
This document has been checked for information on Native American burials. No images considered to be culturally insensitive, including images and drawings of burials, Ancestors, funerary objects, and other NAGPRA material were found.



UNIVERSITY OF
GEORGIA

Franklin College of
Arts and Sciences

Department of Anthropology

Laboratory of Archaeology

UNIVERSITY OF GEORGIA
LABORATORY OF ARCHAEOLOGY SERIES
REPORT NUMBER 70

KOLOMOKI MEMOIRS

WILLIAM H. SEARS

Edited with a Preface By
Mark Williams and Karl T. Steinen

Kolomoki Memoirs

By

Williams H. Sears

Edited with a Preface By

Mark Williams and Karl T. Steinen

University of Georgia and University of West Georgia

University of Georgia
Laboratory of Archaeology Series
Report Number 70
2013

Preface

Mark Williams and Karl T. Steinen

This document was written by Bill Sears about 1988 at his home in Vero Beach, Florida. He had retired in 1982 after a career teaching anthropology and archaeology at Florida Atlantic University. He was working on a book of his professional memoirs, intended to summarize the many archaeological sites he had worked on in Georgia and Florida from 1947 until his retirement. He wrote chapters on his 1948 excavation at the Wilbanks site (9CK5) in the Allatoona Reservoir (Sears 1958), on his 1953 excavation at the famous Etowah site (9BR1), and on his 1947-1951 excavations at the Kolomoki site (9ER1) published in four volumes (Sears 1951a, 1951b, 1953, 1956). These three sites constituted the bulk of his archaeological excavations in Georgia. Apparently he never wrote the intended chapters on his archaeological work in Florida, and the book was never completed.

Following his death in December of 1996 (see Ruhl and Steinen 1997), his wife Elsie found the three chapters in a box and passed them on to one of us (Steinen). The chapters on Etowah and Wilbanks are being published separately. The document we present here is his unpublished chapter on the Kolomoki site. It provides a fascinating look at the state of archaeology in Georgia 65 years ago and is filled with pointed insights on many people. It also helps us understand his important work at the site. He reviews all of his excavations there with the benefit of 40 years of hind sight. Indeed, the writing of this document led to his last important publication *Mea Culpa*, published in 1991 in *Southeastern Archaeology* (Sears 1991:66-71).

In that paper he admitted that he had unintentionally reversed the ceramic sequence at the site (putting the Kolomoki period after Weeden Island period) in his earlier work. In his defense, he found no place on the site with excellent stratigraphic evidence of the true sequence. In this paper, one can see him struggling with the defense of his earlier perspective, and writing *Mea Culpa* shortly thereafter. That paper would likely not have been written had he not first written this paper. Indeed, he tells us this directly in *Mea Culpa* at the end of the second paragraph when he says “I realized this error while working on a book which includes an account of my work at the site” (Sears 1991:66). In this context we are delighted to present this historically important document to the southeastern archaeological community. We have lightly edited the document and dealt with a few minor issues of style.

References Cited

Ruhl, Donna, and Karl T. Steinen

1997 William Hulse Sears: 1920-1996. *Bulletin of the Society for American Archaeology* 15(4).

Sears, William H.

1951a *Excavations at Kolomoki: Season I*. University of Georgia Press.

1951b *Excavations at Kolomoki: Season II*. University of Georgia Press.

1953 *Excavations at Kolomoki: Seasons III and IV*. University of Georgia Press.

1956 *Excavations at Kolomoki: Final Report*. University of Georgia Press.

1958 The Wilbanks Site, 9CK5. *River Basin Survey Papers Number 12*. Smithsonian Institution, Washington, D.C.

1991 *Mea Culpa*. *Southeastern Archaeology* 11(1):66-71.

Kolomoki Memoirs

William H. Sears

INTRODUCTION

After I earned an MA at the University of Chicago, I moved to the University of Michigan for various reasons, one of the major ones being that James B. Griffin (Jimmy) was in charge of the PhD program for archaeologists. Settling down, things moved along smoothly enough for two academic quarters. A program of courses and study was worked out which would lead to the degree. Griffin kept my nose to the grindstone and I was learning a great deal. A dissertation program on contact period archaeology on Long Island was lined up. There was even some support for summer field work on the dissertation.

But my best laid plans were strongly assaulted in the middle of the spring of 1948. Griffin received a letter from Arthur R. Kelly requesting the services of Wesley Hurt a student whom Kelly knew, to start digging a site called Kolomoki. Hurt was already committed for the summer. It seemed to Jimmy that this was just what I needed. A large, complex site, the opportunity to work on my own with the acceptance of responsibility involved, a ready-made subject for a dissertation, and of course a paying job for at least that summer. I protested in vain that I had a summer project, that my wife Elsie was pregnant with our first child, that I knew very little about southeastern archaeology, and so on ad nauseam. Jimmy pointed out that this was a great opportunity to dig a major archaeological site, suggested that it was time I took on a man sized job, and finally asked me if I were really sure that I wanted a degree from the University of Michigan. These arguments, particularly the last, were very persuasive. I packed most of our worldly possessions in our ancient Dodge, packed Elsie off to Long Island to visit

her parents, and left for Georgia after Griffin had persuaded Kelly that he really wanted to hire me.

My instructions were to get myself to Blakely, Georgia, barely perceptible on my road map, check into a specified hotel, and await the coming of Kelly and a representative of the Georgia Department of State Parks. All I knew about Kelly was that he had been in charge of the Works Progress Administration financed project at Ocmulgee National Monument, near Macon Georgia, for many years, and that he had written the very odd Bureau of American Ethnology Bulletin 119 that purported to describe that work and its results. This report, which I studied carefully, was certainly confusing and inadequate by Chicago and Michigan standards. But then, most of the W.P.A. reports, mostly published in the same series were odd. They had lots of excellent photographs, pictures of beautifully cleaned burials, structures with post holes and wall trenches neatly cleaned out and spotless floors. There were lots more pictures of pots and projectile points, but almost uniformly these were accompanied by texts that gave very little information about what went on in the site, the past, or even how the pots and buildings related to each other.

Kelly, who I discovered shortly preferred to be addressed as Doc, did not, even after a site visit, seem to have any very definite ideas about how I should proceed, except that whatever I did I was to do it in a limited area of the site to clear it for the construction of a road which was to cross Kolomoki Creek over a new dam which was also to be built. I began to suspect that although the Park was there because of the archaeological site, the site was incidental to other park uses in the minds of the local populace and state and local politicians. I did feel that I could count on Doc for supervision. I was wrong. He visited with some regularity for years, but I got a great deal of polysyllabic verbosity; no supervision, which would have caused problems

anyhow, and little help. Besides this, I got \$80.00 per week. No expenses or benefits of any kind, I was on the State Park payroll, and my budget was part of theirs. All financial matters were to be handled through State Parks, including the weekly payroll.

I had a small account at the local hardware store for basic tools and supplies. Paper bags for specimens they had. Graph paper, ink, and writing paper they did not. Some items were shipped from Atlanta. I made other arrangements for the balance, like film.

A few things seemed to be lacking. There were no surveying instruments, no cameras, no transportation, no place to store tools, etc. Nor, were there funds identified in the budget for such luxuries, meaning in theory that money could not be spent for them. I used my own camera, inadequate for the purpose, and borrowed a transit from a local citizen. Arrangements for use of a truck, with State Parks paying for it, were made locally but are best left undescribed even at this date. Tool storage and shelter for people and equipment that summer for a while, consisted of a pup tent I owned. With some care, it did keep a few notes and records out of the weather during the day. Later we borrowed space in a contractors tool shack.

I did have permission to hire 5 to 10 men at 75 cents an hour, not bad pay at that time in that area. The office of the governor issued a mandate that I hire "high class" young men. The Chamber of Commerce arranged for me to use their office for hiring. Explaining carefully to each man about pay, lack of benefits, hours, kind of work, hours, and so on, I had my crew shortly. I found out later that there had been some political patronage recruiting done before I got there, and, according to one young man, my Yankee accent was so indecipherable that he hadn't understood anything I said except seventy five cents an hour. Eventually, I learned to speak in a more acceptable manner.

THE SITE

Kolomoki is right in the middle of the southwestern Georgia, and Gulf Coastal Plain, red clay belt. The site, and most of the countryside, is heavily eroded, particularly those parts of it which had been farmed with row crops such as cotton, corn, and peanuts for a century or more. In 1948, most of the farming was still carried out on the 40 acre and a mule tenant farmer system. The mule barn was the biggest building in town, and still a very large business. My workmen who lived in the country, and most of their friends and relatives, came to town, Blakely, every Saturday, often in wagons drawn by the farm mules.

Where they were not farmed, the red clay uplands grew scrub pine and palmettos, Spanish Bayonet known locally as Bear Grass, and a few oaks. Small ponds with cypress were common.

Kolomoki Creek, which has cut deeply through the red clay down to a Pliocene limestone formation, is the eastern boundary of the site. Small but deep cut ravines with springs at their heads coming from the same limestone, are frequent, each spring fed stream flowing into Kolomoki Creek. Clean white, yellow, and gray clays are found around the springs on top of the limestone. They were used for mound construction, at appropriate points, and for pottery. The creek and ravine bottomlands support a rather lush semi-tropical growth, dominated by magnolia, live oak, water oak, and frequent stands of cypress. I believe that this bottomland vegetation has not changed appreciably, here or in any of the stream bottomlands in the area, since prehistoric times.

These creek and valley ravines were, I think, important parts of the support system for the inhabitants of Kolomoki. Wood for specialized purposes was certainly found there, as was cane

for baskets and other mats. Even more important was the game which lived, still does to some degree, in these bottoms. Deer, and most turkey, are gone today after a century of upland clearing and agriculture, as well as hunting by the farmers. Slow game, such as opossums and raccoons is still present as are large quantities of turtles. Fish are reasonably abundant and beaver were building dams in 1948. Some idea of the game present at the site may be gained from the pottery effigies which we found in Mound D.

The spatial relationship of the mounds, plaza, and midden areas representing village locations are clear. The map does not of course tell you which of these features were in use at the same time, so it is not really a community plan. These emerged as we excavated, since I didn't know them before going to work. The area actually occupied by the mounds and other features is quite flat. It varies by only some 12 to 15 feet vertically in the 2,000 feet horizontally from Mound E to Mound A. This flat area drops off sharply in the small ravines with springs at their heads, and to Little Kolomoki Creek to the north, east, and southeast, but continues flat to the west and the south.

The seven mounds, plaza, and village areas shown on the map will be described individually, and the excavation of each described, or some comment made in the few instances where excavation was not undertaken for some reason. It is probably simpler though to comment on a part of the City Plan here. The relationship between Mound A, a large temple mound, almost unique in its lack of a ramp, a 50 some foot high truncated pyramid at the east and of the plaza, and the village area denoted by midden deposits in a large arc around the western, northern, and southern sides of the plaza, is of some importance, a classic city plan for sites with major ceremonial structures in both the old and new worlds. Really, it is a plan, a functional pattern for performances with the mound as stage and the plaza as the gathering place

for the multitudes who are to observe the performances, the religious ceremonies. The principal is the same as that behind St. Peters Square or the plaza in front of the great pyramid of Tenochtitlan. The identification of this flat space of Georgia red clay is certain. Not only would we expect it in such location, but the clay is unduly hard, nearly sterile, and devoid of any traces of midden deposits, indeed, of any use by humans except standing on it. In fact it is still so hard that during a period of site neglect after my excavations, motorcycle and four wheel drive vehicle traffic by intrepid souls attempting to scale Mound A and soar over reconstructed mound D failed to rut the plaza at all although they did damage the two mounds.

The plaza, predictable or not, tends to knit itself, the village area which arcs around it, the two mounds which flank the temple mound, and Mound D into a single complex. This theory, an early observation on my part, had to be tested, and then of course modified by excavation. Mounds E, H, and F, as well as two other areas of midden deposits did not seem to fit into this pattern, another facile observation which needed, and got, testing.

Perhaps it is well to tell you now that only a small part of the actual living areas was excavated. The precise proportion was not, and is not, my choice, nor was it due to any thoughts about random tests, computer generated analyses, nor anything of the sort. I thought, and think, that more should be done, and I will suggest some of it at points as we move along. Limitations of time and money were of course important. Heavy erosion was, and is, significant in a few spots, especially to the west and northwest of Mound D. Sherds, flint chips, mica flakes and other debris are thick there in spots, but sit on the ground surface. The dirt in 6 inches to a couple of feet of midden has been washed away, leaving the hard particles, the cultural debris, sitting on the surface.

A final general comment, intended particularly for the young and eager. Virtually all of the site, and most of the bulk of the mounds, except possibly Mound A, is Georgia red clay. It is tough, mean, and it will inspire undue excesses in the vocabularies of those who work in and with it. I have, in the month of June, seen it so hard that the task of putting stakes in the ground required chipping out a shallow hole, pouring it full of water and then waiting an hour or two to drive the stake. This meant really that hole had to be located with the transit and tape twice, rather a slow process. Efforts to get the job done the normal and easy way produced broken stakes, misplaced and cracked stakes, and mashed fingers. It is years before the experience really leaves you. The red color imparted to clothes is very durable. It can be removed in one washing only by using the old southern technique of boiling the clothes with soft soap, beating a bit, and rinsing with more boiling water. I discovered, eventually, that this gets Marine Corps fatigues and khakis soft, clean, and sweet smelling. It also wears them out in a dozen washings or so. I had to buy new field clothes in less than two seasons.

Why excavate? This is a question that should always be asked. Excavation programs can be designed, often have been, to keep students occupied and faculty employed during the summer months. This is hard to justify scientifically, let alone morally. I am not at all sure that I was asking such questions at the time. Today, my view is that you get major understanding of a culture from its major sites, more information for the buck simply because there is more there.

This being the case, a site like Kolomoki, the largest and most complex site of any grouping of sites on the basis of features considered to indicate cultural relationship, should be excavated as soon as possible anyhow. Major sites are far fewer in number than the smaller sites which are the remains of smaller villages, farms or whatever. Too, the little ones tend to be duplicates to a large extent, within a given set of culture parameters. Add to this the simple fact

that major sites, striking and usually well known, are the obvious candidates for damage and destruction by one agency or another in our ever more populous world. Their excavation is almost always salvage, if not from loss today, then from destruction tomorrow. For example, State Parks almost accepted the lowest bid for building a dam across Little Kolomoki Creek until they discovered that the contractor intended to keep costs down by using the nearby and handy Mound A for fill. But, excavation of this site at this time was a political decision, something I was never allowed to forget. The need was to impress politicians, get a payroll, and then to get all of the publicity possible for Blakely, Early County, the State of Georgia and the Anthropology program at the University of Georgia.

Arthur R. Kelly's reason for the choice was that this was one of the two state owned sites in Georgia most likely, through excavation, to generate publicity which could be manipulated into pressure for more archaeology, a bigger organization, and so on. Plain old fashioned Empire Building, of course, but, not all bad although it took a few years before the obvious impressed itself on me. A site can't be dug without support and money, and a lot of money most of the time. If excavations at Kolomoki were to have been started with the kind of organization being used in other states at that time and later with archaeology and anthropology represented by one faculty member and work limited to summer programs with a few students in a field school, results would have been sorry indeed. Significant features of the site, real quantities of data, could have been destroyed. This is not a hypothetical situation. I was, in later years, to see it happen. Some of my colleagues who visited Kolomoki while I was working there, and they and others who discussed the work became enlightened at least to the point where they accepted the fact that large and complex mound structures cannot be dug, season after season, in tiny pieces sized to fit the available student work force. If nothing else, choice would have to be made after

a while between spending a significant portion of field time removing backfill and then covering up again what little new excavation had taken place at the end of the season, or leaving excavated surfaces exposed to the weather. This invariably causes damage and loss. Again, I have seen the horrible results of such efforts

I had the chance to solve the huge puzzle that was, and is, Kolomoki. There had been a little earlier work at the site. Fortunately, and unusually, it provided me with some useful information and did little damage. A single large pit was dug right into the top of Mound E, but did not go deep enough to do any harm. Mound D had been cleaned off, trees removed, and a little digging done on its top, not penetrating deep enough to do any harm. It saved us a lot of time, labor, and chisel, and saved excavation because all of the tree roots had rotted by the time we cut into the mound.

One does need to know as much as possible about the culture which was present at the site, based on material found on the surface, before starting to dig. This enables some prediction, some problem visualization, and of course increases self-confidence as you face the otherwise imponderable. I never saw the notes or collections on which the appraisal was based, but Kelly and a person or persons unknown had decided that Swift Creek and Weeden Island were represented at the site. Swift Creek, a kind of pottery, had been discovered but never really defined by Kelly and was discussed in his Macon Plateau site publication. Persons working with him later defined the pottery style formally [Editor: this was actually defined in 1939 in the SEAC Newsletter]. More obvious were relationships with a culture defined on the basis of pottery styles and some mound features by Gordon Willey, and published by him. The type site, consisting of a burial mound excavated many years earlier and a never excavated shell midden, was on Tampa Bay. The defined pottery styles were based on specimens from the Tampa Bay

Mound, many collections made on the northwestern Florida Coast by Willey and Woodbury, and a lot of pottery from mounds on the northwestern Florida Coast excavated early in the century by Clarence Bloomfield Moore, about whom more later. The Willey and Woodbury publication, supplemented a year or two after I started work by a much larger and more detailed work by Willey, provided a lot of information to base predictions on. It also demonstrated, clearly, that Weeden Island and Swift Creek pottery belonged together. This was interesting in itself, because the Swift Creek pottery, decorated with neatly cut complicated, stamped designs, and the Weeden Island pottery, red painted, incised, and punctated in a great variety of combinations, also occur separately. A situation like this sets up one puzzle immediately. Who adopted whose styles, or who moved in with who - lock, stock and pot makers?

The surface of the site, the area marked as village in the map, were littered with both kinds of pottery. There were some differences in distribution though, an interesting point. Did this represent different people, or different time periods? There were, obviously, a lot of puzzles, both at this site and on all of the sites worked or collected by Willey and Moore.

One responsibility of an archaeologist is to make and keep notes, other records, and catalogued specimens so that others can work with them in the future. I did this, but am afraid I must point out that curating, the care of these records and specimens, was not up to the standard after I left Georgia. Anyone qualified should be able to do further research on Kolomoki using my notes and collections, just as I have many times studied some of these made by Willey and C. B. Moore. Unfortunately, this is only partly possible. All the field notes, maps, and drawings were lost, as was the catalog. Some restoration of the catalog has recently been done by Karl Steinen, using bag and box labels. Photographs are back at the University of Georgia, where curating is professional.

Finally, most of the complete pots from Mounds D and E were stolen from the museum exhibits some years ago. The exhibits were redesigned afterwards, and a few of the vessels were recovered by the police. This happened during the same period of inept management which saw records lost and vehicles running around the site and over mounds at night.

During my period of responsibility, notes were reorganized daily, and typed. Drawings were inked and collated. All specimens were washed, a catalog number placed on them and entered in the catalogue where the find spot and other pertinent data were entered with the number. A bound surveyors notebook was used as a catalogue, and all entries were in ink. Photographic negatives were filed and prints mounted on a file cards with pertinent photographic and archaeological data. Filing was serial and some cross filing by archaeological categories was eventually completed.

THE VILLAGE AREAS

The first excavations at Kolomoki were made in village areas, marked as midden deposits by remains, mostly sherds of broken pottery, on the ground surface. I made no effort, at the beginning or later, to sample the site, randomly or otherwise. Material on the surface of the ground, in this region of hard red clay at least, told us where things had been deposited-or left-or lost. So, that was where we dug. The first trenches, in the southeastern part of the site, were intended to find every deposit of any significance there so that a road might be run through or around deposits. This work also of course served the primary archaeological needs of documenting the presence of in-place dwelling area refuse under the disturbed plowed zone and to provide us with information on what kind of artifacts the prehistoric people had been using in that particular spot. Later in the history of excavations at Kolomoki, we excavated midden

because we needed to know more about a particular complex, a specific selection of artifact styles. Consequently, some deposits which were, judging by surface material, duplicates of some already excavated, were left intact and possibly still remain in place.

All village area middens were excavated in 5 foot square units, a size selection made years before my time because it is a convenient size for shovel work. Frequently the 5 foot units were strung together into trenches of sufficient length to cut all the way through a deposit. In each pit or trench, after removing the 6 to 8 inch thick plow disturbed top soil, labeled level 1 another traditional dimension was used and layers arbitrarily 6 inches thick were taken out, one after the other. Again, 6 inches is convenient. Most of the work in these midden deposits was done with trowels, carefully removing dirt and picking up specimens as they were revealed, throwing out the dirt each time a shovelful or two accumulated. In order to reveal layers and edges cleanly, excavation had to be carried out below the limits of the midden into the red clay. Here shovels and pick mattocks were used. Frequently other tools, such as pruning shears for cutting roots, spoons for dirt removal, and knives of various kinds for work too delicate for even sharp 6 inch pointing trowels were employed. At times, when there were clear layers in the soil, artificially demarcated levels were abandoned and the soil, with the included objects, was removed from these presumably culturally significant zones. Unfortunately, this rarely happened in the midden deposits at Kolomoki. Color and texture were usually uniform.

Recording, using some means of specifying the location of specimens or other information is an obvious necessity in archaeology. This allows us to record the relationship in space of the various bits of information to each other. Frequently, a grid is staked out covering an entire site. I did not do that here, since it seemed pointless. The bulk of the space inside apparent site boundaries was, apparently and actually, sterile. Horizontal control, the basis for

recording data in plan, on the flat, was achieved by placing 5 foot by 5 foot pits or 5 foot by whatever trenches where the surface material suggested that we might recover specimens and other information. Five foot square grids of appropriate size, usually oriented with the cardinal directions, were staked out on mounds to be excavated, leaving plotting until later.

These pits trenches, and the grids laid out on mounds were at appropriate times during the excavation of the site, plotted on maps. Eventually, these discrete units, partial maps and other features were tied together, using a plane table and alidade, into a contour map of the entire site. This mapping sounds like a lot of work, but, as here, it is often a lot less work than staking out even the skeleton of a grid large enough to cover an entire site of any real size.

This recording is very laborious and not too entertaining. But, to piece together the bits and pieces of data into some sort of coherent whole, to perceive and record intelligible relationships of the bits and pieces to one another, and to communicate with other archaeologists through published reports, some accurate references are necessary. Written notes, scale drawings of both vertical and horizontal distribution of significant bits of information such as strata and other culturally produced soil variations, maps on various scales and of various types, and photographs are all part of the recording and documentation process. Cataloguing the specimens is another part of the whole. To do otherwise is looting, destruction, not archaeology. Or, if you can't get, and use properly, planimetric surveying instruments, can't make scale drawings on graph paper, and can't produce properly exposed and composed photographs, don't start digging.

Sometimes removal of the plow disturbed topsoil revealed more or less round, regular or irregular blobs of darker material outlined by the native red clay instead of the solid mass of dark material which was the expected midden deposit. These pits, if such they proved to be after a bit

of careful probing, were cleaned out as units, being careful to remove the dirt and specimens by zones or arbitrary levels just in case there was some change in the fill through time. One always hopes that the fill in pits represents a short period of deposition, even that they were filled in by the Indians on purpose and all at once. If study of the artifacts in the pit fill, as well as careful trowel work with inspection of layers, pockets of debris, and other data support the thesis that the fill was rapid, we have been gifted with a short term sample of the culture's artifact inventory. These are not usually available from larger midden deposits.

About thirty pits and trenches were dug in the part of the site south of the temple mound during the first season. Most were only 5-10 feet long, but a few were as long as fifty feet. Some went around corners, of necessity as we dug where there was material below the plow zone. Many produced no information, others only a little. Several were very productive, fortunately for our understanding of the site, if not for the location of the road. We were well along in the season before I fully realized how far the generations of plow, harrow, and cultivator use had moved specimens, up to 100 feet. Distribution on the surface was only an indication of what occurred below the plow zone. Also, of course, the movement back and forth had mixed material from different midden deposits and pits into an almost homogeneous whole. This made collections from the plowed zone useless for study; they were mechanical samples, not cultural.

One of the midden deposits, some 30 feet across and up to 18 inches deep below the plow zone, a shallow basin in cross section, was very productive. The deposit was quite soft, nearly black soil resulting from the inclusion and decay of a lot of organic matter. This was crammed full of pottery fragments, pieces of animal bones, flint chips, occasional pebbles, mica flakes, a few shell fragments, and a lot of other odds and ends. We never did find out what the mica was used for. Over 6,000 fragments of pottery, potsherds, came from our one 5-foot wide cut across

this midden. Half of these were decorated with superbly cut complicated stamped designs, often applied to the shoulder areas of medium sized high shouldered pots with smooth plain bands below the rim. The bases were often flattened into discs or squares. These are characteristics of a style, a type, I named Kolomoki Complicated Stamped. We would find complete vessels in Mound E. Some specimens of this type were included by Willey, and others, in the Swift Creek type mentioned earlier. Most of the rest of the sherds were plain, and only 35 of the 6,000 specimens were of the kinds of pottery we would find in some pits nearby, varieties of the Weeden Island style.

I collected bones, carefully, and cleaned and cataloged them. I had been taught that bones with joint ends on them as well as jaw bones and many skull parts, could be identified, at least to the species level. Consequently they could give us information on cultural preferences in food animals and birds. Of course, with only mediocre preservation there was a distinct bias in favor of the larger bones from larger animals. I continued the practice in spite of advice from a visiting senior archaeologist that it really wasn't worthwhile in the Southeast. Eventually the bone collections from Kolomoki were studied and gave us some information.

Most of the sherds of the Weeden Island complex with red painted, incised, punctated, and modeled decoration came from the surface just south of the south park boundary. If the distribution of surface materials is indicative of what lies under the ground, a reasonable hypothesis, particularly after the relationships documented in the park are taken into account, a rich and large village with this kind of pottery dominant is just outside the southern boundary of the park and the area available to me. In the area we excavated to clear the way for a road and to gather information, there was a thin scattering of specimens on the surface and in the present plowed zone. A number of very small pits, perhaps just the bottoms of larger plowed up midden

deposits, contained a dozen or so sherds each of the Weeden Island variants. One trench, fortunately, located way off at the edge of the level area to the south of Mound A and very near the steep slope down to the spring head nearest Mound A intersected two large, 4 to 6 foot diameter and 3 foot deep flat bottomed, wash tub shaped pits. These had been dug rather carefully, 3 feet down into the sterile red clay. In the soft, black, almost greasy midden that they contained were over 2,600 potsherds, many animal bones, flint chips and a few flint tools. Most of the decorated sherds were the very attractive Weeden Island styles, beautifully executed in almost every instance. Two or 3 percent were decorated with complicated stamps, a more complex and finer lined variant than those from the other trench, applied over entire vessel surfaces except for folded rim bands. No pieces of flat bottoms were found, only convex bases. A very few specimens, 16 total, were decorated with impressions of an angular stamp rather than the curvilinear designs we were familiar with. This style came from northern Georgia

This was beginning to get interesting. The pottery at this site came in two assortments, documented two different cultural traditions. One assortment had a stamped pottery dominant, the other was characterized by the Weeden Island pottery. Were they left by the same people at two different points in time, the economical hypothesis, or did our data suggest that people with one cultural tradition, probably then one society, replaced another society? In either case, which culture built which mounds? It would take more information, obtainable only by a lot of digging, to settle these questions.

Actually, we had still a third, if stylistically minor, variant. Off one end of the trench with all of the stamped pottery we found a small midden deposit associated with a shallow pit in which there were the skeletal remains of one female. Unfortunately, there were no ornaments or other grave goods with her, unfortunate because they would have provided some information on

another part of the culture. But, in the grave fill and the small midden deposit, we found another 626 sherds. Most of these were plain, an unduly large proportion. There were 129 sherds with complicated stamps with curvilinear designs. These differed from either of the other assortments. More complex designs, usually in chains, covered the entire vessel exterior, except for the base and folded rims. The vessels were not well finished either. There were a few Weeden Island sherds. This was a third entry in our "who came from where and did what" sweepstakes.

Toward the end of the first season, the contractor working on the dam which was to cross Kolomoki Creek found sherds and bones in the topsoil southeast of Mound A as he began clearing and scraping. The sherds, a variety called Lamar, were different from any in the main part of the site. The name comes from a plantation and a site on it near Macon, Georgia. Among other distinctive characteristics, the temper, the aplastic mixed with the clay, was very coarse and the complicated stamped designs were over stamped, again and again, as if the makers were more interested in shaping and consolidating the pot than they were in decorating it. The area from which the cultural debris was coming was small, about 50 feet by 50 feet. We had to work on this right away so the contractor could continue or relocate the dam if necessary. By the time we were aware of the little site, disclosed by 3 or 4 passes of a large grader, much of the topsoil had been removed and dumped into a large pile. I decided to try machine removal of the rest of the topsoil, a project which the beleaguered contractor fully approved. I had full control of the machine and its operator so the experiment could be stopped at any time. However, I found it very successful. Riding on the back of a machine set for a thin cut and watching a clean planed floor unrolling beneath and behind me, I located more of the scattered refuse pits or midden concentrations in the subsoil in days than I could have in two weeks with the crew I had. Part of

the topsoil being removed had accumulated since the Indians had lived there, which meant that the machine was removing the specimens from the top 2 or 3 inches of each pit, and putting them in a dump pile from which they could be, and eventually were, recovered. Usually, I could locate pits while an inch or two of humus was still in place, so we lost almost nothing. At the end of this experiment, I was about ready to recommend a pan pulled by a crawler tractor as an excavating tool.

We cleaned out the dozen shallow basin-shaped pits by hand, and cleaned off the burial of one adolescent which was probably flexed, doubled up in a fetal posture. We found just over 700 fragments of pottery and some animal bones and turtle shell fragments. The pots, stamped as described in an equally sloppy fashion with a checkerboard design, were from larger vessels than any of the varieties found in the middens west and south of the Temple Mound. The Lamar people, believed at that time to be just prehistoric, most certainly had nothing to do with the mounds and the plaza on the site. The few Indians who made and/or used the stamped pots, perhaps one family who lived there for no more than a season or two, a workforce of 5 to 10 people, were clearly not capable of the work required to build the mounds, probably never even noticed the forest covered lump. Certainly if they had been mound users, let alone builders, as few as they were, their dwelling area would have been oriented in some significant fashion with some of the mounds, at least to the temple mound and plaza, not to a spring in the creek behind them.

During the field seasons of the next four years, we excavated several thousand square feet of these village garbage deposits. I and my crews dug most of them, people working with me and people from our crews did more, and A.R. Kelly supervised students in his field school in their excavation of one trench. We did not find any more Lamar, and no more of the midden

characterized by a relatively large amount of the Weeden Island pottery, like the contents of the flat bottomed pits. Nor, did we ever find anything documenting the presence of buildings, such as alignments of the cylindrical stains left from the posts with which they were built, or carefully formed and heavily used fireplaces. Too, although we began to look desperately for evidence of vertical change in artifact types, resulting from long term use of one location, or re-use of one place, we never found any. This is very unusual indeed. There was one possibility in one area of sparse midden on the northern side of the plaza, but the area there was so confused by many small pits that we had to give up. Houses, which had to have existed, must have been the thatched type like the historic Seminole chickees, a lot of roof held up by a few posts. And, no house was occupied long enough for any observable style change to have taken place in the artifacts, either in changes within a style, in the relative popularity of a style, nor in replacement of one style by another.

We did find deposits in which most of the decorated pottery was the particularly attractive stamped ware which I named, after the site, Kolomoki Complicated Stamp. A particularly rich deposit, only 6 to 8 inches thick and covering a few hundred square feet, was sealed under Mound D. It produced over 4,000 sherds; nearly all of them from the flat based and stamp decorated vessels.

Other midden deposits with this kind of pottery were found all round the plaza. A similar stamped ware, without the neatness and flat bases, mixed with fair percentages of the Weeden Island pottery, cropped up at a number of places around the arc of midden which defined the plaza. Eventually I walked over every inch of that many times. I probably picked up, inspected, and dropped every sherd exposed including many in that part of the arc between Mound D and Mound H, an area so heavily eroded that sherds, flint chips, and bits of mica lay directly on the

hard red clay surface. The point of all this was as follows. Judging by the distribution of both the excavated and surface materials, midden with mostly Weeden Island pottery was found only to the south, where it partially abutted on the southern edge of the plaza. Most of it was in a field adjoining the park, so that contiguity to the plaza appeared to be coincidental. All the way around the plaza however were deposits of 2 types: (1) those with Kolomoki Complicated Stamped Pottery as the dominant decorated ware and (2) those with a different kind of stamped pottery mixed with some quantities of the Weeden Island pottery.

It seems that I am placing a lot of emphasis on pottery, I am sure. But, except for a lot of bones which ultimately told us that people here were able to eat mostly deer and turkey, skipping turtles, opossums, squirrels, and other less desirable critters, a lot of flint chips, and a few flint arrow points, we didn't, at Kolomoki and don't in most village debris deposits, have a lot of anything else. We tried to find houses and couldn't, but everything we know about primitive peoples at this level of development says that the houses were where the midden deposits were found. We expected to find evidence for vertical change in the middens, meaning change through time, in artifact styles, especially change in pottery designs and styles. This would serve to bring temporal order, at least in a relative sense, into our interpretations of the site. The change wasn't there. This is distinctly unusual. Middens of any depth usually show some change in artifact styles from top to bottom, sometimes a lot of it. Even more to the point, every related site of any richness at all in Florida, Georgia or Alabama changed some styles between the surface and the bottom. The lack of this tells us, I think, that Kolomoki was unique, was really very different in many respects from all of these other sites. And, of course, we should be able to work out a lot of relationships on the basis of the ceramic change.

MOUND E

In the summer of 1949 I had the opportunity to dig Mound E. I wanted to do this, of course, but will confess now that the prospect produced some qualms. I had never seen a mound dug, had read very little about qualified excavations of mounds this size, hadn't even been near a mound except at a distance in Illinois. But, the large lump of tree, brush, and as it turned out, redbud covered red clay had a certain attraction. It was selected, with some input by me, to be the first mound excavated because it was out of the way, a location which lent itself to development of an in-place exhibit if it qualified as it was being dug.

The mound and the area around it had been out of cultivation for many years. The growth of oak, hickory, and pine trees, with palmettos, cat briar, poison ivy, tall grass and weeds filling in the holes was probably quite close to the aboriginal vegetation. The trees were going to be a problem. The process of archaeological excavation does not permit the massive soil disturbances which bulldozing or dynamite would entail, although I had some wistful thoughts about dynamite. We had to figure on cutting away the stumps as if they were part of the dirt, although with different tools. There were none of the usual signs of potholes dug into the mound by persons unknown, but there was a record of an old excavation sponsored by the Bureau of American Ethnology. We found that filled in pit soon enough, but it hadn't done any harm.

The presence of Weeden Island pottery on the site made it possible, even probable, that the mound was similar to mounds with that style of pottery excavated on the northwestern Florida Coast and up the Apalachicola River by Clarence Bloomfield Moore early in this century, or so I reasoned, abetted by Kelly, Gordon Willey, and, if I remember correctly, Tono Waring. There were a lot of people around watching to see what happened during the first

excavation of this type of mound by a qualified investigator in several decades. Antonio J. Waring Jr. was a Yale trained medical doctor, a pediatrician actually. He was also considered, by my peers and by me as soon as I got to know him, one of the best archaeologists in the Southeast. I enjoyed, and profited by, his many working visits to Kolomoki. I have mentioned Gordon Willey before. He had done most of the work since Clarence Moore on Weeden Island, and had, or soon would, publish it. His curiosity was predictable enough, but so, I suppose, was my gratitude for his counsel. His presence was possible, frequently, because he was spending the summer teaching a course for Kelly at a summer school headquartered nearby, after which he went on to Harvard and an endowed chair in Meso American Archaeology. If my theories, based on Moore's accounts were correct, although his excavation techniques obscured or ignored a lot of details, we could expect a deposit of pottery vessels on the eastern side of the mound. Perhaps with the pots there would be a human head or two, maybe some conch shell dippers, and a few other odds and ends. Burials, the remains of complete bodies and perhaps more deposits of part bodies or heads, could be expected further in, perhaps in the center. Some sort of core or primary mound, a structure built and surfaced to a definite size and shag before later layers were added was to be expected.

My excavation plan was based on these probabilities, but after having dug the mound at the Wilbanks Plantation site in northern Georgia the previous fall and spring, I was ready to fall back and regroup at any point.

We were better organized and better equipped this season. I had been able to work directly on the budget and equipment list with John Mann and the Department of Parks, so I had two assistants, Henry Brett, a very competent photographer and embryonic archaeologist, and Molly Allee, a classmate from Chicago. Molly was in charge of cleaning, cataloging, and as it

turned out, repairing and restoring pottery and whatever else we found. It was a good summer. They both did their work very well indeed, and made my life a lot easier. We even had a tool shack for tool and specimen storage, rain shelter, and whatever. It sprouted an outside work table and a porch roof down one side before long, which became Molly's domain.

In addition to all of these luxuries, I got back most of the crew from the last season, now trained in my ways, and added a couple of older men, fathers and grandfathers of the high class young men whom the governor had required. Luxury of luxuries, we even had a pickup truck of our very own to which we added a canvas covered frame over the back and benches to sit on. This transported all of us, water, lunches, instruments, and whatever else couldn't be left overnight in the tool shack. We were ready to attack Mound D, foot and horse. First, it had to be cleared. Trees were cut off as close to the ground as possible, cut up, and hauled off to be burned, excepting usable poles and some hickory firewood. All of the grass, palmetto scrub, vines and grass were added to the fire. During the last part of this operation, driven by my desire for a clean start, I carried arm loads of brush and showed the crew how I wanted cleaning up done. I had had a few red bug, or chigger bites before. This job brought out the true beauty of the critter, and I was decorated with solid bands of itching, occasionally oozing, red roughened skin around my waist, ankles, and places in between.

Enthusiasm helped overcome red bug bites. The normal southern Georgia summer weather, 90 degrees plus in the shade with high humidity and thunderstorms most afternoons, did require some increases in our normal near boundless dedication. It also required me to formalize the work hours I had begun to realize were required during the first season. We started work near dawn, and finished no later than mid-afternoon, thus exerting our maximum effort during the cooler part of the day and finishing before afternoon rains most of the time. In spite of

complaints, I also cut lunch time to a half hour. A longer lunch period required that I wake up most of the crew from their siestas, after which it took another half hour of bad humor before normal functioning was regained. I adhered to this schedule for my entire career in the Southeast. Most people who made their living doing manual labor accepted it, were even used to it. Students, and assistants, continued griping.

With the trees, junk, and redbugs gone, the transit was put to work, along with a rod man and 2 men with tape and hatchet. A local grid was staked out. It covered the entire mound and 20 to 30 feet on each side. Stakes were placed in with some difficulty in the hard clay at the 10 foot intersections, and were numbered using a system which facilitated assignment of grid coordinates down to the fraction of an inch, to any point. Then, with the transit set up on a reasonably high point, we recorded the elevations of points adjacent to all stakes, providing an easy way to record vertical positions as well as providing the data required for drawing a contour map of the mound. Actually, we rarely used the stake elevations since the transit was set up every day at a constant height and used as a level for establishing elevations.

Digging in straight lines with vertical walls, following the grid system, was not always the best way. Such a system is an aid to recording, not an end unto itself or a methodological straight jacket. Other things, such as the aboriginally posed problem, being equal, it was often convenient to dig with boundaries following grid lines, of course. But, the important point is to record, vertically and horizontally, all of the layers, zones, soil profiles, things, and so on that the archaeologists experience and knowledge tell him are, or might be, significant. Choices have to be made, often, in how to dig, slice, or cut the soil which expounds the problem.

The starting technique was that favored by the University of Chicago, vertical slicing on a line running across the entire width of the mound, carried to the mound base or below, thus

presenting a continuous profile which exposed each soil change. A 5-foot wide trench, 12 to 18 inches deep, was dug from the ground surface down just east of the easternmost edge of the mound. Its base was carried down 6 inches or so into undisturbed Pliocene red clay. Then, with freshly sharpened mattocks and shovels we sliced down the western wall, keeping the freshly cut surface straight, horizontally and vertically, so that any changes in the soil, any appearance of stratification or intrusion, could be observed and recorded. The theory, which I had been taught, was that if you recorded everything you couldn't do anything wrong because you would have a record of everything that happened there.

I knew that this theory hadn't worked in the University of Chicago excavations at the Kincaid site in spite of its beguiling simplicity and soon realized why, even though it continued to be the most useful single technique here. The problem is that the same information is not presented by vertical and horizontal cuts through a structure. We cannot observe, let alone record everything, but must choose those phenomena which we believe are significant, although I have heard of idiotic attempts to record everything. It is immediately apparent or should be, that the tree roots being cut away with pruning shears don't provide data to serve the ends of an archaeologist, nor do the marks and stains clearly marking the routes of long dead tree roots. So, they aren't recorded, nor are rodent burrows. After a bit of experience has been acquired, many stains, changes in texture, blobs, streaks, and holes can be identified as the products of events which occurred after the Indians placed the dirt, or were in the dirt by accident when it was placed. These you must leave out of the record or an unintelligible and useless drawing will be placed in the files.

Scale profile drawings were made whenever the appearance of new data seemed to warrant it. They included all zones, layers, strata, lenses of differently colored or textured

material, things such as rocks, which appeared to be significant. A question had to be asked, with respect to each line or symbol placed on the drawing which represented something we saw, or thought we saw, in the soil. What caused it? What was its function? Was it the product of a deliberate action? Could it be the result of an accident? I repeat, everything can't be recorded. Every load of dirt placed in the mound was slightly different, in color and texture, from every other one. This was certainly evidence when we could observe the slight differences that the mound was made of individual water bucket sized basket loads of dirt. But, there was no point in even trying to draw every basket load. A written note sufficed, supplemented by a photo or two which showed a lot of them.

So, we watched constantly and occasionally stopped the mattock and shovel work to slice a part or all of the face extra clean with knife edged trowels to clarify a point. Once in a while I made a drawing of something that wasn't completely comprehensible just in case, after moving further into the mound, it turned out to be the first indication of something significant. Most of the time, slicing stopped at 5 foot grid lines, always deep enough at the base of the slice to see the juncture between dirt deposited in the mound and the underlying basic soil. The old topsoil had been removed over most of the area where the mound was to be built. At the five foot lines, the face was really cleaned with sharp trowels, and marked off in preparation for a record drawing. Vertical lines were marked every 5 feet by dropping a plumb bob down from a grid marker and drawing a line with the trowel down the string. A level line was marked directly on the face, using the transit and a rod. Then the strata, zones, and so on were marked. Everybody got into the act and decisions were made there, on the ground, where we had all of the data required for decisions including texture differences, differential drying times and the presence of thin zones which couldn't really be seen but whose effects could. I have no patience with efforts

to record everything scale or even full size, and then trying to decide later, in the laboratory, what it all means. It can only be harder to decide, even if in better and cleaner working conditions, after abstracting part of the data with the significant features of the profile marked off, occasionally spraying the surface of the cut with water from a garden sprayer to clarify some obscure zone or blob, a scale drawing on graph paper could be made quite simply

What was the point in all of this measuring and drawing ? As Kelly stated with stupefying frequency whenever he was around and I was recording instead of digging, you had to figure out what the structure was, what was going on, as you dug. Jim Ford, Gordon Willey, and others who had worked for him had always told him so and he hadn't waited to see what else they did. So, he depended on written notes, dictated if at all possible, when he did anything at all about recording, The point is two-fold.

(1) Documentation. You are destroying the structure as you dig it, and memory is as fallible in archaeology as it is in any other endeavor. Too, someone else might see something in your drawings or photos that you missed in the field.

(2) To accumulate a set of records for future and further interpretation, including the preparation of a coherent and usable professional report.

Everything deserving to be recorded, every exposure in profile or plan of strata and other features, every artifact and bone cleaned in place for preparation of a drawing or for elucidation of a point to be entered into the notes, needs photographic back up. If the archaeologist misses something in his notes or drawings, a photo may pick it up anyhow. And, at times, because of the vagaries of color selection by emulsions, a photograph, black and white or color, will pick up and record things you can't see. Too, sooner or later, it will be necessary to present your findings verbally. Whether the audience is the Society for American Archaeology or the Kiwanis Club of

Blakely Georgia, you can, usually, do a better job with good color slides. Henry Brett was a highly skilled photographer. He took all of the required record photographs, and supplemented them with a lot of more general photographs intended to document the work and its progress. I suspected at times, unjustly I am sure, that he took more photographs than we really needed on hot afternoons. But, I had more competent diggers than I had photographers.

We didn't have a darkroom at this point. After trying several ways of handling the problem, Henry came to the house we had rented, just off the courthouse square in Blakely, late in the evening. After everyone else had gone to bed, he converted a corner of the kitchen into a darkroom and worked there. By late summer, we also exhibited restored pots in the front hall, rented a room to Molly Allee and were having a lot of visitors. The house and activities in it provided the population of Blakely with a good deal of material for speculation.

The rest of us, Molly included, continued to slice into the mound, clay, stumps and all. Everyone in the crew, young and old, University trained or illiterate, became very adept at keeping tools sharp and the profile they were working on clean, neat, vertical, and on a straight line. After the first week, some of the crew who were less interested than others might not have understood why I wanted digging done this way, but they did know how to do it. Most of them understood very well, and would take an extra 1/8th or 1/16th inch thick slice with a trowel to sharpen up the contrast between two strata without any questions or further instruction. There were a lot of questions about meaning, and they were answered fully, of course.

We were beginning to move a lot of dirt as the face of the cut moved steadily to the west. This season though we used a farm tractor, with a pan on the back, to move all of the spoil dirt 50 yards away. I had used a similar machine for the first time in northern Georgia during the previous fall and spring. It was so successful that I had asked State Parks to supply us with one.

It was reasonably simple to operate, and everyone in the crew either knew how to operate it, or quickly learned. It replaced four or five men with shovels and wheelbarrows over the length of the season, a simple way to stretch a budget. I had seen-been part of-and heard about-far too many hand spoil dirt moving operations to repeat the error. Moving spoil dirt with shovels and wheelbarrows simply wasted too many man hours and therefore budget dollars to be practical most of the time. Sooner or later, since people can only throw dirt so far, it gets in the way and has to be moved again by hand, but I avoid such situations like the plague.

As the face of the cut moved west, we saw that one consistent line between two strata demarcated an arc with its ends on the old ground surface and its center near the apparent center of the mound. The dome under it kept getting larger, both wider and higher. We began to call it the core mound, although for all we knew there might be several of these, successive caps over a core. After it was well defined, a foot or so high and 4-5 feet across, we began to find rocks, a sort of iron cemented conglomerate. These were either on the original, pre-mound ground surface, or on the surface of the core mound. When we first found these, we stopped and made a drawing with each rock drawn to scale and accurately located. They posed a digging problem too, since rocks obviously couldn't be sliced down to a plane with the dirt. However, it quickly became apparent that they covered the surface of a pile or layer of dirt in the mound, the so called core mound. So, we removed them, after noting their position with respect to a layer, and went back to drawings at 5 foot intervals which did include those rocks which showed at those lines. Even getting them out of our way was a problem. They weighed 30 to 50 pounds and were too awkward for the pan on the tractor to pick up. One of the workmen, a member of the high school football squad, volunteered to become the rock man. He placed each rock in a wheelbarrow as it was removed. When he had a load, he trundled it off at a run to a pile well

outside the mound. Ultimately, he had to run the wheelbarrow around corners and up and down pole and board runways and ramps, always cheerfully. His physical conditioning was completely satisfactory to the football coach by the end of the summer.

The first pots showed up just a few feet inside the core mound, sitting on the original ground surface just about where theory said they should be. We ran into trouble immediately. The largest tree on the mound had been a hickory, growing a few feet up on the eastern slope. With diabolical accuracy, its tap root had grown right through a hole which the potters had made in the base of a pot. The root spread out pieces of a 6-8 inch pot to something over a foot in diameter, grasping all of the pieces firmly as other roots grew partly around the pottery fragments. This was my first, and I hoped, last effort at excavation with saws, chisels and knives. While this surgery was in progress, the half-ton stump frowned down on the operation. This vessel, several others involved with smaller roots, and a couple of others on, or just east of the line achieved by removal of the pot with the tap root core, were removed.

Another technique was invented by one of the teenage crew while we worked on exposing these vessels. The red clay of the mound dried out quickly on exposure to air, and became very hard. It was almost as tough as the pots so that cutting it away from them without marring their surfaces was very difficult, even with sharp tools, frequent spraying with water from a garden sprayer, and, after a while, the use of wooden tools. One of the young workers who was keeping me supplied with water and pressure asked "Why don't you use the water to do that?" I thought I had been, but said "Show me." He pumped up the pressure and started blasting away clay with the spray head an inch or so from the pot. It made very good sense, indeed. With a bit of experimenting we discovered that adjustments to the shape of the stream coming out of the spray head were possible. Then we used a fine stream to cut away chunks of

clay and a spray, coarse to fine, to clean the surface of the pot. The trowel became just a tool to move mud deposits out of the way. After a bit, we were producing clean pots, usually broken in place but held together by the clay inside them, sitting on a pedestal of red clay. I have been using the technique, with modifications to suit the soil and the artifacts, ever since. If the specimens are damp, they usually suffer less from further careful wetting than they might from drying out.

But, after removal of the first few pots, I could see that we were dealing with a deposit on the mound floor, or on the surface of the ground which the Indians intended to cover with the mound, extending for an unknown distance toward the center and a somewhat more predictable distance toward each side. This meant that we had to change techniques. Taking pots out of the base of a two or three foot high wall of clay and stumps was hard enough. Certainly we wanted to avoid removing them from the base of an eight to ten foot high clay and rock wall.

So, we moved the base of our cut up to about 2 feet above the base of the mound, leaving a step. This 2 feet was enough so that pots and other things on the mound floor should be in it, protected by the dirt we were leaving. I intended to carry the vertical slicing-profiling technique on westward above this step surface to the apparent midpoint of the mound, and then come back and clean down to pots and whatever else might be present. But, first, we had to go back into the building business. The pots, rocks, and hard layers of red clay suggested that we might indeed be able to develop an in-place exhibit. If so, what we uncovered from this point on couldn't be allowed to weather.

I seem to have spent an inordinate amount of my field time in archaeology building things. But, each structure whether shed or outhouse was a response to a problem. First, here, we built a 4 foot high, 4 foot square, platform of pine logs and cheap lumber just off the southern

side of the mound. It gave us, after marking a tripod leg and putting chocks on the floor, a permanent instrument station for taking levels. Two or three hours of work saved 20 to 30 minutes of setting up and then establishing instrument height relative to a temporary bench mark every day. Then we began to build a shed structure to protect the excavated part of the mound. A row of posts made from pine trees cut nearby 7 to 8 feet high were set well into the ground and 6 to 8 feet apart across the eastern edge of the mound. Eight feet or so to the west we placed another line, irregularly spaced to avoid pot locations, rocks, and grid markers. These, 8 to 9 feet high, were mostly placed in holes a foot or two deep, dug very carefully. The few which couldn't be set in holes because they were too close to features which had some importance were held in place by braces, either to other posts or to the transverse 2x4's now nailed across the top of the pole. Sheets of used galvanized roofing bought from a neighboring farmer were nailed to the transverse 2 by 4s, giving us a roof.

Digging continued, shaving away the profile and moving it to the west, we continued adding posts and roof. Eventually, the entire excavated area, some 60 feet to a side, was under roof. It did sag and waver. In fact, it looked terrible. But, it shed water and was cheap, which was all that we asked. Too, it is far more comfortable working in the shade during a Georgia summer than in the direct sun, and we could work in the rain instead of paying men to hang around waiting for the rain to stop.

Continuing work, I did notice that none of the layers except the final surface showed any evidence of erosion, which meant that no real amount of water had fallen while the mound was being built. We knew what could have happened, from steady winter rains or from the blinding downpours to which we were treated on summer afternoons. Our own dump piles provided very neat demonstrations of erosion and deposition of water sorted material. It was certain that the

mound had been built rapidly. A few days, weeks at the most, was all the time that could have elapsed from the first operation at this spot until the final cap was smoothed down and the monument completed.

When the cut reached the center of the mound, we worked down into the floor, cleaning around the tops of rocks. The pattern of layers in the profile and the rocks sticking up from the floor demonstrated the presence of a truly centered feature. There was a dome of yellow-brown loam which sat over a saucer shaped depression filled with reddish brown sand. Our vertical slicing only took us to its center, so it was necessary to cut further back into the mound. We opened a 25 foot by 15 foot deep room which included all of the rest of these central features. This had to have its own roof requiring an addition to our architectural monstrosity. We sloped it in the opposite direction to direct its run-off down the western side of the mound. Most of this additional room was cut down rapidly from above. A fair part of it was disturbed anyhow. We could see, in profile, an old, filled, 5 foot diameter by 10 foot deep pit, extending down to the top of the yellow brown layer. Undoubtedly, this was the excavation undertaken for the Bureau of American Ethnology by a man named Palmer in 1881.

He seemed to have believed that the yellow brown dirt was the bottom of the mound, the old ground surface, an easy error. After getting down to the same level as the floor we had been leaving, designed to be 2 feet above the aboriginal ground surface, we cleaned up all of the profiles, the walls of the room. All of the workmen were very good at this by this time. Unfortunately, one of the best of them, Jim Smith was cleaning around a large rock when it fell out of the wall and crushed his hand against another large one protruding from the wall a foot or so lower. I washed the hand and bandaged it, but the extensive laceration, possible cut tendons, and probable broken bones required professional attention, so Jim was sent to an doctor in town.

When he returned with a cast, broken bones, and stitches, we had to retire him for a few weeks. In these rather primitive times and cultural surroundings, all I could do was keep him on the payroll while he healed and find money for the doctors' bill, not exactly a normal item on a payroll or a hardware store blanket purchase order. We managed. Jim was able to return to light duty before the end of the season, but the last time I saw him, around thirty years later, the hand was still stiff.

All of the rocks in the bottom two feet of the mound structure were left in place, sitting on the floor and piled up to the 2 feet height, with enough clay left between them to hold them together. These formed lines, or 2 foot high walls, the basal portions of rock layers which had covered earthen layers now removed. Kelly looked at them and was convinced that that the outline was that of the body and tail part of an eagle like one made of piled boulders near Eatonton, Georgia. He wanted the rest of the mound dug to get the head of the bird. I didn't do this since the collection of rocks he saw remained from more extensive layers and zones, were in fact in part an artifact of our excavation method.

So, eagles aside, it was time for us to find out about the rest of the pots and the burials expected to be on the floor of the mound. At least we had a roof over our heads, even if most of the posts holding it up would have to be moved as we dug away the dirt under them or around their bases. We started down, leaving the rocks in place, over most of the floor simultaneously. The dirt was shaved away with shovels and carted away to dump piles outside the mound periphery almost immediately, keeping the floor scrupulously clean. No effort was made to excavate by the squares of our grid system, either. We had left a lot of stakes in, supported by pillars of dirt. As they got in the way, they were replaced, when they were in clear areas, by 16 penny nails driven into the floor through pieces of paper bearing the grid designation for that

point.

A few of the rocks were, in the low walls which they formed, too unstable to leave, so Billy and his wheelbarrow were put back to work. At any point in time, from start to final cleaning at the aboriginal floor level, the floor was clean and marked by a few nails pinning down paper tags.

The rest of the vessels in the main pottery deposit emerged quickly. As soon as one was located, a sort of pit around it was opened with trowels and spoons, leaving an inch or so of clay on the pot. With a pit of careful probing, the pit was carried down to the base of the vessel. Then the sprayer was used to cut away the last of the clay and to clean the vessel, complete or fragmentary, in place. If the pot was broken in place, and most of them were to some degree, a lot of the dirt was left inside. The whole ones were cleaned completely by spraying with water to reduce the clay to mud and then spooning it out. When each was clean, photographed in place, and a vertical and horizontal position entered in the notes, it was removed and turned over to Molly for final cleaning, cataloguing, and restoration. Each vessel was assigned a number, entered in the daily notes and into the catalogue. After it was removed, another nail with a paper tag bearing the vessel number was placed where the pot had been to make replacing it as part of an exhibit easier. In most instances, the nail went at the point where a hole had been cut through the vessel base by the potters. These central holes are, or were, usually called kill holes, a term used by Southwestern Indians who knocked holes through the bases of completed pots to release their spirits in some circumstances. The analogy is not very apt since these holes were cut through before the pot was fired. Arguments can be developed about the spirit of unfired, and hence incomplete pots on the order of those arguments of medieval theologians about how many angels could dance on the head of a pin.

These pots were peculiar in many ways. Most of the vessels from Weeden Island mounds are idiosyncratic except for a few simple plain bowls and some complicated stamped jars. But, the more elaborate vessels are usually effigy forms or bear standardized incised or punctuated decoration. Most of this, except for the stamping, was missing here.

A number of vessels were of the complicated stamped type we had seen in midden deposits on this site with the flat bases, clear stamping, and all of the other features. This kind of stamped pottery had shown up in some of the mounds excavated by Clarence B. Moore on the Florida northwestern coast and up in the valley of the Apalachicola River. And, there were simple plain bowls, a couple of bowls with bird head effigies attached to the rim, and a couple of bowls with simple incised decoration. One of these had a deer head effigy on the rim. There two other effigies, one of a water bird on a pedestal, not very well made by Weeden Island standards and a small duck, a full effigy with a bowl worked into the back of a flying figure. This was small, and looked more like pipes found in a culture in the Midwest than it did like a pot. But, none of these were normal Weeden Island type vessels as described from sherds he excavated by Gordon Willey himself or from vessels excavated by Moore, a fact Gordon pointed out himself during a visit while we were taking them out of the ground. Most of the vessels were something new, big full bellied pots with distinct rims, necks if you will. The form looked like that of supposedly later vessels, usually from the central and upper Mississippi Valley, part of a complex known as Mississippian since its description by William Henry Holmes in 1898. There were plain vessels in this big pot form, but most of them, and some bowls, were decorated with red painted designs in stripes and circles unlike anything known in Weeden Island, or in Mississippian for that matter. Most of them shared the feature of flat bases with the stamped ware, an idea common outside the site only in Weeden Island mounds, not in the associated

middens, and in contemporary cultures, definitely related, in the lower Mississippi valley.

So, we had a Weeden Island burial mound of sorts, the identification confirmed by the eastern side deposit and by the styles of a few of the pots. But, most of the vessels were not made in Weeden Island styles by any stretch of the imagination or definition. Kelly, in conversations with me, Willey, Tono Waring, and Molly Allee, referred to "A concatenation of fortuitous circumstances", a flight of such magnitude that masterpiece of another contemporary American archaeologist, "the fictile fabric of the Iroquoian paradigm."

Just in back (west) of the pots, the rocks we had left formed low walls, left as high as they would stand with some clay as a binder to hold them. The eagle continued to reappear, but didn't impress me any more than it did Molly, Henry, Gordon, or Tono.

The frequent presence of Tono and Gordon produced on site seminars, frequently followed up, with help from beer imported from a wet county to the south, in my living room in town. These discussions of method and probabilities often produced working hypotheses which guided the next steps taken in the field. Final excavation methods, like published interpretations, were my responsibility of course, but they were not developed in an intellectual vacuum. My visitors were certainly aware that this was the first excavation of a Weeden Island mound by a qualified archaeologist in 40 years. There have been damned few excavated, with published reports, by competent people since then.

A few feet further to the west there was a deposit of a few painted and incised sherds on the floor, associated with a copper covered wood and pearl ornament. The location had been covered with a layer of earth which was then covered with rocks. This little deposit was completed and buried before the main pottery deposit was placed on the ground and covered with the final layer of earth which completed the mound. No reason for this earlier deposit of

pottery was then or is now apparent.

Next to the west, again covered by rocks, was the core mound described earlier, or rather, now, the base of it. It was in part defined by what were now low rock walls, the remnants of the rock cap which once covered this yellow brown humus mound. At the base of this early structure, we found a dark, humus type soil, perhaps the topsoil which had been removed from the area where the pottery deposit was placed. We sliced away inside the defined area in a very gingerly fashion. I had no idea what to expect. Certainly the dark topsoil could be removed if it went deeper than the floor we had been working on because undisturbed soil had to be red clay. The core mound was important, because we had found, sitting on its very top a human skull with one of the disc-shaped copper covered wood ornaments, with a pearl in its center on its forehead. The ornament adhered tightly to the skull, suggesting that it had been a head with flesh on it when it was placed on the mound. Such trophy heads were not uncommon in the Southeastern United States.

Now, as we reached the level of the clay floor under the core mound, out toward its edges, we found more human remains. There were three skeletons extended on their backs with their heads to the east. All three were adults, but the bones were too decayed to tell us much else. Each of them wore quantities of large barrel shaped beads made from the core part, the columella, of conch shells. Two had strings of these around their necks, and there were several more beads near the elbow of one of them. The third individual wore a large string around his waist, and two more on his head, about at the top center of his forehead. These must have been part of a hair ornament, or at least of a hair style which included a beaded forelock.

Two of the complete skeletons with the beads, the ones closest to the center of the mound were not, apparently, on undisturbed clay. After some work, difficult with stains and splinters, I

could see that they were lying on undisturbed clay, but it was the sloping sides of a pit of some sort. The arm bones of one of them had sort of slid down the side of the pit, separating somewhat at the joints as they did so that arm had an apparent, anatomically ridiculous, length of five feet. Working out the slope, about the time I realized that we were working in the top of another badly decayed human skull. As poor a specimen as it was, tooth preservation was fair and so it was certain that the lower jaw was missing completely. This demonstrated that this was another trophy skull, a sort of souvenir from a religious rite, warfare, or both.

The soil filling the pit continued to be the soft dark topsoil type for several feet, and was then replaced by a clear red sand, equally strange at this level. But, on continuing through it, in a small cut in the center of the apparent pit, I ran into rocks, the same kind which had capped mound layers at a higher level. It was possible that this was a natural formation. If so, we were at the bottom of a sterile pit. There were several ways to find out, including a laborious but methodologically impeccable cross section of the whole business, carried down to the depth of the rocks and beyond. But, I didn't think that this was really the bottom, there were other things we could do besides all of that digging, and if the pit went deeper and had anything in it, I needed to know.

I walked over to a gully about fifty yards away which had a stratum of such rocks exposed in a layer at its base. In fact, the gully was probably the source of the clay and rocks used to make the mound. The in-place rocks, the natural formation, were over fifteen feet below the normal ground surface. Assuming that the layer was continuous and as level as it seemed to be, it was much deeper than the rocks which had shown up in the pit. They must have been placed in a pit then. The visible ones were removed with care. They formed a layer two or three feet thick, composed roughly of two courses of rocks. Then a really huge rock became visible.

It was 6 feet long, 4 feet wide and from 18 inches to 2 feet thick. It had been placed across the eastern end of the pit, covering almost half of the pit base. I considered taking it out with the winch and boom on a tow truck after tunneling under it in a couple of places and rigging a rope or chain sling. The idea of blind tunneling wasn't very appealing though, so I deferred action until we had more data. Removing the smaller rocks across the western half of the pit got us to the bottom of the hole dug by the Indians. There were human remains and artifacts on the pit bottom which extended under the huge rock.

The partially cremated remains of one person with a small amount of wood ash, charcoal, and burned clay seemed to have been spread more or less evenly over the pit floor, apparently including that part of it under the big rock. The layer of black material which contained the crematory remains and a number of artifacts was about 1 inch thick. None of the artifacts showed any effects of exposure to fire, so they must have been removed while the body was burned, and then added to the remains for deposition in this pit.

My solution to the rock problem, finally, was to dig a 4 to 6 inch high tunnel under the main part of it, just wide and high, enough to remove the bones and artifacts. This was admittedly dangerous, but I thought it could be done. After removing all of the bones and artifacts from the pit floor alongside the rock so that I could lie down without destroying anything, I used a miners lamp kind of flashlight to peer into my tunnel. I managed the job. Most of the bones and ornaments were literally stuck to the bottom of the rock. I cut away the clay under them, and then removed them carefully, peeling them off the rock.

Most of the skull fragments and all of the teeth were under the rock, or near it. The cremated remains of the skull had been placed at the eastern end of the pit, the significant orientation for everything in the mound. The ornaments associated with the remains of this great

man, the person for whom the entire mound ceremony had been conducted, must have been emblems of his high rank and status in this prehistoric society. There were 52 inch and a half to two inch long barrel shaped conch shell beads on the eastern end of the pit floor and 27 smaller barrel shaped beads were scattered through the floor deposit. There were 228 tiny cylindrical shell beads, only a millimeter or two long and thick which adhered to each other in rows which in turn stuck to each other. These had probably been sewn to fabric or leather, unless they were woven with threads into strips or belts. Half of these were with a small piece of bone at the western end of the pit; the rest clustered at the eastern end.

Two disk-shaped, cymbal shaped really, copper ornaments were also at the eastern end of the floor with the skull fragments and the biggest beads. In the center of each disc, over a central concavity with traces of wood, were single perforated pearls. Viewed from the top, the ornaments would have shown copper rims around discs of wood, probably painted, with pearl centers. The threads or cords which held the pearls in place, threaded through central perforations in the copper, held the total ornaments together and in position on the wearer.

As I was lying on my side in the bottom of a 6 foot deep hole, peering under a rock, blinded by sweat and pestered by gnats and mosquitos, it occurred to me that we had really been taking apart a fossilized ceremony. All of our information, checked and rechecked, to us that a single ceremony, lasting only a few days, took place here. Let me reconstruct it, in outline at least.

The ceremony began at the death of one man, a person whose superior social status and top level rank in his society was marked by regalia not available to the mass of the people. The composite copper, wood and pearl ornaments as well as the large and small beads and perhaps clothing ornamented with beadwork or by bands of beadwork worn over clothing, were

undoubtedly of considerable value. These ornaments were set aside while the body was cremated in an open fire somewhere in the community. The bone fragments which were not reduced to ashes were gathered up with a lot of the ash and some fine charcoal. At the place selected for the major part of the ceremony, the topsoil was scraped away and a large pit was dug, some 7 to 9 feet across at its base, 7 feet deep, and funnel shaped so that it was about 15 feet square at ground level. The cremation, pit digging, and all of the subsequent events in the ceremony would have been organized and directed according to the rites of the faithful. The director, by analogy with historic period southeastern aboriginal societies, would have been a priest, or priests, probably successors in office of the deceased. Labor was provided, and no doubt the funeral repast was too, by the mass of the people, the congregation.

The remains were spread over the bottom of the pit, and the ornaments, the symbols of rank, were placed with them, the major ones with the skull fragments at the eastern end. Then, somehow, a lot of men and a lot of poles and rollers brought the huge rock to the grave and dropped it on the remains at the eastern end. Tono observed that they really wanted to be sure that he stayed put, an observation of considerable merit, I think in view of the power the man must have had during life and the supernatural power, the manna, which his people associated with him before and after death. The immobility was reinforced by smaller, 1 man-1 rock per load rocks until the last traces of the remains were obliterated, and only a saucer shaped depression remained. The bodies of two other persons were laid on their backs on the sloping sides of the pit, with their heads to the east. I doubt very much that these two people simply died conveniently at the appropriate moment in the ceremony. Ceremonial execution of these two people, who had the status required for assumption of such a favorable position with respect to the great one and the ceremony, wives very possibly, is probable. The surviving priesthood

would conduct the ceremonies. This sort of event occurred in related societies in Louisiana during the historic period. One more body was put in place, again with head to the east, on the ground just outside the pit, arguably a less favored position. The rest of the pit was then filled with earth, apparently the clay derived from the pit and the scraped up topsoil. The pile of dirt over the grave and the bodies of the two wives or retainers was 5 feet high. As it settled over many years, the arm of one of the bodies stretched and slid with it.

The ceremonial supervisors found one human head ornamented with a wooden copper covered cymbal shaped ornament to place on top of the grave mound. It would be classified as a trophy head, but could either be that of an enemy (read foreigner) or the preserved head of some important Kolomoki dignitary. Then this entire mound was covered with rocks, each again a fair load by itself, brought from down in the gully to the north.

Several additional deposits of red clay were placed on the flanks of the mound and covered with rocks. The purpose of these are obscure, although one covered an area which included the burial on the floor off the back corner of the funeral mound, and another, east of the little mound covered fragments of several bowls decorated with red paint and incised motifs. The location suggests that these sherds had ceremonial importance, but the vessels had been broken somewhere else and some of the fragments lost. There were also a number of small single sherds, each apparently from a different vessel, including 4 from the flat, squared vessel bases.

After these layers and deposits were covered with rocks, producing a single neat rock covered mound, a ceremonial event of major proportions took place in front of the eastern side of the mound. Fifty four complete pottery vessels and 148 sherds or partial vessels were placed on the ground, very closely spaced so that the deposit appeared to be solid pottery.

I believe that these vessels were made for sacred functions; ceremonial functions if you need a less loaded word. Many of them, especially the small flying duck and the larger pedestaled effigy as well as the larger pots with red striped decoration were of styles which never appear in village middens. Further they, excepting the ducks but including the stamped vessels, some of the simple bowl forms and the bowls with effigy heads on their rims and incised decorations, had perforations neatly cut through their bases before they were fired. These perforations, and others cut through the vessel walls of a few vessels as part of their decoration, insured that the pots could not be used for mundane functions. There are two functions that they could have served, I think, and I will not choose here. Either, (1) they were made specifically for the funeral ceremony or, (2), they were made and used for some other sacred-ceremonial function and they were placed here because of the relationship between the major personage whose funeral ceremony was being finished, their religion, and the vessels.

The large quantity of sherds probably came from broken sacred vessels. If so, a lot of pieces were lost before they were brought to the ceremony. Or, they could have served more mundane functions and were placed in the deposit to achieve the solid appearance. The inclusion of both the Kolomoki Stamped style and Weeden Island styles in the collection of sherds, styles not associated with any frequency in village midden deposits, argues against mundane origins.

After all of these products of a culture whose highest aesthetic achievement, as known to us, was its pottery, had been put in place, the mound was completed. Thousands of 40 to 50 pound loads of clay were brought from the gully and deposited, with constant supervision, until the neat, steeply sloped mound was complete. This ended the funeral services and completed the fossilized ceremony known to us as Mound E.

This was never just a place for the deposition of pots and bodies for the edification of trait oriented archaeologists, or even for decorating the homes of thieves, or those who buy from them, who now possess some of the pots. The mound was a physical representation of the funeral ceremony initiated a thousand years ago at the death of a leader of the society which functioned here at Kolomoki. After describing the excavation of other mounds here, we will consider this ceremony again.

Toward the end of the summer, Molly had completed the restoration of a fair number of the pots. The process was interrupted briefly for her wedding to Fredrik Barth which, with attendant festivities involved some of my relatives and all of the local archaeological community. We couldn't help the local people with their curiosity about the wedding personnel or the festivities, but we could do something about their interest in the pots. We set up shelves in the front hall of the house, just a block off the town square in Blakely, and ran our own museum with my wife as curator. It was the only way, really, to permit the people of the area to see some of what we were recovering and which their relatives and friends on the crew were telling them about. So, our dwelling-rooming house-dark room added another function.

But, this temporary expedient didn't take care of the need for permanent exhibition. At the end of the summer, we prepared the mound for transformation into an in-place exhibit. Cleaning all floors and profiles came first, a final scraping followed by picking up all loose dirt and trimming all roots absolutely flush with the clay surfaces. Then we cleaned around all of the rocks and dusted them off. I replaced rocks as a lining for the deep grave, to retain some semblance of its pre-excavation appearance and to protect it against any collapse. A mortar made from mortar cement, red oxide pigment and red sand held the rocks together and solidified them into a wall with sufficient strength.

Since the clay walls and floors were a major part of the exhibit, demonstrating what the mound was made of and how it was made, they had to be treated to add strength and prevent minor collapse and breakdown through dust dropping off. All of the walls and the clay between the rocks was sprayed with a solution of a plastic, Alvar 1570, dissolved in denatured alcohol. Penetration was not truly adequate, so the hardened 1-3 inches of surface was anchored by drilling 1 inch diameter and 8-10 inch deep holes at frequent intervals and pouring a few pints of the plastic solution into them. This produced a blob of some size to serve as a dead man, tied to the surface by a tube of hardened clay. The holes were finally filled with a mixture of the solution and clay. There were, a few years ago, several spots where violent impacts had caused some scarring. Otherwise, the surfaces, walls and floors, remain today as I finished them 40 years ago.

Some more junk lumber was used to build a sort of dog house over the central pit to protect it, and we turned the project over to the Department of State Parks. During the winter, they built a D-shaped wall around the perimeter of the excavated part of the mound and over the top of the unexcavated part. Inside the wall they poured a concrete observation walkway, with its inner edge at the mound outer edge, and then roofed the structure over with metal trusses before tearing down our slum clearance project. Next spring, we installed exhibits in cases we built around the perimeter of the outside semi-circular wall. There were photographs of the excavation in progress in some, copper ornaments and conch shell beads in others, and pottery in a few more. Then the pots were replaced where they belonged on the floor. We restored and cleaned burials and wired in a lighting system. With the addition of labels, provision of an interpretative leaflet, and a few other odds and ends, the exhibit was complete. It has been open ever since, but has suffered some damage from a few interludes of careless maintenance and the

theft of many of the vessels.

MOUND D

The excavation of Mound D took much more time than Mound E had, all of the summers of 1950 and 1951. This dome shaped earth mound, a 20 feet high and 100 feet in diameter, was the second largest structure at the site, exceeded only by Mound A, the huge 56 foot high truncated pyramidal Temple Mound. Mound D faced the Temple Mound across a hard beaten clay plaza. Both, like most of the site, had been planted in cotton or peanuts for many years. Some scrub had grown on the mound, and had been removed years before I got there during a mapping and, fortuitously, miniscule test pit operation. By the time we were ready to excavate, only grass, bitter weed, and a few scrub bushes grew on the mound. The roots of all of the trees had rotted away which saved us a lot of time and effort.

A local grid, with stakes at 10 foot intervals, was surveyed in to start the operation, not without difficulty because the clay of the mound and the immediately surrounding flat area was very dry. The very laborious solution was to chip out holes and pour in water, letting it soak in for hours, even overnight. Then it was possible to drive in stakes with some accuracy. I was relieved when the error of closure at the southwestern corner of a 150 foot square grid, rising up over and including a 20 foot high mound, was only 3-4 inches. I began to ignore it immediately after I found out what it was. After the stakes were in and numbered and elevations had been recorded for all of them, the grid diagram, with a fair number of additional elevations entered on it where required, was converted into a contour map with a 6 inch contour interval. This map demonstrated that there were some unexplained irregularities on the southern or southeastern side.

This hard clay monster inspired me to caution. In this location on this site it should be another burial mound, but I had already learned that there were a lot of different kinds of mounds. In any case its great size could cover or include features of unusual complexity. I had to take off for a couple of weeks, so Henry Brett started a 10 foot wide approach trench. It stretched out 20 feet or so to the east of the bottom edge of the mound slope. Henry was instructed to carry the base of the trench at least 6 inches down into undisturbed geologically deposited clay and then cut toward the mound carefully so that we would be able to pick up the first trace of deposits washed down from the mound slope and then the first of the clay deposited to build the mound. He was also loaded down with unnecessary instructions to stop and call me if he saw anything out of line. The digging went without incident, and after 30 feet of trench was open, the wash and deposit layers were clearly apparent. The outer mound layer at least was placed, in the usual water bucket size loads, on clean clay with only slight traces of midden or topsoil.

This much established, after erecting a new privy back on undisturbed land near a gully, adding another porch to the tool shack which had been dragged with the tractor from mound E to near Mound D, and buying an ice chest for drink and lunch storage, we were ready to dig the mound. A trench was extended toward both flanks from the head of the first east-west trench, giving us another broad face to move into the mound. The process would be much like that used on Mound E, but with a hell of a lot more dirt involved.

The main face was cut forward continuously with the occasional required recording stops. Out on the southern side, where some irregularities appeared, we cut a 5 foot wide trench further to the west, and then back to the south again. We were able to keep track of the real edge of the mound, and of a sort of addition to it, but we never really figured out the addition. I think

it may have had something to do with the final stages of the ceremonialism which produced the mound. Possibly the dirt was the remains of some sort of subsidiary platform. Mound D ceremonies also appear to have involved Mound H, some distance off to the south, as Mound E ceremonies seem to have included some use of Mound F, also to its south. These relationships will deserve some discussion at a later time. But, I could not, then or now, figure out any way to prove my theory about the use of the lumps of dirt on the southern side of Mound D. I do believe ardently in testing hypotheses about function in the field although I could not have stated the matter this way then, but I can't think of any way I could have tested this one, then or now. Of course, I might do better now if all of my drawings and notes, pages and pages of typed description and acres of drawings on graph paper had not been lost while in storage in a file cabinet in the park.

About the middle of the summer, with the vertical wall on our cut around chest high, the first vessel of what was a large and very complex deposit of elaborate, one of a kind vessels appeared, right on the old ground surface in the middle of our cut . I had gone off to develop pictures or something, and it was presented to me with great ceremony by Waring and Brett on my return. This was just about where I predicted the edge of a deposit should be to my relief. So, it was probable that this huge structure was one of the mounds with pottery deposit on the eastern side like Mound E. The vessel, a classic, very stylized effigy of a crested bird, covered with red paint and with some incisions and perforations as part of the decoration in the wing area, was complete except for a pedestal which was never found. It was the work of a potter whose craftsmanship was much superior to that of any of the potters who made vessels in this style for the Mound E deposit. Was all of mound D and its contents going to place higher than Mound E on a scale of quality and quantity?

Tono Waring had taken a leave of absence from his pediatric practice again, and was helping out. With his complete agreement, and to his considerable disappointment, we had to change technique which would delay exposure of the pottery deposit indefinitely. It would be necessary, as in the other mound, to reorganize and come down from the top onto the deposit of pots and whatever central burials or other features existed. Once more, use of a technique which required us to attempt extrication of pottery and burials from the base of a 15 or 20 foot high earthen wall would be unfortunate at the very least.

So, we cleaned up all of the vertical exposures, made scale drawings, and photographed all of them in black and white and color. The photographs were insurance against the possibility that a somewhat less than omniscient archaeologist might not have wrung all of the information from these exposures, as well as forming a part of the documentary record. One does take this seriously at the time when you are going to destroy the record in the dirt in front of you. A small crew, working with the tractor cleaned away every bit of spoil dirt from the edges of trenches and pits, the mound slopes and the adjacent flat ground and moved it all 50 yards away. I was determined to make a clean start, or re-start. The rest of us moved to the top of the mound, and began cutting downward in a 20 by 20 foot square, keeping track of the 10 foot grid stakes, even keeping them in place by leaving pillars of earth around them for the purpose. I had a strong feeling that we might need them at any time to facilitate documentation of the vertical and horizontal position of something. The digging of course quickly produced a pit with 4 standing walls, but as we moved down, we cut away the eastern wall, extending the pit in that direction. But we left a low wall, a foot or so high, to prevent dirt spilling down the front face of the old cut. When necessary this low wall was sliced down to give us a clean even floor, but it was reestablished again as soon as possible.

As the floor of our 20 foot hole moved down, we retained the walls on three sides. These vertical exposures gave me a constant record of what we had cut through. We did not dig by arbitrary levels. If we had been finding artifacts whose vertical relationships had to be documented, I probably would have used some sort of level system, but for mound structure, the significant data came from the walls and the floor. The floor was simply kept clean and as level as possible, the walls as near vertical as possible, and we stopped to record the layers, lines, lenses, and whatever seemed significant when the information appeared. We did, several times, cut little trenches to expose a few inches vertically, providing cross-sectional data on some phenomenon observed in plan, but never until the plan data had been recorded.

With a good start in this work from the top down, but nothing of great importance observed, it was time to close down the operation for the winter. Roofing felt was placed on flat surfaces and up against the lower part of vertical ones, including the big vertical eastern face. Then enough dirt was brought in to hold the felt down on the floors and enough piled against the felt covering vertical walls to support it. When we removed the dirt and felt next spring, we would be able to pick up where we had left off.

The data acquired in the 1950 field season enabled me to argue successfully for an increased budget and more facilities for the next season. In 1951, we started with more money for salaries so that we could increase the work force by several men. A truck was firmly under our control as were surveying instruments and cameras. Over the winter, a fair sized brick building was built alongside the road down near the dam. It was to serve as one wing of a museum eventually. In the meantime, and until we could develop some temporary exhibits in this one wing, we had toilet facilities and could use a small back room, designed for the purpose, as office and laboratory. Since a darkroom was a temporary need from the park point of view,

we built in a small one ourselves which could easily be removed later. This finally solved a problem which had been with us since the start of work on the site.

The budget, like those from the two preceding years, allowed for 2 technically trained assistants. Lewis Larson took over in the field. He helped with Mound D, but spent most of his time on the complete excavation of the small Mound H. Toward the end of the season, he did some work in the northeastern part of the village area. Mary Kellogg worked on the laboratory, office, and darkroom. She was able to keep up with note typing, inking in drawings, and developing and printing photographs as required. We began to use the corner of the office and the roof of the darkroom for storage. Later in the season, when we began to get quantities of pottery, we attempted some restoration in the field, but the quantities were too great and the effort was abandoned in favor of careful cataloguing and packing. Restoration was completed back at the University of Georgia where we had more space and more time.

The major problem for the season, now that we had a team of three technically qualified people and 12 to 15 laborers, was to complete the excavation of Mound D. The schedule required that this be finished in time to pack up everything and ship it to the University in the fall. I hoped too that Larson would be able to excavate Mound H completely, which did work out.

At the beginning of the season, predictably enough, I went back into the building business. We had put up a 6 foot high platform for the transit in front of the mound the previous season, but it wasn't adequate for observation of the work. It was not high enough to give me a continuous view of all of the exposures being developed, let alone really control the work. Too, we had decided this year to record the excavation on 16 mm color motion picture film. The observation and control problem was the worst. While the area wasn't large, 20 by 50 feet to

start, 40 by 60 or 70 feet later, digging had to proceed at a number of levels simultaneously with steps up and down between them. I couldn't see changes in the soil as they were revealed by floor stripping or wall slicing without my being in motion continuously, unless I slowed the pace of the work. Further. it was difficult to move between some areas without causing damage. Of at least equal importance was the simple fact that subtle changes in color and texture could be seen best at some distance, and, finally, I have a chunk missing out of my right leg, a souvenir of the South Pacific. The constant climbing was difficult. The solution to all of these problems, the answer to all of these needs, was to build a tall observation tower just off the northern side of the mound. It was about 20 feet high, with a ladder, which I grew to hate, to a railed platform on the top. It was built from local pine trees, tipped into three foot deep holes and hauled upright with the tractor, and pine lumber. It served all of its functions well.

The first layer of earth in the mound, the last from the point of view of the mound builders, was 4 to 5 feet of the local red clay. Most of this was removed from the starting 20 by 20 foot hole at the top of the mound at the end of the first season. This and other red clay used in the mound probably came from a gully a few yards to the north. The earth removal may have enlarged a natural gully as had happened at Mound E.

We found the first burials at the base of this red clay, right on top of the mound. They were all in bad shape, stains and splinters with some reasonably well preserved fragments from the heavier bones around the base of the skull and at the joint ends of the larger long bones. With condition this bad, getting any information from them except that they were there required observation and note taking simultaneously with removal or slicing of the stains. So, I had to work on each of these personally, a problem because I usually could not work more than a few minutes before I was needed somewhere else. At times, there were three or four of the single

skulls, partial cremation in place, or long bone bundles stockpiled ahead of me.

Some of the bodies had been partially cremated in place. A body had been placed on a surface, wood piled over it, and the mass ignited. Charcoal was mixed with the bone remains, but the charcoal must have still been glowing when the first layer of earth was dumped over the pile, because there was definite reddening of the clay over these burials. After the first two or three of these, I recognized the red symptoms. Careful shovel slicing revealed the bone splinters and stains which set the remains up for careful trowel and brush work. It is certain that fires burned over the bodies, but there was not really any significant calcination or charring of the bones. The fires apparently had a ceremonial function and were not serious efforts at cremation.

Removal of the red clay from around the first burials revealed that a number of them were lying on a surface of yellow or sometimes yellow and white clay. This material can be found at the base of the gullies around the perimeter of the site where springs flow out on the surface of the underlying limestone formations. Although readily available, its use required a great deal of extra effort, mining and then hauling it up 20 foot slopes and a hundred yards or more to the mound.

After recognizing that the yellow and white clay was a new layer in the mound, we removed the human remains on the surface of this layer. I realized then that we could not continue cutting downward in the outline that we had started, 20 by 20, about 20 by 30 feet now that we were five foot down. Among other factors, the walls would be standing 20 feet high by the time we reached the bottom of the mound, which would not be safe. The solution was to cut back three walls, the eastern wall staying open and moving out toward the pottery deposit. After cutting the three walls back by 2 or 3 feet and down to the level of the top of the yellow and white clay stratum, we continued to work downward on the original lines, now with a safety step.

By the time we reached mound base, these steps were about one third of the way down from the top.

Downward cutting quickly produced a number of new features. First, we found very large log molds, large empty vertical cylinders lined with traces of wood. These were the remains of 18 to 24 inch diameter logs which had decayed in place, the tubes remaining more or less open because the hard packed clay had kept its shape after the logs rotted. There were also traces of wood from a lot of lighter horizontal poles which had apparently been fastened to the upper parts of the big vertical posts. These structural remains occupied about the northern half of our cut and were surrounded by or included in a brown earth. The yellow and white clay with human remains on it was restricted to the southern half of the cut. As we moved down, this northern brown earth - southern yellow and white clay distinction became apparent on the western profile, which also showed that basket loads of the two kinds of material interlensed. This demonstrated that the basket loads of the two different kinds of earth were being deposited simultaneously.

From here on down, in the yellow clay, we found burial after burial, all in poor condition. There was one which had been a complete body extended on its back in a log outline. Four more were partially cremated in place in log outlines, and three were deposits, basketfuls probably, of completely cremated remains. Ten single skulls had been set down on the surface and covered, while 2 more were of a type of mortuary deposit which was new to me. Each deposit consisted of a skull resting on the bones of one arm and hand. Apparently the skull was sitting on or in the hand, although I could not be absolutely certain with the poor preservation. One more of these arm and skull assemblies were partially cremated. Finally, we found two more deposits, originally bundles I am sure. One was just arm bones, the other arms and legs.

There were artifacts preserved with some of the human remains. One of the bodies cremated in place was accompanied by an odd, very long, stone chisel. A copper cymbal shaped ornament was with one of the arm and head combinations. A pad of cordage, grass, fabric, and a part of the skull were stained and preserved by copper salts. There were a few medium size conch shell beads with one of the single skulls.

While all of the yellow and white clay and this unusual assortment of human remains was being placed on, or in, the southern part of the mound, the brown dirt was being dumped around the big logs. It became quite clear before too long, particularly after we worked out the lighter horizontal poles, that this assortment of decayed timber was the top part of a scaffold, entombed in place. I do not know where the brown dirt came from. There was a lot of clay in it but there was also a great deal of organic matter. The organic material could have been duff from under pine trees, a peaty material from cypress bogs in the neighborhood, or something else entirely. I believe that it was an artificial mixture, not a natural soil, but I should have asked the questions at the time.

Before we go on, I should review the scenario to this point. It only gets more complex later. There were at least three activities.

- (1) Carrying and depositing yellow and white clays from the base of a gully.

- (2) Carrying and depositing the several classes of human remains, and burning fires over some of them. Human remains in such categories as completely cremated, single skulls, bone bundles, and head and arm with hand assemblages must have been brought from some storage place.

- (3) Simultaneously with the deposition of remains and special earth, as shown by the interfingering of lenses, basket loads of brown dirt were being placed around the poles of the

scaffold and under the platform at its top. To anticipate, this work was not the product of a gathering of relaxed types, each doing his or her thing. A tremendous amount of very strict supervision, of control, had to have been employed to insure adherence to a complex ritual, a plan of procedure.

However, we were not through with human remains, even though those we had encountered to this point had been disposed of with rather exotic ceremonies. As we worked with the yellow clay, we could see, clearly enough, the outlines of three rather large square or rectangular pits, 6 to 9 feet long and 4 to 6 feet wide. Two of these were well to the rear on the southern side, the other just barely in the southern side of the yellow clay. They were dug, and refilled, at the same time as the last bodies were placed on the yellow surface, a time when the structure, except for the top of the scaffold, was flat and at least superficially a clean yellow surface.

I kept track of these pits as we worked our way down through the clay and human remains described above. It was noticeable that walls were not true, either vertically or horizontally. There was a distinct impression of carelessness in the aboriginal pit digging. Yet, each of these pits completely missed all of the human remains spread through the yellow clay layer. Someone had kept track of things very well. The bases of all three pits were about on the original ground surface. I tended to regard them and their contents, which were of course the reason for their excavation, as ceremonial afterthoughts. One of the supervisors, the priests in charge of the ceremony, had afterthoughts or an outlying province had been heard from, and certain remains had to be placed at a level representing an early stage in the ceremonies. Other elements of the ceremonies were recapitulated while the earth was being put back into these holes, a set of ceremonial analogues to the deposition process which took place during mound

building. All of the pits were outlined at their bases with the now familiar large logs. In two pits, a body was placed near the wall, and a single skull occupied a more or less central position. The third pit had only a skull on its floor. As the pits were filled in, more single skulls, or the arm-hand and skull combinations, were placed in the fill. This went on until the pits were completely filled, back to the level of the yellow clay surface. A census of the human remains in these pits, by categories, is: two extended bodies [one of them partially cremated in place], ten skulls, five skull and arm-hand deposits, and two apparent long bone bundles. If the bundles were from one person each, there were 19 individuals in the pit fills.

There were ornaments, presumably insignia of rank, in place on one of the complete bodies when it was cremated. A string of medium size conch shell beads was found around the neck and a large pearl was in the chest area. One of the head-hand-forearm burials was accompanied by a large sheet of mica, a high cost material which had to be imported from the Appalachians. Another skull had a cymbal shaped meteoric iron ornaments, an unexpected material, but a hand and arm deposit nearby had 8 of these ornaments under it. Another head and hand had a few large conch beads. One more of these peculiar selections of human remains was accompanied by a mica sheet.

It seems obvious to me that a number of people, their remains preserved as heads or as head and arm combinations, had a very special social status and some sort of social relationship to persons buried at the bottom of these pits. The in-place ornaments demonstrate, with near certainty, that these were fleshed heads and arms. Flesh, at least some ligaments had to have been present to keep the arms and hands intact and in anatomical order, and some flesh and hair was needed to keep ornaments in place. In Weeden Island association or elsewhere, there are several pipes from later cultures in southeastern United States which seem to be depicting this

phenomenon. Here, the real things, were they trophies or religious objects belonging to or associated in some other way with the persons whose bodies were placed in these graves first?

We would find even more complex situations before we finished this mound. The final total of human remains reached 78. The complexity is such that it is difficult to describe. The 3 pits served as a side show, providing distraction and confusion along with the big vertical tubes remaining from rotting logs. Excavation continued downward nevertheless, with these subsidiary problems being dealt with on a continuing basis. We recorded and removed the sequence of human remains in the yellow clay as we moved downwards. I prefer simple solutions to problems, so we kept track of the vertical log remains by leaving cylinders of hard clay around the tubes, cutting each cylinder down to a short stub each time its height became inconvenient. The pits were handled in a more orthodox fashion by excavating them inside the lines which marked their sides to a foot or so at a time below the working floor at that moment. Sometimes it was necessary to plane the floor clean again to make completely certain of their locations, or even to dig a short small trench across the probable line of a pit side to sharply define an edge. I am quite certain edges were never lost, although at times kneeling on painfully hot red clay in the Georgia sun and cleaning up another thoroughly decayed assortment of human bone stains, splinters and fragments, I did wish that they would go away.

The last specimens in the yellow clay rested on a different surface, a gray clay. The yellow clay covering for this gray deposit was spread a bit further to the north, just into the area between the large vertical logs which continued on down into the gray surface. Between the 4 southern verticals, there was a rectangular outline a cribbing of small poles arranged between sides of larger horizontal logs. This could have been a litter or other framework. Under the rotted wood we found, on a burned surface, masses of human bone in the usual terrible

condition. There were at least two individuals present since I was able to detect four femurs when I sliced through the cheesy mass. There may have been more than two. Only one set of teeth was found, but they were with some long bones near the center of the mass, so we were certainly not dealing with articulated human remains. The partial cremation definitely took place in the two log high outline since both the log surfaces and the earth under the bone was burned slightly. The cribbing, crisscrossed light poles or small logs, was not put in place until after the burning. I have never been entirely certain how to interpret this. Most probably, the large logs and human remains were the first burial of the sequence in the yellow earth. The cribbing may have remained from a litter, a cover of some sort, or it may have been a part of the framework from the scaffold top which fell down. Decay was simply too complete to be certain.

By the time we had cleaned this up, most of the dirt in the mound was gone, and we were about ready to work out the details of the gray clay surface, still four or five feet above ground level, and go to work on the pottery deposit. A few details had to be worked out first. The cut had to be widened a bit, odds and ends of our low retaining walls cut away and removed, and all of the odds and ends of dirt, such as that around grid stakes and around the tubes of the vertical logs, had to be removed.

House cleaning accomplished, it was time to initiate the first real use of a stripping technique in this mound. This was simple enough in concept, stripping other kinds of earth off the gray surface we had first found under the massive deposit of wood and human remains. This was not too difficult. Color, texture and type of soil all changed abruptly to a sort of grayish green clay, soft when damp but still tough and clearly distinguishable from overlying yellow or white clays and the brown earth used around the vertical logs. The gray material was another spring head product. After we had stripped later layers off the top, ends, and rear, but very little

of its front, east, side because of the presence of the pottery deposit and two burials in stone slab outlined graves, another mound was revealed. This one was about 40 feet long, 25 wide, and nearly five foot high at its highest point. A disk about 12 feet in diameter emerged first, its center right under the center of the deposits of yellow clay and all of the sequence of human remains we had been excavating. That is, the human remains and the yellow clay had been piled over this flat topped disk.

More careful stripping, mostly with shovels, was required. We peeled off yellow clay, red clay and brown earth. As an area was cleaned, a final careful trimming with trowels was usually required to get our surface as close to the original as possible. We were still keeping track of the big vertical posts, which went down into the flat surface of this mound on its northern side, north of the disk. Eventually, the outlines of a flat topped mound, with the disk superimposed on its southern end, became clear. It did extend out of our cut in all directions except to the east, although the beginning of a slope suggested that it did not go much further on the western side. To add to the complexity of the structure, we found two rock slab tombs set partially into the gray clay on the front, pottery deposit side of the mound. One was just north of the center of the mound, and entirely in our original cut. The other was adjacent, barely extending into the cut we had open. Again, enlargement of the hole was necessary, which took a few days. Slicing back high clay walls sitting on delicate strata, layers, rock graves, and so on is to be avoided. Unfortunately, omniscience is not one of my strong suits, so we had it to do. I decided to work out the first of the stone slab graves before we started though, cutting down the chance of damage from falling dirt or whatever. The graves were made of the same kind of rocks which we had found used so profusely in Mound E, but there had been some selection here for the flatter slabs. Slabs which had covered the top of the tomb had fallen in with some loose

clay on top of them and were resting on the bones. As I worked this out, carefully removing rocks after making a scale drawing and photographs, I could see that the covering slabs had been held up by poles or logs which were now only fibers and wood dust. The pole remains were easy enough to see and trace, and actually covered some of the bones. Unfortunately, the rocks had shifted as they fell, moving clay and wood remains around, so individual poles could not be traced.

The remains were those of one individual, resting on its back, head to the east, hands resting in the pelvic area. There were no grave goods of any kind preserved. The remains, if mostly stains and streaks of fibrous bone, were in all respects those of an adult but slightly built individual. The bones appeared to be decidedly more delicate than those of any of the nearly 30 other persons whose bones I had cleaned to this point. The delicacy and characteristics of the fairly well preserved heavier bones in the ear area and at the base of the skull toward the rear, the occipital region, convinced me that the burial was that of a female. She was the only body I had identified as female in this mound to this point.

As soon as we had cleaned the lady up and removed her remains carefully to the laboratory, we were just about on the upper and western edge of the pottery deposit. A bit of housecleaning across the cut, and the first vessels began to emerge from the clay. The deposit had to be cleaned in place, as a deposit, the records made, and the pottery removed as soon as possible. Exposure of all, or at least most, of whatever was in the deposit simultaneously insured the best possible recording. But, the material could not be left to the mercy of the weather and vandals over a winter. So, what we had to do for the next month or so was obvious. To the surprise of no one at all, Tono Waring and a friend appeared, ready to go to work. This gave me at least one more pair of trained hands for the delicate work expected. All of us, me, Waring,

and most of the crew, worked together in the deposit, sharing the Georgia summer sunshine and dripping on each other's work.

The excavation problems were new to me and to everyone else. A mass of fairly fragile vessels and sherds, a nearly solid mass, covered most of an area a bit larger than 20 feet by 10 feet up to three or four vessels or sherds thick. Cleaning everything in place (moving as few sherds and vessels as possible) meant working on several vessels at once. Areas had to be opened out to some width and depth to expose all of the fragments of vessels broken in place. Then, often, they had collapsed into the remains of other vessels.

The earth lying over and packed around the vessels was the red clay of the final mound layer. A lot of water was needed, was used almost constantly, to soften the clay around pots and to cut it away from the pottery and remove it when we could use that technique. A lot of the work was done with trowels, spoons, grapefruit knives, wooden picks and blades, and brushes. I decreed that no more than a double handful of loose dirt could be allowed to accumulate before it was removed to a pile outside the working area. At first it was placed on shovel blades, which were too clumsy, really. After a bit, I bought some sugar scoops. When they were full, they were passed from hand to hand until a temporary dumping area away from the deposit was reached. Their use reduced accidents and imprecations to a tolerable level. Four human skulls were in the deposit too. One of them had a string of tiny 1 mm by 1 mm shell beads in the neck area. A cymbal shaped copper ornament in turn decorated with two large barrel shaped conch shell beads at its lower edge was in place near the middle of the forehead. A second skull had one of the copper ornaments in a similar position, and a third had a few large conch shell beads with it. These ornaments, as found demonstrate conclusively that these were heads, complete with hair to hold ornaments on the foreheads, perhaps threaded on forelocks, when they were

placed in the deposit. These heads, and the shell ornaments, were not as durable as most of the pottery, so they, and a conch shell dipper which turned up too were treated with a plastic solution to harden them. Success was moderate at best due in some part to the constant moisture from pot cleaning.

Our effort to clean everything in place, and record everything at one time, was only reasonably successful. The cleaning process was simple enough, if tedious, and worked well for complete or nearly complete pots, even if broken in place. But, in a lot of places, there were stacks of sherds which were not from the same vessel, intermingled with some which were from nearby vessels broken in place. A fair number of sherds from the piles were finally recorded and removed as sherd lots with specific locations recorded only for the lot. This left determination of the status of a lot as vessels, or parts of vessels, for the laboratory. Our final locations for whole and restorable vessels were quite accurate. But, it was easy to see after a fair amount of cleaning that some pots had been tossed onto the pile and deliberately smashed in the process. In one case, a kneeling human effigy, the head had been knocked off after it was put on the pile, and knocked fifteen feet to the left by the blow. There were other cases of this sort of treatment. We all felt at the time that some of the thicker and more jumbled piles of pottery had been produced by dumping a large basketful of sherds, part pots and whole pots, onto the deposit. This broke up all of them even more than they had been when they were put into the basket. Some of the vessels had been smashed and parts lost, before they ever reached the mound.

Finally the entire mass, pots, part pots, stacks of sherds and pigmented mud streaks from poorly fired or unfired pots or pottery effigies was exposed. The last part of the process was the most difficult. Space to stand, sit, or kneel while doing final cleaning, (let alone a place to put loose dirt) was hard to find. Most of the work was done from the edges of the deposit or from a

few small clear spots. We also worked from planks raised over the deposit on low sawhorses or buckets. The problem of recording all of the bits and pieces in this complicated mass, a problem which I had been puzzling over for some time, was finally solved by using the camera. A 10 foot by 10 foot square frame was made from light wood. Inch markings, alternate black and white strips, were painted along its sides, and strings were strung across it at the mid points of the side, giving us a usable 5 foot grid. We re-established grid points in the deposit with nails, held the frame over the grid markers, and photographed the deposit from as nearly a vertical position as possible, using ladders and planks to elevate the photographer and the camera. He took a large number of photographs which gave complete coverage and insured quality. The best of these were chosen for final use and assembled into a single record photographic print for study, laboratory use, and publication. Finally, large prints on mat paper were brought to the mound, and vessel numbers were entered directly on them. Eventually, the photographs were turned into drawings with stylized representations of the pottery, but immediate needs were met by the annotated photographic prints. This all worked out very well and, given the complexity of the deposit, I doubt if record scale drawings of equal value could have been produced any other way. Prettier drawings could have been made by a professional illustrator, but we couldn't afford one.

The vessels were removed one at a time, including, the majority, vessels broken in place. Removal usually required the use of more water to soften hard dirt and application of our full assortment of small tools. After each was removed, carefully packed in its own box or bag, padded by the invaluable and, in Georgia, inexpensive, Spanish Moss, the dirt under it was cleared away. This operation revealed either the bottom of the deposit or more sherds. If sherds, someone had to decide whether they might have belonged to the specimen just removed, or were

something else. Whatever the case, an entry with a grid location was made in the field notes. The bottom of the deposit was either red clay, or, particularly to the north, a thin black midden deposit. Finally, the batches of seemingly associated sherds were removed after some further measurements had been taken and another entry made in the now lost field notes.

In this tremendous deposit of pottery were 66 complete or restorable vessels, 26 batches or lots of sherds ranging from 1 sherd, a large part of a vessel, to 95 sherds. The lots were usually thought to have been from one vessel when they were excavated, but most of them were really from two or more pots. Finally, there was the inevitable category of miscellaneous sherds which were not known to be parts of restorable vessels. Plain sherds numbered 453 and 175 of them were red painted, incised, or both. Unfortunately, there were a few other vessels or ceramic objects in the deposit which were made from unbaked or inadequately baked clay. Except for a few bird heads which seemed to have been a little harder than their bodies, perhaps because they were bigger, thicker lumps, we were not able to even clean these specimens in place for photography. Perhaps a dozen vessels or ceramic objects were lost this way. The most unfortunate loss was what appeared to have been a really huge feline at the very bottom of the deposit, a panther or jaguar representation which must have been at least half-life size. What we saw were occasional expanses of shaped mud covered with thick red paint. There were holes cut in it, and a long curving striped tail was seen. But, we only saw this in bits and pieces which could be cleaned a few inches at a time which then disintegrated when the exposed mud became either wetter or dryer.

What was all of this pottery? A few pieces are illustrated, demonstrating first that some of them were not pots, but ceramic sculpture in the round, technically superb representations of life and abstract forms. Two of the life forms are human. One, with an elaborate hair style

which includes a lock coming down on his forehead, is seated cross legged. The other is kneeling on a square pedestal with his hands on his knees. His hair includes a forelock and a knot at the back of the head with a pin through it. He has ornaments in his ears, is wearing a cloak and on each shoulder, perhaps attached to the cloak in some way, is the head and upper body of a raptorial bird holding a fish in its mouth. Dubbed the Kolomoki Colonel by irreverent Weeden Island aficionados, one feels strongly that this figure is a representation of a real personage, one who lived, wielded power, and was known by the sculptor. These two humans are joined, in the realistic life style category of sculpture, by an incised bird effigy, apparently one of the crested woodpeckers, a panther which was beautifully modeled but so poorly fired that parts of him crumbled and are missing, a deer which was also soft and is partly gone, and a creation of some sort which included elements of both bird and fish. All of these had red paint covering all or most parts of them, incised lines as parts of the decoration and perforations through vessel walls, also as parts of the stylized representation of anatomical elements or as part of the total decorative scheme. There were no basal perforations to Kill these ceramic sculptures.

I dubbed a second style of life forms derived effigies. In one set of these, a life form was derived from a reasonably simple vessel by putting the legs on the four corners of a square vessel form with the head and tail protruding from opposite ends, and cutting or making an opening at least simulating that of a normal, functional vessel at the top. One of these was another panther, beautifully modeled, with the features emphasized by alternation of red paint and the natural buff of the pottery in zones outlined by incised lines. Further incising, red paint, and triangular perforations through the vessel wall completed the vessel. A hole was cut through the base before firing. The second of these is a deer, similarly derived from a flat based squared form.

The artist used incision and perforation to produce his deer, in addition to modeling. The head is fully modeled and protrudes from the vessel on a properly proportioned neck. A circular cut out in the back simulated the opening of a functional vessel, and again, a perforation was made through the base before firing, after which a wash of red paint was applied to the entire piece.

The most popular effigy forms were made with pedestals, again simulating functional vessels through the inclusion of an opening at the top, sometimes modified a bit into a short spout. Mostly birds, these, like the derived effigies, used modeling, perforation, incision, red paint, and alternately painted and natural color zones outlined by incised lines. There were two owls, one of which had some human characteristics or decorations including a scalp lock or crest and, apparently, a gorget on its breast. My favorite is a tall duck, really an abstract form, decorated with red paint and perforations, a simpler and more elegant piece than most. Another duck, perhaps a wood duck, has a crest. A poorly preserved specimen is another feline in a sort of sitting position, again confused by the possession of a disk-shaped gorget represented by a circular perforation and incised lines on its breast. There are other birds, a possible quail and, the first piece found, a woodpecker-which lost its pedestal but is enriched by another circular gorget. My all-time favorite piece is a beautiful little opossum, skillfully modeled, enlivened by incision and perforation, and crouched on a pedestal in such a way that he appears to be on top of a stump that is decorated with an abstract incised and punctated design. There is another owl on a pedestal, unfortunately with large parts missing. Or, perhaps it was not intended to be a pedestal at all since a flat base is connected to the body with two cylinders which might well be representations of legs. There are several simple forms with some effigy characteristics, mostly heads on the rims of simple bowl shapes. One tall red painted and perforated beaker has a half-circle erected on the rim on one side, to which are affixed eyes and a nose in a fashion very

reminiscent of the legendary Kilroy.

One group of vessels resembled each other only in characteristics or features best denominated abstract. The shapes and decorative elements were in no way reflections of natural objects life forms, or functional vessels. Each had a few features of one or another of those classes. However, a vessel which most resembles a stone Japanese garden lantern, complete with perforations, even if modified a bit by a sort of floral modeling, incision and punctations around the spout, is not really anything but abstract in the context in which it functioned as we perceive that context. Similar only in four large horizontal lobes around the spout is another, with a flat disk-shaped base, most similar to what would be a normal flower vase in our culture. Again, incision and perforations through the vessel walls further modified the specimen, the perforations of course making it non-functional as a container. Two vessels resembled eggs, a natural form, if that was the intent. Modification was only slicing the end of one of them to give it an open top. The other had only a small perforation at one end, and the other was flattened. A third one of these simple forms, again with a small perforation at one end, was usually referred to in the field as a cannon ball. Purists would prefer sphere, I suppose. I would not have been able to visualize the complete form of a vessel represented by a small part of the total form if I had not seen a similar vessel, complete, excavated by Clarence B. Moore. The Kolomoki specimen was a doughnut shaped affair, lying flat, with at least one vertical spout. This ceramic concoction was further enlivened by a coat of red paint and mall design executed in red paint and incision which seemed to represent the tail of a rattlesnake. That this creature was not unfamiliar to the inhabitants of Kolomoki was documented by small pottery rattlesnakes, nicely modeled and finished with stripes marked by incised lines and punctated zones, bearing traces of red paint. These had originally been affixed to a vessel, no trace of which was found. It did not

reach the deposit.

We did not find any of the large vessels with the red paint stripes found in Mound D, nor many stamped vessels. The large vessels did have relatives here, similarly large, round bottomed pots with short vertical necks. Those in Mound D were decorated only with incision and perforation. Stamping was present, but only in two partial pots. One was similar to the major style from the village and Mound D in the stamp designs and other characteristics, including a plain zone beneath the rim. However, it differed from all of its relatives in that the rim had been pulled up into four points, and the whole vessel had been red painted. The other had a complex, thin lined stamp on the upper body, beneath a rim pulled out into points. The stamping and its location were like stamped ware found with the Weeden Island style pottery in village areas, but the vessel differed from the village specimens in the complex rim treatment. There were many other oddities, particularly in the incomplete, or partial, vessels, and even a few normal, for Weeden Island, plain bowls and simpler forms decorated with incision, punctation, and red paint. I will end with a description of the most unusual one that we found. It was not made at Kolomoki since characteristics of the clay and added tempering material are foreign. It is a bowl, a simple compressed globular form, with a slightly flattened base. It is decorated with a large diamond on each side, outlined by wide incised lines left in natural earth tones. Inside this are four petal flowers or something of the sort, each petal and the center of the flower marked by a depressed dot. The background around the flowers white paint in the central dots, are red is red painted, except for white feather upper zones above the diamond, and two. The rest of the vessel shaped designs in the abstract white designs marking the quarter points occupied by the diamonds around the vessel on the two sides. This, like a lot of the others, can be described in detail for many pages, or a photograph, as has been done here.

Some years after its excavation, I restored this vessel using plaster and a minimum of carefully mixed paint to restore the design on one side of the vessel in order to use it in a temporary museum exhibit. The other half was left with the glue lines showing, and no restoration of paint or small holes to allow study in the future. Unfortunately, this did not suit one of the unqualified people who worked in the museum later. Along with losing the catalogue, the notes, they fully restored this vessel with an overall paint job covering every inch. White is white, but the red selected was a definite orange.

When recording and removal of the massive deposit on the eastern front of the core mound was completed, there were the usual odd jobs to do before starting the next part of the program, the excavation of the core mound itself. Again, some cutting back of the higher walls around the hole was required in a few places. At the far, northern side of the deposit, this also required and permitted the excavation of the other of the two rock slab graves. Like the first one, described earlier, it contained the remains of one female, in this case lacking any preserved accompaniments. After her removal, we were able to clean up floors, straighten out walls, clean up loose dirt, and make a lot of drawings and photographs. Floor cleaning was made more difficult by the remains, under part of the pottery deposit and protruding out from under the core mound, of a thin midden which the pottery deposit and core mound had been placed on top of. We had to peel it away from the underlying clay and keep its contents separated from any artifacts in the mound layers or the pottery deposit. But, finally, we were ready to go to work on the core mound itself.

Excavation of this structure, a miniature of the Temple Mound it faced across the plaza, was about the same as starting a complete new excavation project. A 40 foot by 25 foot by 5 foot mound is not an insignificant problem, especially since the hollow tubes, remaining from

vertical logs that we had traced all the way down from the second level of the main structure, were still with us, disappearing into this flat topped mound. The best recording technique I could think of required us to make a contour map of this mound, really the only way to place irregularities, minor though they were, and the precise location of the big posts, in the record. This took a day with plane table and alidade and then we were ready to start on the mound. First, what method to use? As always, we didn't know what was in or under it. We did have to find out where the big posts ended up. So, the vertical slicing technique, starting on the northern end so we would get the big post problem solved as soon as possible, was the obvious answer.

There were some rocks scattered around which confused me at first. After slicing a few feet into the flat topped structure, the vertical profile disclosed that its solid, almost monolithic appearance, was mostly the product of a good plaster job with the gray clay. There was a dome shaped mound under its surface. Rocks were part of this structure. On its top, a familiar scenario by now, there was a single skull with one of the iron, copper, and pearl cymbal shaped ornaments. The mound encased, even, as it appeared shortly, propped up, the vertical logs. But, they went on down below the level of the original ground surface for some unknown distance. After slicing through all of the big log remains and the northern half of the core mound, to the point where the flat disk top on the southern half of the core mound was about to be disturbed, I called a halt. If nothing else, we needed a final mapping of the bases of the huge vertical posts. The floor was carefully planned, and the vertical surface of the remainder of the flat topped mound cleaned. Tono Waring referred to the product as a nice preparation, a reference to biological and surgical techniques which I found appropriate as well as complimentary. The vertical surface was virtually featureless, the plaster at this point being an almost solid mass of gray clay. The floor was another matter. I could see, barely, signs of disturbance, of intrusion

into the basic soil beneath the mound. The areas of disturbance were too large to be accounted for by holes made just to hold the vertical posts erect. Finally, with a lot of scraping, and lines drawn between disturbed and undisturbed dirt under my direction while I peered down at the vague soil differences from the top of the tower, we outlined five rectangles, all in the range of grave size, and one small oval.

We excavated carefully inside of the incised lines. At least two of these shallow graves, containing the remains of adult males extended on their backs, were lined with large logs. One of the bodies had a string of conch shell beads around his neck. Three of the other graves also contained extended burials, but the presence of logs was uncertain. Two of them did have a few medium size beads in the neck area. Number 6 was a bit different. The cremated remains of one individual had been buried in a basket, or the pit had been lined with matting. A definite imprint was observed, and a cast of the split cane, woven in a right angle, over and under fashion, was obtained. The vertical posts, uprights for the tall scaffold, were set into the subsoil, right into the side of a grave in one case, and then propped up with the little dome shaped primary mound. To add bulk to the small mound, dirt had been scraped up in the vicinity, including a lot of the midden deposit I noted earlier. This midden was useful because all mound construction dated later than it. After analyzing all of the specimens from the little mound and from the midden remaining in place, the identity of the complexes was obvious, and the two lots could be added together. The stamped pottery in the midden was of the type characterized by the neat stamping, square bases, and so on found in Mound D in complete vessels and named after the site. The sherds from this midden were impressed with rather larger stamps and the designs sometimes used broader lines than those on pots from Mound E or on most of the village area specimens. So, the scaffold had been erected, and people buried, on part of the village site during or after the

point in time when Kolomoki Complicated Stamped pottery was popular.

This left us with the rest of the mound under the raised disk on the southern end to excavate. Continuing our slicing, we found nothing of any consequence in the rest of the structure, but another burial was directly under it. There was a lot of rotted wood, difficult to figure out as we cut into the northern side of the mass of wood and the clay over it. A bit of gingerly slicing in from all sides demonstrated that whatever was involved was of some size, and wasn't far inside the mound in any direction. The wooden object appeared to have a flat square shape and it was perhaps a foot above the floor level. There was no trace of anything above it except gray clay. A change in technique was called for to excavate this last remnant of mound structure. We sliced down this mound remnant horizontally, planning it off from the top down. Once the 10 foot square wooden mass was isolated, it was clearly a roughly square framework of 4 to 6 inch diameter logs, with lighter poles running lengthwise on a 6 inch spacing. This wooden framework rested on a low platform of burned earth which had on its surface, under the logs, some partly cremated human bone, the remains of one individual. This burned earth in turn was over the grave of one person, almost certainly, for reasons we will advance shortly, the person whose death had initiated the cycle of mortuary ceremonies and mound building.

Removing the wooden debris took some time because I hoped for more information and the cremated remains under it confused the work a bit. But, even without more information, it was clearly a wooden framework. I was and still am, convinced that it was the litter on which the body whose remains we shortly found under it were carried to its grave. The cremated remains were removed, and work started on the burned earth, obviously, from the size and shape of the deposit and from what we found under it, the earth removed from the grave which, as in any other grave, would not all fit back into the hole.

The grave, of normal size, was made of rock slabs and large logs. The walls were lined with roughly fitted slabs of the local sandstone, and then two or three large logs were placed across the top. More of the rock slabs were used as a cover, supported by the logs. The individual for whom all of this work had been undertaken, for whom all of the ceremonies had been performed, was an adult, an unusually large and robust male, accompanied by many large barrel-shaped conch shell beads. Most of the bones were the usual masses of stains and splinters common in this mound. But, part of the right arm, most of the right ribs, part of the right side of the pelvis, and the upper half of the right femur were in near perfect condition, almost as hard as fresh bone. The wide difference in preservation was apparently due to a large mass of white mold, a product of one of the large logs. It had collapsed around and encased, seemingly with a very functional antibiotic, the well preserved portions of the skeleton.

Perhaps the thing to do at this point is to reverse procedure and describe the events which occurred in their correct sequence, using the data for sequence which we carefully collected and recorded as the mound was being dissected. Too, a few observations on origins, functions, cause and effect, and other bits of interpretation seem appropriate. At least they were part of what I was after, and I am reasonably certain of a lot of them. After all, this was a fossilized ceremony, not a city garbage dump for the deposition of old bones and pots.

The first step in the series of events which produced Mound D was the interment, in an area cleaned of most debris, of the 5 bodies and one basketful of cremated bones. Our data says that these bodies were interred simultaneously. In my experience, flexed, bodies in the fetal position were frequently bundles, which could have been saved for some time. We never found any support for theories about long term retention of extended burials. There is a high probability then that these five bodies are the remains of persons deliberately sacrificed to initiate

the ceremonies. At least two of the graves, possibly all five, were lined along their sides with large logs. The logs and bodies took up a fair amount of space so that when the graves were refilled, there was dirt left over which formed a small mound. Before the graves were filled, eight very large logs, about 18 inches in diameter and 12 feet long, were propped up in a vertical position. Their butts were inserted a foot or so into holes in the ground or into unfilled graves. Then the dirt from the graves, supplemented by a bit more scraped up nearby and a fair number of rocks, was used to support them. They formed the basis for a rectangular framework about 25 feet by 10 feet horizontally. Smaller poles and logs were used to make a platform on the top of these big logs, completing a large 10 foot high scaffold or raised platform. A single skull was placed right under it, on the surface of the small, dome shaped rock and dirt mound which supported the scaffold. Quite certainly this skull, like most others with ornaments in place, was actually fleshed head when it was placed on the mound.

Immediately after the raised platform was completed, three burials were made in rock slab and log tombs. One of these, the person in the tomb off the southern side of the scaffold was by position and place in the ceremonial sequence he whose death initiated the whole cycle of complex ceremonies and attendant mound building. Probably this body had been carried to the platform on a litter, and was then moved down to the grave on it when platform ceremonies were completed. After the remains were placed in the carefully built rock and log tomb, and the top covered with more rocks and logs, the dirt from the tomb was placed back over the cover, forming a small mound. Some bones, almost certainly those of one person, were then partially cremated on top of this little mound. Then the entire grave site was covered by the litter. Two female bodies were then placed side by side in two more log and rock slab tombs with their heads to the east. These tombs were directly in front of the platform, set on top of the front edge

of the little mound. They remained above ground sepulchers until deposition of the layer of clay which covered them the flat topped core mound, and the huge pottery deposit. These three bodies in rock slab tombs, all interred immediately after completion of the platform, are clearly related. Shared use of the ceremonially important scaffold and of the distinctive tomb type are features of too great significance to be dismissed as coincidence.

The next step in the ceremonies was building the rectangular core mound which covered the main burial and the small primary mound which held up the platform. Apparently it was considered necessary to keep track of the location of the primary burial. Not only was the gray clay thickest over it, but over it and the litter a circular cap, several feet high, was added to the otherwise rectangular mound. This raised end mirrors an elevation on the great temple mound, three hundred yards away across the plaza. While the final dirt was being added to this small flat topped mound, several more individuals were cremated just north of the northern edge of the top of the core mound, a location perhaps chosen to keep fires from igniting the platform. Two or more persons were cremated here, toasted lightly really, in a sunken area outlined by large logs. The depression was then covered over with light poles which in turn seem to have been plastered over with a thin layer of clay which gave the flat topped mound a superficially solid appearance. More of the clay was also packed around the sides of the two eastern rock slab and log tombs, containing the bodies of the two ladies.

The huge deposit, pottery and at least four trophy heads, was put in place after this flat topped mound was completed, some of the vessels lying against its front, eastern, surface. During the next phase of construction and ceremonies, brown earth was piled around the scaffolding in the northern half of the mound. This earth, eventually reaching the level of the platform top, did not contain any burials or artifacts. Its sole purpose, apparently, was the

entombment of the platform, the focus of the ceremony. Yellow clay was used to cover burials in the southern half of the mound. A steady succession of bodies was placed in the yellow clay as it was dumped, basket load by basket load, on the southern part of the developing structure, over the disk on the core mound which marked the location of the grave of the most important person. Just over the disk, the first body in a series was placed in a log outline extended' with the head to the east. An attempt to cremate this body in place resulted largely in breaking down the bone structure so that it decayed more easily. The human remains and the charcoal were covered with rocks and clay, and another body, treated in exactly the same fashion, was placed immediately over the first one. After covering and smoothing the area, a mass cremation took place, involving several individuals. Finally, as the last event in this immediate location, 2 single skulls and a bundle of long bones were placed on the ground, covered with yellow clay, and the area was leveled once more. This time the leveling was over the entire mound top including the brown earth. This produced a flat topped mound, temporarily, almost as high as the wooden platform. In addition to the stack of burials over the main or primary burial, other bodies, skulls, and bone bundles were interred in the yellow clay around the stack for its entire height. One of these, deposited at the same time as one of the extended bodies in the main stack, was a body which had been cremated in a log outline like others described. In this case though the individual was decapitated before being placed in the grave. After the calcined bones had been scraped together into a neat pile, the skull was placed in the eastern end of the log outline. After all of these remains had been deposited, and an approximate level reached, a superficial layer of yellow clay was plastered over the entire platform, brown earth and all. This produced a platform mound about ten feet high, with a top about 15 feet in diameter.

Two more events in this grisly sequence of ceremonial disposal of human remains took place immediately after this platform was finished. First, an assortment of skulls or heads, bodies, and long bones or limbs was partially cremated in place on top of the platform. Second, some people had apparently been forgotten or overlooked somehow in the ceremonies to this point because 3 large pits were dug from this level all the way back down to the original ground surface. The pits carefully avoided the core mound and its disk-shaped cap which marked the location of the primary burial. Burials in log outlines were made at the base of each pit. In 2 of these, the extended body was pressed closely against the wall and the central position was given over to a single skull. As these pits were filled, more single skulls or heads, and head and arm sets were added at intervals. Presumably, these heads and head and arm sets bore some relationship to the body or head at the bottom of each pit.

Still more skulls were found on the sides of this stage of mound building. In view of the numbers of cremated persons at the top of the mound, we thought once they might simply have rolled down out of the fire. But, in every determinable case, they faced east, scarcely accidental. By this time, the remains of about 80 persons had found a place in the sequence of ceremonial events which produced mound D, places ranging from treatment as objects and placement in the mass deposit with pottery objects and vessels to the perceptibly complex, individually focused ceremonial events producing the burial of a large male in the rock slab and log tomb, the person whose death had initiated the whole ceremonial and mound building sequence. The placement of the heads, or skulls, on the sides of the mound was the next to last ceremony which took place here. The final one was piling a thick layer of red clay over the entire structure.

Certainly we can see a sequence of events in Mound D, and can, to some degree, understand what some of the events were. This allows us to consider reconstruction of the

ceremony which took place here. As I excavated the mound and worked out details, the developments perceptible had a certain familiarity. In the literature describing aboriginal groups in southeastern United States during the contact period, there are occasional descriptions of funeral events, temples containing bones and using heads or skulls as ornaments, and charnel houses with many bodies, preserved or not, stored in them. But, for understanding what went on in Mound D. One group of descriptions stands out above all of the others. These are the accounts of the funeral ceremonies for ranking supreme chiefs, Suns among the Natchez and Taensa Indians in Louisiana.

The social organization of these Indians has been considered unusual because of a strong bias toward using class more than blood relationship as a basis for the organization. This is probably not as unusual as it may seem, since there are indications of similar social structure in other 16th-18th century societies in the Southeast, particularly in Florida and Virginia. Probably the Indians in the advanced and populous Southeastern societies did not know that they should have followed standards established by such comparatively backwards groups as the Crow, the Iroquois, and the Hopi.

In any event, Natchez society was organized into three major groupings, each more or less hereditary. The smallest class was of course, the upper, ruling class called Suns. A small, less distinctive class of Nobles was next, followed by the mass of the people, the Stinkards. The funeral ceremonies in which we are interested were initiated at the death of a Sun. The individuals might be chiefs, chiefs' wives, or war chiefs, remembering that stratification was rigid and each of these would play a part, if available, in the funerals of any of the others. There were some ceremonies at the deathbed. While these were being performed, scaffolds were erected in the public square, and the ceremonies to follow were organized and rehearsed. Later,

while the body was being carried to the place of burial on a litter, wives, retainers, lesser officials, and relatives were strangled on the scaffold following the demands of protocol. Their burials followed a rigid pattern and sequence. The wife or wives of the chief were placed in his grave or inside the temple, individuals next in importance were buried in front of the temple door, and so on. Also of importance to us are references in the accounts of later exhumation of the bones from these burials and their storage in the temple with other bones or dried bodies, of trophy heads used as temple decorations, and the presence of pottery figures, wooden figures, and stone idols in the temples.

The Mound D parallels are very close. Perhaps this is more a matter of ceremonial structure and emphasis on rank than of detailed similarities, but both are present. In Mound D, six bodies, retainers killed for the purpose, were interred in a freshly cleaned area directly across the plaza from the temple mound. Over their graves, a large scaffold was erected. After it was in place, one adult male was carried to the scaffold on a litter, and buried in a rock slab and log tomb immediately south of the scaffold. The litter was placed on top of the grave. As we will see later, Mound H, to the south, may have been used in these Mound D rites as Mound F was used in Mound E ceremonies. At the same time, two females were interred, also in rock slab and log tombs, immediately east of the Scaffold. I certainly have no difficulty in visualizing the strangling of these two wives and their burial in tombs like that of their lord. The Natchez parallels are uncannily apt. After a trophy head was placed on top of the grave and another person was cremated and placed on the high chiefs' grave, miniature of the temple mound across the plaza was built. It partially encased the graves of the two women and covered the grave of the dominant personage. Clearly, for further ceremonies, the location of the primary grave was important. A disk of earth, a foot or so higher than the rest of the mound, was modeled in the

clay over the grave of the dominant individual. The need to keep track of this location is documented by the sequence of events which followed. This location was always central for deposition of earth, bodies, and excavations back to mound base.

The mass deposit of pottery was placed against the front, plaza side, of this small flat topped mound. Human heads and several conch shell dippers also found places in the deposit, but most of it was ceremonial pottery, ceremonial because very few of the pieces could have served as containers. Possibly some of the pottery was made especially for these ceremonies, but most of it appears to have been originally served other ceremonial functions. Good examples are the bird, deer, panther, wildcat and opossum effigies. These, the pottery figures observed in southeastern temples, as well as trophy heads and odd batches of bones, must have been temple furniture. Too, many vessels had parts lost before they were placed in the mound, suggesting a prior functional location.

But, a lot more temple furniture, as with the Natchez and Taensa, remained to play its part in the ceremonial cycle, eventually to be buried in the mound. A succession of other fleshed bodies was buried over the grave of the Great Man. They could have been complete dried bodies, but more probably they are the remains of other retainers and relatives who were sacrificed. As the ceremonies built to a climax, other persons were killed and buried and other heads and bone bundles were deposited and covered with earth. Many of these bodies and parts of bodies were cremated in place although the process was never very thorough. There were a few basketfuls of thoroughly cremated remains set down and covered too, so that just about all of the possibilities for human body disposal were exploited. At a point in time, the cycle of human sacrifice and covering remains produced a circular, flat topped mound, its' top level with the scaffold platform. A lot of human parts were cremated on this mound top. Then, for some

reason, pits were dug around its periphery all the way back to ground level and a body or head placed at the bottom of each. As these pits were filled a series of trophy heads and sets consisting of a presumably dried head sitting on a hand with the forearm attached were put in the fill of each pit. Speculatively, some more deserving persons and remains showed up which had been overlooked in the original inventory. This initiated another cycle of ceremonies for each assemblage of people and remains in the right class and status relationship to each other. Finally this complex, costly, and grisly set of ceremonies was finished with the deposition of a thick layer of red clay which sealed in everything. I think that the tremendous quantity of bodies, things, and the carefully directed labor parties can only reflect the ceremonial requirements for the burial of a supremely important person, one whose social position was so high that he had become identified, through his near divinity and awful power, with the temple and all of its contents as well as with most of the people who served the society with him. Because of this identification, all of the temple furniture and all of the persons closely associated with him in the exercise of his power, things and people which had functioned as parts of parts of the power, had to be buried with him, safely sealing all of the manna where it could not harm the society. A complete social cycle had ended.

SCIENCE IN THE FIELD

Much of the kind of information needed to reconstruct ceremonial systems, as in Mound D, can only be recovered through the continuous application of the scientific method in the field. Each new artifact or burial, even more each change in soil type seen in plan or profile, causes one to ask: What is this? Why is it here? What was its function? What is its relationship to other artifacts including earthen and wooden features made by man? If this is a scaffold used in

funeral ceremonies, then a spatial and sequential relationship to human remains will be present and can be documented. If the ornaments are in place on this skull, then it was placed in the mound as a head with flesh and hair to hold them in place. Then a further test can be devised. In one case, we found not only skin and hair preserved by copper salts, but a louse egg. Testing the if-then proposition when explaining soil changes, usually requires a cut or slice in a different direction or on a different axis. For example, if an observed change is because a new layer was placed on a completed mound surface, then the dividing line will change in shape and elevation with further vertical slicing. Too, each act of prehistoric construction, each laborious deposition of remains or artifacts, produces an artifact, just as the total structure, the completed mound, is an artifact. This is so by definition, but it is often forgotten.

As I worked in this mound, it began to penetrate my thinking, finally getting through to the conscious level, that science belongs in the field. We cannot settle for just recording unless we are only collectors, destroying as much information as we record and collect, or more. Tono Waring helped me to think this through more than anyone else did, especially through his constant insistence on answers. What is that and why is it there?

It needs to be emphasized that each hypothesis has its origins in what is observed and in all the knowledge available at that point in time about the culture being worked on and about possibly similar cultures, as well as in everything the archaeologist has learned about soils, rotten wood, decayed bone, and similar esoterica. Perhaps some emphasis is necessary here. The archaeologist depends for hypothesis formulation on all of the published data about the culture he is studying by excavation, not on all of the published hypotheses and interpretations. Some of my own thinking about all of this was forced down my throat by the long gone inhabitants of the Wilbanks Farm site in northern Georgia, dug after my first season at Kolomoki. Questions must

be asked first of what is there, directly in front of you in the site you are working on, not of what someone thought something similar was at some other site. Analysis must be continuous, if not necessarily detailed. It was important to look at, in the field, enough of the sherds from the thin midden layer at the base of Mound D, for example, to confirm the hypothesis derived from texture, color, and strata lines, that the midden was a distinct deposit in place. If the specimens were simply thrown into a bag labeled with the square number and the depth, supplemented by a note saying that they came from the black or brown dirt at the bottom of the mound, then neither I nor anyone else might ask later if the specimens came from an in place, and therefore pre-mound, midden deposit, dating mound construction as in or later than the period of the midden.

MOUND A

The huge truncated pyramidal Temple Mound at Kolomoki covers an area the size of a football field. Like all North American truncated pyramidal mounds, it is considered to be a member of a class functioning as bases or platforms for temples, or at least sacred buildings. In many cases, excavation has demonstrated that there were indeed buildings on the tops of these structures and that their supposed functional relationship to similarly shaped Middle American stone structures is, in fact, valid. This one is, at the highest point on its top at the southern end of the platform, 56 feet above the average level of the plaza which fronts it to the west.

It was, and basically remains, an enigma. Its presence and consequently interpretation of the site of which it is a part, seems to cause more trouble for other archaeologists concerned with the Weeden Island phenomena than it does me. All earth structures classified as temple mounds are truncated pyramids. But, Mound A at Kolomoki is unusual in its lack of a gently sloped ramp leading to the top and in its tall skinny profile. But, it does share these characteristics with

a few other mounds in Florida and Louisiana, all of which are, or could be, unexpectedly early in their respective local chronologies. Chunky, even squat, mounds, with ramps continue being made right up into the early contact period.

My excavation into this mound was very limited indeed. I will admit to being somewhat daunted by its sheer mass. I was even more daunted by A.R. Kelly's frequently stated desire that it be tunneled. Did work out a budget for excavating a large part of it, planning to use machinery to cut the cost of moving large quantities of earth down from the top levels and then back up again to restore it, a necessity for many reasons. But, any such budget was out of the question in 1952. I did manage two cuts, intended to: (1) Relate the structure to the locally developed pottery chronology. (2) Find out something about the thickness of the outer layer and about the nature of the first buried layer.

The two cuts gave us answers that we needed, indeed gave us the data required to prepare a realistic budget for much more extensive excavation someday. In any event, to learn anything about Mound A that was not apparent on the surface, we had to carve our way into its hard clay.

A few feet south of the center line a trench 10 feet wide and 20 feet long cut into the toe of the mound, starting a few feet out from the apparent bottom of the slope. Most of the dirt removed was red clay. There was some of the original mound toe and a fair amount of wash. Under these was the slope of the first buried mound layer, obvious enough since it was made of white clay. Thicknesses for that part of each layer in place and exposed was 3 to 4 feet, but the white clay is really of unknown thickness since we did not penetrate through it.

The top of the mound seems to be on two levels with south half several feet higher than the northern half. One pit, 10 feet by 10 feet, was dug in the southern half of the mound top somewhere near its center. It went through several feet of red clay to the sharply defined surface

of a white clay layer. We cut on down into the white clay, white clay mixed with lenses of darker soil really, for several feet, as deep as there was any point in going with one hole. A few sherds were found in the red clay, specimens representing all of the assortments found in the site. Since they had to have been deposited with the clay of this layer and were, consequently, accidental inclusions in the building material, they weren't really informative. A few sherds on the surface of the white clay, left there during occupation of that surface, were Kolomoki Complicated Stamped, like the complete vessels from Mound E. They relate the use of that buried level of Mound A construction to that pottery type and to most of the village area around the plaza and the construction of Mound E. Unfortunately, while the crew and I were out by the tool shack near Mound D eating lunch, a party of tourists stole the two bags of pottery I had carelessly left in the pit on top of the mound. So, there is only my unsupported word that the pottery ever existed and was of the kind stated. The final 3 or 4 feet of red clay was deposited after the use of the white clay surface, of course. A day, a week, or a century later, but not enough later to have any connection with the tiny 1 family Lamar occupation down by the spring. It has been suggested, in print, that the Lamar Indians built Mound A, an asinine suggestion in view of Mound and population sizes, as well as for other reasons. I should note that while the red clay eroded considerably, the washed material accumulating at the foot of the mound, the white clay scarcely washed or eroded at all. The slope ended neatly on the ground surface. This could mean that it was not exposed long enough to erode, or, more likely with such a huge mass, constant maintenance restored clay as fast as it washed down and kept the white, monolithic appearance of this huge platform intact.

Some of my colleagues, particularly those with a limited peninsular Florida orientation, would be happy to dismiss Mound A as a Lamar structure. As I stated above, there is absolutely

no support for such an assumption. On the contrary, the position of this Temple Mound with respect to the plaza and the village areas is as good evidence as were the few stolen sherds that it was built and used by the people who built the burial mounds and lived in the village areas around the circumference of the plaza. This is not as strange as it may appear to some. In the Lower, not Central Mississippi Valley, many sites were excavated by WPA crews and reports were published, mostly by James A. Ford. These sites, of cultures named Troyville and Coles Creek, share with Weeden Island pottery most of its design styles. And, they built Temple, or Platform Mounds, some of them tall, skinny, and without access ramps. His knowledge of these cultures, sites of which he had worked on, was among the reasons Gordon Willey started studying Weeden Island in the first place. So, this Temple Mound is not a freak, viewed in perspective, but is one of the eastern fringe area representatives of its class.

This mound ought to be excavated, before some disaster overtakes it. It should be studied by a scientist with demonstrated capabilities, one who has shown that he can improvise techniques as necessary and can ask questions and devise tests on his feet. It should not be turned over to a technician, no matter what the political situation. An inadequate excavation plan and uninspired application of rote method could ruin the structure and recover less information than it contains. It is going to take a lot of money.

MOUNDS F AND H

Mound F, 400 feet south of Mound E and Mound H, nearly the same distance south of Mound D, were similar in most respects. Each was a rough ovoid, about 50 by 60 feet. F was nearly 6 feet high, but H, obviously plowed down and otherwise disturbed, was a foot or two shorter. I excavated F with a lot of help from Larson. He dug H on his own while helping me

with Mound D when necessary.

By the time we got to these two structures, neither of us suffered from any delusions about mounds being either burial mounds or temple mounds. Anything was possible, and there were no outward clues. So, both were opened using the vertical slicing technique, started on the eastern side. As necessary, trenches at different angles were opened and stripping techniques were applied at appropriate times.

As the slicing moved us in a few feet, Mound F showed us a surface of the now familiar white clay, sloping upward. Two quick trenches demonstrated that this surface was uniform, and, as we followed it in the trenches, that there was a buried white clay mound about 3 feet high. This was baffling. Why a platform here? We cut into it, and discovered that while the shoulders were solid white clay, its core, and the bulk of the platform then, was made of soft black dirt, probably the humus from the immediate area quickly scraped up into a pile. We all felt that there ought to be burials, pots, or something in it. The flat white top was very thin, so thin that it may have been mostly formed of clay carried there on people's feet. Again, there was no erosion. A bit of white clay on the original ground surface adjacent to the slope seemed to be have been spilled there or, again, was carried there on the feet of people. We were producing a similar deposit ourselves. Obviously, a quick white platform had been thrown up and, after some brief use, covered with a couple of feet of red clay. When? The obvious clue, pottery included in the various kinds of soil, wasn't trustworthy. There were a few Weeden Island style sherds in the red clay cap, but this is the kind of pottery found in adjacent village deposits abutting the mound to the south. The sherds only tell us that the red clay contained some of this pottery when it was scraped up, and that the mound was built sometime after some pots were broken and the pieces lost or discarded in that village.

Mound H was nearly a duplicate of Mound F. There were a few postholes which didn't form any kind of pattern, and some burned areas, but, essentially, the structure was a red clay cap over a rather crude white clay platform. A great many sherds were recovered from the mound caps and from the subsoil under the mound. Any given lot of specimens was a mixture covering the range of every pottery producing period at the site except Lamar, a mixture available by scraping up topsoil from the surrounding surface. It does tell us that the scraping was done, and the mound built, during the final period of occupation, again excepting Lamar which was not really part of the site problem.

We had moved a lot of dirt. Fortunately, by the time we dug these two mounds, we had a tractor with a pan, and were able to handle back dirt efficiently and cheaply, including rebuilding the mounds. We had not had a lot of puzzles to entertain us. All of our information came from color and texture changes observed and recorded on the walls and floors of our cuts. So, what were these mounds? The answer, I think, lies in their similarities. Each is a covered, preserved if you will, white platform. Each is about the same distance and direction from one of the two burial mounds. It appears highly probable that the platforms were used in the ceremonies attendant upon burial mound construction, and were, like most of the contents of the burial mounds, sealed off finally with a layer of red clay to preserve these sacred sites immediately after use. They were then satellite mounds, ceremonial adjuncts, to the burial mounds. Or, if you will, they are the sites of rituals which were a required part of the activities which took place at the Mounds D and E ceremonial sites.

MOUND B

Kolomoki did provide lots of entertaining little puzzles as well as the big ones, and Mound B just off the southwest corner of Mound A, rates high on the puzzle scale. I started work on it during my first season at the site and finished it a year later, thankful for the seasoning a year and digging at another site had given me. Speaking now, 40 years later, Mound B still rates as the most unusual mound it has been my misfortune to encounter. It was only 50 feet in diameter and a bit less than 5 feet high, not a lot different in appearance from Mound H which is nearby.

I cut a 5 foot wide trench into the southern side of this mound in the first season, probably because I was digging trenches in the field nearby looking for midden deposits rather than for any good scientific reason. This cut, reaching nearly to mound center from the southern edge and extending down 6 inches or so into the subsoil did provide a lot of information from the frequently cleaned floors and walls. I observed cylindrical or wedge shaped stains reaching down into the mound and many different kinds of dirt. A lot of pottery, from all of the pre-Lamar periods in which pottery was made, suggested that the last dirt used in it at came from the last period of site use. On the basis of all of this information, I decided, possibly prompted by Kelly who kept looking for a redo of Macon Plateau, that the mound was the remains of a collapsed earth-covered lodge. This hallucination did not survive a rational examination of the data. I could not have been more wrong.

This little structure gave my problem solving orientation some real impetus. My first cut was already nearly to mound center, so when I returned a year later it seemed best to continue it all the way across. This would remove a lot of an already small structure, but I needed data. As we cut through, constantly inspecting the floor of the cut, a number of round and oval stains,

some of them half round or half ovals related to other stains on the walls of the cut, were observed and recorded. But, they seemed to obliterate each other most of the time, and they were confused by piles or lumps of odd colored dirt. I did not understand what I was seeing. But, similar bafflement in northern Georgia the previous fall and spring had been lifted when I stripped off the plow zone. Perhaps it would work here. At least it would not destroy any more evidence. This plan data solved the problem when combined with profile information on hand and from a number of short trenches designed to cross section specific stains. Mound B was the product of erection, in sequence, of a considerable number of very large posts, 24 to 30 inches in diameter. Each was placed in a hole two and a half to three foot deep. Some of the holes, possibly all of them, had one side sloped, so that the post could be set in at an angle, then raised to the vertical and propped up by filling the hole with dirt. A lot of the dirt, including a great deal of the yellow-white clay, was brought in for the purpose. Some topsoil and some red clay was used too. The process must have continued for a long time since most posts cut through earlier ones. I doubt that there was ever more than one post standing at a time, but the size of the holes and of the post stains as well as the ramp system for erection tell us that they were big posts. My guess, based on feel and having handled a lot of posts and poles on this site, is that 15 feet long would be about right. Mound B was then a by-product of post erection produced by all of the dirt brought in to prop posts upright. The function of the posts could not be determined. One possibility is a slave post, mentioned in the contact period literature as a post to which slaves were tied for sacrifice, certainly a possibility here with the number of sacrifices needed for the burial ceremonies. Another is a post for the ball game, a semi-ceremonial war substitute similar to lacrosse and played throughout the Southeast. It usually required two posts, but there were single pole variants.

MOUND C

Mound C is almost the same size as Mound B, and, at the northwestern corner of the temple mound, is almost a mirror image of Mound B at the southwestern corner. But, it was not structurally or functionally similar. I used trenches, vertical slices, stripping, and what modifications and combinations of these I could apply to a small mound. It was definitely made of basket loads of dirt, so many kinds of dirt including topsoil, midden, red clay, white clay and white sand, that the basket loads showed up with unusual clarity. There were no developed surfaces, let alone sod lines or erosion channels. Certainly it was built, quickly, in a single operation. The pottery included says that the date of this operation was in the last period of site use, once more excluding Lamar. We did find a portion of a Clovis point from 10,000 B.C. or so, as well as two or three big flint projectile points from the 3,000 B.C. Archaic period. But, like all of the other artifacts, they came in with the fill dirt. I suspect that this mound is simply an accumulation of trash, produced from plaza sweeping and leveling for some major ceremony, very possibly the funeral ceremony which resulted in Mound D.

CONCLUSION

After working for five seasons of two to four months each at Kolomoki and years in the laboratory, I had spent a good many thousands of dollars, directed excavations which had moved enough earth to have built my own Temple Mound, filled the holes back in and restored the mounds which I had excavated, and been responsible for the construction of several buildings. Monographic reports were written and published on each seasons' work, not without difficulty. The final report, written after all of the specimens had been processed through the laboratory and

all of the records cleaned up and organized, represented a major effort on my part to reconstruct a lot of the social structure and the processes and events which took place at Kolomoki: to interpret all of the data and to translate it into culturally meaningful terms. It was written, of course, using the knowledge and theoretical concerns of the time, 1955, as I understood them, and using the information then available about related cultures. I would not write the same report today, although the differences would be far less than some of my colleagues would expect. But, this is not the place to rewrite that report. I might here summarize though what we did learn about Kolomoki through all of our dirt moving activities. This will be derived in considerable part from the section in the final Kolomoki report entitled *The Kolomoki Culture*. I have changed my mind about some things in the last forty years, I hope because it has been possible to learn from other sites and the published reports and papers of colleagues read at meetings and conferences. One of the greatest stimulants, really, has been going over the data, as well as the methods of archaeology as a science, with graduate students.

During the last few seasons of excavation at Kolomoki, and for several years thereafter, I continued to work on the problems of sequence and relationship at and between it and apparently related Weeden island sites. The results of this cogitation and of efforts to understand the data and its place in the prehistory of Southeastern United States were published in *Excavation at Kolomoki- Final Report* in 1956 and in a number of papers in professional journals.

Essentially, the data seemed to support a continuum from the village midden deposits with almost pure Weeden Island series sherds through a period with Weeden Island and a late or Middle Swift Creek Complicated Stamped to a period with Kolomoki Complicated Stamped as almost the only decorated ware. The Mounds, including Mound A which many recent students prefer to ignore, plaza and the village (read “house sites”)around the plaza were associated with

the middle period to some degree, but were considered, primarily, to be features of the Kolomoki period. Charts, tables, and diagrams presented these data and interpretations with the sequence ending in the Kolomoki period, defined by Kolomoki period midden deposits such as Unit 28 and the midden under Mound D.

There was no evidence of Early Swift Creek Complicated Stamped pottery or the associated ceremonial wares characteristic of the Santa Rosa-Swift Creek period defined by Willey and stratigraphically demonstrated by him (1949) to precede Weeden Island. It is possible to become confused between Santa-Rosa Swift Creek and a pre Weeden Island Swift Creek period when working with Willey (1949) and Willey and Woodbury (1942). I had two variants of the Weeden Island I period assemblage, both with Swift Creek Complicated Stamped and both very similar to undescribed variants of Weeden Island I midden assemblages perceptible in Willey charts and graphs. It then seemed to me that the Kolomoki period assemblage, spatially associated with the plaza and the temple mound, definitely not a Santa-Rosa Swift Creek assemblage since it lacked the characteristic kind of stamping and the dominant tetrapod bases on plain and stamped ware, must in some part be the inland Georgia equivalent of the Weeden Island II period. This was marked on the coast by the dominance of pottery decorated with Wakulla check stamped. It was sometimes associated in midden deposits with Weeden Island pottery but never with complicated stamped pottery.

Most of my colleagues working in the area, then and since, did not accept this, preferring instead to ignore the carefully described village area assemblages from Kolomoki and continuing to work with a simple Weeden Island I-II sequence. In their minds, if I did not have Wakulla Check Stamped pottery, then all of Kolomoki was Weeden Island I, or Weeden Island I and an earlier Swift Creek. I sense confusion between the concepts of period and assemblage, between

Santa Rosa, Santa Rosa-Swift Creek, and Swift Creek. None of this fit, for all of the above reasons, so I continued recalcitrant, supported, I thought, by the vessel shapes of the painted pots from, Mound E, there associated with Kolomoki Complicated Stamped vessels. These pots were I felt, Mississippian in shape. The Temple Mound and Plaza, also associated with the Kolomoki period, were good Mississippian concepts. All of this would fit, in the chronological schemes of the time, with a Weeden Island II dating for the Kolomoki period. Of course there were those unbelievers who either: (1) Ignored the temple mound and plaza completely, pretending that they weren't there, or (2) Assigned it either to an unspecified culture which apparently left no other traces or to the single biological family Lamar culture which occupied the site centuries after all of it, excepting apparently their house and the temple mound, had been abandoned. Obviously, the data in the various reports published on Kolomoki, and summarized in part here, do not support that.

When I memoir, almost forty years after I finished at Kolomoki, I used my original sequence in the first draft, and tried, very hard, to bolster it with more data. As far as the materials from Kolomoki and their specific relationships, based on artifact resemblances are concerned, no one had ever argued with me, although, now, I wonder why. Granted no one had, to my knowledge, ever considered the 3 midden defined assemblages and the relationships of the mound pottery assemblages to them either, let alone the relationships of any or all of them to the community pattern or patterns. Still other students preferred, until recently, to throw Kolomoki as a lump into a Swift Creek period as noted above or, without the Swift Creek, into various kinds or forms of Weeden Island.

But, finally, my own organization of the data was simply not satisfactory to me either. Years ago, I had had to propose reversed stratigraphy at several other sites to support my

sequence. The data as presented were confused, but this was not really satisfactory. Too, a lot of Carbon 14 dates were not in real agreement with each other, even contradicted each other in the same tables sometimes, but together they suggested that many kinds of Weeden Island mound and or village assemblages, with or without complicated stamped pottery but without check stamping, were built well before 1000 A.D. This included several dates on specimens from Kolomoki, two of which I had ignored in 1956.

In many instances, dates were around 500 A.D., which does overlap with accepted dates for Hopewellian complexes in the lower Mississippi Valley and the Midwest. I mistrusted a lot of the dates, most of them in fact, for reasons connected with sample processing as well as lack of consistency. I explained my objections a few years ago in a report on excavation of the Fort Center site in southern Florida.

But, the clustering was impressive. So, I thought again 40 years do have some impact on the cerebral processes, no matter how stubborn one is, even when lacking cogent argument. The following are facts, not interpretations, which must be considered. There are others, to be introduced with some interpretation when pertinent. But, these are the facts I thought particularly important in reconsideration:

(1) The presence, at Kolomoki, of three separate, definable, physically discrete

assemblages found in village midden deposits. These are:

a -Weeden Island Series associated. only with plain ware. There may be a very few stamped specimens.

b -Kolomoki Complicated Stamped associated almost entirely with plain ware. A few Weeden Island series shards may be present.

c - A middle Swift Creek Stamped and Weeden Island series assemblage. There are, of

course, some plain sherds plus, of course some plain specimens.

There are also present deposits which could be considered intermediate between the above. These could be the products of mechanical mixture or, logically if the above are parts of a continuum, they demonstrate true continuity over some period of time.

(2) There are two Weeden Island burial mounds with eastern side deposits. Mound E is related to the midden deposits with Kolomoki Complicated Stamped pottery through the presence in its deposit of a number of complete vessels of the type. Other vessels were aberrant in terms of Weeden Island style canons, particularly a new type, not found elsewhere to date, made in large pot forms decorated with red painted designs. The other mound, D, had only a few complicated stamped vessels of any type, many unusual life form ceramic effigies in a number of styles, and a very large number of burials along other features. The eastern side deposit, a core mound structure, and other features were superimposed on a Kolomoki period midden deposit. The relationship I perceive now for Mound D is with the, stylistically, middle period with both complicated stamped and Weeden Island styles of decorated pottery.

(3) A minimum of two community plans. One has separate middens containing either Kolomoki Stamped and plain or the middle period with Weeden Island styles, Complicated Stamped ware, and plain ware. It has the middens, and hence the houses, arranged in an arc around the plaza in front of the Temple Mound. The community pattern is certainly organized around the temple mound and plaza. It includes whichever of the other mounds existed at the specific point in time, Mound E and its satellite, Mound E and its satellites and mounds B and or C.

The other community plan, adjacent to that above to the south but overlapping only very slightly, is characterized by the maximum occurrence, in midden context, of the Weeden Island

and plain pottery. The middens with this material are strung out, east and west, in along narrow line. The plan may include a single mound which is not on the map.

A problem I see with other efforts to analyze all Weeden Island data into a single coherent and consistent whole, besides lack of consideration of the above Kolomoki facts, even with efforts to make the temple mound go away or to give it away, is lack of consideration of lower Mississippi Valley - Red River mouth cultural developments, specifically the Tchefuncte through Coles Creek ceramic continuum. The reports from the Marksville site, including Greenhouse, are especially important. The study of prehistoric developments around Mobile Bay might prove profitable too. I have gone through all this elsewhere, particularly in 1977. Suffice it to say here that, in my opinion, no effort at understanding Weeden Island can possibly be successful without study of and complete integration of the western material. Lip service, or ignoring the clear western origins, let alone clear eastward movement of, the Weeden Island styles and the presence of platform mounds in the Troyville, will not lead to understanding.

Now back to Kolomoki. Most decoration in the Weeden Island styles, including the area of the vessel decorated as well as style and technique, have Troyville parallels. This is not true of the various effigy styles which are an eastern specialty, nor of other variations which later become specialties of Weeden Island in the Tampa Bay area such as linear punctation. The effigies are brought to a peak of variety, execution, of development, at Kolomoki and in sites down the Chattahoochee and Apalachicola to the coast which are usually also shown to be related to Kolomoki through the presence of Kolomoki Complicated Stamped vessels in the same eastern side deposits. However, most vessel shapes, zone of decoration and the flat bases, whether squared or disk-shaped, in the Kolomoki Complicated Stamped pottery have Troyville relationships. Only vessel form traits, not a complex of decorative norms, have influenced the

manufacturers of the stamped pottery. Western concepts other than area of decoration, rim features, and base form, were used only in vessels specifically intended for ceremonial use.

More features relevant to the problems of sequence and relationship were also considered in the paper published in 1977.

(1) The frequency of complicated stamped pottery as part of secular or sacred ceramic assemblages decreases as a function of distance to the west, the last few sherds appearing in collections from the Mississippi delta.

(2) The reverse is true of ceramic styles of the lower Valley tradition.

In both instances, style movement is earlier and faster in sacred context than in secular, continuing a tendency, a trend, perceptible earlier in the Deptford-Early Swift Creek and Tchefuncte-Marksville periods.

But--Lower Valley ceramic concepts move furthest and most strongly, east, in ceremonial or sacred context. The eastern sacred, Hopewellian complexes, found in burial mounds, I defined years ago. The earliest, Yent, is the ceremonial, sacred aspect of Deptford. Green Point, the ceremonial complex following Yent, is the sacred aspect of a culture defined by Early Swift Creek pottery, the ceremonial part of Willey's Santa Rosa-Swift Creek complex and period. Both Yent and Green point contain vessels made in the lower Mississippi Valley.

If these western influences were to continue in the Apalachicola-Flint-Chattahoochee drainage, then the tetrapod based jars of Early Swift Creek would develop into complicated stamped vessels using, high shouldered small jars, decorated mostly on a zone around the shoulder, with mostly flat, disk and square, bases. This would parallel the western developments from Marksville into Troyville in everything but surface decoration. I should have perceived this probability, and the resultant Kolomoki Complicated Stamped vessels, in 1956 or earlier.

This does not change the proposed continuum at the Kolomoki site, nor the proposed mound-village relationships, the settlement patterns on the site which I proposed in 1956. It does invert the continuum, placing the Kolomoki period as earliest and the period dominated by the Weeden Island series and plain ware, with a different community pattern, latest. The middle period, with a mid or late Swift Creek Complicated Stamped pottery variant and associated Weeden Island pottery remains in the middle, and defines, in its midden deposits and their locations on a the site, a major part of the site occupation.

This does not change the proposed continuum nor the proposed mound-village relationships, the settlement patterns on the site, which I proposed in 1956. It inverts the continuum placing the Kolomoki period as earliest and the period dominated by the Weeden Island series and plain ware, part of another community pattern, latest. The middle period, with a mid or late Swift Creek Complicated Stamped and associated Weeden Island pottery remains in the middle, a major part of the site occupation. Complicated Stamping obviously continues its development to the north and east, into the pottery of the Lamar tradition. Weeden Island pottery is soon dropped in villages sometime after the replacement of complicated stamping by check stamping. It might continue, poorly executed, in small eastern side deposit burial mounds somewhat longer.

This version does not affect most of what I said 40 years ago about relationships between Weeden Island sites. Kolomoki is central to a cultural system, probably replacing the Deptford-Early Swift Creek, or, ceremonially, Yent-Green Point Mandeville site which is upstream a few miles, as the regional ceremonial center. Kolomoki in its time, at least in the earlier Kolomoki period and the later middle period, was central to a system, the components of which can be defined by either Kolomoki Stamped in village midden context, by Kolomoki Stamped in sacred

context as well as by some effigy features, or both. Probably the McKeithen site, equivalent in time but not in cultural complexity to the Kolomoki middle period and clearly, from village sherds, part of a different cultural system to which, no matter how small and simple the system was, it was central. One system may have been based on one form of social organization, the other on a different one. I am concerned, here and now, only with the Kolomoki system.

Probably I should state here that it appears to me that the ceramic assemblages at least from Mound D and some of the mounds excavated by Moore on the northwestern Florida Coast , especially those which included Kolomoki Stamped vessels such as Hall, Tucker and Mound Field, were the product of accumulation over some period of time. Internal evidence in Mound D supports this interpretation, and it is not inconsistent with Moore's descriptions of what he found. Each of these mounds then, including Mound D at Kolomoki too, represents an end point in ceremonialism which occupied some amount of time.

