

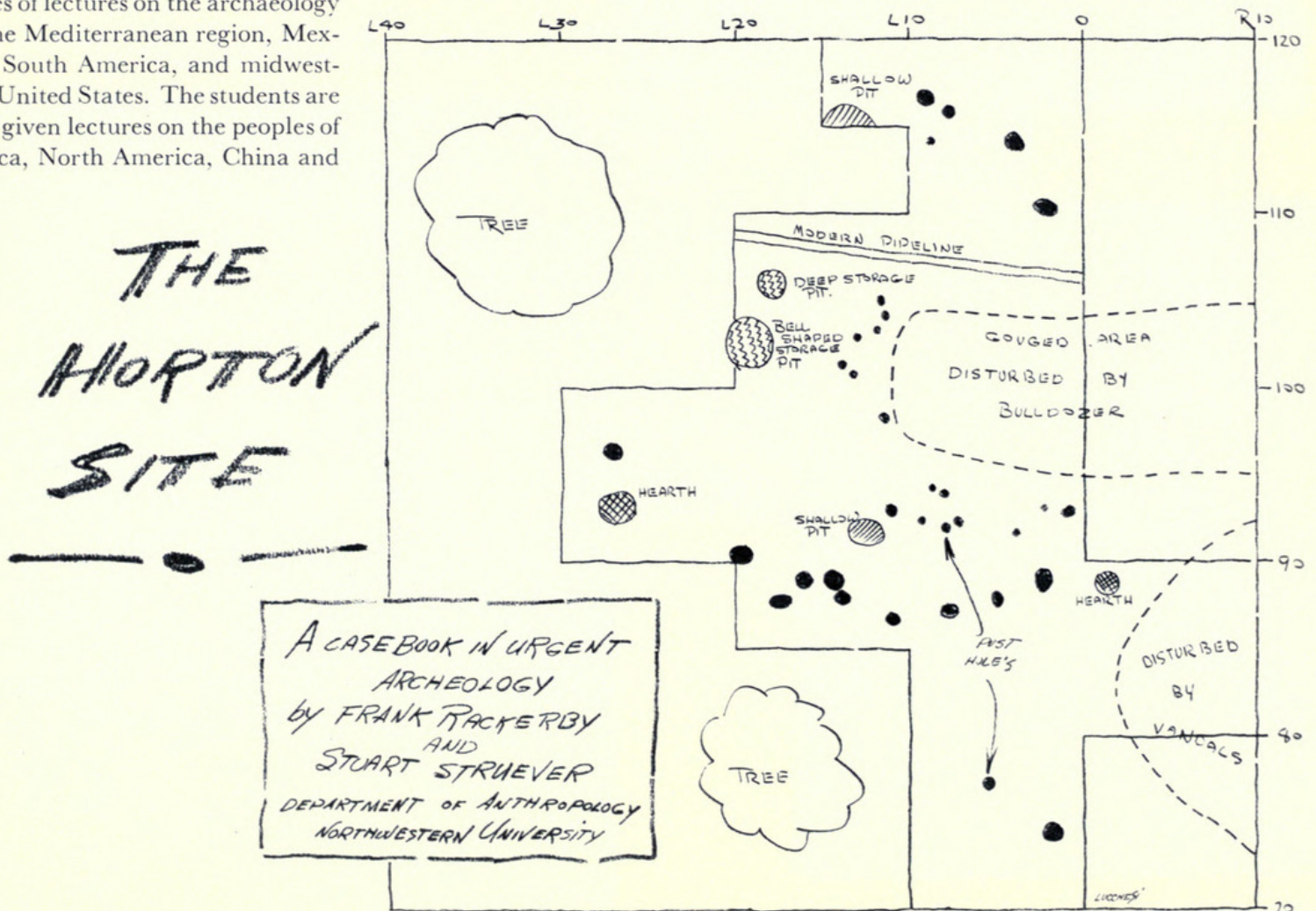
IN THE past two summers archaeological excavations have been carried out at the Horton Site, located in suburban Flossmoor, just south of Chicago. These excavations were part of the Field Museum's Summer Training Program in Anthropology. This program, which receives its financial support from the National Science Foundation, is directed by Miss Miriam Wood, Chief of the Raymond Foundation.

Each summer for one week the 25 students of the class have been given the opportunity to learn archaeological theory and field methods by participating in the excavations of a local Indian camp site. This week of field work is the climax of a six-week course introducing the students to the field of anthropology. The course is open to all High School Sophomores and Juniors who live within commuting distance of Field Museum. Selection of the 25 students is based on their academic achievement, recommendations by their teachers, and personal interviews of the highest rating applicants with members of the staff of the Raymond Foundation. Since anthropology is otherwise unavailable in a high school curriculum, this course provides these high-ability secondary school students from the Chicago metropolitan area with an opportunity of receiving an introduction to this field before they enter college.

Raymond Foundation anthropologists Edith Fleming and Harriet Smith are the instructors for the course. The program is intended to provide a general survey of the field of anthropology, from lectures on Fossil Man, through a series of lectures on the archaeology of the Mediterranean region, Mexico, South America, and midwestern United States. The students are also given lectures on the peoples of Africa, North America, China and

other parts of the world. Research specialists in each of these fields come to the Field Museum to lecture to the students.

After several weeks of lectures and discussions of the various aspects of anthropology, ranging from human evolution to the social life of various peoples, the students participate in actual archaeological field research. The intensive training in anthropology in the weeks preceding the excavations helps the students to grasp the relationship between archaeology and anthropology. They are taught to understand the kinds of questions about culture that the archaeologist tries to answer when he goes into the field to excavate a prehistoric site. An archaeologist does not dig to collect materials primarily for their esthetic value or for display, but to gather information which, when analyzed by the archaeologist with training in the science of culture, provides a reconstruction of the life patterns of an extinct people. The students are taught that archaeologists are not the collectors of *things*, but of *information* about prehistoric cultures. The pieces of pottery, arrow points and other artifacts which the students excavate are valuable as clues to the behavior of the extinct people. The scientific value of the specimens can only be retained by collecting this information using rigorous excavation methods. Before the students began excavation of the Horton Site they were given lectures on the methods of scientific archaeology so that when they picked up a shovel, they knew how to dig and why.





## The Horton Site

The Horton Site lies in a small meadow near Butterfield Creek. On the southern edge of expanding metropolitan Chicago, this area is being rapidly converted into subdivisions and shopping centers. Parts of the Horton Site had already been destroyed by the construction of a road and sidewalk for a subdivision. The site was discovered by Vernon Grubisch, a high school student and amateur archaeologist from nearby Chicago Heights. Grubisch had closely followed the gradual destruction of the ancient settlement; he collected artifacts in the areas disturbed by power machinery. Realizing that Horton represented an ideal location for its excavation project, and that the total destruction of the site was imminent, Field Museum contacted Mr. Michael O'Malley, who granted permission to excavate portions of the site situated in his subdivision.

The first class of the Anthropology Summer Training Program, under Struever's direction, began excavations at Horton in 1966. During the ensuing winter no further destruction occurred at the site, and Mr. O'Malley granted permission for a second season's work. During this second year of excavation, Rackerby continued the line of excavation units begun the previous summer. By doing so, the plan of a former Indian house was almost fully exposed, as well as several storage pits and other types of subterranean constructions, called features by archaeologists. These features reflect the kinds of domestic activities that occurred at this location some 500–600 years ago.

## Excavation Strategy

The purpose of the Horton Site dig was twofold—to demonstrate to the students proper archaeological excavation methods, while retrieving valuable information on a prehistoric community before its destruction by the housing development. On the basis of the pottery fragments—or sherds—which were found on the surface of the disturbed area of the site, it was determined that the occupation belonged to the cultural tradition known to archaeologists as *Upper Mississippian*. The strategy for the excavation the first summer was primarily to determine the limits and depth of the occupation, as well as to collect information on the village plan. A topographic survey map was made of the area, and a grid system of 10-foot squares was staked out on the surface of the site. The students were grouped into teams of three and assigned to excavate one of these squares. All of the soil from each square was screened and the artifacts were bagged and labeled separately for each square and for each level which the students dug. In this way both horizontal and vertical relationships of all types of cultural debris screened from the soil were recorded.

Earlier in the 20th century the entire surface of the site had been plowed, thus disturbing the cultural remains to a depth of 8 inches. This level was carefully shoveled off and screened, and the material recovered was kept separate from the underlying, undisturbed level. The Horton Site proved to be very shallow, running to a depth of no more than 12 inches. In the second level many larger pieces of pottery,

stone tools, and the tops of pits and post holes were first encountered.

The first season's exploratory excavation revealed several dark, circular stains, 7–8 inches in diameter that are interpreted as the remains of former house posts. The second season's work focused on this area and thereby exposed the pattern of the house and its associated pits. This part of the site extended into a lot owned by Mr. William Sikema, who kindly gave permission to continue the excavations on his land.



*Author Frank Rackerby shows Andy DePeder the square he will dig. Drawing on page 12 was done by Artist Roxanne Pearson-Rackerby, the Author's wife.*

Each student learned to keep his own notes and to record detailed observations as the work progressed. These notes, together with the archaeologists' drawings of the features, and the artifacts and natural material (unworked stone and bone), are the evidence from which archaeologists reconstruct former cultural activities.

The information recovered by the Horton excavations can be grouped into three classes: artifacts, features, and debris. Debris includes such food evidence as discarded animal bones and shell, as well as items like hearth stones or waste flakes chipped off in the manufacture of stone tools. Features are the observable remains of former building activity, such as house construction or the digging of storage or cooking pits. The artifacts themselves provide clues to much of the behavior of the extinct people. Artifacts may be tools which functioned in the technology of the culture, such as arrow points or flint knives. Other artifacts, such as ornaments or smoking pipes, functioned in their social life, either as items for recreation or as symbols to communicate status.

## Cultural Reconstruction

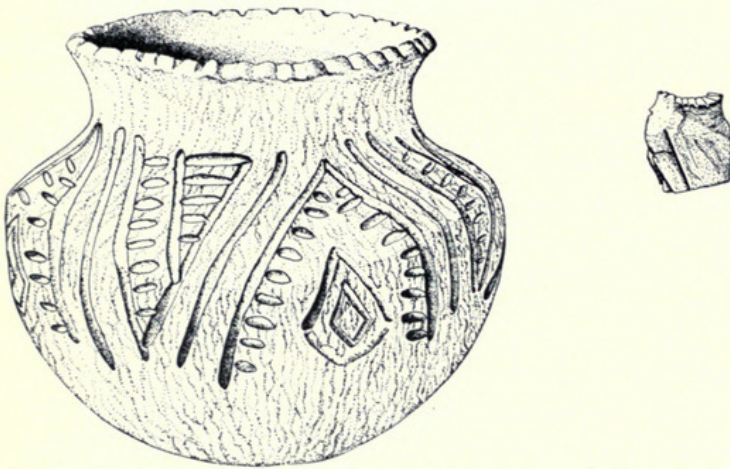
The following reconstruction of the Horton Site occupation is based primarily on the field observations of the authors. Some preliminary washing and sorting of the artifacts from the site was accomplished during laboratory periods with the class, but the bulk of the material collected



remains to be analyzed. These conclusions illustrate how archaeologists go about their task of cultural reconstruction after the excavation is completed.

The Horton Site was found to be primarily a single component site; that is, it was only occupied during one prehistoric culture period. This occupation belongs to the Upper Mississippian Period, beginning about 1400 A.D. and extending into the historic period in this area. This dating is based upon similarities between pottery from the Horton Site and from other Upper Mississippian sites of known age. A few sherds from an apparent earlier occupation period were observed the first season. Within the Upper Mississippian period there are several local variations known to archaeologists, such as the Langford Tradition which is centered in the Upper Illinois River Valley. A second Upper Mississippian tradition, similar to the Oneota of Wisconsin, is the "Blue Island Culture" localized in the southern Chicago area. The Horton pottery places this site in the Blue Island Culture. The Anker Site, located on the Little Calumet River four or five miles away, is very similar in ceramic and projectile point styles to Horton.

All of the observed Upper Mississippian ceramics from Horton were shell-tempered. There were few sherds with incised and punctuated shoulder decorations, and many rim fragments were notched. Most of the sherds were fragments of plain globular vessels approximately 6 inches or more in height.



*On right, sherd found at Horton Site; on left, complete pot of similar ceramic tradition from nearby Fisher Site*

Although the ceramic remains tell us where to place the site in time, interpretation of particular activities carried out at the site is based on other kinds of evidence.

Quantities of large mammal bones were recovered. Most belonged to the white-tailed deer; buffalo bone was rare or absent. The archaeologist observed few bird bones, while fish remains and fresh water mussel shells occurred in small amounts in different areas of the site.

These observations in part reflect the animals exploited by the Horton residents, and when correlated with the artifact evidence they enable us to infer a prehistoric subsistence pattern of which the Horton occupation was part. Projectile points occurred in high frequencies. These reflect a bow and arrow technology used to hunt the deer and other mam-

mals documented by the Horton bone assemblage. While there are abundant projectile points on the site, little flint debris was recovered except for tiny chips of the kind produced by sharpening and reshaping a tool. It appears that finished chipped stone tools were being brought to Horton with only minimal tool maintenance performed there.

The excavators also recovered an abundance of chipped flint tools interpreted as scrapers and apparently used in preparing animal hides for tanning. Several flake knives were also recovered. The arrow heads, scrapers and knives, together with the mammal bones, comprise a hunting-butcherer assemblage indicating that the killing and processing of large mammals (particularly deer) was a major activity carried out at the site.

Seed-grinding tools, such as manos and metates, were absent at Horton. The combined evidence suggests that this site functioned differently from Anker and other Upper Mississippian sites in the area. Seed grinding and agricultural tools, along with charred corn remains, are often found in abundance in these other sites.

Also lacking in the Horton Site artifact assemblage are "tools to make other tools," such as hammerstones, bone awls, flint working tools, etc. Therefore, tool manufacturing was not a major activity at the site. This indicates that all the recovered artifacts were carried to the site in their finished state. Nor was Horton an agricultural settlement since farming tools and evidence of corn was not recovered. Instead, the Horton community focused its attention on the exploitation and processing of wild food. The hunting of large mammals was most important, and the collecting of fish, mussels and birds provided additional food.

The 1966 and 1967 excavations recovered quantities of hearth stone, attesting to the importance of cooking and perhaps household heating to the settlement. Some of the pit features contained quantities of this stone and appear to be undisturbed hearths. Unfortunately many other hearths, and other constructions at or just below the ground surface, have been destroyed by plowing. Their presence is reflected only by the cooking stones and charcoal dispersed through the plowed soil of the site. Analysis of this charcoal will tell the archaeologist what woods were being selected for fuel. This same charcoal will also allow us to accurately date the site by the radiocarbon method.

Bone artifacts are notably rare at Horton. In the other Upper Mississippian sites in the Chicago area many bone tools were recovered. Since the majority of bone artifacts serve manufacturing purposes, their presence in some sites and absence at Horton points up an interesting contrast in the activities performed in different Upper Mississippian settlements in one region.

No beads or other ornaments were recovered by the Horton Site excavators, although a fragment of a tobacco pipe with a design reminiscent of a stylized bird was excavated by one of the students.

A particularly interesting contrast between Horton and other Upper Mississippian sites in the area is the lack of burial mounds or cemeteries associated with the living area.



Three fragments of human bone were screened from the disturbed upper level which suggests that at least one burial took place there, but the important difference between the sites is the degree to which human remains are lacking at the Horton Site.



*Debbie Loeff and Marlene Dubas remove the plow zone down to undisturbed occupation level, while Terry Patten sifts out the mixed cultural content.*

A total of 23 10-foot squares was excavated by the students during the two seasons of excavation. Besides the several thousand pot sherds and hundreds of stone artifacts, fragments of animal bone, and flint chips, 53 post impressions and 13 pit features were recorded. Most pits appeared to be filled with water-laid silt, suggesting that the pits were refilled by the natural process of erosion. Two large pits, both located within the walls of the house, contained many large pieces of pottery and animal bone and appear to have been filled in rapidly with this refuse material. These pits undoubtedly were used as storage containers in the floor of the house, probably for food and tools. Most of the other pits were shallow basins and appeared to be roasting ovens or disturbed hearths rather than storage containers.

Thirty-one of the recorded post molds form part of an oval-shaped house. The larger posts, which form the outside perimeter of the structure, are 8–12 inches in diameter, while the internal supporting posts are only 4–5 inches in diameter. This framework of wooden poles was then covered over, probably with thatching or animal skins. Similar oval houses have been found at other Upper Mississippian sites in the area. The post size of the Horton house indicates that it was a fairly substantial structure, approximately 30 feet wide. Post molds recorded in other squares suggest that additional houses existed on the site, but these areas were not sufficiently exposed during our excavations to determine their size and shape.

On the basis of all the evidence at hand we suggest that the Horton Site was a hunting settlement occupied by a small group of people during the fall and winter months. At this time of year deer hunting is most successful in the

sheltered secondary valleys like the Butterfield Creek area. In the spring and summer these people might join with others to form a larger agricultural villages during the corn-growing season. The Anker Site has been interpreted as such a summer agricultural settlement. At sites of this type the inhabitants would manufacture tools and grow corn which would then be stored there for consumption the following spring. Part of the corn crop might also have been taken to winter hunting camps, like Horton.

The fact that the recorded house appears to have been of substantial construction, when combined with the abundant evidence for deer hunting and the lack of agricultural tools, argues for a repeated winter occupation of the Horton Site for several years during the Upper Mississippian Period.

### Diminishing Archaeological Resources

Numerous prehistoric sites, like Horton, have been and are being destroyed as a by-product of the residential and industrial expansion of Chicago. These sites, and others like them throughout North America, are the only “books” that record the history of man’s occupation of this continent before the time of Columbus. Once destroyed, these sites can never be replaced and the historical information contained in them is lost forever. This makes the science of archaeology truly a race against time. Today, Chicago and other cities are expanding rapidly over the areas formerly occupied by prehistoric peoples. In most cases the historical record is destroyed without being investigated.



*Lunch*

The opportunity to carry out the urgently needed excavations at the Horton Site was fortunately provided by the Field Museum’s Summer Anthropology Program. This program begins—earlier than is customary—the process of introducing students to archaeology as the scientific study of man’s past. From their experience at the Horton Site, Field Museum’s students all learned the critical reason for excavating sites in urban areas. Only by carrying out excavation programs *now* can archaeologists hope to reconstruct the prehistory of these metropolitan areas.





1968. "The Horton Site." *Bulletin* 39(3), 10–13.

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