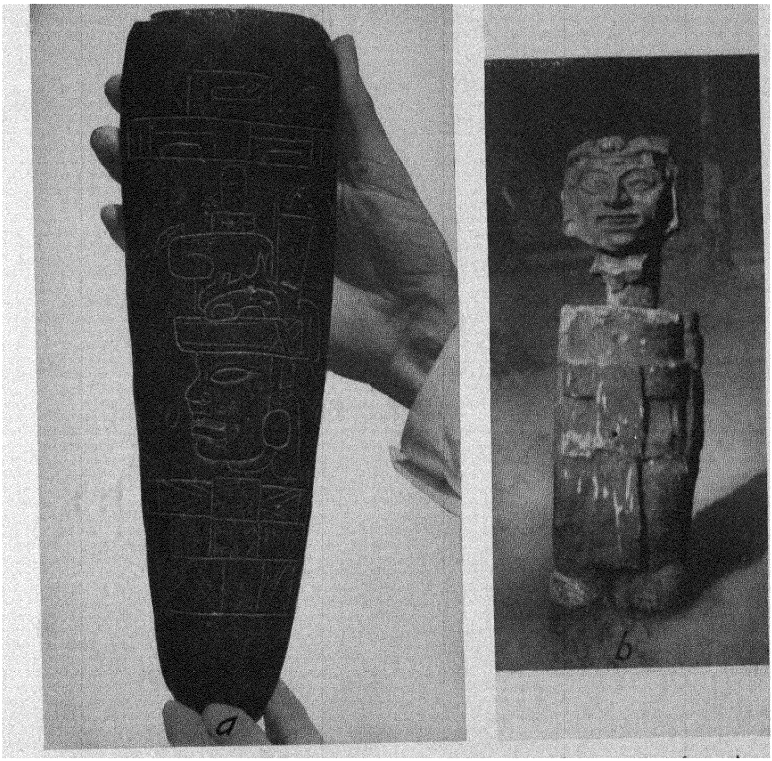
Adornos from large urns. Tupilco.

(For explanation, see p. 240.)



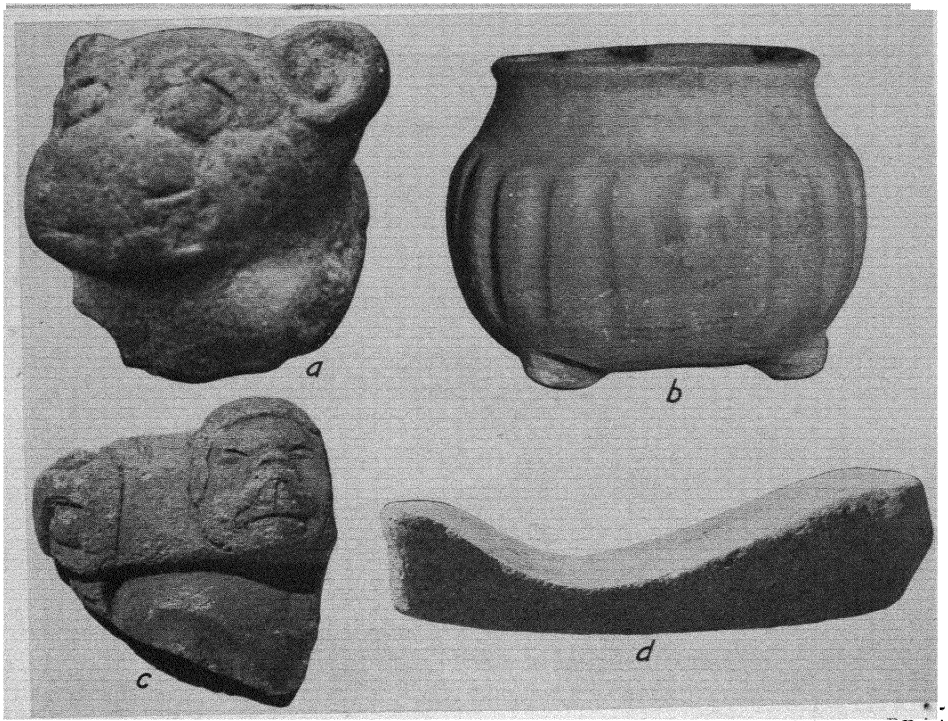
a, Stone celt from Rio Candelario. *b*, Hematite figure from Tapijulapa.

(For explanation, see p. 240.)



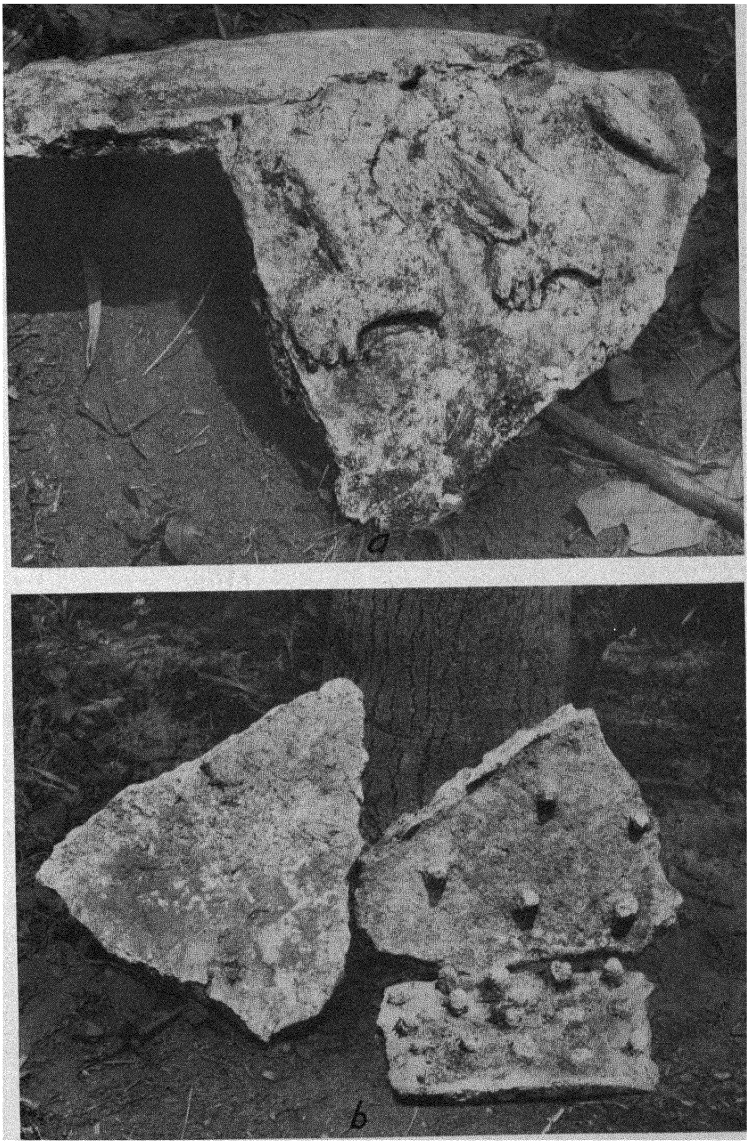
a, Engraved celt from vicinity of Simojoval, Chiapas. *b*, Stone statue from Atasta, Campeche.

(For explanation, see p. 240)



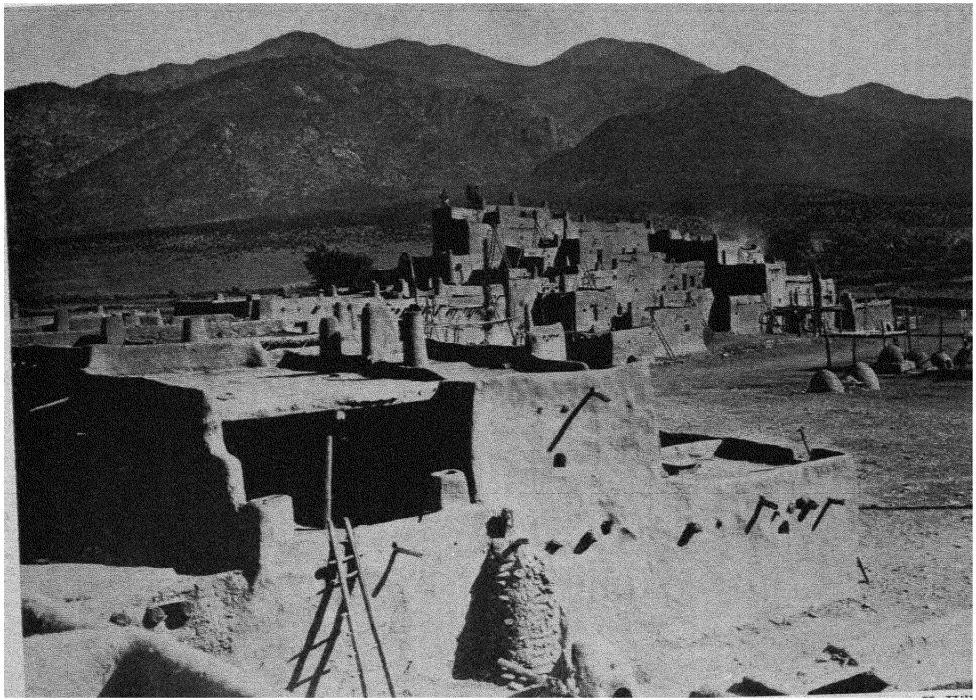
a, Pottery jaguar head from San Miguel. *b*, Alabaster vessel from cave near Simojoval Chiapas. *c*, Portion of pottery figure from La Venta. *d*, Grinding stone from shell mound, Ceiba.

(For explanation, see p. 240.)



a, Prowling jaguar in stucco from Atasta. *b*, Stucco fragments from Atasta.

For explanation, see p. 240.)



Basalt monuments from La Venta now at San Vicente, Tabasco.

(For explanation, see p. 240.)

SMITHSONIAN INSTITUTION
Bureau of American Ethnology
Bulletin 164

Anthropological Papers, No. 54

VALLADOLID MAYA ENUMERATION

By JOHN P. HARRINGTON

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VALLADOLID MAYA ENUMERATION

By JOHN P. HARRINGTON [1]

THE LANGUAGE RECORDED IN HIEROGLYPHIC WRITING

The Maya language—in an ancestral form of which in the opinion of all students the Maya hieroglyphic writing was recorded—is still spoken by the bulk of the population in the Yucatan Peninsula, situated in the extreme eastern portion of Mexico. The dialects still spoken in the central and northern parts of the peninsula are very similar one to another and closely approximate the speech recorded in the large dictionary which was written at Motul, 12 miles east of Mérida, capital of the State of Yucatan. The Motul dictionary dates from the last quarter of the 16th century.

A Maya person is called in the Maya language maya; plural, mayaoob. The Motul dictionary through some inadvertency writes maya, which is the Spanish, not the native, form. The Maya country, which is the Yucatan Peninsula, is called mayab. The tribal name was first recorded by Bartholomew Columbus, brother of Christopher Columbus, in 1506, under the form mayam, which he took to be plural and which is probably for mayaoob, although it may be for mayab. Valladolid is called saki'. A person of Valladolid is called saki'il. Valladolid is situated in the north-central part of the Yucatan Peninsula. It is with no idea of trespassing on the excellent work of decipherers of Maya hieroglyphic writing, or of translators of the same, that this study is undertaken, but, on the contrary, with the thought that since the two-fifths of the Maya hieroglyphic writing which is in existence deals with dates, an investigation into what moderns remember and what dictionaries and grammars give of the Maya counting system may be helpful. The writer was led to select the Valladolid dialect instead of the Motul dialect because of the availability of good informants.

Maya enumeration is the same whatever is counted, except the classifiers considered proper may vary. Since classifiers have

[1] Gratitude is expressed especially to Mr. Domingo Cantón Aguilar for his special interest in Valladolid Maya counting, and to Dr. M. W. Stirling, who has contributed unique ideas to this study.

almost gone out of use, and those which remain in use are perhaps distorted in application, one may safely lay down the rule that as far as modern Maya is concerned, all things are enumerated in the same manner.

It has been a matter of curiosity to the writer how one might say in Maya: Valladolid Maya Enumeration. One should begin in Maya with the term for enumeration; šo̱ot means counting, but also means reading. One might put baši', how much, after šo̱ot to confine the meaning to enumeration. The word "Maya" would better be put as the compound Maya language, which is mayat'an. And instead of saying merely Valladolid, which is called saki', it would be clearer to say tu-kahal saki', in the city of Valladolid. So the entire wording of the title of this paper would be in Maya: u-šot baši' mayat'an tu-kahal saki'; literally, Maya language's enumeration at the city of Valladolid.

PHONETIC AND TERMINOLOGICAL DIGRESSION

Necessary to the correct pronouncing of the forms given, it should be stated here that the Valladolid dialect of the Maya language operates with two degrees of syllable stress.

The Maya language has six kinds of syllable, two of these being open and four closed, illustrated by the first syllable of wašak, 8; maya, Maya; kay, fish; kan, snake; ku'u̯k, squirrel; and chaa̯k, rain. Syllables of the fifth and sixth kinds have rearticulated vowel in phrase-final form, in non-phrase-final form becoming respectively of the "fish" and of the "snake" kinds. An inverted breve has been placed under rearticulated vowels. Rearticulated vowels have a murmured quality. Syllables of the sixth kind come from those containing a rearticulated long vowel, but the non-rearticulated vowel is not today pronounced long, although it may formerly have been so pronounced.

Maya words presented in this paper have their phrase-final form. When another word of the coherence follows, unless there is considerable pause, phrase-final forms are clipped.

As in Chinese, so also in Maya, sometimes a word with two or more meanings sounds exactly the same. But it often happens that two or more words which have been written the same, for instance in the Motul dictionary, have different pronunciations according to different meanings. They are distinguished by accentual differences which have not been written.

An asterisk before a word indicates that the form is reconstructed, 2 asterisks that the following 2 or more words are in reconstruction.

Each numeral, with the exception of certain higher and plainly compository ones, is written in this paper as a single word; tuy-, tu-, meaning "in its", has, in order to help the reader, been prefixed with hyphen. Each classifier also has been written as a separate word, except in the rare instances when a classifier comes in the interior of an ordinal numeral, in which instance the entire ordinal is written as one word.

A score-initiating cardinal is in this paper called a major cardinal; an intervigesimal cardinal is called a minor cardinal.

MAYA ENUMERATION EMPLOYS THE SCORE SYSTEM

The score system, also called the vigesimal system, is mostly employed in the Maya language; only in the time-measure system is there multiplication by the number 13, and there the multiplication producing higher periods is largely by 20. Instead of 10 being the pivotal cardinal as it is in languages such as English, which employ the decimal system, the fundamental round number in Maya is 20, and special names are provided for the 2d, 3d, 4th, 5th, and 6th powers of 20. The score, group of 20 units, is called in Spanish *veintena*, a word which starts with the Spanish numeral *veinte*, 20, and has the same ending as Spanish *docena*, dozen. The score and its multiples by 20 are the pivotal numerals of Maya counting; they are the principal resting places on the stairs. But there are other resting places between these principal ones. At every five units there is a resting place. A place of resting, as for instance a terrace breaking the steep side of a pyramid, in Maya is called ket lu'um, literally a wide place. A small resting place could be expressed by saying chan ket lu'um, chaan meaning small. A flight of stairs is considered in Maya to belong to the floor at the head of the flight; the units terminating in 20 are supposed to belong to the first score. The resting place or landing is 20; 5, 10, and 15 are minor ones.

The Maya enumeration goes k'alenk'aal, by scores. To the Maya speaker, the enumeration in a language which employs the decimal system, as English does, appears to proceed in very short steps; a language which employs the score system in longer ones. The Maya counted throughout by score, or score times score. Saying hunbak', 400, was merely a shortcut for saying **hunk'al ten hunk'aal, 20 by 20. Lincoln's "Gettysburg Address" would in Maya say 4-score's 7 instead of saying four score and seven.

In order to anchor Maya enumeration to that of the Indo-European languages, it should be said that perhaps the best exposé of the Indo-European system is in Buck (1949, ch. entitled "Quantity and Number," pp. 916–952). There are in Indo-European languages, at least in traces, 10 grammatically distinct sets of numerals, most fully worked out in ancient Greek and in modern High German. The numeral for 3 is used by Buck to advantage for illustrating these sets.

1. Cardinal, 3.
2. Adverbial Collective Singular, as a group of 3.
3. Adverbial Collective Plural, as groups of 3.
4. Fractional, a third.
5. Ordinal, third in order.
6. Compositional, consisting of three kinds.
7. Junctatory, consisting of three kinds together.
8. Unipertinent, 3 apiece.
9. Multiplicative, 3 times.
10. Plicative, threefold.

In Maya these sets are to some extent expressed differently. The basic numeral is the cardinal, as it is in Indo-European, and states how many. The cardinal is an entitative, a special kind of pronoun, and all other sets of numerals, both in Indo-European and in Maya, can be regarded as formed from it. The cardinal, being an entitative, in Maya, is capable of semireduplication denoting collectivity, and the semireduplicative form can be taken in Maya as singular or plural. Fractionals are meagerly developed in Maya, in which language there is no good way of saying a third part. The ordinal is both in Indo-European and Maya an adjective formed from a cardinal. Maya uses also to some extent, instead of forming an ordinal from a cardinal, merely the unchanged cardinal, insisting on such usage in certain instances; for example, saying 3-score, never the third score. For the compositional, one uses in Maya the classifier mool, composite, between the cardinal and the noun or adjective which the cardinal modifies. The junctatory is expressed in Maya, if one wishes to give an exact rendition, by adding to the compositional a word meaning together. For giving the meaning of unipertinent, one adds in Maya the pronoun meaning each and throws the numeral into the possessive. The multiplicative and the plicative are usually expressed in Maya in one and the same way.

DESCRIPTION FROM HIGHER NUMERAL OF PROMINENCE

There is a tendency in Maya to describe a numeral from the next higher numeral of prominence. For instance, one-and-a-half is called 2's half; 21 is 2-score's 1. In Maya a numeral within a score is considered to belong to the next higher score. The cardinals from

1 to 19 are considered to belong to the first score, but their pertinency is not expressed. The moment one steps beyond 20, one is in the realm which belongs to the second score. Any part of the unit beyond the unit is considered to belong to the next higher unit of prominence; for example, 15½ is called 16's half; 21 is called 2-score's 1, as said above.

HISTORY OF THE STUDY OF MAYA ENUMERATION

Early Maya grammars and dictionaries pay little attention and give little space to the interesting matter of Maya counting. Coronel (1620), in the earliest Maya grammar which has come down to us, dismisses enumeration in three brief paragraphs, while the Motul dictionary, which is the largest dictionary from early times that we possess, fails to enter some of the principal cardinals and is woefully deficient in entering the names of time periods.

But there is one exception. Beltrán de Santa Rosa María de Lima, Fray Pedro, in "Arte de el idioma Maya" (1859, pp. 195–208), written in 1742, gives a uniquely complete exposition of Maya counting, for which all subsequent generations owe gratitude. The Beltrán presentation contains a sufficiency for showing what the system outside of time reckoning must have been. It is to be deplored that Beltrán omits the system of time reckoning, which, had he given it, would be of great value to modern hieroglyphic readers. The time reckoning system was evidently quite different from that used outside of time reckoning. All that Beltrán gives on the Maya reckoning of time is on page 204 of the second edition of his grammar, where under the entry word ahaw in a list of classifiers, Beltrán seems to infer that ahaw refers to a *k'atun, yet to end implying that ahaw refers to a Maya century. The four anomalies or seeming irregularities contained in the system of cardinals given by Beltrán will be presented and discussed in the next section of this paper.

The Pérez (1866) Maya-Spanish dictionary, published approximately a century and a quarter after Beltrán's work was done, is our next source after Beltrán of information on Maya enumeration, and supplies a few important points which Beltrán did not give. Perhaps the most unexploited source of all is modern Maya, which though broken into several dialects may preserve much information when worked over thoroughly.

Only with the quadruple guidance of forms contained in the Motul dictionary, Beltrán's exposé of the numeral, the partly misunderstood forms given in the Pérez dictionary, and modern dialects, can one get a fairly comprehensive view of what the Maya system of enumeration must have been.

THE FOUR ANOMALIES OF BELTRÁN'S NONCHRONOLOGICAL SYSTEM

More important than slavishly to follow the forms of numeral transmitted by Beltrán, is to try to grasp the system set forth by him and to perceive pattern beyond the anomalies.

(1) The first of these anomalies is that Beltrán in giving the cardinals from 21 to 39 suppresses ka', 2, after all those forms which have tu-, in its. The forms for 30 and for 35 in this train have the ka', 2, expressed, but no tu- preceding it. Thus one says, according to Beltrán, merely hun tu-k'aal, 21, literally 1 of the second score, instead of saying as one would expect **hun tu-ka'k'aal, and this in spite of the fact that one says according to Beltrán hun tu-yošk'aal, 41, literally 1 of the third score; yet lahu ka'k'aal, 30, which lacks Maya tu-. Again ka', 2, is suppressed after tu- in Beltrán's words for 500, 600, and 700. The second score was evidently called for short the score after tu- of the forms containing tu-.

(2) The second of the anomalies in Beltrán's forms is that he omits tu- in the cardinals for 30, 35, 40, 50, 55, 60, 70, 75, 80, 90, 110, 115, 120, 130, 135, 140, 150, 155, 160, 170, 175, 180, 200, 220, 240, 260, 280, 300, 320, 340, 360, 370, and 380, while inserting tu-, always with the omission of a theoretically following ka', 2, in the terms for 25, 45, 65, 85, etc. This shows that tu-, in its, was used mainly with multiples of 5, and that where tu- was expressed there was a tendency on the part of Beltrán's informant or informants to suppress a following ka', 2. Beltrán's terms for 500, 600, 700, 800, 900, 1,000, and 2,000 show that evidently bak', 400, and pik, 8,000, went the same as k'aal, 1- score, as regards alternation of ka' and tu-.

(3) The third of the Beltrán anomalies is that after the word for 400, he suppresses k'aal, 20, in the terms for 500, 600, 700, 900, and the first given of the 2 terms for 1,000; for instance, in his word for 500, but we would expect it to be **ho'k'al tu-ka'bak'.

(4) The fourth anomaly in the numerals given by Beltrán is that before *k*, *k'*, *y*, *t*, and *w*, lahu is used instead of lahun, 10. The first of these occurrences reached in counting upward is lahuka'k'aal, 30, instead of saying **lahun tu-ka'k'aal, 30. Beltrán's lahu probably stands for lahun with the *n* lost before certain consonants, and is to be held entirely separate from the lah- for lahun that appears in lahka', 12.

"HIGH" NUMERAL SERIES OF NUMERALS "ASCENDING"

The Maya now can speak of a "high" numeral, of a series of numerals "ascending," or of the opposite of these, but this is probably due to Spanish influence. The original usage was perhaps to speak

of a numeral as being beyond another numeral, or as having more load than another numeral. One speaks in Spanish or English of a number being high or low, and the ancient Egyptians, the ancient Greeks, the ancient inhabitants of India, the ancient Chinese, and others followed this usage, which must have been started in the Old World in prehistoric times, but perhaps never spread to, or was developed in, the New World.

CARDINALS

The fundamental enumeration in Maya is a so-called cardinal series which is used more than any other series and from which any other series can be said to be derived. The cardinal series is basic in all languages.

In Maya the cardinal has four uses.

(1) It answers the question: How many?

(2) It is the series used in counting. The aim is to pronounce each cardinal in counting in its phrase-final form; but if the counting is rapid, this is difficult to do.

(3) The cardinal is coupled with a noun, adjective, or pronoun, which it modifies. It was probably the ancient usage in Maya to put this noun, adjective, or pronoun in the singular, but Spanish uses the plural, except with the numeral for 1, with the result that present-day Maya uses either singular or plural with cardinals above 1, and when singular or plural is volunteered, the opposite of singular or plural is always approved. Sometimes in Maya a so-called classifier appears between a numeral and its modifactive, but classifiers will be discussed later.

(4) A cardinal is an entitative, and like all other entitatives can be used as a verb. Just as winik, man, also means it is a man, so ka', 2, may also mean there are 2, they are 2.

One may well ask to what part of speech the Maya cardinals belong. They were called numeral nouns by some of the early writers of Maya grammars. The cardinals are entitative; they are a special set of nouns, or rather of pronouns. They go most like what are commonly called in grammars indefinite pronouns. One says, for instance, many trees, and similarly three trees. The numeral in Maya is a special kind of pronoun, developed through the use of generations into a most intricate and extensive system.

THE USE OF THE FINGERS IN COUNTING

In counting up the number of things, the Mayas are apt to make use of the fingers, doubling the finger down when the unit represented by the finger has been counted. One often starts by turning the palms of both hands, or the palm of the left hand only, toward self and

beginning with the thumb of the left hand. Each successive digit is turned down to indicate cancellation until the highest number counted is reached. If the counting exceeds 5, it continues, beginning with the little finger of the right hand; if 10, it continues, starting with the thumb of the left hand again.

SOME NUMERALS HAVE THE LARGER NUMBER FIRST, SOME THE SMALLER

In looking over the Maya numerals, it will be seen that some of them have what we can well call the "twenty-four order" of elements, some the "four-and-twenty order." Those of the first-mentioned order remind one of a Maya hieroglyphic inscription starting with an Initial Series. The general orientation is given before detail. Thus in Maya lahka', 12, literally ten-two, but ka' tu-ka'k'aal, 22. When katak, and, is used in a higher number, the word indicating the larger number is always placed first; thus in hunbak' katak lahun uy-ošk'aal, 450, an example given by Beltrán.

SPANISH INFLUENCE

Spanish influence has been exerted on the Maya language for more than 3 centuries and will probably result finally in the extinction of the Maya language. Especially in the cities and in the schools is Spanish spoken and encouraged. Maya grammar has undoubtedly been altered through influence of Spanish, and Maya vocabulary has been changed through such influence. Maya enumeration has not escaped persistent Spanish influence, as evidenced, for instance, by the disuse and forgetting of nearly all of the Maya classifiers.

Especially as regards time reckoning is Maya information that has been transmitted to us very weak. This is unfortunate, since Maya hieroglyphic writing deals largely with time periods and dates. When the old pagan calendar fell into disuse, generations ago, much information disappeared along with it.

SOME ANCIENT WORDS SURVIVE THROUGH MERE CHANCE

Sometimes a word is preserved in a meaning far afield from the one in which the preservation is sought. Thus "winik" is remembered to mean a measure of 20 cords of wood, while a similar-sounding word, which may have been exactly the same in pronunciation, meaning a measure of 20 *mecates* of land, although attested by the Motul dictionary, is forgotten.

Or the Maya word may have been helped to survive by having been given a new equivalence in Spanish. Thus "pik" originally meant

8,000, and probably would everywhere have become obsolete if it had not been equated to Spanish mil—1,000. In modern Valladolid Maya one thinks that "pik" signifies 1,000, and by having been given this new value, the term "pik" has survived.

THE CARDINALS FROM 1 TO 19

GENERAL REMARKS

The cardinals from 1 to 19 are of the first score, but this affiliation is not expressed.

The cardinal for 1 has in the Valladolid dialect, lost its initial *h*, but the pronunciation of this *h* is retained when it is placed before a pivotal cardinal. Thus one says *un*, but hunk'aal, 20; *un* is the masculine form of the indefinite article in Spanish, and Maya *un* sounds exactly like it.

The cardinals for 6, 7, and 8 seem to be ancient compounds, having said originally 1–5, 2–5, and 3–5, respectively, as they do in many languages. The 5 seems to be reduced to a *k* at the end of these three words. Only the term for 8 retains perhaps more of the phonetics of the first member of the old compound than the cardinals for 6 and 7 do; one notices š, perhaps being the same as in oo̱š, 3.

For the cardinals from 13 to 19, Tozzer (1921) gives different forms, all of which start with *lah*, followed respectively by each of the cardinals from 3 to 9. This *lah* is probably the same as what is remembered in lahka', 12, and stands for 10.

Each of the cardinals from 1 to 13 had its patron divinity, and the heads shown in the so-called head-variant count of Maya hieroglyphic writing are doubtless the heads of these patron divinities, the depicting of the heads being a shortcut for the depicting of the entire bodies. Among these heads that of the death-god can be recognized as denoting the cardinal 10. The nether world had 9 gods, the upper world had 13; 13 was the most prominent sacred number, as we shall notice below in presenting Maya time reckoning.

LIST

un, 1. Anciently, and also at the present time, when accompanying a following major cardinal, pronounced hun, but when alone and also in the negative form mišun, not 1, pronounced without *h*, sounding the same as the masculine form of the Spanish word for 1 before a noun or adjective. The form un is also used, as in most languages, as indefinite article, and in this usage has a plural uno̱ob, several. Compare kan, 4.

ka', 2. The cardinal sounds the same as the word for metate, a kind of grinding slab.

oo̱š, 3.

kan, 4. Compare ka', 2.

ho', 5. The initial *h* is never omitted, despite its required omission in the cardinal for 1. The cardinal sounds the same as the Maya name of Mérida; the reason is not known.

wak, 6. Possibly for *un-ho', 1–5.

uuk, 7. Possibly for *ka'-ho', 2–5.

wašak, 8. Possibly for *oo̱š-ho', 3–5.

bolon, 9. Also means many.

lahun, 10. In some of the cardinals it appears as lah-. The lah may easily be the same as the prefix lah-, all, the reference being perhaps to all the fingers being finished when one counts as far as 10.

buluk, 11.

lahka', 12.

ošlahun, lahoo̱š, 13.

kanlahun, lahkan, 14.

ho'lahun, laho', 15.

waklahun, lahwak, 16.

uklahun, lahuuk, 17.

wašaklahun, lahwašak, 18.

bolonlahun, lahbolon, 19.

THE CARDINALS FROM 20 TO THE HIGHEST ENUMERATION

GENERAL REMARKS

There are preserved to us in the Maya language the names of the score and those of five powers of the score, making in all six score-power cardinals.

The lower three of these happen to be monosyllables. These are k'aal, 20; *bak', 400, and pik, 8,000. k'aal is still in use and its pronunciation is well known. *bak' is guessed to sound the same as the word for meat. pik has had its pronunciation preserved through equation of meaning to Spanish mil, thousand.

But the higher 4 score-power cardinals are all dissyllables. One can only guess at the pronunciation of them, except that the second name of the one of 5th order, tso'tskeen, can be detected through obvious meaning to signify the hair of a deer.

The intervigesimal cardinals from 21 to 39, 41 to 59, etc., have 2 manners of formation: (1) The number is expressed as belonging to a certain score; (2) the number is expressed as in Spanish except that one keeps on enumerating through the score, while in Spanish stops at 10, putting first the score cardinal next below, and coupling this through "and" to following unit expression. Method 1 is probably the ancient method. Beltrán gives one example of what we can call the "and" method of formation as a term for 28, but he also gives 28 as saying 2-score's 8, and in an example uses pik meaning 1,000. Perhaps the old word for "and" in a cardinal was katak, and yetel, the modern word for "and" in current use, is substituted for this.

Belonging to a certain score is expressed by saying "in its score," which can also be translated "of its score." The term for its, 3d person singular personal pronoun possessive, is uy- before a vowel, u- before a consonant. -k'aal means score, and starts with a consonant, therefore one says u-k'aal, its score. The preposition meaning "in" is ti', which also appears as t. This preposition before uy- or u- becomes merely the letter t; tuy-, tu- means "in its." The interscore cardinals are considered to belong to the cardinal which ends the score. 2-score ends with and includes the number for 40, and the interscore cardinals, starting with 21, are considered to belong to 2-score, starting with 41 to 3-score, etc. One proceeds by scores, each starting with its numerator designation of how many scores, until one reaches 380, which is 19-score. Then for saying "381" one enters the score belonging to *hunbak', and has to say "un tu-hunbak' ".

LIST

hunk'aal, 20, literally 1 score. There are six major cardinal names used in counting upward and the term for 20 is the first of these. As a general noun meaning a score, k'aal can have the determining hun- omitted, but as a cardinal meaning 1 score must have the hun-. k'aal is the most important cardinal in Maya enumeration and corresponds to the year in Maya time reckoning and to the note in music. k'aal means also a closure and is evidently connected with the verb k'aal, to close. If k'aal means fundamentally a closure, then we see connection with taab, classifier for scores, since the current meaning of taab is forehead strap, which is used for tying a completed load. When k'aal means 1-score, the informants have been strangely meticulous in insisting on the prefixation of hun-, 1, thus contrasting the term with ka'k'aal 2-score, etc , only in derivatives, such as u-k'aal, its score, and k'alenk'aal, by scores, omitting the hun-, 1. The cardinals from 1 to 20 belong to 1 score, although this ownership is not expressed. The classifier for scores is taab, as already mentioned in the Motul dictionary, and apparently this classifier taab, is the same word as taab, forehead strap.

un tu-ka'k'aal, literally 2-score's 1, hunk'al katak (or yetel) un, 21.

ka' tu-ka'k'aal, literally 2-score's 2, hunk'al katak (or yetel) ka', 22.

lahun tu-ka'k'aal, literally 2-score's 10, hunk–al katak (or yetel) lahun, 30.

ka'k'aal, 40, literally 2-score.

ošk'aal, 60, literally 3-score.

kank'aal, 80.

ho'k'aal, 100.

wakk'aal, 120.

ukk'aal, 140.

wašakk'aal, 160.

bolonk'aal, 180.

lahunk'aal, 200.

ho'lahunk'aal, 300.

bolonlahunk'aal, 380.

From 381 to 400 the realm belongs to *hunbak', 400. Thus **un tu-hunbak', 381.

*hunbak', 400. Compare possibly bak'ach, plural all, totally. It is the concensus of opinion that the cardinal probably sounds the same as bak', meat.

hunpik, 8,000 (20×400). Informants have remembered the important information that pik, the cardinal, sounds the same as the name of a kind of insect, while pik, skirt, is a different word. pikil and piklis, both meaning multitude, are probably derivatives of pik.

*hunkalab, 160,000 (20×8,000). kalab as an adverb means infinitely, many times, but this is probably a derivative of the cardinal, which can be thus figuratively used.

*hunk'inchil, or huntso'tskeẹh, 3,200,000 (20×160,000). The first of these names evidently has k'in, period, but what the chil syllable is, no one knows; tsil is to make threads out of cloth. But the etymology of the second word is clear. It means the hairs of a deer, referring to the body hairs all over the deer's body. tso'ọts means either head hair or body hair, and keẹh means deer.

*hunalaw, 6,000,000 (20×3,200,000). This is the upper extension or limit to Maya enumeration, as far as we know. The name is guessed by the informants to have the accentuation of ahaw, head chief, merely because it refers to a number very great, as it would be appropriate for ahaw to do.

THE USE OF "AND" IN CARDINALS

There are two words meaning "and" which occur in the cardinals. The first of these is katak and no doubt occurred in preconquest Maya. Although what is considered the best way of forming the interscore cardinals in Valladolid Maya is to say un tuy-ošk'aal, 41, Beltrán (1859, p. 167) indicates that one also could say hunk'al katak un, 21, and informants have also volunteered hunk'al yetel un, 21. Beltrán gives three examples of numerals containing katak, which we reproduce here in phonetic restoration to avoid typographical difficulties: hunk'al katak wašakp'eel, 28; **hunbak' katak lahun tuy-ošk'aal, 450; **hunpik ho'lahunk'al tu-ka'bak' katak oš tuy-ošk'aal, 1743. Beltrán remarks that in the last, katak comes before the last expression of cardinal, which is 43. Probably katak, and, had little usage outside of the formation of numerals.

Probably yetel, and, which is now at least the universal way of saying "and," was not used in prehispanic times at all in the numeral, the connective "and" entering mostly into the formation of higher numerals having the form katak.

ZERO

The native term for zero is probably preserved as mišun, literally, not 1. One can also say mišbaal, nothing, negativized from baal, thing, something. Thus mišun p'el che', not a single stick; mišun t'ul winik, not one man. A shuttle-shaped hieroglyph signifying zero is supposed to be a conventionalized picture of a shell. It is probable that zero was expressed by mere negativizing in the Maya language.

Maya counting does not start with zero but with 1. Zero belongs to the realm of the negativization of 1, or of some.

FRACTIONALS

Modern and apparently also ancient Maya has a most limited nomenclature for fractions, which is confined to three words: half, piece, and bit. Of these only the word for "half" has a definite meaning. The term for "piece" is a general noun, for "bit" a numeroid.

tankoch, half. tankoch tunich, half a stone.
tankoch tu-ka'p'eẹl, one-and-a-half, literally 2's half.
seẹt', piece; un seẹt', 1 piece. ka' seẹt', 2 pieces.
p'iị̂t, bit; un p'iị̂t, a bit, a little.

For the expression of other fractions, one uses merely the term for piece or bit, or could say, in order more definitely to express the idea of one-third, for instance: "It is cut into three pieces, and then one takes a piece." There is no more definite way of saying one-third.

GROUP CARDINALS

For indication of a group, or groups, a cardinal is semireduplicated, as any other entitative may be; the meaning is adverbial. Semireduplicated forms of only a few of the cardinals of lowest value are used in actual language—who would say: "They came out of the dance by fourteens?" hun when prefixed to a pivot cardinal is regarded as part of the cardinal to which it is prefixed, and since it comes first, it is the part of the word to get semireduplicated.

huhun, 1 by 1.
ka'ka', 2 by 2.
o'oộš, 3 by 3.
kankan, 4 by 4.
ho'ho', 5 by 5.
wawak, 6 by 6.
huhunk'aậl, 20 by 20, in crowds.
huhunbak', 400 by 400, in great crowds.

Distributives consisting of a noun or adjective said twice with -en- of -un- as a central ligature cannot be formed from the cardinals except that k'alenk'aậl, by twenties, in score fashion, can be said, always with the dropping of hun-, which is otherwise required for expressing the singular of the score.

ORDINALS

The common way of forming an ordinal is to make the corresponding cardinal into an adjective by the suffixation of -il or -lil. This same process is much employed outside of ordinal formation. Thus from ka'ận, heaven, one forms ka'nil, heavenly; from kah, a pueblo, one forms kahil, pertaining to a pueblo.

The formation of the ordinals from 13 to 19 is peculiar in that it always has lah- as the first syllable, and there is only this one form.

An ordinal *ošlanunil, built on the cardinal ošlahun, is denied, and only lahošil, 13th, is employed.

Sometimes a classifier is used in an ordinal, always thrust in between the number-saying part of the word and the ending. Thus ošp'elil, the third, instead of ošlil, the third.

According to another system, a series of the equivalents of ordinals is formed by using the classifier taas, in position beyond, after the respective cardinals. Thus hun taas, first, literally 1 beyond, 1 in order.

The using sometimes of yaaš, literally first, as an ending added to a cardinal to turn the cardinal into the corresponding ordinal, sometimes heard in Valladolid Maya, has not been reported from any other language and cannot be traced in any book. Thus one says ka'yaš nah, the second house.

The words for first, other, and last are sometimes used in the same way that ordinals are. Thus yaaš, first (contrast ya'aš, green); yaš be, the first road; in yaš mehen, my first son; u-laak', the other one, literally its other one; u-lak' winik, the other man; u-ts'ok, the last one, literally its last one; u-ts'ok winik, the last man.

There is a tendency both in Maya and Spanish to use a cardinal instead of bothering to form an ordinal. Thus one says in Spanish *la calle catorce*, and also uses the cardinal in Maya, but in English says "fourteenth street." In counting, for instance, the houses along a road, one can say in Spanish, and also in Maya, instead of saying the second house, house number 2. The second score is always in Maya 2-score, the third score 3-score, and so on. Sometimes even though this usage is ambiguous in Maya, it is employed. For instance, ka'be can be taken in Maya to mean 2 roads, and it also means road number 2.

The most used series of ordinals is:

hunlil, 1st.
ka'lil, 2d. The Motul dictionary gives "cabil," 2d, but this form has not been known to the informants.
ošlil, 3d.
kanlil, 4th.
ho'lil, 5th. Contrast tho'il, native of Mérida.
wakil, 6th.
ukil, 7th.
wašakil, 8th.
bolonil, 9th.
lahunil, 10th.
bulukil, 11th.
lahka'lil, 12th.
lahošil, 13th.
lahkanil, 14th.
laho'lil, 15th.

lahwakil, 16th.
lahukil, 17th.
lahwašakil, 18th.
lahbolonil, 19th.
hunk'alil, 20th.
hunk'al katak (or yetel) hu:nlil, 21st.
*hunbak'il, 400th.
hunpikil, 8,000th.
*hunkalabil, 160,000th.

CLASSIFIERS

The Maya language has in its intransitive, and also in its transitive verb, traces of classification, and before a specific noun one sometimes puts a generic one, saying, for example, my food beans, my domestic animal dog, as is not done in speaking Spanish or English, but classification comes out most of all when a numeral is coupled with a following noun or adjective of specific meaning. It is then that a so-called classifier, which is usually a noun of generic meaning or one denoting measurement, is thrust in between the first cardinal and the final noun or adjective in truly East Asiatic fashion. The classifier classifies the object enumerated, according to appearance characteristic of a group. Sometimes the ultimate noun or adjective is omitted, and only the classifier terminates, and together with the context hints the reference, and saves repetition of detail. It is then that a classifier is seen to be of real use even by one not used to classifiers.

Rarely two classifiers are employed, the first always modifying the second. Thus one says, for instance: ka' p'el lub be, a road 2 leagues long, literally a 2 unit of league road.

The classifiers fall into four categories. (1) There are pivot cardinal classifiers, such as k'aal, 20, which have already been described in presenting the cardinal. (2) There are general classifiers. A more detailed analysis of these has several times been undertaken, but owing to the difficulty at this late date of examining the fields of each classifier, such analysis has had to be abandoned. (3) Multiplication classifiers indicate time or times which the final noun or adjective is to be taken. (4) Measure classifiers name the unit of measure which the final noun or adjective undergoes.

Especially are the three classifiers (1) ts'iit, for long, slender thing or things, (2) paay for long not slender thing or things, and (3) peek, for circular thing or things, seen to bring out characteristic according to shape.

Some of the classifiers also appear as ordinary nouns; others do not. For instance, kuuch, for load or loads, appears both as a classifier and as an ordinary noun. Yet kuul, for plant or plants, is considered to be a classifier only, and if a plant name does not follow it, the plant name is considered to be omitted.

Again, this same term "kuuch," usually a general classifier, sometimes appears to be on the verge of being used as a measure classifier.

Certain classifiers were evidently used only for a limited sequence of numbers. There are several traces on record of such limited usage, but only traces. No early writer takes the pains to give a complete account of a single instance of such classifier usage, and no modern knows anything about such classifier usage. Beltrán gives "pach" as a classifier for birds and other animals from 9 to 19. With 20 this classifier changes to "tab." What it would be for the most important sequence from 1 to 8, is not stated. Beltrán's "pach" is evidently for paach, his "tab" is evidently for taab.

Only one classifier, *t', in the examples given in early works, takes the preposition ti', in, after it and before the final noun or adjective.

teen, time, times, stands unique as a classifier in that it has a past tense; teen also sometimes suffixes -ili, only.

Especially some of the measure classifiers are in origin Spanish names of measures.

A classifier is called in Spanish: *cuenta*, or *particula para contar;* in translation: a count, or particle for counting. The term "classifier" is translated into Spanish as *clasificador*.

A classification complex consists of three parts: First the numerator, which states in how many occurrences the remainder of the complex is to be taken; then the classifier, which has generic meaning and seizes upon some characteristic; and finally the specific noun or adjective, stating the thing numerated and classified.

The two classifiers most in use at the present time, aside from those felt to be necessary because they state measure or type of completed action, are p'eel and tuul. The first of these starts with a clicked consonant, the second with a plain consonant. The Motul dictionary has p'eel, and states that it is used for counting things of whatever nature, by that apparently including humans. The Motul dictionary does not have tuul as a classifier at all, but Beltrán and the Pérez dictionary give it as a classifier for humans. The modern Maya use p'eel for inanimate things, plants, and nonhuman animals but tuul for humans.

The only classifiers the hieroglyphs for which have been deciphered are some of the time measure classifiers.

MAJOR CARDINAL CLASSIFIERS

Major cardinal classifiers denote groups of numbers of the score-power cardinal count. They are: k'aal, *bak', pik, *kalab, *k'inchil, or tso'tskeeh, and *alaw, and have already been presented in giving the cardinal count. They all denote 20 or multiple group of 20 by 20.

A few of the classifiers put in appearance in fields far apart one from the other. So do certain measure terms in Spanish and in English, as for that matter. In Spanish, *estado* was, according to the dictionaries, used of a measure of distance, and also of area. *Arroba* was a unit of liquid measure, as well as a unit of weight. In English, a pound is a unit of money, also a unit of weight.

MULTIPLICATION CLASSIFIERS

The multiplication classifier denotes time or times. There are on record 6 multiplication classifiers, each of which means time or times, and 2 of these have gone entirely out of use in Valladolid Maya. In the multiplication tables given by Beltrán (1859, pp. 202–203), leʼem is used, no comment being made. A cardinal followed by another cardinal without any intervening multiplicative classifier means the same as with one, but to use a multiplicative classifier makes the wording clearer. Thus one can say in English: six 6's, but with greater clarity: 6×6. There is one multiplicative ordinal classifier, indicating on such and such an occasion in order.

ka', 2, when followed by teʼen sometimes means twice, but also sometimes means again, and ka', perhaps to be regarded as having the teʼen omitted, said alone, sometimes means again.

teʼen has a past tense of different form, and is the only classifier which has tense. teʼen and its past also sometimes suffix the restrictive -ili, only.

The 6 multiplicative classifiers are:

leʼem, time, times. The Motul dictionary gives "lem" only in the meaning of very.

*maʼal, time, times. os maʼal, 3 times.

*muʼuk, time, times. ka' muʼuk, twice.

naʼas, time, times. (Not in the Motul dictionary, but in the Pérez dictionary.) ma' ka' nas in-t'an, I did not speak twice.

puʼut, time, times. ka' put tali, twice he came, again he came.

teʼen, time, times. hay teʼen, how many times? kan teʼen, 4 times. hay tenak, how many times in the past? kan tenak, 4 times in the past.

MULTIPLICATIVE ORDINAL CLASSIFIER

Only one of these has been found. The reference is to the such-and-such occasion in order.

nuʼum, on ordinal occasion. oš num in-t'an, I spoke for the third time.

GENERAL CLASSIFIERS

*aʼak, for counting a high number of things. This is the first entry of a classifier in the Motul dictionary (p. 66): "[ac]: cuenta para contar muchas cosas." This definition could be taken two ways, but is shown by Motul dictionary (p. 67) "accunah cal ti than: reñir mucho" to mean that the classifier is used for high enumeration.

bal, ply. ka' bal sum, 2-ply rope. Compare balak'.

balak', coil, wrapping around, a complete turning over. oš balak', 3 coils (of a rattlesnake). oš balak', 3 wrappings around (of vine). oš balak', 3 complete turnings over (as one rolls downhill).

baa̱n, squad, group, pile. oš ban soldadoo̱b, 3 squads of soldiers. kan ban tunich, 4 piles of stones. oš ban šch'upoo̱b, 3 groups of women.

buu̱k, year. oš buk haab, 3 years. Compare t', classifier for years.

hee̱b, piece. Given by the Motul dictionary only as a noun meaning the quarter of an animal. But the Pérez dictionary gives it as a classifier for counting pieces of cloth, provinces. oš heb lu'u̱m, 3 pieces of land.

hee̱k', branch (of a plant), offshoot of a deer's horn, cluster of bananas which is part of a larger bunch. Not given in the Motul dictionary as a classifier, but as a noun meaning bunch.

hee̱ch, hour, plan, string of beads. Given in the Motul dictionary only as classifier for hours, but in the Pérez dictionary as classifier for hours, plans, strings of beads. Remembered as classifier for string of beads. The word for hour not a classifier is k'intsil.

koo̱p, roll. Given in the Motul dictionary as meaning an iron or wooden hoop. bolon koo̱p, 9 rolls (of wire). bolon kop sum, 9 rolls of rope.

koo̱t, classifier for nonhuman animals. Contrast kot, stone wall. un kot ts'unuu̱n, 1 hummingbird. oš kot pekoo̱b, 3 dogs.

kots', roll. Motul dictionary gives this only a verb meaning, to roll. The Pérez dictionary states that it is a classifier for counting thread fragments, strings broken off in weaving.

kuu̱ch, load. un kuch haa̱s, a load of bananas. un kuch si', a load of firewood.

kuu̱l, plant. Despite the Pérez dictionary, it cannot be used except as a classifier. ka' kul che', 2 trees. ka' kul ya', 2 zapote trees.

lot, pair. Compare the classifier yaa̱l, accompanying mate. ka' lot šanab, 2 pairs of shoes.

*maaš, classifier for pieces of sugarcane. Guessed to mean merely piece.

*mol, classifier for assemblages. Compare mol, to assemble.

muu̱ch', group. un much' che', a stand of trees.

*paa̱ch, classifier for birds and nonhuman animals for the cardinals 9 to 19, according to the Motul dictionary. Beltran's "pach" is evidently for paa̱ch.

paa̱k, pieces of cloth, garments, adornments. oš pak manta, 3 pieces of cloth. Homophonous with the following.

paa̱k, blows. Not in the Motul dictionary. oš pak loš, 3 blows. Homophonous with the preceding.

pakab, bevy, brood. Not in the Motul dictionary. oš pakab bech', 3 bevies of quail. oš pakab poyo, 3 broods of chickens.

pee̱ts', tabloid of chocolate. Compare pee̱ts', to press down. oš pets' chukwá', 3 tabloids of chocolate. Homophonous with the following.

*pee̱ts', chapter, song, speech. The Motul dictionary gives only these 3 usages. The Pérez dictionary adds that it also refers to article and time that one sleeps.

*pet, cultivated field. The Motul dictionary gives "pet" only as an adjective meaning circular. As a noun "pet" means a circular shelf.

*pis, day, month, coin, weight (these only as far up as 20). Given by both the Motul and the Pérez dictionaries.

*pee̱k', nonhuman animal. Given as a classifier of this meaning both in the Motul and Pérez dictionaries.

*puu̱t, plant bottom. The Motul dictionary gives puu̱t only as a verb meaning "to carry."

p'ee̱l, inanimate thing. Now at least used as a classifier for inanimate things, plants and nonhuman animals, contrasted with t'uu̱l, which is supposed to be only

a classifier having reference to humans. Given in both the Motul and Pérez dictionaries. According to the Pérez dictionary used only up to 20.

p'iiṣ, fanega. Given by the Motul dictionary only as a verb meaning to measure. The informants have known p'iiṣ as a verb meaning "to measure," also as a noun meaning any measure. Perhaps p'iiṣ could be called a classifier for *fanega* because *fanega* was a foreign or Spanish measure.

p'uuk, mouthful of food, drink. Not in the Motul dictionary. Compare the verb p'uuk, to take a mouthful.

*taab, score, use in counting scores of loads of corn, wool, or tribute mantles; bunches of 20 nonhuman animals. As employed outside of counting, the word "taab" means forehead strap. Given in the Motul dictionary. Beltran's "tab" is evidently for taab.

taas, file, row. Perhaps this is the same word as is used for a cord of firewood.

*te', piece of cocoa, egg, pumpkin. Perhaps the reference is to thing of spherical shape. Possibly the same as the classifier which immediately follows below.

te', year, month, *k'atun, league. Given in the Motul dictionary, which gives only 2 examples of the use of this classifier, but each of these examples has the lassifier te' followed by ti', in.

*tuuk, pile. The Motul dictionary gives this word only as a noun meaning a pile, not as a classifier.

tuul, human. Not given in the Motul dictionary.

*tsool, file of humans. There is also a semireduplicated noun tsolentsool, in files.

*tsuuk, pueblo, paragraph, article, a speech, reason, difference, word, pile This is evidently the noun tsuuk, part.

*tsaak, stair flight, thing which ascends.

*ts'iik, respected human, finger, spouse that one has had. The Motul dictionary gives what is probably the same word as meaning brave.

*ts'iit, candle, string, stick of firewood, fruit of long shape, ear of corn.

waal, large leaf or sheet of paper. The Motul dictionary gives this same word as a noun applied to leaf of tobacco, leaf of banana, sheet of paper.

*waan, group. The Motul dictionary gives what is apparently the same word as meaning placed.

*waay, day (of 24-hour duration). Day with following night can be looked upon as of such duration.

wuts', fold. What sounds like this same word means a quantity measure which is the quarter of an almud.

waal, mate which accompanies, lining. Given in the Motul dictionary. Compare lot, pair.

MEASURE CLASSIFIERS

Classifiers denoting measurement are here presented in separate lists as those denoting distance measures, area measures, quantity measures, and time measures. Especially time-measure classifiers are difficult to restore, since most of them fell into disuse generations ago.

The verb "to measure" is p'is, and the noun meaning "any measurement" has exactly the same form. One can use the noun p'is as a sort of classifier, saying, for instance, un p'is fanega, 1 *fanega*, literally 1 measuring of *fanega*.

Ascending order of values is followed in all the measure-classifier lists.

Since the time of the conquest the Spanish language had a system of measures, but this was superseded about 60 years ago by another system of measures. What is known as the Spanish system of measures was followed in the Yucatan Peninsula for a couple of centuries, only to have Mexico in 1890 adopt the metric system. Many of the Spanish system names of measures still survive in the Maya language.

Money and weights have been omitted, since it is said that the Maya had none, and it has been possible to obtain only Spanish terms.

DISTANCE-MEASURE CLASSIFIERS

Distance measures are the simplest of all measures. Among the Maya these start with the fingerbreadth and end with the league. The wonderful architecture of the ancient Maya was evidently accomplished with good eye and commonsense, but with a very crude measuring system.

k'ab, hand, arm, finger, fingerbreadth. There is no easily wielded word for finger in Maya, so it is sometimes simply called hand. As a measure, fingerbreadth is called *dedo*, finger, in Spanish, and it may be under Spanish influence that fingerbreadth became used. But fingerbreadth may also easily have been a native measure. The Motul dictionary notes fingerbreath as a measure, and the example which it gives refers to the measuring of weaving. A hand's breadth is still spoken of as 5 fingerbreadths.

ni' k'ab, finger, fingerbreadth, literally point of the hand. This is a second term sometimes used for fingerbreadth.

pulgaša, inch. This is patently taken over from Spanish *pulgada*, inch.

hatk'ab, forefinger span, literally split hand. This is the distance from thumb tip to forefinger tip, when thumb and forefinger are gaped apart. This is the kind of span called *jeme* in Spanish.

naạb, handspread. This is the distance from thumb tip to little finger tip, when hand is spread. This kind of span is called *cuarta* in Spanish, in book Spanish *palmo* or *palmada*. Beltrán gives naạb as a classifier for "palmos."

chinaạb, handspread (?). Beltrán gives what must be chinaạb as a classifier for *jemes*, perhaps more correctly stated for *cuartas*, since the second member of the word is evidently naạb.

ok, foot. This may be nothing but Spanish *pie*, foot, translated into Maya.

kuụk, cubit. This is the distance from middle-finger tip to elbow, and evidently differed considerably according to different individuals. This measure is in the Motul dictionary. The classifier is the ordinary noun for elbow.

šak'ab, step, pace. The Motul dictionary has this word only as a noun meaning "step."

bara, yard. Patently from Spanish *vara*, yard. The Spanish *vara* was a little longer than the English yard and contained 48 fingerbreadths.

saạp, fathom. Roughly speaking, the length of 2 yards. Called in Spanish *braza* or *brazada*. This is the distance from hand to hand when a person stands with sideward extended arms in the form of a cross. The term is used by the Maya in speaking of tree height or water depth.

*walab, 6 yards. The Motul dictionary (p. 891) equates "valab" to 1 *estado*, a Spanish term which has not been known to the informants either as a measure of distance or of area. The Motul dictionary further down on the same page gives "valah" as a distance measure of about 1 *estado* and as an area measure of 3 fathoms (on each side); the latter does not agree with my information as to length. Rescued to practical certainty through an informant remembering walabche', 6-yard long measuring pole formerly used. See *walab, area measure.

staa̱l, Spanish *estadal*, Yucatan Peninsula Spanish *estal*. According to the Spanish dictionaries a distance measure of 4 yards. Known only as an area measure to the informants, for which see under area-measure classifiers below.

awat, kilometer, mile. There are said to have been 4 miles in a league. The meaning is literally a shout, and the term denotes the very vague distance of the audibility of a shout. At least the original meaning denoted the distance at which a shout could be heard.

paš, literally played piece of music. According to the Motul dictionary (p. 414), this denoted the distance at which a drum could be heard, which would be about the length of a cultivated field.

luu̱b, league, literally resting place. A league is in common parlance said to measure 4 kilometers. The ancient Maya had resting places along the trail, and after the Spanish conquest the term evidently got revalued.

AREA-MEASURE CLASSIFIERS

The principal measure unit for land was the *mecate*. Smaller areal measurements tied to the *mecate*, and so also did larger ones. A person's milpa was regularly stated to consist of so many *mecates* and *estadales*. Milpa was called kol and was of most varying size and shape.

One can say in Maya, following Spanish nomenclature, a square inch, a square foot, a square yard, but measured areas which interest the Maya are larger than these.

*walab is a pretty certain reconstruction of the name of an area 6 yards square, a quarter of a staa̱l. The name was rescued from having its pronunciation remain forever unknown. It was remembered that it is said that in former times the staa̱l was measured with a pole, and that the pole was called walabche', also that the putting of the pole down twice measured 1 side of the staa̱l, and on another occasion it was stated that the staa̱l has a side 12 yards long. The pole, therefore, must have been 6 yards long and the area called walab evidently measured 6 yards on each side. che' means pole, and walabche' evidently means 6-yard pole. The Motul dictionary (p. 891) gives both "valab" and "valah," the latter possibly intended for *walab. "valab" is defined as a distance measure of 1 *estado*, "valah" as a distance measure of about 1 *estado* and an area measure having 3 fathoms on a side, while my information states 2 fathoms. A pole 3 fathoms long is pretty long and would usually have to be spliced. See *walab, distance measure.

staa̱l, Yucatan Peninsula Spanish *estal*, literary Spanish *estadal*. The staa̱l is one quarter of a *mecate* in area. One side of the staa̱l measures 12 yards. Rare memory recalled that the staa̱l used to be measured with a special measuring pole, prepared for the purpose and known by a special name. This pole was cut maybe in nearby woods, might be of several kinds of tree, might be spliced to make it longer. Such a pole was called walabche' and two layings down of the pole measured one side of the staa̱l. Although the name "mecate" means string

and might be taken to imply that the *mecate* was originally measured off with a string, what is remembered is that the staal is said to have formerly been measured off with a pole, not with a string. So that the measuring would not have to be done all over at the beginning of the next season, stone pile markers were set up about 2 feet in height as the measuring was done with the pole, and were sometimes painted white to make them more visible. Thus the boundaries of the staal were measured off and marked.

suuk', literally inside corner, is a vague term, but considerably in use. A mecate is often square and each of its corners is called suuk'. Sometimes suuk' applies to the side of a mecate rather than to the corner of a mecate. Sometimes suuk' is used as the equivalent of staal, which is the proper term for the quarter of a mecate.

k'aan, *mecate*, literally string. The mecate in the Yucatan Peninsula is a square one side of which is 24 yards in length, and contains 4 staal. Nonagricultural land jutting in sometimes caused the mecate to be irregular in shape, and land measurement by the staal had to be resorted to, or even just guessing had to be resorted to, for guessing was very accurate. The etymology of k'aan has been discussed above under "staal." What is remembered about is that a pole, and not a string, was used for land measuring. k'aan is possibly translated from Spanish *mecate*.

*winik, 20 *mecates*. There is also this larger unit of area measure consisting of 20 *mecates*. This name is practically certain of reconstruction and was rescued in a marvelous way. It was remembered that 20 cords of wood were called winik, and that the name of the 20-cord lot sounded the same as the word for man. So it may easily be that a 20-mecate piece of land was also called winik.

QUANTITY-MEASURE CLASSIFIERS

Quantity measures start with the single handful and the double handful. The most exact measures of the system are the mut and the *fanega*, both terms from Spanish. There was among the Maya no system of weights, the calculating of which required complicated apparatus.

chaach, single handful, literally a grasp; compare chaach, to grasp.

laap', a single handful; compare laap', to close the hand about.

ok, a double handful. Perhaps the word originally meant a trip.

wuts', Spanish *cuartillo*, quarter of an *almud*. The Maya word is in pronunciation the same as the classifier meaning a fold, but a connection in meaning is difficult to see.

mut, *almud*. The Spanish *almud* has approximately the same capacity as the *celemin*. Spanish dictionaries tell of *almud* being used as an areal measure, but this usage is not known in the Yucatan Peninsula.

muk'ub, a skirtful. According to the Motul dictionary this is a quantity amounting to about half a load.

fanega, *fanega*. This is the Spanish bushel, consisting in the Yucatan Peninsula of 12 *almudes*. The classifier is sip'iis, which is merely the general noun meaning a measure.

FIREWOOD-MEASURE CLASSIFIERS

che', stick of firewood. un p'el che' si', a stick of firewood.

taas, cord; compare probably taas, general classifier for row or rows.

winik, 20-cord lot of firewood. This word in this meaning is not in the Motul

dictionary, but was remembered and volunteered, and it was also volunteered that it sounds the same as man. This is important toward the restoration of *winik, area measure of 20 *mecates*.

LIQUID-MEASURE CLASSIFIERS

Maya speakers at the present time do not remember well Spanish liquid measures, which preceded the coming in of the metric system. Much less do they remember native Maya measures, which may have been gourdfuls, ollafuls, bucketfuls, and the like. Not a single definite liquid measure was recoverable, if the Maya ever had such.

TIME-MEASURE CLASSIFIERS

Neither the lunar month nor the terrestrial year fitted perfectly into the score system of days; 13, 18, 260, and 360 as well as the score, enter for the sake of convenience or for the sake of fitting into the current religious calendar system into the formation of the higher periods of Maya time reckoning.

The fundamental unit of Maya time reckoning was certainly the tu:n, or 360-day year, but tu:n as the name of a time period is not in the Motul dictionary, and probably meant to the ancient Maya a stone and nothing else, although *k'atun was the name of a time period, and is already entered in the Motul dictionary as denoting a time period of 20 years.

The second higher unit of time reckoning, above the *k'atun, was evidently the *ahawk'atun, a period of 260 years. Putting brief entries in Beltrán and in Pérez together, one comes to the conclusion that ahaw, meaning as a nonclassifier noun head chief, king, was a classifier for the Maya century, a period having, according to Beltrán, 260 years, and called in Maya, according to Pérez, *ahawk'atun, and was not a classifier for the *k'atun as Beltrán states at the beginning of his entry. The interpretation is vitally important to the determination of the nomenclature of higher Maya time periods, and it is well to give the exact Spanish wording of Beltrán and of Pérez, followed in each instance by a translation into English. Beltrán (1859, p. 203) states: "Ahau. Para cuenta de veintenas de años en calendarios de los indios yucatecos, lo mismo que las indicciones neustras; pero de mas años que estas, eran trece ahaues que contenian 260 años que era para ellos un siglo." In translation: "Ahau. For the count of the scores of years of the calendars of the Yucatec Indians, the same as our manner of counting, but having more years than ours, it was 13 ahaws that had 260 years, that was for them a century." Pérez (1866, p. 169) states: "KATUN: la edad ó indiccion [using this same word which Beltrán uses] de trece años que contaban los indios para formar otros períodos mayores ó sus siglos. A este llamaban tambien kinkatun y á los mayores ahaukatun ó uakatun."

In translation: "KATUN: the period or manner of counting having 13 years which the indians counted for forming other larger periods or their centuries. This [*k'atun] was also called by them *k'ink'atun and the larger ones *ahawk'atun or *wak'atun." Beltrán states that the Maya century was longer than ours, that it was a period of 260 years; Pérez evidently gives the name of such a century as *ahawk'atun. ahaw was evidently the classifier for such a century, for it is difficult to think that the classifier for *k'atun was ahaw, while the century was called *ahawk'atun. This same meaning of *ahawk'atun as Maya century of 260 years is also suggested by Pérez in the two entries on page 10 of his dictionary. Again I quote the Spanish. "AMAYTÉ: los primeros veinte años que contaban los antiguos indios en su epoca, llamada ahau katun . . ." In translation: "AMAYTÉ: the first 20 years which the ancient Indians counted in their epoch, called ahau katun . . ." Here Pérez suggests that the epoch was no more than 20 years. Immediately below this entry, on the same page, he states: "AMAYTUN: piedra cuadrada en que colocaban los antiguous indios los veinte años del ahau katun." In translation: "AMAYTUN: a square stone on which the ancient Indians placed the 20 years of the ahau katun." ahawkan, rattlesnake is, as most recurrent in meaning, different from kan, snake, and it may well be that *ahawk'atun was to the Maya of former times different from *k'atun.

Maya time reckoning began with some unknown early event, possibly the mythological creation of the world, at the date A. D. 682, equivalent perhaps to 8 ahaw. If we assume that ahaw refers to a Maya century of 260 years, Maya time reckoning had already been going on for 8 times 260 years, which is 2,080 years. The ancient Egyptians started time reckoning with the beginning of the reign of the king, the Christians of the West with the birth of Christ. The Jews and the members of the Greek Orthodox Church started time reckoning with the creation of the world. The important matter in dating is that a single commencing date is agreed upon. le mayaoob kušohkoob le haboob kah chumpahil yo'kolkab, the Maya began the count (here literally the years) from the commencement of the world.

Coordination of the Maya system of dating with the system used by ourselves is a matter which holds prime interest for the public at large. One of the first questions asked upon seeing the ruins of Chichen Itzá or of Uxmal, in Yucatan, is "How old?" The connecting of Maya time reckoning with Christian has interested students of Maya hieroglyphic writing and of general Maya culture from the first, and Antonio Ciudad Real, the supposed author of the famous Motul Maya dictionary, was evidently one of those interested. In a

book written by him (1586), there is mentioned the obtaining from a Maya Indian of a linking of the Maya time reckoning system with the Christian. After giving a description of the ruins of Uxmal, the earliest which has come down to us, he states that through consultation with Indians, 8 ahaw was equated to A. D. 682.

There is also a coordination of five of the month names with the rainy season, which, as far as I know, has not been noticed. It is natural that the year would be begun in the spring, and there is good testimony that the first month was poop, *petate*, which name is famous as entering into the title of the Popol Vuh, book of traditions written in the related Quiché language. If poop starts about the middle of May, then the frog species called wo' suddenly comes out when the rainy season is well underway, about the beginning of June, and this name is given to perhaps the first month of the rainy season. wo' is the first of a series of 5 months, which are evidently the months of the rainy season, and this sequence closes with the month of šul, which word means close, end. Then starts the month yašk'in, which name means first sunniness. The rainy season is commonly called u-k'inil chaak, which means the same as Spanish *tiempo de lluvias*.

We now proceed to give the time measure classifiers in ascending according to duration of period.

segundo, second. From Spanish, and no equivalent of Maya origin is known.

minuto, minute. From Spanish and no Maya equivalent is known.

k'intsil, hour. k'in means time, and tsil is possibly connected with tsil, to shred cloth into threads. tsil would then refer to small division of the day. The hour classifier given in the Motul and Pérez dictionaries is heɛch.

k'in, sun, day, festival day. As a time-period measure the word means day. k'in is the day from sunup to sundown, but the ensuing night goes along with the day as a lining goes along with a coat. The two classifiers for day are te' and *waay. The latter is defined in the Motul dictionary as being the classifier for 24-hour days. One can safely assume that each is a classifier for day. One's saint's day is called u-k'in u-k'aba', literally the day of one's name. In early times in the Yucatan Peninsula, there was always given to a baby the name of the saint on whose day the baby was born. Nowadays the parents merely give the baby a name that sounds good.

There are names for the sections of a day, such as dawn, morning, forenoon, and names for sections of time defined from today, such as tomorrow, tomorrow at dawn; but such terms are not names of time-reckoning periods.

The word k'in, priest, is more fully hk'in, and sounds as if it says one who heats or illuminates.

*WINAAL, 18-DAY MONTH

*winaal, or some similar reconstruction, is the name of the former 18-day month of the Maya; 20 of these months constituted a tun, 360-day year. Unfortunately the name cannot be reconstructed

with certainty, and there seems to be no clue. The word may be related to u, moon. There is a word "wí'nal," seed corn, said of an ear or several ears of corn kept during the winter for planting in the spring, but this word has no connection with the old word for an 18-day month. The Motul dictionary does not give the word, nor does Beltrán.

Each of the days of the 18-day month had its name and its patron divinity. All these day names are known to us, but only a few of the patron divinities are. Of the day names only the following are understood, and it seems probable that in each instance the understanding is correct.

ik', wind. inw-i:k', my breath. i:k'al k'a'naạb, sea breeze.

ak'bal, night time.

k'aạn, string, hammock.

kimil, to die, death. The l should be restored at the end of the word, for kimi means "he died."

ok, foot, footprint, trip.

eẹb, flight of stairs, stairway.

kib, wax, candle.

ahaw, head chief. The Devil can be called kumahaw, literally the head chief who left his heavenly home. ahaw was the name of the last of the 18 days, and is felt to refer to something beyond, ultimate. This usage perhaps fits in with ahaw as a classifier being used for century or centuries.

Also each of the 20 months in the 360-day year had a name and a patron divinity. Of the month names, only the following are understood.

poọp, petate, rush mat. Anciently the petate was used only for the head chief, chief, or noble to sit on. The common people sat on the bare ground. This month evidently started the Maya year, and the name has a good meaning for the month starting the year, since from the petate orders and instruction were given. With "poọp" compare the first member in the title of the Popol Vuh, previously mentioned.

wó', wó' mu:ch, frog species. mu:ch alone is a generic word meaning frog. The wó' is as large as one's hat and is called the *sapo gigante*, giant frog, in Spanish. It is mud colored. It suddenly comes out about the beginning of June, and is prominent at the first of the rainy season, after the rainy season gets well underway. It makes a thud with its belly as it lands on the ground after jumping. When one eats it, it is pure fat. It sings wó' wó' from the water with a bass voice. There is a Maya god in the form of a frog, and it may be that this species of frog is intended and it is also possible that this god is the patron of this day. The name is fitting if this month falls at the beginning of the rainy season.

sip' is actually remembered as the name of a mysterious personage, and si:p', meaning fruit is almost ripe, tumor is about to burst, is contrasted. The last consonant, despite the old writing, is p', not p. The information apparently fits in with the information obtained on another occasion that a good time to go hunting is near the start of the rainy season.

so:ts', bat. This is the generic name. Bats come out at dusk during the entire year. There is a Maya god in the form of a bat.

tseệk, punishment. The Motul dictionary has this word. It is considered a punishment when it is overclouded. no:koy, it is overclouded.

šul, close, end, as a month name perhaps referring to the termination of the rainy season.

yašk'in, first sunniness, first day all day clear. From when the sun rises to when it sets there is no raincloud. It would be appropriate for a month to be so named coming immediately after close of the rainy season.

mo'o̱l, foot (of either front or hind limb) of an animal of the cat family, of a dog, of a badger. Compare chakmo'o̱l, jaguar, literally redfoot.

ch'eện, well, cenote. Perhaps a dry well could be called the same way. But haktun, cave. This last word always starts with *h* and has short *u*.

yaa̱šˆ, first. This word may mean the same as yašk'in, which has preceded as a month name. Or the month name may be ya'a̱šˆ, green; compare the next month name, which is the word meaning white, and the month name further below signifying yellow sun. There are these two possibilities; on the whole the former seems the more likely.

sak, white. This is the adjective meaning white and sometimes said of the dawn: sak ak'ab, it is dawn, literally the night is whitening.

keệh, deer. If this month starts at the beginning of December, that would be a good time to go deer hunting.

mak, cover, stopple, lid. Or this month name may be maa̱kˆ, person.

k'ank'in, yellow sun; one could hardly translate it as yellow day.

paš, section of sounding, piece of music. As a classifier paš means drum-hearing distance. Compare the meaning of the following month name.

k'ayab, song. Compare the meaning of the preceding month name.

kumk'u', oven for baking pottery, literally *olla* nest. It would be good to make such in the middle of February, when the beginning of this month would fall, before the rainy season starts in.

13-DAY FORTNIGHT

A period of 13 days, the Maya name of which is unknown, constituted what can be called the Maya fortnight of 13 days. This unit was compositional to the tsol k'in and bore slight relation to the other time-measure classifiers. The cardinal for 13 is ošlahun, and for saying 13 days the ordinary modern way would be to say ošlahun p'el k'in.

U, MOON, LUNAR MONTH

As a time-measure classifier, u means lunar month. The lunar month has a length of almost 29 days 12 hours. The Motul dictionary gives u, month, and u, necklace, as two separate entries; but the Maya word is the same. Necklace is evidently called moon not because of the transparency or glittering quality of its beads but because it hangs in a crescent form like the crescent moon.

TSOL K'IN, 260-DAY YEAR

tsol k'in signifies a series in order of days, and is an invention of modern scholars for naming this period, the Maya name for which is

not known. tsoo̱l means series in order and is also used as a classifier for file or files.

Each of the day names always had a cardinal from 1 to 13 preplaced. One had to say: 1 ik', and so on. Not until each of the day names had been given a number, was the 260-day period completed. Since 13 and 20 have no common factor, 259 days have to pass before the day 1 ik' comes again. There came 13 days. The second month started with the 5 remaining day names, followed by the first 8 of the 13 day names again. When 20 of these 13-day fortnights had been completed, the same day name with the same number preplaced came again.

TUN, 360-DAY YEAR

The ordinary word for year in Maya is haa̱b, and undoubtedly haa̱b was used instead of tun unless the designation was required to be very exact. One could probably speak of the 260-day period as haa̱b. There is also some use of haa̱b meaning Maya time period counting in general. tun is an antiquated form; the current form is tunich, meaning stone. k'atun appears to mean 20 tun period, therefore a twentieth part of that period ought to be called tun. Whether it actually was or not, there is little evidence. tun is given in the Motul dictionary as being the generic word for precious stone, and tun meaning the pit or stone of a fruit is given as a separate entry. The Motul dictionary gives tunich as the regular word for stone. The Pérez dictionary gives both tun and tunich as meaning stone. tunich is tun plus a suffix, and the suffix is omitted in many compounds. In modern Maya the pit of a fruit is commonly called u-nek', its pit. The word for stone appears as second member of Maya compounds as -tun, -tunich. Thus ya'štun, turkois, means literally green stone; also ya'štunich, turkois; pik'tun, boundary stone; chaltun, bare rock; ebtun, flight of stairs; haltun, waterhole; chantunich, pebble; tok'tunich, piece of flaking stone. In many composite terms -tun alternates with che', wood. Thus petentun, millstone; petenche', wooden wheel; ebtun, stone flight of stairs; ebche', wooden stairway. The informants have guessed *tun, yet *k'atun, *ahawk'atun, amaytun, as restorations; these guesses are not certain.

HAA̱B, 365-DAY YEAR

The exact length of the terrestrial year is 365 days, 5 hours, 48 minutes, 46 seconds, or with the fraction decimally expressed, 365.2422 days. The nearest integral number is 365. The Gregorian calendar makes an ordinary year 365 days, while a leap year, also called a bissextile year has 366 days, adding the extra day at the end of

February, still the shortest month of the year. The word haab, like the word *tun, is also not in the Motul dictionary.

The initial *h* of the word haab is omitted in the Mani Treaty, the form signifying the year being uy-aab instead of the expected u-haab.

Instead of having leap years, the Maya had a year of 360 days followed by 5 epigominal or intercalary days. In other words, the Maya compensated their years as they went along. The left-over 5 and a fraction days were known to the ancient Egyptians and are called epigominal days. They are termed in Spanish "intercalar," which means "intercalary." The Maya called them nameless days. The Maya expression for nameless day is śma' k'aba k'in. Pérez wrongly thought that the *k'atun had 24 years instead of 20, and attempted to set up 4 intercalary years after the fashion of the intercalary days of the haab. On the epigominal days everyone stayed at home, since if he went forth, it was believed that some misfortune would befall him.

The classifiers for year are buuk, year, and te', year, etc. The latter if followed by ti', in.

THE VENUS YEAR

The planet Venus has a year which averages 584 terrestrial days in length, the Venus year being 219 days longer than the earthly year. Venus is known to modern astronomers to appear 236 days as morning star, and 250 days as evening star. By the modern Maya, the morning star and the evening star each is called nohek', literally large star, a nomenclature which is already given in the Motul dictionary. The Venus year could be translated into Maya as: u-hab nohek', literally the year of the large star.

SUBDIVISIONS OF THE *K'ATUN

At the termination of a *k'atun, or 20 *tun period, a commemorative stela was erected. The *k'atun was evidently divided into 4 minor periods of 5 years' duration each, and the minor period can be called in Spanish *lustro*, which according to the Spanish dictionaries and modern usage means a period of 5 years. It is significant that the stela erected at the termination of a *k'atun had four corners and sides; perhaps a *k'atun was conceived of as a quadruple thing. There was a minor ceremony at the close of a 5-year period, another at the close of a 10-year period, still another at the close of a 15-year period. Then came the great celebration at the termination of the 20-year period.

*K'ATUN OR **K'INK'ATUN, 20-TUN PERIOD

Already the Motul dictionary defines *k'atun as a 20-year period, and it is very probable that the word "*k'atun" is a compound noun in origin, the more original form having been *k'altun, and the present form having the "l" omitted. The Pérez dictionary gives a similar-sounding word with this process caught in operation. Pérez (1866, p. 185) gives: "KULTUN: mortero, almirez. Kuttun." In translation: "KULTUN: mortar, pounding bowl. Kuttun." Syllable-closing "l" in word interior of this word has disappeared, for I have obtained only k'utun, pounding bowl. The Pérez dictionary also gives *k'atun to be an adverb meaning "always." Informants have not known this form. The Pérez dictionary also gives *k'atunbeen, an antique, evidently meaning literally an age-old thing, but informants have not known this word.

*k'ink'atun evidently means the period of a *k'atun, and, as the Pérez dictionary states, has a meaning exactly equivalent to that of *k'atun.

The classifier for *k'atun is given in the Motul dictionary as t'. It is thus the same as the classifier for years. Beltrán gives ahaw as classifier for *k'atun, but ahaw, is, as has already been stated above, classifier for the Maya century known as *ahawk'atun.

There was a great ceremony at the end of a *k'atun. A stela, or four-sided tall monolith, was erected. The name of this stone is recorded in the Pérez dictionary as "AMAYTUN," which is guessed probably to be restored as: *amaytun, literally cornered stone. The Motul dictionary gives "amay," corner, also "anamay," corner. The stone had four corners, but the word "kan," 4, was omitted.

52-TUN PERIOD

The 52-tun period belongs with the 260-day year, and like the 260-day year the Maya name for the period is unknown. Only after a 52-tun period did the count of 260-day years coincide with the count of 360-day years. The 52-tun period can be called the Lesser Cycle.

*AHAWK'ATUN, OR *WAK'ATUN, 260-TUN PERIOD

There were 13 *k'atun periods, and 20 times these constitutes what is known to us through Pérez as having been called the *ahawk'atun, evidently meaning the head chief *k'atun, or the *wak'atun, 260-year period, which was the Maya century. ahaw means head chief, king, and as first member of the compound ahawkan, rattlesnake, gives the literal meaning of lordly snake. So *ahawk'atun must mean lordly k'atun.

A second name for this Maya century is given by Pérez as being *wak'atun. As regards etymology, informants and early dictionaries come to the possible rescue. The *wa- used as a first member evidently means excessive; compare wa-, indefinitizing (p. 276).

Possibly the *ahawk'atun or *wak'atun was sometimes called for short merely *k'atun when background made it clear what was meant, but such calling was ambiguous.

Whether the classifier t' was used for counting 260-tun periods is not known. It seems probable that the application of ahaw to the *k'atun is an error starting with Beltrán, who writes ambiguously, and that ahaw applies properly to the Maya century or 260-tun period.

What the Maya called higher orders of time reckoning than the 260-tu:n period is not known. It is possible that they carried the score system into the denomination of higher time periods, speaking of the *bak'tun, 400-tun period, and so on, but it is also possible, and even likely, that 13 entered into the determination and naming of higher time periods.

SUN ORBIT YEAR

The period of time which it takes the sun to make a complete revolution in its orbit was not known to the Maya, nor is it known to modern astronomy. It is perhaps something in the neighborhood of 2 million years.

INFINITY

"chac et," infinite thing, literally large thing, is already given in the Motul dictionary. Beltrán (1859, p. 168) gives this same term as "Chacet." chaak, large, gigantic, sounds the same as the word for rain.

THE FOUR MATHEMATICAL PROCESSES

It is said in the Yucatan Peninsula that anything which can be expressed in Spanish can also be expressed in Maya. For instance, in telling of the four mathematical processes, one would say: kan hela'an u-betal le-soko', literally there are four ways in which a solution is arrived at.

The four methods referred to, by which mathematical problems are solved, are the processes of addition, subtraction, multiplication, and division. Below are given sample wordings employed in expressing each of these processes.

(1) ka' yetel ka' kubetik kan, 2 plus 2=4.
(2) ti' ka' kalusil un kup'atal un, 2 minus 1=1.
(3) ka' ten ka' kubetik kan, 2 times 2=4.
(4) ti' kan kašotik ka'e kubetik ka', 4 divided by 2=2.

EXACTLY, APPROXIMATELY

A quantity may be expressed exactly or approximately.

šoo̱t, the noun meaning number, enumeration, when placed before a numeral has of course adverbial force and means exactly. Thus šot hunk'aa̱l, exa̱ctly 20.

naa̱ts', approximately, means literally near, nearly. Thus nats' hunk'aa̱l, approximately 20, about 20, literally nearly 20.

NUMEROIDS

Terms expressing impressional, not exact, quantity are much employed in the Valladolid Maya dialect, and the principal ones are given below to make this paper more complete. Two of the terms, those for bit and piece, have already been presented under the caption of Fractionals, but these terms belong also to the group of Numeroids

Maya enumeration pays no attention whatever to gender except in the instance of a few classifiers, but the numeroid is determined by gender classes, now difficult to investigate because of the havoc which Spanish influence has played with the Maya language.

The singular of a numeroid applies to quantity of substance, or to a single member of a group.

p'iit, bit, a little, used in the singular only with reference to quantity of substance. un p'it sa', a little gruel. p'itoo̱b, plural, is used rarely of quantities of substance, mostly in modern Maya meaning few, a few, without gender distinction of application. p'itoo̱b winik, a few men.

ts'ets'ek, some with reference to quantity of substance. The plural would scarcely be used.

wabaa̱l, something, indefinitized by prefixing wa- to baa̱l, thing. Plural, wabaloo̱b, somethings. Gender application is to inanimate thing, plant, nonhuman animal. Compare *wa-k'atun, 260-tun period.

wamaa̱š, someone, somebody. Indefinitized from maa̱š, who? Plural wamašoo̱b, someones, some people. Gender application is to human only.

et, something, someone, the like.

yaa̱b, much, used in the singular only with reference to quantity of substance. Plural yaboo̱b, many, used of objects of inanimate, vegetal and nonhuman animal gender, while for plural of humans bahun is preferred instead.

hunab, all, with reference to quantity of substance. hunaboo̱b, plural, would be used rarely.

tu-laklil, it is all. Plural tu-lakloob, they are all.

lah-, a verb prefix, means all. tase, bring it! lah-tase, bring it all!

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GRACE M. DANGBERG

INTRODUCTION

The Paiute prophet, "Wovoka," more familiarly known as Jack Wilson (1857–1932), of Mason Valley, Nev., was in 1889–90 first recognized as the leader of a widespread religious movement among the Indians of the Western United States. His vision of a happier day to come for the Indians was welcome to tribes as far east as the Indian Territory and as far north as the Dakotas, where it was interpreted by the Sioux as a promise of deliverance from the hard conditions of resettlement then being imposed on them by the United States Government. The subsequent uprising of certain bands of the Sioux which came to a tragic climax on December 15, 1890, in the massacre of men, women, and children by a company of raw recruits at Wounded Knee (Pine Ridge Reservation, S. Dak.) gave impetus to studies of the phenomenon which the Bureau of Ethnology was already undertaking and led to the Bureau's authorization of an investigation of the condition of the Sioux, as well as of the religion which had been the inspiration and the rallying point of their resistance.[1] In its final form the exhaustive account of the movement of which Jack Wilson was the author was supplemented by histories of earlier manifestations of a similar kind which had in common with the one of 1889–90 the hope of reunion with the spirits of the departed and the return to the days when the Indian would again be supreme in his own land. The ceremony common to all was the round dance, hence these religious movements were designated "ghost dances." [2]

The investigation made for the Bureau of Ethnology by James Mooney covered the ground so thoroughly that it left nothing of importance to be added by later investigators to the account of Jack Wilson's life and teachings up to the year 1892. In the 40 years that

[1] James Mooney. The ghost-dance religion and the Sioux outbreak of 1890. 14th Ann. Rep. Bur. Ethnol., pt. 2, pp. 641–1136. Washington, 1896.
[2] Mooney, ibid., p. 791.

followed Mooney's visit to him, Jack did not talk of his religion[3] to anyone; his dignity and reserve were never shaken; these qualities made him, until his death, a man highly respected by both the white and Indian communities of Mason Valley. During these many years he continued to exercise some influence over tribes to the east. Tangible evidence of this influence is supplied by a collection of letters written to him between the years 1908 and 1911[4] and by accounts by residents of Mason Valley of the two visits he made to the east and of the presents he received. Chief among those who recall these incidents are members of the J. I. Wilson family of Nordyke, Nev. It was in the family of David Wilson (1829–1915),[5] father of J. W. Wilson (1857–1930), and J. I. Wilson (1859–1954), that Jack had grown up and from David Wilson himself, a strict United Presbyterian, that he received religious and moral training.

Apparently the first suggestion of a journey to the east originated with J. I. Wilson when in 1893, after Mooney's visit to Jack, he obtained permission from the Government to take him to the World's Columbian Exposition at Chicago. It was expected that Jack's fame would make him an attraction at the World's Fair and that the venture would be a profitable one for all concerned. However, one month before the two men were to depart, Jack went into the hills and remained in hiding for 8 weeks, or until all thought of the journey had been abandoned. Later, between 1906 and 1916, Jack made two journeys to Oklahoma.[6] On each of these he was accompanied by a boy 18 to 20 years of age who, he said, was his nephew. This boy had attended Stewart Institute near Carson City, Nev., and was thus equipped to manage the details of rail travel. Once Jack planned to take Mary his wife, with him; in preparation for this event he painstakingly instructed her in the art of eating with a knife and fork. Mary, however, soon grew weary of this unaccustomed exertion and decided to remain at home. When Jack was preparing for one of the journeys, Mr. Wilson asked him if he could go along; Jack's reply was, "No, Joe, you talk too much." On all of the journeys he was treated with great deference and entertained lavishly: he slept in feather beds in carpeted rooms and was served the choicest of food. Mr. Joseph W. Wilson[7] (1891–1946), in a letter written in 1938, says:

I happened to be present at the time Jack returned from his first eastern trip. Jack was very much elated and my memory of Jack telling of his meetings with the Indians was that there were immense crowds; he said, "Me stand up from sun

[3] For an account of his teaching, see Mooney, ibid., pp. 780–785.
[4] Jack received letters over a period of 20 years; these, however, are the only ones recovered
[5] See Mooney, ibid., p. 765.
[6] According to Forrest R. Stone, superintendent of the Wind River Agency, Fort Washakie, Wyo., one of these visits was made in 1911 or 1912
[7] Son of J. I. Wilson.

up until sun down, me shakum hands all day. Me pretty tired. Five big Indian chiefs layum $20.00 [gold] in my hand. Me likum that way shakin' hands. Me think that a pretty good way shakin' hands."

The letters were written to Jack by men he met on his journeys east, by men who had heard his message from others, and, in some cases, by those who had visited him. The letters were found in a cellar on the J. I. Wilson ranch, near Nordyke; the cellar had been constructed by Jack for the purpose of storing vegetables and other supplies. Later, when he moved away from there, he left the letters, together with other things which he considered of no value. Credit for the recovery and preservation of the 20 letters is due Mrs. J. I. (Carrie Willis) Wilson (1868–1925), who with her son, Joseph W., and her daughter Genevieve (Mrs. Clarence Chapin) read Jack's letters to him and wrote the answers at his dictation. Letters came asking not only for spiritual guidance and for such reassurance as could be conveyed by generous supplies of sacred red ocher[8] forwarded in discarded tomato cans and by eagle and magpie feathers,[9] the symbols of Jack's power,[10] but also for guidance in domestic crises such as the illness of children or wife, the necessity for limiting the number of children in a too rapidly increasing family, and other intimate concerns of family life. Occasionally, wearied with trying to solve such problems, the prophet, according to Mrs. Wilson, would say, "Carrie, you tellum, I don't sabbe that kind." Then Mrs. Wilson would prescribe Thomson's Eye Water for sore eyes, German Cough Syrup for a stubborn cough, and other suitable patent remedies; often for good measure she would counsel living in the open air and eschewing gambling and drinking.

According to Mr. Joseph W. Wilson:

> The letters to Jack were from Indians who were always asking Jack to make it rain more and to cure their people who were ill with diseases or imaginary diseases. Therefore, when Jack wrote a letter to the patient he would always insist that his own letter close with the statement that, "We have lots of rain here and my people are all very well and happy."

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[8] "This is a bright-red ocher, about the color of brick dust, which the Paiute procure from the neighborhood of their sacred eminence, Mount Grant. It is ground, and by help of water is made into elliptical cakes about six inches in length. It is the principal paint used by the Paiute in the Ghost dance, and small portions of it are given by the messiah to all delegates and are carried back by them to their respective tribes, where it is mixed with larger quantities of their own red paint and used in decorating the faces of the participants in the dance, the painting being solemnly performed for each dancer by the medicine-man himself. It is believed to ward off sickness, to contribute to long life, and to assist the mental vision in the trance." (Mooney, ibid., pp. 778–779.) According to Robert Dyer, who acted as interpreter for Mooney in 1892 and who was interviewed by the editor in 1920, the ocher brought Jack 20 dollars a can. On Dyer as interpreter, see Mooney, ibid., pp. 768–771.

[9] Dyer said that eagle feathers brought Jack 2½ dollars and magpie feathers, 1 dollar. Mr. James L. Long, of the Indian Field Service, Oswego, Mont., writes: "Jack Wilson also sent them eagle tail feathers at fifty cents each." Mr. Joseph W. Wilson wrote in 1938: "At one time I figured that Jack received about $35.00 per month in either money, Indian gloves, moccasins, or other presents. One time he received a buckskin shirt nicely decorated with beads."

[10] Mooney, ibid., pp. 775, 778.

Mr. James L. Long wrote in 1938 that at no time did Jack Wilson send instructions in the dance, or in any way give advice concerning the religion. He sent his correspondents red paint with which to decorate themselves before a rain, and instructed them to stand out in the rain and let the drops wash it off. There were several kinds of medicine, roots, and herbs that he instructed them to use in treating the sick. Mr. Long also wrote that Jack Wilson was sent money and goods for his red paint and root and herb medicines. The Fort Peck leaders would solicit their neighbors and gather together money and goods to send to Jack Wilson, and he, in turn, would send them paint and medicine according to the amount of money and goods that he received. When the paint and medicine came, the leaders would call a dance, and during the dance, they would distribute the goods to those that paid. As in any other religion, poor people could ask for the paint and medicine and receive it for nothing, provided they made a small offering like a pot of chokecherry and juneberry jam or anything that could be used as refreshments during a dance.

One of the men who wrote frequently to Jack, but none of whose letters were found in this collection, was James P. Roberts, of the Fort Peck Reservation. This man, according to Mr. Long, was in 1938 about 68 years old and read and wrote English fluently. In 1902 he and Fred Robinson, the writer of the first of this series of letters, were instructed in the "ghost dance" religion by a Sioux named Kicking Bear from the Pine Ridge Reservation. Kicking Bear had paid a visit to Jack in 1902 and, together with a certain Short Bull, received a lot of credit, according to Mr. Long, "for introducing the dance here and they kept up a correspondence with this reservation for many years, receiving goods and money for their instructions and different kinds of things that are used in these dances." Later James Roberts received a bundle of medicine wrapped in a flour sack; on the sack was printed "J. W. Wilson & Bros. Flour Milling Co., Nordyke, Nevada." [11] Mr. Long wrote: "He [Roberts] said that he lost all interest in the religion from then on, because he thought that some white people were just sending these things to get money out of the Assiniboines."

In 1920 Mrs. Wilson asked me to come to Yerington to assist in recovering the letters, to interview a number of persons who had known Jack for many years, and finally to meet and talk to the prophet himself. The first of these objectives was easily accomplished, the second was pleasantly realized: those interviewed in every instance gave information which served only to confirm the account of the prophet, his powers and his teachings as given by Mooney. Sev-

[11] J. W. Wilson and J. L. Wilson were proprietors of the Silver State Flour Mill, at Nordyke.

eral persons confirmed his claim to being endowed with power to predict and control meteorological phenomena; the same persons, however, smiled at his claims to being invulnerable to bullets. To have achieved the third objective of this visit, however, that is, to interview the prophet, would have been to succeed where all after Mooney had failed.

We went to call on Jack on a Sunday morning. Clad in trousers and undershirt, he was lying on a blanket spread in the shade on the north side of his cabin. As we approached he sat up with dignity, but also with a trace of embarrassment which I attributed to his lack of a top shirt; however, he regained his poise as he put on a wide-brimmed felt sombrero.[12]

He was gracious in his manner of receiving guests and inquired courteously concerning the various members of the Wilson family. We, at length, arranged for an interview a few nights later when, he asserted, he would tell me of his religion.

At the appointed hour, which was sunset 3 days later, I went to the ranch where Jack and his family were picking potatoes, and waited. I remained in the dooryard until dusk. At long last Jack appeared, coming around the corner of the barn; he walked across the yard with long purposeful steps, his head held high. When he was about 10 feet from me, he stopped suddenly and drew himself up to his full height, which was some 6 feet or more, and with the look in his eye of the man who could at will go to heaven by way of the Great Dipper and the Milky Way,[13] he said, "No!"

The letters which follow remain the only substantial addition to the knowledge of Jack Wilson which resulted from this attempt to learn something of the last 40 years of his life.

The 21 letters and fragments of letters in this collection range over a period of 4 years, from August 1908 to December 1911; they were sent by 12 different men and 1 woman. Letters from each of the correspondents have been grouped together in chronological order; each group is preceded by a short biographical comment on the writer and any persons named in his letters; occasionally explanatory comments have been inserted in the letters in square brackets. The few facts which are known concerning the writers of the letters have been courteously supplied by the superintendents and officials of the various agencies under whose jurisdiction the individuals lived or were still living in 1938.

No attempt to restore words obliterated by action of dust and dampness on ink and pencil has been made.

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[12] According to Mooney the wide-brimmed sombrero was an important part of his "spiritual stock in trade." (Ibid., p. 775.)

[13] This was one of Jack's claims to supernatural power, according to Robert Dyer.

LETTERS TO JACK WILSON

In many respects the most interesting series of letters are the seven which follow. Fred Robinson, the writer of the first letter was one of the group of prominent young Assiniboin men who received instructions in conducting the "ghost dance" in the autumn of 1902 from Kicking Bear, a Sioux who had visited Wovoka earlier in that year (see p. 286). Later, Fred Robinson went to Canada where he married; he still lived there in 1938.

According to Mr. James L. Long, Rufus W. Medicine, who wrote the remaining six letters in this series, died many years before 1938, apparently at Brockton, Mont. Nothing further is known of him.

Moose Woods Reserve
Dundurn [Saskatchewan] Jan 17/09

Jack Wilson

I thought I would write you a short letter today I will tell you who I am Oct 27th 1905 you send me paint 3 can full and some medicine too Jan 29th 1906 you wrote to me and send me (1 tomatoes can) full of paint. I tell you this so you can remember who I am I am staying with the news you tell me all the time till now I have been as far north to a place called Prince Albert and I am telling them about the news and till now I am staying here for winter I came to this place and I am telling every day what they ought to do father will you help me with the heart of the people where the prayers come from I want you to help to make the people straight thought. Help me too How can it be done to grow one church or prayer Help me father that I want them to know forwards the road of life Help me that I want the people on earth to think and go into the road of life The people think they would have their own way and have good time, I am always talking about the everlasting life

Another thing is pulling the people and you know that I am telling them about the good road and good life and I am telling them too on one side the Bad road and the evil spirit The last one I mention is a man have gone on that side you must hear that There were not many people but this man he divides them into two and he spoil the whole thing You know some people have good time. So he want it like that. He gave me some bad words and he send some to you, his name is Rufus Medicine. As it is hard to get the people in shape and I want you to quit them. The people here have raised $37.00 and send them to you as you have it already now All the people that have paint have raised money for you as what they say, and this fellow is going back to (poplar Mont) I am going to Prince Albert as they want me over there to tell them of the News. I will be back in few days again you seems to forget me so long so I write to you You know me well so If you get this letter try and answer me

I am yours faithful worker
I shake hands with you with my Best thought

Fred Robinson

Dundurn, Sask,
3/17/1909,
Moose Wood, Reserve,

Jack Wilson, Dear father, I will now write to you again, I am now Came back from Poplar, Montana I went down there on Feb. 7, on March 12, I came back,

Well father you ask of me 25.00 dollars, but I send you $37.00 on Dec. 7' Now if you received I like to know it if you are kindley, write me, the money order was to be Cash at Smith Nevada, $37.00, I try to do right thing with you, I residing the money order at Dundurn Post office, I send you address money order $37.00 Derect yerington, Lyon Co, Nevada, Care Call Box 83, I send the money there, so now please kindley let me know if you get that money which I send to you, I waitting for your kindley Reply,
I shake hands with you father, I am yours son,

R. W. Medicine,

Dundurn,
Sask,
Box 122, 4/8/09

Jack Wilson, Dear father We have a praying meetting last night, And pray to you I stand here to day again praying to you to help this indians I give magepie feathers and medicine out last night, hear me father and look upon me as then own son, help, me, father, send on me good things that I may lived upon this earthes to do Gods Good Will And you, pray for me that I may know the Good ways towards Gods our father, I am going home on April, I like very much to hear from you before I lived this Reserve, Indians are all well, I must come close, by shakings hands with you, wish to hear from you

I am yours son,

R. W. Medicine.

Dundurn,
Sask,
Box, 22,
April, 6, 1909.

J. Wilson, Dear father I get three Packages, to day, I will go home again this month, and I dont think I will stay here at Moose, Wood, Reserve so I dont know, what to do, about that $10.00 I have ask you to send soft red paint, and white earthe, last time, the peoples here are know that I ask for soft red paint so they are watching all time, all peoples here are all well, no snow now, I shakes hands with you

I am yours son,

R. W. Medicine

Awaiting for an earlyer Reply,

Dundurn, ------
Moose, Wood, -----
4/10/--

Jack Wilson of Nordyke, Nevada

Dear father I must drop ---------- llnes to you again, and let ------- know that all this indians ------- well, I pray that this indians ---------- well and be good peoples ------- to you father and -------- ags that --------- -------- ---------- in right -------- am going home now ----------, I let you know that ---- going to stay here no more,

I am come to close -----hanking hands with you,

I am yours son,

R. W. Medicine

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all my hearts, I am trying hard to remember you ever day, I pray to you father as I am, remember me And answer my pary, I ask of you to gett you soft red paint, & feathers again, hear me father I stand befor you to day, I will send you $2.50 a pices I am humble & pary to you that you will have a pity on me, I shake hands with you, please kindly answer me, yours truly,

Rufus Medicine,
Dundurn, Sask,
Canada, Moose Wood, Reserve,

[The handwriting is that of Rufus Medicine.]

--ple n--- --ray to da--- afternoon, I live [leave?] moose [wood] am way to my home no---------- in this Reserve for two years and ---------- now I am going home, I lived ---------- Brockton, Valley Co, Montana ---------- address, Well father I do best ---------- ---------- in this Reserve, for this indians they ---------- your medicine, & magepie feathers---------- they were very glad to have it, they ---------- praying meeting every Saturday & Sunday ---------- hear them praying & help them father ---------- this I ask of you, many times, father ---------- wish to see you, many times I t---------- to see you, father remember me ---------- praying, hear my voice in praying ----------

page two

which give you $5.00.

Bear Comes Out (1858–1938) lived for many years before his death at the Bull Head Station on the Standing Rock (Sioux) Reservation in South Dakota. According to Mr. W. O. Roberts, superintendent of the Pine Ridge Agency, he was not an outstanding person but was respected by his tribe. At the suggestion of Mr. Roberts a letter was addressed to Mr. Andrew Knife of Pine Ridge, S. Dak., a nephew of Bear Comes Out and his only close living relative, inquiring for letters written him by Jack Wilson or for further biographical details; the letter was not answered.

Porcupine Tail Creek,
August 10 1908

Dear Father Jack Wilson,

Today I was doing and was very sorry and I was going to send you $6 dollars and was going to -s use to sorry for that I wont to know that some medicine good for you peoples I like to see those medicine, soon as you could and I wont your to send those I send 4 beets belt working I like you to send me those medicine for myself how much it cost those medicine makes those pillis them it and send it to me when I was there and you give me some medicine give me some of those for the belt.it that is all wont to say for you I am glad to shake hand with you that is me your sôn

Bear Comes Out.

Porcupine S. D. Jan 31 1910

Jack Wilson, of
Nordyke Nevada
Dear Sir or father—

I think about make through your children Moccasins you ask for me moccasin measure & send to me but another I received letter and I found in three moccasins you wanted Therefore Ill wait you long time and what you mean Also I didnt not [under] stand an English [when] my folks your [let]ter Read for_____ __lich way h__ _____ and for I think Best Way for answer for you I think you wants some money but I have not money therefore let you borowed for you now when you have this moccasins What you want give for me if you can sent to me now we have all my things we afraid of this year for therefore what you can tell us let me knowed. & one of this thing yours country above. The star* we afraid what he doing Let me knowed now That is all I shake hand with you this time

Bear Come Out that is me

[*Halley's Comet]

Fast Horse (1860–1919), a Yankton Sioux who lived in the Riverside district near Brockton, Mont., was, according to John G. Hunter, superintendent of the Fort Peck Agency, a medicine man and a "preacher."

Brockton, Montana
Jan. 1st, 1909.

Jack N. Wilson:

Father I am [staying] with all my son's [children] we all still well. am writing letter to you on this [very] [Ha]ppy New Year's day, [w]ell father I heard that _____ your things were burned [tell me] thats true. Write to [me] soon. Than with my boys [we all go] an Collect as much money [as possibly] can and I'll give it _____ you. Well that's all I want to say,

I am Your Son,

Mr. Fast Horse.

Brockton,
Montana,
Feb. 12th, 1909.

Mr. Jack Wilson.
Dear father:—

Father these money are yours. I hope you be glad to get them. When you get the money Please let me know soon. I put the money in two envelopes.

Your Son,

Fast Horse.

P.S.
There is $32.00 in altogether.

Brockton, Montana,
Valley County,
Mar. 7, 1909

Mr. Jack Wilson,
Dear father:

Father I was very glad to get what you send it to me. So I wrote these few lines to let you know that I got all of them. I got them safe and give them out equally. This is all I want to say,

I am Your Son,

Fast Horse.

Cloud Horse (1851–1923) was one of a delegation of Sioux that visited the prophet in 1890. These men had set down for them in the Teton Dakota dialect an account of the visit which is given in full by Mooney (ibid., pp. 796–798, and 819).[14] A letter from William Gay, (1868– —), husband of Cloud Horse's daughter, is given in its proper chronological sequence with the letters of the older man. According to W. O. Roberts, superintendent of the Pine Ridge Agency, William Gay was half Indian and half white; he and his wife were still living at Kyle in 1938.

Kyle, S. Dak,
Oct. 9 10.

dear father Jack wilson

I am going to say a few words to you this morning and I wish you let me Know if you get that moccison and one dollar, which I send it to you last month of may and I want medicine for it so please let me Know I want medicine if you get them
now this is all from

Your truly son

William Gay
Kyle, S. Dak.

Kyle Post Office
March 17, 1911.

Dear Father:—

Just a few lines to you this morning to let you know something I wrote to you here lately and told you that I did not get something that you send me Well I made a mistake I did not open the package ever since you send it to me untill this moning that is on the 17 of March and when I open it and looked through the medican you send I found in it the pain that you send so I am very sorry I told you the wrong thing I said I did not get it but I hope you will excuse me for it I made a mistake so that is what I want to let you know that I got all you send me. I got a little scared for a while when I found the paint so I am going to send you money because I have foold you so bad and this morning I am sitting in a Mexican man's house and there is a young girl there she is my miece she is

[14] See footnote 1, p. 283.

very sick so I want you to pray to the Lord to get here well again for me and when she gets well again I want to let every bod know it so that is whey I want you to helpe me and you aske me to come over to see you so I think Im going to come over whith Red Star and he told me that he send you money and asked you something but you did not answer him so if you want me to come with him I want you to let me know soon so this will be all for this time so I shake hand with you and hope to stand solid by you

I am your son

Cloud Horse.

P. S. I would like to find out if you have any kind of rules for your medicans that you send me if so let me know too ---------- the feathers let me know please.

Pine Ridge, So. Dak.,
April 29, 1911.

Jack Wilson,
Nordyke, Nev.

Dear Father: Why do you not write to me. I sit with you and I write to you this letter. I hope I will come to see you. I send you a dollar bill. Why dont you answer me?

When you get this letter answer soon, Father This man writing a letter for me but he lives far and this man write for me this letter.

This man a good man write for me this letter. I sit with Cloud horse and we write this letter.

Your loving son, I shake hands with you, Answer quick when you get this letter.

Cloud Horse

Address answer to Red Star
Pine Ridge, So. Dak.

Kyle Post Office
Dec 13, 1911

Dear Father:—

Your letter has been received and I was very glad indeed to hear from you dear father

Now I am going to send you a pair of mocissions but if they are not long enough for you when you write again please send me you foot measure from this day on—I will try to get the money to send to you. I wish I had it just at present I would send it wright away

I think I might get the money soon enough to send it so that is why I say that so. I will get it just as soon as possible and be sure to send it so if you get a letter from me I may have the money in that letter so dear Father this will be all. I can answer you so for your sake all the Indians out here make fun of me but I allways think dear Father that around me you would give me strength. so if you get the money I want that medican and some good feathers & that paint so that is what I want you to send me.

So this is all for this time I give a good & hard shaking of the hands to you I hope you have pity on me

I remain your son

Cloud Man Horse

Nothing is known of the John Short Bull who wrote the letter which follows. It is possible that he was a relative of Short Bull, the Sioux chief; this man was one of the delegates who visited the prophet in 1889–90 and later, in 1890, led one of the bands opposing the repressive measures which the Government directed against the "ghost dance" (Mooney, pp. 817, 843, 849–851).[15] This John Short Bull may be the Short Bull who with Kicking Bear instructed the Assiniboin in the "ghost dance" in 1902 (see pp. 286, 288).

Allen, So. Dak.
April 27th 1911.

Mr. Jack Wilson,
Nordyke, Nevada.
Dear father

I send you five dollars from Allen P. O. for P. O. money order that time I think you were at Colorado State but the money order returned to me at Allen S. Dak. and I sent you another five dollars Cash and I never heard from you if you receive the five dollars or not so I want to know all about it. and tell me all about it the news and that we are people all sick. sick all time little fooks but now it all over by this spring and do you know what kind medicine best these sickness Cough and lungs sick and Melease and How we pray it, our god may mistake and tell me all about it these things.

Yours. poor son

John. Short Bull.

Answer soon as possible.

The fragment of a letter which follows was apparently written by an Arapaho Indian. According to Superintendent Forrest R. Stone, of the Wind River Agency at Fort Washakee, Wyo., the Sherman Sage, named in this letter, was still living in 1938 and said that he had letters from Jack Wilson after he returned from a visit to the reservation in 1911 or 1912. A James Brown and John Yellow Plume also had letters from the prophet at this time; these, however, have all been lost.

Lodge Pole, Mont.
March 31 – 1910.

My Dear Father,

I am so capable to answer your welcome letter I was very glad to hear from you again. My Post Office from my plow is about a quarter of a mile, I received the medicines you send me some time ago. When I got I make a pray meeting with a good-men who have repect of you, and also we have a fest over it. I give the

[15] See footnote 1, this paper.

medicines and paints to the fellows crew of 13 and also give some to those who have ask me after I got the paint. I always have my own son to write letters for me but he has been out working about Two weeks he has just come home and he write this letter for me again Samon [Salmon?] Frist Shoot is also a good young man he some times writes for me my wife is The G[ir]l
I cannot Trust no other man so this is reason I always ---------- write for me. The older Indians are still praying for? what you know send I am so anxious to know how to used the medicines and would like to have advice in regards to the medicine The Arapahoe Indians some here about two years ago Their names are Shuman [Sherman] Sage and The Gun These two men claim to see you at your place when they come here they told me lot of news about what you have
said I stayed with the two about seven (7) days They made me one hand game stick. Both of the men are my best friends they like me very well I like to know if you will send the medicine rest of the medicines what we ordered in our letter It was hard to get the money this winter that was reason I ---------- send you.

American Horse and F. W. Antelope, who wrote the letter which follows, were Arapaho Indians; the superintendent of the Wind River Agency reports that both died before 1938. This is not the American Horse, a Sioux chief who was one of the council of men who, in 1889, appointed a delegation to visit the prophet (see Mooney, ibid., p. 820).

Arapahoe, Wyoming,
Fremont Co. April 30–11

Dear Father in christ, Jack Wilson.

today I am thinking of you and I would like to Write you a few lines to you this morning and to let you know that I am well with my folks and also my wife was very Sickness for along time. But she go round now days and and she go down River to take a cold Bath in water and she Said she fells much Better after she take Bath. And rest of Indians are well. Some of Indians are Farming for oats and wheat and some out working for Shearing time. now I want to ask you some thing, my Brother came from Oklahoma and he want me to go with him to your country to visit you, he would like to see you very much. So I wish you Please tell us if is alright to visit you. my Brother he is waiting for his money from Oklahoma. But we would like to hear from you. before we start off. to your Place-and I wish you Please send us little Painted if you got to spare and tell us some news that is if any news from this spring, or anything go on - let us hear from you by return mail.

I am yours truly,

F. W. Antelope
and American Horse.

Nothing is known of the man who wrote the following fragment.

for ears, has been trouble -------- his sore ears in side for two years then he wants medicine for that.

William James Rope

A typewritten letter from a neighbor of Jack's completes the series.

Masonic, Calif., April 7, 1911.

Mr. Jack Wilson,
Yerington, Nevada.

Dear Jack:

How are all the indians getting along down there ? Please write and tell me. I heard lots of indians died down to Yerington lately. Is this so ? We are all well here. There is about four feet of snow in Bridgeport. At Uncle Tom's place there is about seven feet of snow, and the indians are hungry there as they can't get out. Tom's folks are all well only they can't get much to eat. Old man John Craig has been down to Mono Lake and there has been so much snow that he did not come back yet.

We all send our kindest regards and hope you will write soon again.

Daisy Bell.

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FACTIONALISM AT TAOS PUEBLO, NEW MEXICO

By WILLIAM N. FENTON

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FACTIONALISM AT TAOS PUEBLO, NEW MEXICO

By WILLIAM N. FENTON

THE PROBLEM

Which American Indian tribes are ready for self-government and are to be turned loose from Federal control is a question that the United States Indian Service has been trying to decide for several years. Self-government inevitably flows from accustomed ways of behaving politically, and the old ways of political leadership and followership shine through and modify the forms of government that are imposed on tribal society. If this hypothesis is correct, the study of native forms and understanding traditional ways of governing are fundamental to determining the present status of American Indian tribal governments and to measuring how effectively they function before deciding which tribal organizations can stand the shock of release.

Native political systems, the nature of leadership and of followership, and the operation of social sanctions behind the law are topics to which social anthropologists are paying increasing attention. The Iroquois or Six Nations of New York first aroused my interest in these topics. I carried the field perspective of Indian politics over to the search in libraries and archives for materials on Iroquois political history, and the opportunity to lecture in various universities on primitive politics forced me to compare the Iroquois kinship state with other forms. The comparative method for formulating and testing hypotheses is standard scientific method in the social sciences. With a view to increasing my perspective and in hopes of making a contribution to science and to the governing of men, during the summer of 1950 I proposed to officials of the Bureau of Indian Affairs that I test the preceding hypothesis by visiting three tribal communities located in

[1] The fieldwork for this study, during June 1950, was made possible through the cooperation of the Bureau of Indian Affairs, U. S. Department of the Interior, and the Smithsonian Institution, where the writer was senior ethnologist, Bureau of American Ethnology. Travel and subsistence in the field were reimbursed by the Indian Bureau; salary and incidental field expenses by the Smithsonian Institution. The writer particularly wishes to thank his former chief, Dr. M. W. Stirling, director of the Bureau of American Ethnology, and the then officials of the Indian Bureau: Dr. John Provinse, assistant commissioner; Dr. Willard Beatty, the director of education; and D'Arcy McNickle, chief of tribal relations. The report was filed in 1951 and permission was granted to publish it.

separate administrative areas and having different traditions of political organization. I had in mind a Pueblo in the Southwest, a reservation community in Oregon where aboriginally chieftainship was weakly developed and where now the Indian community is enmeshed in industry, and I wanted to study a typical Plains tribe which had accepted a constitution under the Indian Reorganization Act.

I sought to investigate the problem of the impact of native patterns of leadership and followership on the interpretations and operations of written constitutions. The problem thus defined rested on six presuppositions or expectations: (*a*) Americans generally assume that governments do not exist before constitutions are written and the machinery of legislation is set up; (*b*) participants in Western culture lacking the intercultural viewpoint fail to recognize the diffuse sanctions and informal systems of social control which often are at work in building a body of custom law and which may function in societies lacking true government; (*c*) what then are the sanctions that were operative and what were the forms of social control formerly; (*d*) how did sanctions continue to operate after formal machinery was set up; (*e*) how have existing patterns of political leadership and followership affected the carrying out of administrative policies; (*f*) how does implementation of policy differ from place to place because of different traditions of political organization and social control which preceded it.

Typically the problem shifted as the project advanced through the planning, consultation, and the initial field approach stages. Possibly I could only phrase a problem for further investigation, and defining the problem might be of some value to social anthropology. In general, political organization is an undeveloped field in social anthropology, at least in the United States. The problem was bound to touch the acculturation process, both as White and Indian cultures interacted and as drift occurred over a span of time within both cultures.

Beyond such theoretical considerations, the project, it was thought, might discover some implications of value to the Indian Service. Agency superintendent and the day-school teacher daily met the problems engendered by a conflict of purposes between tribal political values and administrative regulation. Why is it that policies or organizational changes in the Service which make good administrative sense in Washington fail to be accepted by the Indians? What are the vested interests in the old law ways and in outmoded governmental forms which frustrate democratic action under a sound paper constitution? How advance understanding between Indian leaders and Indian Service personnel?

During preliminary conferences in Washington it helped to see how officials in the human resources branch of the Indian Bureau sized up "the problem." Conversations with Indian Bureau officials enabled me to test the problem as I saw it against "administrative reality." There was a good deal of choice among Indian communities where self-government functions under written constitutions. I wanted to see a community that had not voted to come under the Indian Reorganization Act, one having a constitutional government drafted independently of I. R. A., and a representative I. R. A. community. A fourth possibility suggested a community having a long tradition of constitutional government, as among the Five Civilized Tribes of Oklahoma, but such a control was not a crucial consideration in the present research, since the writer had long familiarity with the Seneca Nation of New York. Choice gradually narrowed to three trouble cases—Taos, N. Mex., Klamath, Oreg., and Blackfeet, Mont.—which fulfilled research specifications and were "hot spots" to the Indian Service. Valuable suggestions on places to study and the initial approach to tribal leaders came from D'Arcy McNickle, Dr. Willard W. Beatty, and Dr. John Provinse of the Bureau of Indian Affairs; and from my colleagues Dr. Edward A. Kennard (formerly of the Indian Service like myself) and Dr. George L. Trager, then staff members of the Foreign Service Institute, United States Department of State.

In only one area was there a difference of opinion as to what community to select for study—in the Southwest. I preferred Taos Pueblo, which lies on the border of the Pueblo and Plains culture areas, and has the reputation of being the toughest pueblo for an anthropological investigation. Here was a challenge. Parsons (1936) had written the basic ethnography, and Trager had published a grammar (Trager, 1946). Taos had been a constant "problem" to the Indian Service for several years; it is rent with factions, and tension had reached a crisis in 1949. Any suggestion bordering on constitutional reform meets bitter opposition from the elders. Because conditions were so tense at Taos, Isleta Pueblo was suggested instead. Isleta had passed through the narrow ground of tension and factionalism to a makeshift compromise (French, 1948), and the writing of its I. R. A. constitution was still fresh in the minds of Indian Service personnel and was being reported by Robert Bunker of United Pueblos Agency, who kindly let me read his manuscript on Pueblo government. For these reasons alone I felt the Isleta experience was history, but Taos politics awaited a chronicler.

The case history of Taos factionalism forms the present paper. The findings of the entire study were presented in two companion

papers which were read at international meetings in England and Austria during the summer of 1952.[2]

Although the decision of which pueblo to study was deferred until after reaching Santa Fe, where I was to lecture at the Indian Service Summer School, the way to Taos had been opened by Dr. Kennard who was teaching there, and who introduced me to the Taos Day School staff. Among these teacher-students was a member of Taos Pueblo who was to guide me throughout the field session. No other nearby pueblo was represented among the students. Between classes and during free periods I prepared myself for visits to Taos Pueblo without removing to the uncertainties of residence in Taos village. The final decision was taken in consultation with the Superintendent of United Pueblos Agency and his staff.

Although Taos has no I. R. A. constitution, its progressive element, in an effort to segregate church and state, had written a constitution and bylaws for conducting civil affairs. A year had passed since the Taos crisis, giving time for the community to settle itself and for individuals to gain some perspective on the recent past. The day-school principal reassured me that fieldwork was possible, and I made two preliminary visits to Taos Pueblo, one to see the place, and the second to attend a "Corn Dance." By Wednesday, June 14, I decided that I could do limited fieldwork by remaining in Santa Fe and commuting to Taos Pueblo several days a week. That day it was tacitly agreed with Indian Service officials that I approach the Taos elders on the structure of their government, find out what I could do about the basis of factionalism—its relations to certain white political parties—and explore what possibilities the old men might see for rapprochement with the dissident element within the pueblo and with the United Pueblos Agency. This was a difficult assignment and I was prepared to fail, although I hoped for partial success.

METHOD

The initial approach to fieldwork may predetermine success for the investigator. I was especially cautious about making my first contact at Taos because field conditions there are notoriously difficult. The dilemma lay between observing government protocol and working informally. I could either formally approach the governor and council, which would involve making an issue of my fieldwork in the pueblo, or I could contact directly key men whom Lincoln Steffens (1931, p. 627) called "principals" in the local political setup. There were advantages in either approach, and disadvantages. Something was to be gained by meeting the governor and his staff in council,

[2] These papers have been published since this manuscript was written (Fenton, 1955 a and 1955 b).

although in such contacts American Indians have a way of formally introducing an official and then bowing him out of the community without letting him hear or see more than what transpires within the confines of the meeting. That is the protocol due a commissioner, an area director, and persons of consequence. I was prepared to go through the governor and council and explain how as a historian and scientist I could be interested in the structure and procedure of Pueblo government and say I wanted to learn how decisions are reached; I could assert candidly that I was not then an Indian Service employee; I could request their cooperation in my study and volunteer my good offices for composing their own feuds and improving relations with United Pueblos Agency. I had seen the formal approach fail in groups whose temper I knew better: A white man asks an Indian council for permission to do something for their good, he thinks; they vent their aggression against whites by making an issue of the request and saying no.

My experience as a fieldworker told me to avoid making an issue of the work, to work informally with principals commencing with the most conservative, not to take up residence at the Taos Day School where I would be as effectively isolated as the school and hospital personnel, and to stay at Santa Fe and make periodic visits to Taos as a tourist. Persons who knew the situation thought this decision wise.

"If you go to the governor and state your business he will surely call a council. They will set a date and the council will hear you. Bringing up the question of the Taos government will surely open up the recent trouble with the young men—the boys. They will deny your request."

The best approach then was on the informal level through individuals. It was agreed.

Who, then, is the principal conservative and how approach him? I would talk first to the old men, by their leave to the boys, and last to the principal reformer. There is an established and recognized way of meeting individuals in the pueblo without bothering the governor's office. It is going in by the front door, but it is a casual entry, a daily occurrence. One simply takes his family and makes a formal call on another family in the pueblo, being very careful to stop and ask the guide, who is the governor's deputy in the plaza, for directions. He registers you in the book, you pay the parking fee, and you are qualified tourists. The second or third time he merely waves you on.

Whether nine such visits supplemented by a dozen informant interviews, a day of reading agency records, and reading the manuscript of a book, besides the printed sources, constitutes an adequate sample

of available sources can scarcely be argued. A month would be far better than 2 weeks, 20 informants would give better balance than a handful of principals. Informants should be seen more than once on different days to provide a measure of individual outlook and a check on information. But field conditions being what they are at Taos—a façade of polite affability and a wall of reticence, which are the psychological counterparts of the sunlit plaza and the wall bounding and screening Pueblo culture from the outside world—one does one's best in the time available and gets out. There is some advantage in being one of 20,000 tourists, for numbers bring anonymity. It would be advantageous to see the community after tourist season during the late autumn when comes the period of ceremonial retreat.

THE HIERARCHY PUTS DOWN "THE BOYS"

The political struggle at Taos Pueblo centers on the issue of how long the hierarchy of priests can go on dominating the maturing generation. "The boys" now comprise some 104 veterans of the last war and as the liberal element in the pueblo they enjoy the sympathy if not the leadership of a few old men; they call themselves "the people's party." The hierarchy controls the council, they oppose all innovations from the outside world, they consider the uninitiated boys upstarts, and they are against the Federal Indian Agency. Tension radiates beyond the wall to the people of Taos village where the resident artists, writers, and tourist entrepreneurs line up with the hierarchy, exhibiting a proprietary if not precious attitude toward the Indians of Taos Pueblo. Support for the young men is diffuse, although they enjoy the confidence of veterans' organizations. The Agency attempted unsuccessfully to maintain a neutral position in the struggle, which reached and passed a climax in the roadblock incident in May 1949, producing a stalemate which I found a year afterward.

But the Taos situation is not a simple age grade struggle between generations vying for control of village politics in order to introduce or exclude certain innovations in the economy. It is rather a Fascist revolution in which one old man of the hierarchy by virtue of status and a strong personality dominates the society. Big Earrings Man, BEM as I shall call him in this report, occupies the apex of the Taos power structure. As leader of Big Earrings kiva group he holds the most important religious status in the village hierarchy and nominates, in fact, the civil officers. His status as leader of his kiva is next to that of Cacique, but the present Cacique is a weak man. BEM's position as conductor of village ceremonials alone would satisfy the ordinary Pueblo Indian man with all the responsibility he would care

to assume, but Big Earrings Man, taking advantage of an otherwise equable society, aggressively reaches out to control every power position in the community.

"Go see BEM," I was advised, "he is everything. When you reach the pueblo, ask the guide to direct you there. Take the family and make an informal personal call. He will be flattered."

BASIC DATA

Taos is the northernmost Pueblo Indian town and the most spectacular settlement on the Rio Grande (pl. 74). Built at the edge of a mountain range, which screens the Pueblo world from the southern plains, its twin four- or five-storied apartment houses rise from the plaza on the north and south sides of a mountain stream. Some 800 persons seek shelter within the pueblo when they are all inside the wall for the winter period of quiet.[5] In summer, more and more Taos Indians occupy scattered houses built outside the wall but in close proximity, and a few families move out to distant ranches for a day or two at a time. Trager noted a tendency for families to live outside, in the summer houses, all the year around. It is as if the intensity of town life during winter ceremonies, capped by prying summer tourists, drives people to the suburbs and even to the country for relief. Acoma, Isleta, Laguna, Santo Domingo, and Zuñi all exceed Taos in population, but Taos, nevertheless, is a large society for an American Indian town and life is intense.[4]

Farming has been the mainstay of Pueblo Indian economy, which the Taos people supplement by hunting. They keep horses and cattle besides other domestic animals—poultry, cats, and dogs. Of late years one-half of the people, if not more, work in town at labor, commuting daily, the men as filling station attendants, gardeners, models; and the women as cooks and maids. The tourist business has been increasingly important, becoming, in fact, the main source of political revenue. Fifteen years ago the town treasury was kept stuffed into 10 leggings, and it came mainly from the tourist collection. The Pueblo fund and whether it should be kept stuffed in leggings or deposited in the bank has been a source of contention for more than 20 years. The history of this fund, its innovation, investment, decline, and corruption, belongs to the case history of a progressive governor, to which we shall return.

VALUES

Certain traditional patterns and values are basic to an understanding of Pueblo Indian politics. Of these, cooperation, unanimity, and

[5] 921, official agency census; about 120 must be away.

[4] The term "community" has been applied to the maximal group of persons who normally reside together in face-to-face association. Such communities rarely embrace more than 1,000 individuals (Murdock, 1950).

considerateness are here discussed. Community work exerts a strong claim on the loyalty of every Pueblo Indian male. Even the young veteran who wants the franchise manifests willingness to work for the community. And those few who shirk community work by way of civil disobedience must experience considerable personal discomfort and anxiety at withdrawing from active participation in joint efforts. As in other societies, a man's conscience at Taos reflects the social sanctions. A man knows that community work is his responsibility. If he can't go he hires someone to work for him. The officials set aside one ditch for delinquents who fail to show up the first time community work is called for ditch cleaning. The few delinquents take longer cleaning one ditch, and they are conspicuous examples to the pueblo. What really disturbs the old men, however, is that certain young men fail to take part and defy time-honored sanctions.

Parsons (1939, pp. 107–109, 111) has remarked how the cooperative person is highly esteemed and how the spirit of cooperation reaches from the household to the hierarchy. At fiestas each woman sweeps the space before her door, snow removal is called from the housetops, and of all communal undertakings, work on irrigation ditches takes precedence at the annual spring cleaning and throughout the farming season. Why do people cooperate, Parsons speculates? She dismisses an automatic or magical sanction, noting the general motivation when everybody is helping. She ascribes the root to the principle of mutual aid—"Because at any time anyone may need help, therefore, all help one another."

A better approach to understanding the present situation, perhaps is Malinowski's identification of law with the withdrawal of reciprocal services by a party to an agreement when another party has failed to observe a social norm. The young men will not work because the old men will not give them a hearing in council; the old men will not hear them because they have devalued the council in gossip; the young men embarrass their "fathers" by not taking part in saint's day dances. The old men will not admit the young men to political participation until they have been initiated and have worked up through the ranks to the council.

Unanimity is an accepted principle in Taos decisions. "Let us move along together . . .," say the chiefs on reaching an agreement after much discussion. Conformity is the outward manifestation of unanimity in all Taos doings from dress to house types, to participation in dances and community work. As in other societies where unanimity is the rule, the council can more easily apply a negative than a positive sanction. Unable to reach agreement, no decision follows or a request is denied. In fact, the council cannot function in the

face of a large area of disagreement. Anciently, a disagreeing faction might remain in possession of the pueblo while the conservatives removed to found a new town. No one can quit the present situation—those who want peace have nowhere else to go. So the faction in power produces a quasi-unanimity by simply not calling eligible councillors who are known to disagree. A few dissenters oblige by not attending council.

The rule of considerateness is the other face of political sovereignty (Bunker, MS.). "For the source of Pueblo sovereignty, day by day, is the will and the continued interest of its individual members. They will delegate power only as they can exact concessions from those who will govern them" (Bunker, MS.). Pueblo sovereignty allows some measure of individual variation within set forms so long as the innovator does not threaten the structure; so much the better if he makes obeisance to authority. It is customary usage for men to wear their hair parted and bound in two "braids," to affect leggings and the blanket, and to remove the heels from shoes or to wear moccasins. Most younger men wear shoes and trousers. But on St. Anthony's feast day my guide went back to the house before going down to the plaza and loosely wrapped a pink cotton blanket around his trousers. The gesture was out of consideration for his father who, as a councillor, would be singing. The rest of the time he goes about in shoes and trousers. He would not deny the Pueblo's considered requirement of some minimum adaptation to its standards. Those militant younger veterans who consistently deny minimal standards get nowhere. Officials, too, are bound by this rule to reflect in their official capacities and in personal behavior the considered wishes of the people. When the rule is broken by the most exalted member of the hierarchy, the pueblo seethes with gossip from the elders to the smallest child. "Big Earrings Man has argued *ad hominem* in council," say the elders; "BEM must have got hungry for steak," say the children when he has gone again with a delegation to Albuquerque. "Most of all," they say, "BEM is a bastard."[5]

DIFFUSE SANCTIONS

Gossip is a most powerful sanction at Taos. "Since the character of the chiefs should be above suspicion and a man's behavior affects the validity of his ceremony," writes Parsons (1939, p. 154), "town gossip . . . is not idle or barren; it is public opinion bringing pressure upon those whose behavior or character is believed to be vital to the efficacy of ritual . . ." Children are urged not to gossip. "A little thing gets big," said my guide. Oftentimes scandalous tales reach such proportions that the matter lands in the governor's office.

[5] Under Spanish law a bastard may not hold civil office.

One of the sparks, as we shall see, which ignited the crisis of 1949, arose from gossip among the young veterans that the council was inefficient.

Public criticism and the scorn of one's neighbors was all the punishment meted out to the informants of E. C. Parsons. BEM's zealotry in religious matters stems from anxiety and guilt over Parson's exposé. In 1939 when Parson's monograph "Taos Pueblo," written in 1936, first appeared in the village and was interpreted to the old men, they were aghast and shocked that "secrets" had been divulged to a white person. An inquisition was held, and all that kept guilty parties from physical punishment was that they were strong politically. BEM's in-laws, his wife and her people, were Mrs. Parson's principal informants. Social status gave them a certain immunity from punishment, but not from the sanctions of gossip and public opinion. It was punishment enough to hear themselves openly censured in council.

My guide said that joking to make fun of each other is not taken seriously, but I suspect that any criticism bites deep. Note that during the winter ceremonials clowns called the Black Eyes put on a backwards dance, in which some of the men appear as transvestites and imitate dress and dancing of Santa Clara Pueblo men and Navaho women; they become the objects of practical jokes, indicating perhaps how seriously Taos people take remarks about their appearance and demeanor.

Apprehensiveness is a Pueblo trait which ethnologists generally have noticed. Parsons (1939, p. 67) cites the case of a Taos victim of witchcraft who feared to make reprisals on the witch: "Fear of witchcraft, fear of ridicule, fear of public opinion!" One avoids a public stir. Pueblo officials whom I interviewed would release pent-up tensions and pour out information for several consecutive hours. Then often I could not get a second interview because individuals would feign some other business, or they simply would not keep appointments. Indeed persons must be swept with waves of guilt and suffer anxiety at having revealed something. In a closed social system almost any admission is a breach of security.

There is some suggestion at Taos, as at Hopi, that the wealthy individual is open to suspicion. Kennard, in his Santa Fe lectures, observed that suspicion takes the form of jealousy with witchcraft becoming the covert channel for release of aggressive impulses.[6] Whereas no legal sanctions are imposed by the hierarchy on inividual self-improvements, since they neither create new roles relative to the community nor set up authorities rival to community law (Bunker,

[6] I once mentioned to my guide that I had photographed a certain person on my first visit. "Oh yes, he is a noted sorcerer," was his only comment.

MS.), diffuse controls intervene to keep the individual from distinguishing himself propertywise from his neighbors. I am not aware how much open stealing occurs at Taos, but a "keep out" sign on one corral forewarned trespassers, and I observed that persons of property padlocked outbuildings, including hencoops. Trager's informants said the padlocks were proof against Mexicans, which I suspect is a convenient euphemism for certain persistent offenders in the pueblo. A third person expressed fear that the windows in his new place would be broken. I wonder, under what circumstances do individuals resort to stoning a person or his property? In this case the individual has set himself up as a trader outside the pueblo but within the reservation, catching the tourists before they come under the eyes of the governor's staff.

Taos society has an ample reservoir of aggression, and a certain proportion of it is free floating and gets projected or transferred to other persons. There is first the enormous repression from the hierarchy to make youth conform which is protested in various ways and ultimately accepted. Every Pueblo official comes in for a full share of abuse, but the total welfare of the pueblo as manifest in its most public group activities is not questioned. Any white man is a convenient target, and United States Indian Service personnel get the full blast, with choke barrel reserved for the superintendent or area director. "Get behind them and push them," BEM told me; "when we see what you have done in that direction, we will be ready to talk further."

Accommodation to Pueblo ways is the other face of Pueblo character. From dress to ritualism one conforms ultimately. Resist white ways of change and accept the stability of Pueblo ways. The escape lies through ceremony, by going on down to the end together. The relationship between cause and effect is not considered; the ceremonies have a kind of arbitrary magical sanction of their own, like "work" in our own culture (Parsons, 1939, p. 97).

In view of all this, two questions stand unresolved: (1) How explain Taos violence in view of Pueblo values which suppress it?[7] The shooting of BEM's cows in trespass, threatened use of firearms by the boys against the hierarchy, and the roadblock at the bridge burst by the veterans—bespeak violence. What is the frequency of overt acts?[8] (2) How does BEM maintain his power in the face of diffuse

[7] One reader of the manuscript report, Dr. George L. Trager, supplies an answer to the first question: "In Taos, I think violence, per se, is not ideologically undesirable. There is to be no violence within the group, but violence as a weapon against outsiders is there all the time, and dissidents are outsiders. The dissidents, themselves, expecting violent resistance, use violence in anticipation."

[8] A second reader, himself a member of the Taos Pueblo, pointed to three historical incidents which are precedents for violence. "The reoccurrence of violence may be noted in the Pueblo Revolt of 1680, in the shooting of Governor Bent at Taos in the mid-19th century, and the physical clash between officers of the Pueblo and the 'Peyote Boys' about 1920."

sanctions? Answers to these questions await further fieldwork, but there are hints where to look. Taos has a dominantly Pueblo pattern of culture, but anthropologists see with Parsons Plainslike attributes in Taos culture which give it an almost schizoid character. The very physical appearance of the people and their dress suggests the southern Plains. They love to sing Plains war songs to the tambourine drum. When the Kiowas visit them, the Taos engage in horseplay, threatening and sometimes throwing an unsuspecting Kiowa giant into the stream. Threats of physical force are not Pueblolike. The "boys" threaten gunplay on the Council, and it is unwarranted to assume as Pueblos that they would not raid the Governor's office and seize the canes of office. When a Taos says that violence was barely avoided when several respected elders dissuaded the boys from an outbreak, the Indian Service should listen. The boys did drive through a human roadblock at the bridge.

We suspect that BEM maintains his prestige in the face of criticism because of his fundamental integrity with respect to the religious duties which he exercises in the community. In the eyes of the people of Taos Pueblo, he is their most effective representative at Albuquerque; having made a reputation for standing off officialdom, he is treated with respect and feared. Personally, he is fearless. He is not afraid to back up the instruments of Pueblo government with legal sanctions, with the threat or even use of physical force. He is decisive. Moreover, Pueblo society has no way of dealing with the individual who stands out above criticism.

STRUCTURE

In the development of Taos society, social control has not been left entirely to value system and to diffuse sanctions, but certain control jobs have been delegated to specified units of the social structure. Taos society places the organized force of the community behind certain individuals and has given them the job of determining and enforcing general social policy. Some individuals have more than one job. Accordingly, the individuals whom Indian Service officials meet at Taos are acting in the capacity of civil officials. In these roles they are puppets manipulated by their other selves or by other persons who may not be present. The inner covert system is a theocracy; its outer façade is civil government. The men of authority are priests, or they are nominated and controlled by priests. The Indian Service seldom penetrates beyond the Taos concept of the wall, a kind of iron curtain, which delimits the inner society and screens it from the outside world. Are the functions of church and state separable? How in this situation does the personal element enter to allow a strong man to come to power? How can the Indian Service

get inside the wall to reach the people? Can the people get beyond their own wall to reach the Indian Service? [9]

The structural outlines of Pueblo government have been described (Laswell, 1936; Parsons, 1936, 1939; Aberle, 1948). This report, therefore, treats certain aspects of structure in some detail and attempts to interpret these data in the light of a problem set forth in the above questions.

If we in Washington shall understand the "problems" of the pueblo, we must first understand its government. I put this proposition to a headman who replied:

> Way back in the time when the Indians emerged from the ground here in North America, they had the form of government which they now have. When the Spaniards came a civil front was overlaid on the old government and the man called Governor was awarded a cane by the Spanish colonial ruler. The cane was the symbol of office. The Government which the Spanish set up was like that of any other Spanish community: Governor, Lt. Governor, Sheriffs, and Fiscales. But the old Indian government continued at Taos behind the facade of the Governor and his staff. The Governor's staff includes ten men, as follows [we enumerated these on our fingers to be certain that I would remember them and that we had the proper number]: First, Governor; second, Lt. Governor; third, Sheriff, an Assistant Sheriff, and a third man who is an Assistant Sheriff; sixth, the Fiscal; seventh, the Assistant Fiscal; and three Deputy Fiscales"

—making 10 in all who comprise the governor's staff and who are to all intents and purposes the civil government of the pueblo.

The governor's staff has jurisdiction over matters happening within the "wall" of the pueblo. The sheriffs are peace officers; they maintain order, answer complaints made to the governor, investigate, and bring to trial persons guilty of misdemeanors and other crimes. The governor's staff is a municipal court with a jury of eight men: The governor and the lieutenant governor, one of whom presides, the second usually being prosecutor, and the jury consisting of the other eight. In the meetings of this court, the lieutenant governor renders final decision and assesses the fine. The sheriff is called "Mexican" governor and is third in line. There is a device of his taking the disputants into a sideroom and suggesting that they settle out of court without going before the governor and his officers. No

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[9] My Taos reader makes these observations: (1) How get inside the wall? The United Pueblos Agency could easily reach most of the people by direct mail, a distribution of information to which the Pueblo government does not object. Mail is not restricted to the governor's office and the council. Mail is delivered in town at the post office. Thus UPA could inform the people it serves.

(2) How get over the wall? Special trips to the Agency by a few families would be effective. A few families at first would dare to go to Albuquerque to complain. A few soon snowballs into many. But the Agency discourages them and maintains a hands-off policy. Heads of families formerly could have raised complaints as questions to council. This practice was a means of sanction on the governor and council at the Pueblo, and it prevented people from going outside and complaining of the shortcomings of their government.

(3) The Catholic priest is a key person and has the sanctioned privilege of delivering sermons. The priest has tenure and the high respect which the Indians have for religion would vouchsafe his person.

fine is assessed. It is easier and less time consuming. It reduces tension. But this is not the whole government of the pueblo. This is the government which was again confirmed by President Lincoln in 1863, after the territory was taken over from Spain, on which occasion a second set of canes was given to the governor and the war captains.

The war chief or war captain and the lieutenant war captain and their staff of 10 men number 12 in all, a carryover from earlier days. Their duties are to protect the village from outside aggression, and, in recent years, they have jurisdiction of lands outside the wall; they oversee use of land for hunting, supervise control of crops, watch out for trespassers, supervise maintenance and repair of fences, control grazing rights on forest lands, and serve as fire wardens. Just as the *fiscales* direct community work in the village and keep up the irrigation ditches, so the war captains take care of the fences and grazing rights. But questions of land use repose in the council. The governor's office is specifically charged with maintenance of irrigation ditches. Now since Mexicans live below Indian lands, the governor's office has the job of settling disputes arising over water rights from irrigation ditches. The council and the governor have jurisdiction also over parceling out of lands, over rents, and over selling of lands. The war captain's staff of 12 plus the governor's staff of 10 never meet as a council of 22.

The concept of the "wall" epitomizes the primary functions of government: internal security and protection from outside aggression. The Taos wall which formerly fenced out enemies—now the whites—is both a physical entity and a psychological screen. It makes a convenient division of labor between the staffs of the governor and the war captain The first is called "inside" chief, the latter "outside" chief (Aberle, 1948, p. 38). But the governor's staff, in additon to having jurisdiction over all happenings inside the wall and directing community work—clearing ditches, sweeping the plaza, planning dances, repairing churches, plastering—conducts external political affairs of the pueblo, maintaining relations with the Agency, greeting and guiding tourists through the pueblo, levying parking fees and camera permits, and, in general, protecting the Cacique and headmen within from the whites outside.

It would appear that the governor's and war captain's staffs have overlapping functions outside the wall, and I am not quite clear how the Taos people themselves make the distinction. If I am not mistaken, the governor's staff is far busier and the war captain's staff has fewer jobs to perform now than formerly. The practice of the war captain's office differs markedly from the ideal concept of "outside chief" (Aberle, 1948, p. 38). Actually the war captain's staff has

some duties inside the wall. At the St. Anthony's Day dance (June 13) I noted the presence of a staff of men atop both north and south sidehouses. The governor and his staff were on the north pueblo; and the war captain and his staff on the south housetop. For community work the staff is split between the two houses.[10] Community work is called from the housetops; the governor or one of his staff goes aloft and cries out what work is to be done and when, and on the day appointed a crier goes up again to call the people out. Attendance is checked and sanctions imposed on delinquents. Summons to council are called in the evening, sometimes following a dance in the plaza.

A full council of the Taos Pueblo comprises four classes of members: (1) The governor of the year and the lieutenant governor (sometimes including the eight members of his staff); (2) the war captain and lieutenant war captain (and possibly the 10 members of his staff); (3) councillors or *principales* [11] who are the veterans of the first offices in the above classes; and (4) the Cacique and the six kiva chiefs or headmen. The latter are priests and heads of associations and they are frequently of the third class, occasionally accepting offices of classes 1 and 2. Class 4 constitutes the covert government of Taos, for the Cacique and his staff control all policy within the Pueblo wall and those who front for them outside make no fundamental decisions. When one of the headmen feels impelled to accept the governorship or goes along on delegations to the Agency or to Washington, he represents the hierarchy and is in fact the government of the Pueblo. As long as the headmen remain disinterested, more and more authority diffuses to the governor and his staff. At such times the staff have been considered proper members of the council. It is a fact, however, that the governor and war chief and their officers serve entirely without compensation. Hence no one really seeks the office, observes my Taos reader.

The total council numbers between 29 and 40. Its size depends on whether the fiscal and assistant fiscal, sheriffs, and how many helpers of the war captain are called. The number seems to vary. Both the governor and war captain have secretaries, who are often staff members. Quite likely the staff of the year is called, and the following persons who have served in previous years: War captain and the war captain's first three helpers; governor, lieutenant governor (governor's right-hand man), head sheriff (governor's left-hand man), and head fiscale (Aberle, 1948, p. 47). I stress this point of variation because it gives rise to misunderstanding: men who have served in junior

[10] Actually, for community work there is no division of the staff according to a Taos reader. The war chief and his staff are responsible for getting the Southside people to the dance group. The staff is merely split north and south by convenience during community work.

[11] Not to be confused with Steffens' "principal," although they may be the same.

capacities feel neglected for not being called to council. While the constant appointment of new officers theoretically multiplies the number of the council, minor offices are accorded to younger men, and when they are not moved up to lieutenant grade, they do not become bona fide members of the council, say the old men. Also, the operation of factionalism contributes to and is fostered by passing the offices around in a narrow kinship group. Just what degree of limit kinship imposes on Taos government I was unable to find out.[12]

The council proper of the old men or *principales* is presided over by the Cacique, who in final analysis could be the real governor of the pueblo. But he is not for several reasons. His office is hereditary in the male line. Traditionally he has upheld the Pueblo ideal of considerateness, listening only when the others have reached a decision, epitomizing the delegated sovereignty of the people, and intervening only when convinced the public will is being violated. "Nothing is brought to their attention on which there is not unanimous agreement," writes Bunker (MS). Hope might lie in this office and person but for one thing. The present Cacique at Taos is a weak man, I am told, and "he is like a child," one leader said, and easily influenced. Theoretically when any issue affecting the whole tribe arises the Cacique is spokesman of the whole tribe. The present Cacique served once as governor (about 1940), and he is surely known to all members of the pueblo; but he leaves executive matters to his staff, to Big Earrings Man in particular.

The six kiva leaders may have equally important religious offices in conducting the ceremonies, but evidently four function more fully in politics. Two kivas are not represented among the so-called headmen. This is interesting, since Parsons says there were formerly 8 kivas at Taos, and it would look as if the present 6 are dwindling to 4. Kiva affiliation is without regard to residence on the north side or the south side of the pueblo, but a true moiety system functions ceremonially. The moieties are named sexually, "male" and "female," and directionally, "north" and "south," corresponding to the two sides of town. On the north side are Big Earring people, Day or Snow people, and Knife people kivas; Feather, Old-Axe, and Water people kivas are on the southside, as may be seen in the diagram of the political structure of Taos Pueblo (pl. 75). The heads of Snow and Feather kivas still sit on the council but are not among the headmen. And actually Old-Axe and Water people kivas are south of the wall. Every initiated adult male belongs to a kiva group, but the number and composition

[12] With reference to this statement, Trager (personal communication) comments: "This is consonant with a general impression I have always had that Taos differs from other pueblos in actually having more choices of action available. These are prescriptions, true, but there are ways around them. Factionalism is, as it were, at home in the culture. One doesn't go out and start a new pueblo (in the old days), one simply fights or tries deviousness or takes on power."

of kiva groups vary. Beyond this and the discussion in Laswell (1936) and Parsons (1936, 1939) of how youths are assigned by their parents to kivas and trained, I got no further information.

The picture of how the kivas function in electing the governor of the year, however, is fairly clear if a bit schematic. The headmen of the kiva groups serve as staff to the Cacique and they are the covert government of the pueblo. "Formerly the Taos Council consisted only of the chiefs of kiva societies and was probably less conspicuous," writes Parsons (1939, p. 146). As "grandfathers" they occupy the top of the hierarchy. Of the present four headmen, two are more important than the others. Traditionally, "the chief of the Big (or Abalone) Earring people is the chief of the three kivas on the north side of town. He is town chief and president of the council." Alternately he and Water Man, who is chief of the three southside kivas, direct the education of youths and lead the sacred August pilgrimage to Blue Lake. Water Man may be Cacique (Parsons, 1939, p. 121), but he is not at present. Parsons noted a tendency for the office of headman like that of Cacique to pass in the male line of primogeniture or to the nearest kin, by an officeholder giving a son to a kiva and training him for the role; this tendency was confirmed only for Cacique by my Taos critic.

As in all of the Rio Grande pueblos, it is the town chief and the "grandfathers" at Taos who appoint the governor and his staff and all other secular officers who since the Spanish Royal edict of 1621 have stood between the true government of the Pueblo and foreigners. Parsons (1939, p. 147) contends that even the secular offices are carefully apportioned by ceremonial groups. Obviously, Big Earrings Man holds the key position in the power structure. To quote informant D: "Nominations for civil officers are made by four headmen, leaders of the ceremonies, on the last day of December. Each of the headmen has the right to name a man. Members of the council don't know who will be nominated, and as many as four names may be submitted if each headman has a candidate. Then they vote, and the two with the majority of votes are voted on again. Cacique conducts the election, which is really a caucus."

The Taos caucus system offers one of the most interesting examples of the operation of checks and balances in primitive politics and is quite unknown to the literature of social anthropology. If the system functioned as it has evolved in theory, the people of Taos woulp be protected from domination by the hierarchy. But Taos is a theocracy, and the priests are politicians, and they have perverted the system to their own ends. But there is an ideal pattern.

The hereditary Cacique holds a moiety system in balance. The moieties, as we have seen, consist of six kiva groups oriented north and south and ascribed to "male" and "female" categories. The latter

are comprised within caucus lines, as in the diagram. The first two north-side kivas, Big Earring people and Day people are linked as female with Feather people kiva, which is No. 4, on the south side. These three female kivas comprise a caucus, which meets underground at Big Earring kiva, on the north side, under the chairmanship of its headman, to advance a candidate for governor. The second, or male caucus, is comprised of the third north side (Knife people) kiva and the two remaining on the south side of town, Old-Axe and Water people, which meet as a caucus in Water people kiva under its headman to find a candidate. Likewise the Cacique by himself may think of a third candidate. Actually, the Cacique, being of the Water people kiva, knows what is going on there and may in theory also be its headman, and might even accept candidacy, and be elected governor of the year. So the leader of the female caucus may report through the Cacique or directly at the convention which now always takes place underground in the main female kiva of the Big Earring people. The headman or religious leader of the Big Earring kiva presides over the convention, since he is host. The first round of voting eliminates one of the candidates, if there are three, and the two remaining become the candidates for election. When a tie occurs, it is broken by appealing to the first passing member of the public, even a little child, that is encountered by a messenger sent up the ladder from below. He says in effect, "The grandfathers are locked in argument and cannot agree between A and B for Governor of the Year. Who shall it be?" The first response settles the issue. And the public may look with fond pride upon some boy who elected the governor that year. My Taos critic, now a grown man, enjoyed this honor.

It is easy to understand how the system itself plays into the hands of the religious leader of the first kiva. He has the edge on all caucuses which meet in his kiva, since as host he initiates the speaking. While in theory his opposite balances his power, and the Cacique is supposed to maintain an equilibrium between the two moieties, we shall see how two weak personalities are dominated by a strong man in a key position. It may be a footnote on personal history that the religious leader of the male moiety was a reasonably liberal person until he became religious leader of the south side; then he tightened up. New-found conservatism supported the position of his opposite number in the north side moiety. The latter holds office despite two alleged anomalies—that he is a bastard, and that one who has drawn blood may not hold office in the Pueblo religion. The facts, nevertheless, are most difficult to ascertain.

Informant D stated that the Cacique's sole job is to conduct the election and swear in the officials after the perfunctory validation

by the county clerk, and that he has no other functions. The December caucuses, moreover, according to this informant, ideally are held at the Cacique's house and he presides. The headmen sit in the center and the councillors range around the room. The caucus is conducted after the manner of council meetings, described by another informant, A.

Four possible types of council meeting including various personnel were described to me: (1) Cacique and the six headmen; (2) the governor and his staff; (3) the full council, "whole body of the council," which treats civil affairs; and (4) a factional council, when Big Earrings Man tells the governor to call only a few men to hold a "secret gathering." There are no meetings of the women, but there seems to be some mechanism for consulting the women before reaching a decision on certain issues. When the Commissioner of Indian Affairs visits Taos, type 2 or type 3 meeting is convened, depending on whether he wants to meet the governor's staff or the whole council. In August 1949 the then Commissioner met the governor's staff, which, of course, comprised the factional henchmen of Big Earrings Man. It was clear that a factional council denied the GI's a meeting on the veterans' program because certain other members of the council were present waiting for a meeting with the superintendent at the day school.

Although in final analysis the hierarchy dominates the council and the town chief leads the conservative faction, the Taos Pueblo Council may be a more democratic organization and not the totalitarian theocracy that White and Parsons have described. In full council the councillors can sanction a nomination by any of the headmen by supporting or not supporting it. Arguments may get intense. Councillors have learned how to make their own will and the considered will of the pueblo prevail over the headmen. That Big Earrings Man resorts to not calling the full council shows how powerful are these sanctions and how bureaucratic and totalitarian methods destroy democratic action. Some of my information on the council is indeed untrustworthy, and it needs testing in the field. Remember that I did not experience a council. In fact, Big Earrings Man seemed as anxious as I to postpone a meeting as long as possible. He would tell the governor what he needed to know.

IDEAL OPERATION OF THE COUNCIL

"Before Big Earrings Man came to power, the council used to work wonderfully. They were very cooperative among themselves and they worked well with the Agency. (Ordinarily the council meets at the governor's house, but Cacique can call a meeting at his own house.) The governor used to have his secretary read any pending matters of business to the council and turn the matter over to the Cacique.

Cacique has an interpreter who serves all members of the council. The council, seated around the room, one by one speak their minds on the problem. Each man gave his opinion and spoke impersonally to the question, never to a personality, followed by the next man on his right. Cacique sits in a certain place—the side of the room is not important—and his staff, the headmen, near him. Friends confer with neighbors en route to council and sit adjacently in conference. The circuit of speaking goes to the right and returns to the Cacique, who keeps track of the debate in his head. He proclaims a decision. When only half are agreed, he resubmits the question; someone may meanwhile be called in to interpret whether the innovation is good or bad. The decision is turned over by Cacique to governor and staff who have been present during the debate. Meanwhile governor's secretary is taking notes. If the matter involves sending a delegation, the Cacique may so decide and name the party and appropriate money for travel; a detail like a telegram or a letter is left to the governor."

"This is the way it used to be."

The governor's secretary and the interpreter occupy positions of potential influence in Taos affairs since many of the councillors are illiterate and most of them know English quite imperfectly. Both offices, like that of treasurer, result from white contact. The question of misinterpretation has arisen frequently in recent councils; Big Earrings Man has employed a series of interpreters who serve as long as they do his bidding. The interpreter likewise can become the instrument of Agency policy.

The roles of secretary and treasurer may be combined. Before 1935 and maybe now, the tribal money was kept in some 10 leggings—"two dollar bills of the old large issue and hundred dollar bills all rumpled up and stuffed in the legging." One treasurer insisted before he took office that the moneys be deposited in a bank. "No," they said, "that is the white man's way and we can't trust the banks." The method explained of depositing and checking out funds on order of the council remained unconvincing until the council asked a neutral third party who confirmed. Then a later treasurer got to drinking. The governor did not discover how the tribal funds were being drawn on until nearly the end of the year, when the embezzler took to the bush and could not be found for an accounting to the retiring governor and council. The shortage of funds at the new year occasioned a "grand jury" investigation. Characteristically, the council, which is the court, wanted to try members of the retiring administration individually, and equally characteristically, the defendants insisted on collective security: They would all be present in the council chamber during the trial. By winning the concession that they all be present

and by pleading that the shortage of funds was the work of an individual under the influence of alcohol, a young reformer got them off, but incurred the enmity of Big Earrings Man. This case started a rift between the boys and the old men.

Resuming the statement of ideal procedure, the council reserves all policy questions affecting the whole pueblo, and it delegates only the minor business of the community to the governor and staff. Similarly, the governor refers matters of policy to the councillors for consideration and recommendation before taking action. Although the governor and lieutenant governor are the officials with whom the Agency in Albuquerque is concerned, in effect the council is the true government of the pueblo. And most delegations going outside the pueblo therefore include the governor and lieutenant governor, who are merely fronting for the council, and one or two councillors, presumably to witness their behavior and attest to the council how they behaved. When it has been expedient to send only one or two men, BEM usually goes along with the governor to tell him what to say. In this respect BEM reminds me of the Government official in our own society who likes to travel, refuses to delegate authority, and enjoys the roles attached to power statuses.

THE JOB OF GOVERNOR

"The governor of the year," as he is called, is then the surrogate for the council. If at first glance he appears to have authority, such is begrudged him by the council, and he seems equally unable to delegate it to his staff. He still must bear the irksome details of law enforcement, domestic relations, community work, and arrangements with outsiders, including the Federal Government. He is the "fall guy" for the Pueblo: there are jobs to do, authority is begrudged him, and he is being continually undermined by public opinion and checked from above, and he is not paid. But Bunker (MS.) has noted four techniques which are peculiar to Pueblo governors and which enable them to survive: (1) self-deprecation; (2) infinite resourcefulness in changing the subject; (3) quick, almost impersonal countering of personal attack; and (4) a sense of timing. These can be substantiated for Taos, but certain maneuvers, noted by Bunker, I can only infer, not having attended councils. Distance is underlined by sitting farther from the superintendent at each meeting; the superintendent's role is construed as one of technical assistance, not policymaking; the self is subordinated to public responsibility; one year's officers berate their predecessors for failures, diverting attention from themselves.

What it means to be Governor of Taos and a sense of why such men accept office repeatedly or give up in discouragement can best be

gained from the account of the political experience of one man, D, which follows:

What is it like to be Governor of Taos?

The governor job is hard work and it is a tough job to accomplish anything; it takes thinking and talking. There are a lot of problems undone.

Tourist collection.—In 1928 I created the tourist collection which has become the principal source of revenue in the pueblo. When I came to office as Lt. Governor we had but $50 in the pueblo fund. I thought this tourist collection up as a means of building up the treasury. I put ——— in as Governor, and I was Lt. Governor, and all the people knew that for four years I had been trying to raise money for the pueblo. After we were installed, the Governor asked me what was my idea of how to raise the money. He asked the question before the other officers. I spoke: "We are having trouble and we have no money. I think that we should charge 25 cents for tourist parking and a license fee of $1.00 for still cameras, and $2.00 for movie cameras, graduated according to size. People shall register in the Governor's office and leave the money there." And then we put the question of that collection before the ten officials of the Governor's staff. "I don't want public money for myself," declared the Governor. (Before that the preceding several Governors had charged as much as $2.00 for tourists and kept the money for themselves.)

I also proposed that commercial buses in the Indian Detour business should pay 25 cents a head for passengers coming into the pueblo—the same for hacks and stages. One concessionaire objected, saying that it was a free country and that he could drive anywhere. I told him to stay away unless he was willing to collect and pay the fee. His boss intervened. "We are not your monkeys," I said. "Our reservation is private property." The matter was deferred 2 days until the Council could convene and hear the case. The Council met at 8 p. m., and the then Agent backed us. The bus people came through under pressure. Dude ranches followed suit.

When in the preceding discussion the Governor put the question to his staff, BEM, who was then a second Lt. opposed the idea. The other nine were for it. Then when we had decided we called the Council and we explained what we had in mind. These four ex-Governors who had collected for themselves were the only opponents to the new policy. The rest agreed. Carried. This was 1928.

By the first of August, 1928, we had $1,500 which we had collected!

The Cooperative Thresher.—Now the next step: I suggested that we buy a threshing outfit. I said that we had threshed long enough with horses and that it was high time we had our own machine. We called the Council. Council thought it a lot of money. It belongs to all of us, they said. Some were for distributing it per capita; others saw the sense of the cooperative argument. The Governor suggested calling the people together outside by the wall [mass meeting]. The Governor explained. They voted and the four ex-Governors were alone in wanting to divide the money per capita.

When the majority agreed I wired again to the Superintendent to come up—that we had decided to buy a $1,500 threshing outfit. The agent suggested that besides we would need from two to three hundred dollars of operating capital. I explained our source of income. He told us the legend of the Golden Goose. He thought my collection plan from tourists the best idea he had ever heard.

We bought the outfit; for we knew that if a crooked Governor came to office he could make away with the funds but not the machinery.

Then I realized that I had made a mistake. The guide who collects the money had to serve 2 days, and the tourists entering the Governor's office, his house,

tracked in mud. Late in the fall there are no tourists and in spring until May the guide wastes his time.

When we turned over to the new Governor that December we recommended that the Governor is entitled to 10 percent for his house, and that 15 percent should go to the guide. Each guide gets 2 days and all that nine from Lt. Governor down serve as guides on 2-day shifts.

They all agreed. It ran smoothly. The Council bought implements out of the fund, and we used the fund in land fights up to 4 years ago (1946).

In 1946 a Governor closed his door, and he turned out the guide with his book on the Plaza, but the Governor still gets 10 percent without the use of his house. BEM followed in office and he too closed his door and collected the 10 percent.

What is more, the next Governor sold the community binder worth $150 together with $100 worth of new parts to his own son for $15.

The public granary.—"When things were going badly back in 1938 I was elected Lt. Governor when ——— was Governor again. At that time I had in mind a plan to help the old and needy. My idea was a community granary. I got ——— to draw up the plan. The plan was to build the granary (out of tribal funds) and to buy surplus grain from the people—wheat (some of the original stock was purchased as certified seed), oats, peas, beans, corn—what we raise here at Taos. Moreover, we built bins on both sides. In the spring we would lend out grain to able people and charge 50 pounds for 100 pounds that had been borrowed, so that people paid back 150 pounds. The 100 pounds went back into the first granary and the 50 pounds was put into a different bin. This latter was used to take care of widows and orphans. The annual surplus would be divided among widows and orphans, and the original loan would go back into the pool. This was the plan which we proposed to the Council. The Council agreed and the plan was put into operation.

The next Governor and his administration sold all the grain and bought flour and lard for distribution in the pueblo. [The old idea of equitable distribution, each individual taking his share in hand, prevailed over social security.] I was discouraged and I quit. [As an innovator D. was fighting alone; only occasionally could he muster the Council to support his plans.] This happended in 1938 that we had the granary, and in 1939 they sold out. [Ardent granary partisans have been in political limbo since.]

Since 1939 I would go to no meetings.

In 1948, nearly 10 years since I had been to a Council, someone came to notify me that I was elected to Governor. I accepted the duty. I began immediately the fight for the voting business. (In this I had the advice and support of many prominent white lawyers.) Under the New Mexico State law we must vote in order to qualify for the old age pension. We brought suit and got the right.

Later, this BEM wanted me to stop the people from voting. "I can't do it," I said, "it is illegal to prevent a citizen from exercising his right to vote." BEM went to the late Judge ———, an old friend, who supported me: That the elders could not be in the position of preventing members of the pueblo from voting. BEM told me to call a Council. He misled the Cacique and the Four Groups [Kiva leaders who with Cacique dominate council]. I told them that as Governor I had sworn to support the Constitution of the United States and the State and Federal laws. I had no power to stop anyone from voting. "Now I am going to resign," I said, "I would like to see someone stop the people from voting and be arrested." [Possibly it was here that BEM consulted the Judge; such had never happened before.]

The people continue to vote. I vote. So do others, but BEM tells them that they will soon have to pay taxes and the pueblo will go the way of Mexican towns.

The preceding case history calls for comment. The process of acculturation and how the people have reacted to it can be held responsible for factional difficulties at Taos. The pueblo has divided into two camps on how they will meet crises imposed by the world outside the wall. French (1948) found a parallel situation at Isleta, and Laswell (1936) has described the Taos reaction to culture contact as "collective autism." My own data indicate two reactions on the part of the pueblo people: a cooperative and aggressive reaction organizing to meet the threat from outside the wall; and autism, a withdrawal behind the wall and opposing new groupings within the pueblo that threaten the existing sovereignty of the hierarchy. The former reaction regards sovereignty as residing in the people, the latter reaction imputes it to the organization. Means have become ends.

My informant as governor was a cooperator and an innovator. The tourist collection was an aggressive move against the whites, which had as its purpose raising funds to recover lands from the whites. The innovator sought to do this systematically and fairly, charging what the traffic would bear. The cooperative reaction met acculturation in the field of technology by proposing the investment of capital funds in a binder and thresher. These innovations also reveal the mechanism for appealing to the sources of sovereignty when the council cannot agree. Issues originate in the governor's staff, where they are threshed out before being referred to the council for a policy decision. A minority of one dissenter in the governor's staff meeting may find four supporters in the council. This happened in the case of the tourist collection and in the matter of the public granary. When the council agrees, the governor or his lieutenant caps it with a plan of action. But when unable to agree, there is a mechanism by which the council can appeal to Pueblo society, the ultimate source of its sovereignty, by assembling the people in a mass meeting "outside by the wall." The governor appeals to the town meeting to sanction publicly a proposed course of action. Society votes. A minority of four dissenters, ex-governors, who can obfuscate such an issue in council, fades before the popular will.

Beyond appealing to public sanction for a course of action, each pueblo administration faces the limits of its own term. Revenues raised must be expended or turned over to a new administration. There is a tendency to spend the money knowing that the next administration may be unfriendly to policies adopted and distribute the funds per capita. To offset this centrifugal tendency an administration can establish precedents: it does things, gains public expectancy, and hopes for continuity.

A sense of fairness makes allowances for time spent and awards percentages of the tourist collection to the guide for his services and to the governor for the use of his house and for abiding the nuisance value of tourists.

The autistic reaction to acculturation, on the other hand, denies white society outside the wall and refuses to make adequate provision for tourists within the wall. Crowds of tourists flock to Saints' Day dances and are not controlled. Autism regards collective endeavors to meet the problems of the pueblo as threats to the sovereignty of the council, bowing only to the sanction of a public meeting which it avoids at all costs. It does not deny, however, individual acquisitiveness. A minority of previous governors feathered their nests and charged inconsistent rates for tourist parking. They are now back in power and the guides again chisel tourists by not returning change. With the rise of graft, offices pass in a restricted kinship group. Equity in a percentage of the tourist registration continues, but the governor's door is no longer open to the public. A governor has sold the community binder and parts to a close relative.

When the cooperative faction reacted to the need of social security arising from a general economic depression by starting the public granary, the next autistic governor sold the grain and distributed the proceeds. The innovator responded by withdrawing from public life. Small wonder that he absents himself from public meetings and escapes into alcoholism.

From this case history we can almost draw a syllogism. Cooperative and autistic administrations alternate in office. The cooperative reaction to crises imposed from without when frustrated leads to individual autism. Collective autism leads to graft and facism. The strong man is eventually turned out when public reaction revolves full cycle. (The latter process is now going on.)

A man once disillusioned accepts office again, emerging from personal withdrawal, when summoned by a duly appointed representative of the pueblo. This time he accepts the governorship. The innovator and the cooperators campaign for civil rights and social security, gains which were lost when the granary project was liquidated. But participation in external politics constitutes a threat to collective sovereignty in the pueblo. The hierarchy impeaches the governor who resigns.

FACTIONS

When the old men of Taos forced a progressive governor into resigning in the fall of 1948 and installed a puppet regime to complete the year, Indian Service administrators were faced with a whole complex of disagreements. The progressive governor had enabled

members of the pueblo to register and vote in State and National elections, thereby qualifying themselves for social security benefits. BEM threatened impeachment, and the council acted apparently without full membership and without accepting the governor's resignation. In this act, BEM had the advice of counsel. The Agency did not intervene. The coup d'etat focused attention on a long history of factionalism at Taos.[13]

What is a first-class administrative problem to the Indian Service may be a fairly common occurrence to ethnologists. Internal division into factions, usually two in number, is a recurrent feature in American Indian communities (Linton, 1936, p. 228), and such twofold factional divisions are quite widespread in the primitive world (Murdock, 1949, p. 90). Almost no research has been done on this problem until quite recently (French, 1948; Adair and Vogt, 1949). Murdock even says that factionalism is so common a feature of community organization as to be scarcely accidental. He employs the concept of ethnocentrism to suggest a possible common function, reasoning that a dual organization of a community . . . may provide a sort of safety valve whereby aggression generated by ingroup discipline may be drained off internally in socially regulated and harmless ways instead of being translated into outgroup hostility and warfare. What makes this hypothesis seem valid is that factions are most characteristic of peaceful societies like the Pueblos and warlike communities which are frustrated from going on the warpath. The latter is certainly true of Iroquois among whom factionalism became most bitter after the American Revolution and before going on reservations; it is also true of Blackfeet; and possibly the Klamath among whom factionalism is the status quo.

Crisis situations at Taos reach back into traditional times. Tradition speaks of an old factional dispute which occurred at the building of the first Catholic church; the people quarreled and some of them left Taos, going east to a new site. In such splits it is always the conservative faction that migrates, seeking a place in which to perform the ceremonies in peace and leaving the hotheads in possession of the old town (Parsons, 1939, pp. 15, 108, 1094–1097).

The return of four Taos lads from Carlisle about 1910 began a series of modern crises over innovations (Parsons, 1936, p. 118). One deviant worked as a printer, resisted letting his hair grow, and stuffed his trousers before whippings. He was actually put out of his chief-

[13] Siegel, in 2 recent almost identical articles on culture change at Taos (1949; 1952), discusses patterns of authority and leadership, anticipating much of my analysis, but speaks of factions as something quite new at Taos (1949, p. 577). Siegel deems it "highly desirable to undertake a comparative study of emergent factionalism at Taos with factionalism at other pueblos where it has occurred" (1949, p. 577; 1952, p. 140). While the present paper leaves this problem to be researched, I have treated factionalism generally in a paper to the Vienna Congress (Fenton, 1955 a).

taincy and ceremony. But the revolt brought the introduction of white man's clothing: pants, shoes, and hats. Leggings, moccasins, handmade shirts, and blankets have never quite regained the favor they enjoyed exclusively before the Carlisle incident. Social dysphoria, however, was nowhere nearly as marked then as now.

The Peyote controversy rivals the present dysphoria. Sometime after 1907 lads, now old men, visited the Kiowa near El Reno, Okla., and brought Peyote back to Taos. That it took here and not in the other pueblos is a clue to Taos character structure. The Peyote controversy has been treated by Parsons (1936, 1939) and analyzed by Laswell (1936). My notes add few details. The important thing is that the Peyote boys were innovators. They threw off repressions of their own training and the authority of the hierarchy by going out and bringing back what proved a threat to the constituted religion of the community, although Laswell makes a great point that even Peyote was carried out by groups in a characteristically collective autistic fashion. The innovators who were then Peyote boys are now among the older progressives and are eligible to be councillors. Even the present governor, though in BEM's faction, belonged to the cult, if he was not a charter member.

Reaction then, as now, came from the council. And the council was backed up by diffuse sanctions originating in family conflicts. The Peyote boys met on Saturday nights, and individuals who attended were unconscious all day Sunday. For years Sunday had been the day for family weekend picnics up the creek and at neighboring ranches. Tension developed between generations of the same family and between in-laws over the Peyote addicts. Organized opposition to the cult centered in one family, that of the progressive governor of 1948.

Impeachment is the function of the council. Since at the time both governor and his lieutenant were members of the cult, responsibility for calling the council shifted from governor to Cacique. The council waited until the Peyote group was in session before the Cacique ordered the sheriff and his staff to raid the meeting and arrest all members present. They were held in jail on the north side of the Pueblo to cool off pending trial individually. (Note that the council sought to avoid imposing its will on a group by trying such deviants one by one.) For some reason the governor was not impeached, although Parsons implies that he resigned. But the then lieutenant governor, the present governor, was impeached by the council and resigned, along with all the other officers (Parsons, 1939, p. 1095). In such cases Cacique presides and one of the six headmen prosecutes. Councillors may individually ask further questions to clarify a point. "Are you willing to leave the Peyote cult and go along with the rest of

us?" Only the lieutenant governor was unwilling to renounce Peyote. He was impeached. Cacique polls the council and each councillor gives his opinion. The final decision rests with the Cacique.

Punitive fines which amounted to land confiscation were levied against individual members of Peyote. The Cacique's court, like the governor's court, can determine such fines and exact them. Land thus confiscated by the court may be awarded to individual officers to use. I am uncertain of the extent to which confiscation resulted in abuse of power. The lands were returned when the Peyote Church got its charter.

We are not concerned here that Peyote did not die out at Taos following the trial, with the group's successful fight through the courts for recognition, or with its status today. I am told there are actually between 10 and 14 families who are today active Peyote adherents. Allowing 5 to a family, 50 to 70 people may be involved. The present governor, the erstwhile lieutenant governor impeached, is alleged to be still a member. The net effect of the Peyote innovation was to break up family solidarity. Informal sanctions within families drove some individuals to renounce Peyote, but schisms and tensions remain. There are embittered individuals who oppose the hierarchy. Peyote faced toward Oklahoma, not inward on the plaza of Taos; it exalted individual experience, albeit in a meeting, as against collective ritual, and above all it demonstrated that the wall around the hierarchy can be breached by innovation.

Peyote bears further relation to the present power structure. A source of BEM's power arose out of the Peyote trouble. It is unlikely that he was yet headman and acting prosecutor. But he was on the way up to be lieutenant governor in 1939, governor in 1944. A renounced member of Peyote, however, became governor in 1941, following the Cacique. The impeached lieutenant governor of Peyote days is now governor, as BEM's candidate. Peyote has not been an issue for 10 years.

The Parsons exposé, already mentioned, came in 1939. BEM's in-laws were involved, but he used his position in the hierarchy to get them off without penal sanctions. Diffuse sanctions, as we have shown, bite deeper.

Preceding the Parsons affair and following Peyote, had begun the reforms of the progressive governor who had opposed Peyote. The reforms, which may be characterized as internal and external social security, followed and alternated with reactionary administrations down to 1948.

Then came the GI bill of rights and the roadblock incident.

The most recent Taos crisis summoned the forces for progress (those oriented outward) to join the returned veterans (who this

time were the "boys," the innovators) to test the strength of the hierarchy. Of course, the latter were not altogether old men, and the "boys" were not all young. Nor does it matter that the hierarchy put down the boys. For the time being those who face toward the plaza have put down those who look over the wall. The latter include the resigned progressive governor, another ex-governor himself a reformed Peyote boy, and at least one lieutenant governor whose sons went to war. The head of an extended family at Taos represents his sons before the governor's court and in council. Councillors who gave sons to the war would attend council to hear questions discussed affecting their sons. The regular way of calling a council is for the governor to call every eligible man from the housetops. But BEM works on the governor, his stooge, to call only a certain few, carefully omitting opposition. By such "snaky" tactics BEM frustrates complete discussion of the issue—"even to the boiling point."

Another tactic is to jump up in council and brand as "outlaw faction" whoever voices the Agency point of view. That councillor is not called again. Men get dispirited at being interrupted, at being done out of their turn in the ritualized circuit of polling the council, and apparently Pueblo individuals are horrified at being attacked personally in meeting. From not knowing what to do with BEM's type they have gone on to inaction and disinterest. Taos society seems to make no provision for handling the boss.

"This is the kind of meeting we have now. This is how he came to be the only speaker when Commissioner ——— was out here."

What then are the sources of BEM's power? They are of three kinds: status resources, personality, and political action. First, as headman of the Big Earrings People Kiva he is ritual holder for the pueblo and he has charge of the education of the young men. He has the privilege of nominating civil officers; only two headmen may nominate, and the caucus is held in his kiva, where he speaks first. As an ex-governor of at least two terms, he has worked up through the ranks to achieve the status of *principale*, or councillor. Elevation to religious office came to him unexpectedly and rather early in life from a position in the hierarchy at a minor level until just a few years ago. Then he sat about four seats down from the head of his kiva. One winter, the three men ahead of him died in rapid succession. BEM suddenly came to power as the head of that kiva at the prime of life, and the office which membership ascribed to him carries strong responsibilities in the ceremonies, and ultimately in the political life of the Pueblo.

The people of Taos revere his office. Fear on the part of the other councillors that BEM will quit the position that he holds in the

ceremonies is a weapon that he wields to its limits. Unless he is accorded privileges of office it is feared that he will decamp from duties on which the welfare of the pueblo depends. Threat of withdrawal of reciprocal services constitutes a powerful sanction. So the Taos people tolerate political shenanigans so long as ceremonial obligations are fulfilled.

BEM impressed me as being a very sincere person and quite devout, although others who know him better cautioned that he is foxy, that he agrees to one thing today and does the opposite tomorrow. But these are his political enemies. He is secretive, outwardly fearless, and incessantly active. Part of this activity in ceremonies and even in politics may reflect aggression generated by anxiety that he is not doing his best, that he is criticized, or may be an attempt to offset talk that his wife's people were Parsons's informants. His attack on others in council may spring from the same source. Whatever the source of energy, the Taos strong man brooks no opposition, as the following incident will illustrate.

A few years ago one of the sparks that led to the present difficulties arose from the attempt of a householder to hook up to the Taos Day School waterline. The householder's water had begun to smell toward the middle of summer. He arranged permissions with the proper officials: the principal and the superintendent. One day three men were digging a ditch and BEM happened to pass by and asked what they were doing. He told them to stop and threatened them. He went promptly to the governor's house and said, "We are going to Albuquerque." He and the governor went to the superintendent and protested. Permissions were canceled. Meanwhile the young veteran sat in his house waiting with a gun on his knees for the sheriff's party to come and take him.

The waterline was an innovation over dipping water from Taos River. Just how it threatened the sovereignty of the pueblo I cannot fathom.

BEM is secretive. He does not talk clearly in council. His point of view is veiled by operations behind the scenes of which he informs the governor only in part. My visit illustrates the point. "I will tell the governor and the council what they have to know, what I have decided." He identifies with persons in authority or persons who may confide knowledge to increase his personal power. BEM wants to shield the pueblo from change and projects his own shortcomings on innovators, and on Indian Service officials in particular. He may genuinely hold at heart a sincere interest in the welfare of the pueblo. He said that he was willing to talk all afternoon with me on matters affecting the pueblo, that he never tired when working for the people. But seeing me again he would not talk until I had demonstrated that

I had done something for the people. I suspect that he felt guilty for already having told me something of Taos organization.

What he does is what counts. (He is also held accountable for public indifference or apathy that has overcome the pueblo of late. This attitude has become a negative factor in his power position; no leadership arises to face him down.) By political manipulation, by use of his position in the hierarchy, by conscientious attendance at all meetings, and by branding as outlaw all suggestions of improvement or ideas counter to his own interests or which he interprets as threats to the power structure, he holds the pueblo in his grip. It is a maxim of political administration that control of budget and appointments means power. In Taos, control of nominations, elections, and consequently of tribal funds amounts to the same thing. As long as his counterpart on the south side does not choose to oppose him, and as long as the Cacique who is the check to the balanced positions of headmen, remains a rubberstamp, BEM will remain in control.

CRISIS

What were the sparks leading to the recent Taos crisis? How did the dissident group arise? These are the questions which I addressed to BEM and to representatives of the progressive faction. Despite the tension, these questions were welcomed by both groups. They accepted me as a neutral person standing in the middle, as BEM put it, who might use his good offices to improve relations between the pueblo and the outside, with the Agency in particular. BEM said, "We need friends. We need them badly, because we feel that the younger men and the dissidents, the dissatisfied people, have been supported in their views by outsiders who have gained favorable publicity and have put me in a bad light." I gathered from other informants that the number of dissidents in the pueblo is greater than BEM would have me believe. I asked him how the dissident group arose. He said that they came up in the following way:

In World War I the Pueblo men were considered farmers and were allowed to stay home. When World War II came along, a great many of the boys, being unwilling to do their work in the pueblo, and unwilling to submit to the ceremonial obligation of initiation and performance of rites, had fled the pueblo or had been driven out by public opinion and were living on the outside. Many of these men enlisted. When the Government officials came to the pueblo to inquire about the draft, it was already apparent that many of the men were in the Army. It was also considered expedient by the council to allow the men to be drafted or to volunteer since the people

might fare much worse under the Japanese or the Germans than under their American friends. Accordingly, some 100 men went into the armed services and were scattered over the seas. Now it is important that many of the men who went out from the pueblo were initiated and are now still loyal to the present form of Pueblo government. There is the son of BEM himself and the interpreter. However, a number of others came back dissatisfied with the old Pueblo way. They said, "Let's forget all this. Let's give up these ceremonies. Let's be as white men. Let's get electric lights, water, etc."

It is quite apparent in all this that there is no fundamental objection to individual improvements coming into the community. What BEM and his party in the council object to is the injection of new things which threaten the corporate identity or sovereignty of the Pueblo state. The young men have consistently refused to do their work, they have defied the authority of the headmen, and they have turned outside the pueblo to the whites for help, which in itself is a cardinal sin.

The behavior of the boys after the war runs contrary to their training. During the discussion of the veterans I tried to draw BEM out on how young men are educated in the Pueblo way. On what happened during the Kiva training he was discreetly silent, but he related his long conversation with Selective Service officials at the opening of the war, which conveys something of his attitude. He quoted himself at this meeting as saying:

"I will let my young men go. They are well-disciplined and well-behaved boys. If you promise to return them to me in the same condition." BEM asserts that he was given solemn assurance that the young men would be returned by the Army properly disciplined so that they could return to the Pueblo fold. (Of course what he anticipated and the Selective Service official chose to ignore was the disruptive effect of war experience on their personalities and the consequent inability to readjust to "civilian" Pueblo life.) What really bothers BEM is that the boys got outside, they saw things of which he has no knowledge, and many of them who were previously dissatisfied with conditions in the pueblo have come home increasingly dissatisfied. I did not succeed, however, in getting him to tell me how young men are actually brought up in the Pueblo way, how they are trained to take their places in Pueblo religion and society.

The following sparks ignited the Taos crisis:

(1) As governor, BEM wanted for his relatives the patronage at the day school where a number of Indians were employed in custodial positions. He came to the principal of the school, himself an initiated and educated Taos Indian, saying, "Son, this is what I want you to do." It was difficult for the old priest to understand that the

jobs were beyond the control of his putative kinsman. Appointment and removal of personnel lay in Albuquerque.

(2) Next came the question of religious training during school hours. There had been a Supreme Court decision about the use of schooltime for religious training and time off for such instruction. The Indian Service had regularly let students off during their term of training in the kivas. But some question arose about the Catholics being excluded from such participation. Whatever the issue, BEM and the elders took the affair as a personal affront and interpreted a high-level decision as local discrimination. The Indians let the issue pass.

(3) For some reason BEM next decided to evict outlanders who had married into the pueblo. These persons included members of other neighboring Rio Grande Pueblos, 2 Zuñi men, 2 Indians from Oklahoma, 5 Anglos (white men, of whom 1 lived in), an American woman, and 2 English war brides, perhaps 16 in all. Friction arises in mixed marriages with persons from outside Taos Pueblo. The husbands do not attend community work, even if willing, for they do not understand the language. Misunderstandings arise. When children get into fights, the older people say: "You are not Mexicans!" The Mexicans are reputed to be quarrelsome. Outlanders threaten the all-important peace of the pueblo. The English war brides created the biggest stir in the community, but the disturbance is indeed two-sided. The war brides were scarcely prepared for life in an American Indian pueblo, and the Indians of Taos found them difficult to assimilate. One English girl had had three children by a Taos Indian husband by 1950. Before the council decided to eject Indians married in from other reservations, BEM approached a Pueblo member of the civil service who had married a non-Taos Indian to interpret for him. The civil servant naturally refused to be a partisan to the action without higher authority. The inconsistent action by BEM and council to evict outlanders by marriage was sustained by the Federal court.

(4) Allotment checks coming into the pueblo during the war created new statuses and roles. The literate who could file papers for illiterate old ladies and wives of GI's, began displacing the old men as advisers, a role which they accepted cautiously. Some few dependents followed advice and bought land, houses, farm equipment, and household goods. Others spent it on a single spree. Of the some 106 GI's, all but 7 returned. It is significant that the pueblo never acknowledged the return of the GI's by celebrations such as were held among Plains and Eastern Woodlands groups where warfare is honored. Whenever there were "regular doings" (stated ceremonies) the old men would mention the war record of the young

men, however, but no special occasion was made for them. On several occasions some special prayers were offered for their safe return. It appears that the headmen really missed an opportunity.

(5) The returned GI's found no welcome for their experience or new knowledge. The council was neither interested, nor welcomed advice. BEM and his followers wanted them back the way they went away, but they were a transformed lot of men. They began openly to criticize the council. The real spark that kindled the flame of resentment was when the council learned that the young men gossiped that the old council was ineffective. This angered the council, but they dared not arrest anyone.

(6) The veterans now constituted a threat to the sovereignty of the Pueblo Council. They organized a post as a basis for appealing to a State Veterans' Administration for aid in a program of rehabilitation. They learned that they needed a minimum of 15 acres of farmland per man as a basis for an agricultural extension program. Arrangements were made for a training program under the GI bill of rights which would utilize shop facilities and tools of Taos Day School where an instructor would come to teach welding and related trades. School and Agency authorities agreed, but the school is on Pueblo property.

(7) The young men now went to the governor asking his signature to their applications. And they went to the council appealing for land. BEM and his faction in the council, piqued at their audacity, "threw them out." "Don't come here (to the council) until you are properly initiated by the Kivas," they were told; mature men are expected to have served in the ceremonies and to have a record of having worked up through the offices of the governor's staff before appearing in council. The veterans were "boys," both ceremonially and politically. Had the young men demonstrated a better record of community service, participated in ceremonies, and had they refrained from gossiping openly about the council's deficiencies, the issue might not have been drawn on the lines of age and achievement. Naturally, the councillors were quite unwilling to recognize achievement outside the wall.

(8) The veterans wanted electric lights and good drinking water. They experienced electricity and its power-driven conveniences in their service outside the wall, and they learned of sanitation. That the Taos River is polluted everyone knows, and no person who has not acquired active immunity dares drink its water, or the water that runs sparkling down the irrigation ditches, for fear of dysentery and less serious alimentary complaints. Even though sacred Blue Lake high on Taos Mountain is the source, contamination enters before Taos River flows through the pueblo. The old men shut their eyes

to the annual death rate among babies, and why there are not more cases of typhoid I have no competence to say. Recall the incident of the veteran who started to connect to the day school waterline (even water from the line had to be boiled in 1950), and when frustrated did not hesitate to write to the Taos Star, which was the liberal pro-Indian paper (Morris, 1950). El Crepusculo, which the Indians call "El Creeps," is the conservative organ, and reflects the views of the council and its backers, the artists and writers of Taos who consider themselves the custodians of the ancient tradition. As is usual in Indian factionalism, whites can be found at the polar extremes. The movement to bring electricity to Taos and abandon the old practice of dipping all water from the Taos River in buckets, even though the progressive faction at the pueblo advocated installing lights in the homes but outside the twin pueblo apartment buildings, badly scared the Taosenos, the inhabitants of the neighboring town, who have an economic stake in either the tourist business or an emotional one in art subjects at the pueblo. Besides the revolutionary change which the coming of electricity would bring to Pueblo life, the council perceives the entrance of a public utility on their ancient domain as a threat to their sovereignty: rights-of-way, easements, unsightly transmission lines, freedom of access for servicing, monthly bills, installment payments. Even the progressives put great stress on the "peace" of Pueblo life, but both factions resort to constant pressure and bickering which creates tension. And the council in its communications to "El Creeps" makes much of happiness in the pueblo which they seek to protect from innovation that might make the people as unhappy as they appear to be in cities.

(9) These sparks kindled a series of protest meetings of veterans and heads of families who used to sit on the council which resulted in demands directed against alleged dictatorial methods of the present council. The faction which is out of power calls itself the People's Party, a label so frequently adopted by the out-of-power faction in Indian communities as far away as New York. The People's Party commenced to agitate for: (*a*) A written charter (which would secularize the government); (*b*) the right to a voice in choosing the council; (*c*) more progressive management of Pueblo affairs; (*d*) a periodic audit. These general demands, susceptible of expansion into a detailed list and suggestive of appeal to the Constitution and Bill of Rights, if they apply at Taos, colored an analysis of the Taos situation by the area director in May of 1949 which reports the road block incident. The analysis indicted the Taos government for: (*a*) Failure to alternate political parties in office; (*b*) unseating council members who disagree; (*c*) refusing a hearing to important elements within the pueblo; (*d*) deciding every variety

of civil case on political issues. (Hagberg to the Commissioner, 5/16/49.) The first has been the political practice and may be custom law; the second charge, although clearly a violation of Pueblo law ways, is tempered by absenteeism and the strain for unanimity; the third failure may be defended on grounds of qualifications but it ignores the public meeting as the ultimate locus of sovereignty; and the final charge cannot be denied.

(10) The meeting at the school and the governor's roadblock: The veterans decided to have a meeting of the people at the Taos Day School to discuss the benefits which would accrue to the village from the program for training GI's in agricultural and manual arts under the GI bill of rights. They decided to invite the superintendent. The council, dominated by BEM's faction, fearing that the intrusion of these enterprises would change the existing power structure within the pueblo, were opposed to a meeting being held at the school. When the governor received the superintendent's wire that he would attend a mass meeting to be held in the school auditorium to hear the discussion of the proposed program, the governor summoned the council whose decree was dictated by BEM. The governor replied that any meeting which was to receive the superintendent would be held in the governor's office as usual, and should not be held in the school. The council's decision that the place of meeting should be the governor's house in the pueblo, that there would be no meeting off the pueblo, or on the school grounds or in its assembly, denied the possibility of summoning the pueblo to meet outside near the wall and ignored the fact that the pueblo has no community hall. The veterans decided to proceed anyway. The conservative faction blamed the superintendent principally for fomenting the trouble which followed. But an inflammatory press was responsible for arousing the whites of northern New Mexico to watch what happened in Taos, and the artists and writers of Taos rushed into the act. In espousing the cause of the veterans, somebody alleged that democracy and freedom of assembly must prevail even in a totalitarian state. Several veterans' associations became active, and the conservatives cite as evidence of white interference the large number of automobiles from Taos village which had come into the pueblo for the meeting at the school. Just what happened and the sequence of events are not clear nor are they vital to this report. The superintendent came as far as the hotel on Taos Plaza where he ordinarily stops. There he was met by BEM and the governor, who told him to come no farther and advised him to return to Albuquerque. The superintendent stood firm in Taos. At first some information implied that he and his party drove out to the pueblo where he was turned back by a human blockade at the bridge leading up to the day school. More reliable sources state that the

road blockade was intended to keep the GI's from getting to town. A conservative source said that when the council found itself overridden by the superintendent's resolution, the war chiefs and fiscales were sent to blockade the road at the bridge leading from the village to the school. Effectively both sides were stymied.

But there is another back road to town by which the GI's circumvented the blockade. A moderate found an English car which someone from town had left at the school, and started to drive it to town. At the barrier he was asked: "Where are you going?" "To Taos," he replied. "Are you going to the meeting there?" "No, I am taking this car to town to deliver it to its owner who can't get here." Although many bypassed the blockade, several cars pushed through. In one car rode the progressive governor who had resigned. "This is like France all over again," remarked a veteran of Normandy, as he put the car in low gear and breached the human barrier. The war chief's men held hands until they fell away on both sides of the bridge.

There has been no effective government in Taos Pueblo since the incident described or since the meeting of the veterans and their superintendent in Taos Plaza. A long and bitter debate followed in the public press. Claims and counterclaims have reached the Halls of Congress. In perspective I believe that the superintendent and the Albuquerque staff never fully appreciated the heat of the controversy generated from these sparks, nor the tension at the time. A Taos Indian who read this report commented: "The only thing that prevented an armed insurrection was the lack of rifles among the young men. There was one night that the council was meeting when the hotheads wanted to crash the governor's house and snatch the canes of office." Their own leaders and the progressive governor reasoned with them. When informed of this potential danger, the superintendent is quoted as replying, "Nonsense!"

Both of the latter are amazing statements in view of the firearms which I observed at ready in Pueblo homes. Every house I visited had a rifle or two on antlers above the door. No, I think the young men were held back by diffuse sanctions; they did not wish to breach the peace. Insurrection is not the way to settle anything, even at Taos.

AFTERMATH

In the year that had passed since the incident of the bridge the breach had widened between the factions, and matters had not improved during the year following my visit. Most of the troubles at Taos Pueblo, said a leader of veterans, could be solved in a single morning if the elder councillors would sit down with the veterans' group and take up their program point by point. The grievances of

the People's Party, which were made manifest in a petition to the Commissioner after the bridge incident (Petition, People's Party to Commissioner, 9/7/49), comprise some eight major heads. Most of these specific grievances relate to government.

1. Government:
   a. Membership in council controlled by select few.
   b. Right of appeal.
   c. One man dominates the council. Ousted members are not called.
   d. A select council reaches decisions affecting the Pueblo.
   e. Misinterpretation; the good interpreters have quit.
2. The right to vote.
3. Land.
4. Tribal funds; tourist collection; accounting.
5. Bus transportation.
6. Indian Service employees.
7. Misuse of office: sale of capital goods to relatives of officials; joyriding in the community truck.
8. Council refuses advantages of GI benefits to veterans.

By the spring of 1950 the Progressive Party had reached the Congressman of its New Mexico district. The same grievances now appeared in new guise. What had originally been phrased in terms of Pueblo political practice and which suggested that the checks and balances in their own system of custom law had been contraverted, now appeared in the cloak of George Mason's bill of rights, which seems irrelevant to local affairs in an Indian Pueblo. The fact remains that the People's Committee were in close touch with a New Mexico Congressman, although the leaders of the conservative faction had also called on him. The House of Representatives heard the charges: *individual* rights are being neglected at Taos, and *individuals as citizens* are being prevented from exercise of rights accorded them under the Bill of Rights (Congressional Record, 96: 7379, 5/18/50). A progressive who read his Congressman's article in the Record secretly hoped that the program would not be enacted into law and that he would not be forced to exert his individual rights as a citizen at the expense of the Pueblo (his group). Referring to the road blockade the article appealed to "the right of assembly" because the veterans were forced to organize and attend classes off the reservation in defiance of tribal authorities who prohibited it. "Freedom of worship" alludes to the council taking children who are members of other religious groups out of school to train them in the kivas. Voting has been mentioned. The article alleges that there is no trial by jury, no adequate appeal, and no adequate courts. (Most jurists, I think, would recognize the governor's court as a true court; and, besides, there is appeal to council.) The charge that the Pueblo Council intervenes in the homes to deny improvements—utilities, water—on the theory that these innovations violate ancient customs of the

pueblo, cannot be denied. (Removal of a telephone is the most recent contention.) Individuals are restricted in improvements on their homes. (But so are they by codes in every community.) More serious is the charge that persons married in the community cannot reside in the community. (The Federal court, at first, sustained the right of the Pueblo Council to eject such persons, a victory to the conservatives and their lawyer, but the decision was afterward reversed. The evicted remain away. The overall effect, however, is that the council may not eject members legally. Thus the United States court has taken away the right of the Pueblo government to decide on citizenship.) The so-called right of self-government, the fact that no popular elections are permitted, seems irrelevant in the selection of a priestly hierarchy such as we have described. The charge gains relevancy only if the government of the pueblo is secularized, which is what the young men want. The same can be said for a written constitution. Although the council does lack a constitution and operates without written ordinances, it does keep minutes and custom law provides sufficient checks for the proper maintenance of the system if allowed to operate. It is true that the council has refused to permit assemblies to discuss such matters, it has harassed and abused its opponents, but we have seen that a public meeting near the wall is possible under Pueblo custom law, that sovereignty rests in the people, and that they give it but grudgingly to the council. Pueblo custom law is being abused, not the Bill of Rights.

A public hearing to thresh out the issues would break on the rock of separating church and state. That is what the old men fear. All of the following program converges on this one issue, that of secularizing the government which is inescapable in any consideration of the Taos problem. The previous demands of the People's Committee may be reduced to the following:

1. Institute regular business procedures.
2. Build a community hall for public meetings.
3. Right of a hearing for selected improvements.
4. Sever economic dependence of Pueblo on Taos village.

The young men want to institute regular business procedures to account for the large sums of money which are collected annually from tourists for admission to the plaza, for parking, and for sale of camera permits. We have seen that this collection is the largest single source of revenue to the Pueblo government. No official accounting is made for the fees collected; there is no turnstile, nor are there numbered tickets. The young men advocate replacing the present guide system with a corps of instructed guides or docents, who could be instructed how to answer tourist questions without revealing ceremonial secrets. Ticket stubs would be turned in to the treasurer,

giving the total receipts for the day. The present governor's registration book is open to serious abuse.

From the parking proceeds, youth recommends erecting a community hall on the plaza. At present there is no adequate community building on the whole reservation. There is no place that will shelter a meeting of the adult members of the pueblo. Such a hall would bring the meeting by the wall into a townhall and get the rump council out of the governor's house. As it is, when BEM has the governor call a meeting of the select few to meet in the governor's house, the interested public has to stand outside and listen through the wall. The young men want the privilege of hearing the full council meet in a building ample enough to destroy the excuse of calling a minority of councillors to meetings stacked in favor of the faction in power.

The insularity of the older men is a burden to youth. Most of the older men and nearly all of the women have never been away from the pueblo. BEM's daughter quite naively told my wife that Taos is the last Indian community where the Indians still hold their lands and old customs, that the Indians back east had all lost their lands when they forsook the old way. She was equally astonished and unprepared to believe that other Indian communities have survived white civilization to the eastward. The war provided travel for about 100 young men to see places and experience other civilizations beyond the horizon of Taos, Santa Fe, and Albuquerque. Most of the boys who came back respect the pueblo and appreciate its commercial value to the Indians. They want to keep the old three-storied apartments, but recommend families moving out to ranches. They believe that they have the right to a hearing to consider certain selected improvements—pave the road to Taos, bring electricity to the reservation but not to the apartments, install a telephone for emergencies, institute programs in the arts and agricultural extension, already discussed. As it is, the men are going outside the pueblo for training in the trades over the protest of the council, and the son of a principal conservative is learning welding at Haskell. Contrast the Blackfeet whose tribal delegates lobbied in Washington for the same program which Taos veterans were denied by their own council.

Sever the economic dependence of the pueblo on Taos village, say the young men. Their leader advocates building a cooperative store on the reservation, if not at the pueblo, where people could trade without going to town. As it is, people walk, ride, drive cars, or take the buses operated by Indians under franchise to the council. The bus interests and the Taos merchants oppose a cooperative Indian store at the pueblo. The younger leaders contend that the money earned by Taos artists from the sale of paintings abroad in the land

is all traceable to Taos Indian culture and to Taos Indians themselves, who receive but 50 cents an hour as models. This extreme view, of course, discounts the skill of the artist and his service in publicizing the Indian. The same may be said of writers. But the attack is pointed and aims principally at the fringe of Taos colony—"The culture plunderers" who seek to escape the modern world and who take it out on the Indians.

FORCES FOR SELF-CORRECTION IN THE SOCIETY

Any solution of the present factional difficulties will have to originate within the Taos community and have the support of a substantial number of its residents. Within the community a successful compromise will have the best chance of success if it has the blessing of powerful elements in the hierarchy. As long as BEM remains in power, the present stalemate, which gives every indication of settling into feud lines between the generations, may continue. BEM himself constitutes the principal negative force opposing self-correction. Like many autocrats he identifies himself with the public, so that it is first of all necessary to distinguish between his personal hates and his aptitude for identifying Pueblo opinion with his own. He says, "My people feel this way"—when he himself feels that way. By domineering a powerful minority and through his position he controls public opinion—so to that extent what he effectively represents is public opinion. He symbolizes the opposition to the United States Indian Service in the pueblo if he does not constitute it, projecting on the Service every manner of fault. He is always devious, posing as a solution to a problem—such as getting better rapprochement with the Agency—dismissal of persons not present.

Disillusionment has overcome the rest of his generation. In characteristic Pueblo fashion they withdraw from the reality of settlement. The people both admire BEM for getting results in the past and act defeated by his boss rule. I could detect but slight hope of his defeat at the next election.

As if to clinch his position by action, during the autumn of 1950 he sent the sheriff to demand the removal of a telephone from the trading post of a young veteran called back to service. The telephone violates Indian custom, it is alleged. The governor has forbidden use of gasoline-motored washing machines in the pueblo. And he has forbidden children to attend school in communities outside the pueblo. Washing machines except by analogy with electric machines certainly do not threaten the sovereignty of the council. They may disturb the peace. The women in our society would not stand for such infringement on personal liberty; in Taos they are used to repression.

Positive forces among the older men are few. A progressive governor has retreated into drink. A moderate person who has thought a great deal about reform in the pueblo is occasionally called to the governorship. While there is danger that fear and the drive to conformity may paralyze action, a governor may test opposition by resorting to the sounding board of public opinion by calling the people to meet by the wall. What hope is there that a moderate man may again become governor?

The answer to the election lies with the "college of cardinals" who are the Cacique and the heads of the kiva societies who may heed BEM again or nominate a more progressive administration. But BEM's strategic position in the hierarchy, the fact that the caucus takes place in his kiva, where by courtesy he speaks first, coupled with his untiring devotion to politics and his tough character make a hard combination to beat. But he has to be careful because occasionally heads of other kivas or the Cacique will overrule him. If the Cacique were a stronger character there would be some hope of self-correction within the existing structure. I am told that the interpreters are at fault in the Cacique's misunderstanding; they appeal to his fears: taxes, abolition of present government, etc. The Cacique does have the power if anything goes wrong with the government to call a council. He can tell the governor what to do, can censure the conduct of an officer, and the headmen can prevail on him to institute impeachment proceedings. Cacique has the power of nomination, if he chooses to exercise it.

At the next level in the council several of the *principales*, or former governors, oppose BEM's policy. But there is a tendency to avoid issues of disagreement because they know that if they take a stand it will end in a "fight." Taos is torn between a desire to thresh things out (Plains) and pacifism (Pueblo). Nothing is brought to the attention of the Cacique which is disagreeable, and since he symbolizes considered public opinion, the council dislikes to discuss controversial issues. On this BEM depends. The Cacique hates to have an impeachment. So the desire for peace is strong in the pueblo. Much of the opposition to BEM can be dismissed as precampaign talk.

The recent actions of the old men do not bespeak compromise.

The hope of getting a mass meeting to discuss issues remains dim so long as the faction in power prefers the small caucus in the governor's office to the larger democratic meeting which is difficult to control. Some personalities are simply unsuited to democratic action or free discussion of issues and prefer the small meeting of "cronies" in a closed room.

The boys are a repressed minority, and their political fortunes are linked to one or two farseeing older progressives from whom they

derive as much liability as good advice. The wise older men have long since retreated into feud lines against BEM and his faction, sallying forth to the attack whenever reform has a chance of success. It is natural that they identified their political fortunes with the veterans. While the conservative older men will say that the younger men are no good and will not turn out when called, I am convinced that the most progressive of them are willing to serve the community and do whatever community work is required of them if called. They have some ideas of their own, and the only older persons who would hear them are the progressive ex-governor and one or two others. They believe that the Pueblo must look outward over the wall, that it must expand its dealings with the modern world, of which it is inevitably a part. They believe that in order to achieve a more realistic adjustment to Southwestern society Taos Pueblo must secularize its government. This they are willing to strive for despite the opposition of the hierarchy, and they believe that separation of church and state is possible in the face of the opposition. Consistent with their outward orientation, the young men are ready and willing to sit down with the older men and with United States Indian Service officials to talk out their difficulties.

I am not aware that any of the veterans are on the council, but several councillors who were just above the age limit to go to war and who are now in their early forties ally their sympathies with the younger men. Several others have served as junior officers on the staffs of previous governors, but this does not entitle them to membership on the council, although they used to be called by courtesy and for advice.

Absenteeism and withdrawal from participation in Pueblo affairs, as with the older men, saps the cause of the younger men. The young men are supposed to turn out when they are called to dance on the saint's days. Four appeared on St. Anthony's Day (June 13), but there was only one male dancer on St. John's Day (June 24). Now it is the function of younger men of warrior grade to dance, just as being a councillor is synonymous with singer, for the council is the choir at these fiestas. But the young men, as we have seen, do not want to dance. The council has denied them certain rights and the only sanction that they can exercise in retaliation is to withdraw their support. Absenteeism is a powerful sanction in most primitive societies, against which the council has almost no recourse because the magical sanction of ceremony itself is supposed to be sufficient. The council can call the young men into the governor's office. The governor has announced who is supposed to dance and the public consequently knows who is delinquent. If a man is called and fails to show at three successive saint's day dances, a piece of work may be set

aside for him. Even the middle-aged men feel uncomfortable about the boys' not taking part. "It is a hard problem we have up there. They can set a piece of community work aside for them: Fix fence, road, clean the village. I hope they do. The village needs it—there are tin cans everywhere"!

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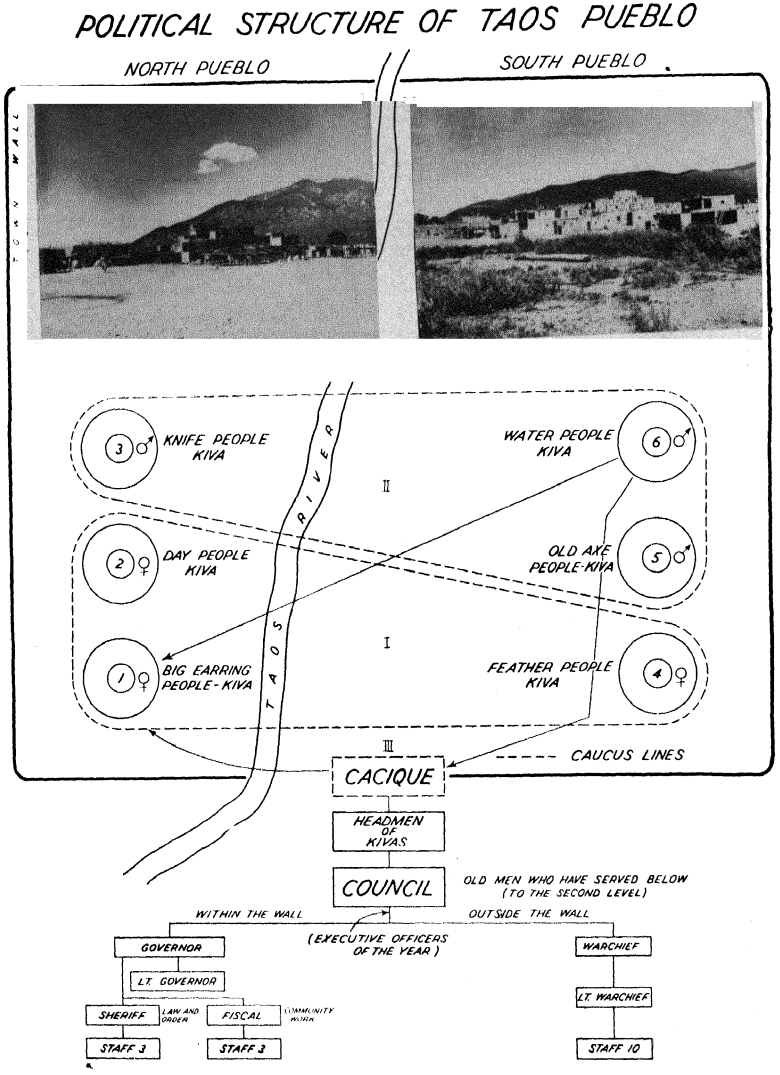


Diagram of the political structure of Taos.

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