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# NAL 1970 ARCHAEOLOGICAL SURVEY: THE PREHISTORIC OCCUPATIONS OF THE NATIONAL ACCELERATOR LABORATORY SITE

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# NAL 1970 ARCHAEOLOGICAL SURVEY: THE PREHISTORIC OCCUPATIONS OF THE NATIONAL ACCELERATOR LABORATORY SITE

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## ABSTRACT

This report summarizes the evidence that prehistoric cultures, possibly as early as 7000 B.C., visited, and, perhaps, lived on NAL property.

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During the spring and summer of 1970, a small team of archaeologists from Northwestern University surveyed the National Accelerator Laboratory property for evidence of Indian cultures. Our attention was first drawn to NAL because several employees had discovered arrowheads and other chipped stone tools which were lying in plowed fields in various areas of the site. This material was evidence that at some time in the past groups of Indians had once visited, and perhaps lived on, NAL property.

The survey had two main goals. The first of these was to identify which Indian cultures had once lived in the vicinity of the Laboratory and to determine if the extent or intensity of these occupations may have varied through time. The second purpose of the work was to outline the relationship between Indian cultures and the local environment. NAL property once supported a variety of natural resources. If different Indian cultures had been using different available resources, then this variation would be reflected in the appearance of certain kinds of tools in restricted areas of the site.

It was hoped that this information could be secured before construction activities disturbed or destroyed the evidence of prehistoric habitation.

In order to achieve these goals, survey members walked over all of the plowed land on the NAL property and recorded the location of all

of the stone tools, potsherds, and other artifacts which were discovered. Sites of Indian habitation were identified by the presence of flakes of stone left over from the manufacture of stone tools, irregular chunks of burned rock, and bits of broken bone which were found in association with artifacts in restricted areas of the property. The size of each site was determined by the aerial extent over which these remains were scattered. The specific Indian culture or cultures which inhabited each of these sites was determined by analyzing the types of artifacts found in each locality, and by comparing this information with artifacts found by NAL employees.

By following this procedure, survey members were able to gather a basic body of information about the prehistoric occupations of NAL. We were first able to determine the existence of twenty-four distinct habitation sites, the general size of each of these areas, and the types of cultures which inhabited each site. In many instances, sites had been occupied more than once by distinctly different cultural groups. In addition, we knew the location of each site with respect to the nearest natural resources and can suggest reasons as to why certain Indian groups chose to live in particular regions of NAL. The discovery of numerous arrowheads and other stone tools in areas of the property away from these habitation provides evidence for the manner in which Indian cultures engaged in activities in certain areas of the site, and

avoided other areas. By combining all of this information we are able to make a tentative reconstruction of the prehistory of the NAL area.

The earliest occupants of the NAL site were members of the Archaic cultural tradition. Between about 7000 and 1500 B.C. cultural groups inhabiting the Midwest pursued this way of life which was characterized by periodic exploitation of a wide variety of natural resources. Small groups of people moved from one resource area to another in order to take advantage of the seasonal availability of these different types of food.

Members of this cultural tradition frequently visited the NAL property. Nineteen sites yielded tools which are characteristic of the Archaic tradition, and scattered Archaic artifacts were found over all parts of NAL land. From the distribution and types of tools left by Archaic peoples, it appears that some areas of the NAL site were preferred over others as living areas, and that the activities engaged in by Archaic people differed from one region of the site to another. The most intensive Archaic activity appears to have been carried out around the small ponds in the southeast corner of the property. Evidence indicates that small groups of Archaic peoples repeatedly visited this area and established living areas around the ponds while they engaged in hunting activities and in gathering and processing plant foods. Considerable quantities of chipped stone, burned rock, and other "living

debris" indicated that the sites situated around the ponds were the locus of general household activities.

Other regions of the NAL site appear to have been used by Archaic peoples for other purposes. Several sites with Archaic occupations are situated around the central portion of the NAL property which had been at one time a prairie marsh. These sites lack much of the living debris found around the ponds, and it appears that they represent special camps used by Archaic people for short periods of time while they were engaged in hunting or collecting activities in the marsh area.

The western portion of the NAL site, which was once heavily forested, was also occupied by Archaic groups. Tools found in this region indicate that both hunting and gathering activities were carried out in the area.

In general, it appears evident that cultures belonging to the Archaic tradition inhabited all areas of the NAL site, with the exception of the northern section of the property, north of Batavia Road, at one time or another during the several millenia assigned to the presence of the Archaic tradition in the Midwest.

The Archaic tradition was followed in the Midwest by a series of cultural traditions which are called "Woodland." Each of the Woodland traditions is identified by the appearance of various types of pottery, new styles of stone tools, the appearance of new types of tools and

ornaments, and a change in the way people obtained food and ordered their society.

The only Woodland groups which used the NAL property appear to have been part of the Middle Woodland tradition. Their use of the resources at NAL seems to have been very restricted, because the only evidence for Middle Woodland occupation comes from the area around Indian Creek and from the high ground in the northwest corner of the site.

In contrast to the previous Archaic occupations, Middle Woodland groups seem to have visited the NAL site only infrequently, for short periods of time, and were interested in only one section of the site. Evidently, the Middle Woodland occupations represent brief trips made by people for specific purposes, perhaps hunting or nutgathering, from the larger, more permanent Middle Woodland settlements which are found along the banks of the large rivers throughout Illinois.

The Middle Woodland tradition lasted from about 500 B.C. to approximately 500 A.D. From the material found by the survey, it appears that the NAL site was not occupied again until after 1200 A.D., when members of the Langford culture began exploiting the area. The Langford cultural tradition is one of a number of regional cultures found in various areas of the Midwest which are all part of a larger tradition called the Upper Mississippian. The Langford culture appears to have

been centered in Northern Illinois, along the northern section of the Illinois River, and its major tributaries. Sites assigned to the Langford culture are identified by the presence of distinct types of pottery and and bone and shell tools, and by the distinct way in which Langford peoples buried their dead.

Ten sites of Langford occupation were found on NAL land. In several cases, Langford peoples chose areas to live which had been previously occupied by Archaic and Woodland peoples, and today tools from all three of these cultures are found mixed together at the same location.

The distribution of Langford settlement areas on NAL land indicates that Langford people were engaged in two different kinds of activities on the property. First of all, several sites are found around the central marshy areas of the property. These were small sites, which were probably occupied for only short periods of time while people were engaged in activities in the marsh. Since very few pieces of pottery were discovered at these sites, and the most common tools were various kinds of projectile points, it appears that these may have been special camps used for a particular kind of hunting activity.

The second type of Langford site found on NAL property is larger, more substantial settlements found in the western portion of the site. Two of these sites cover several acres each and have large quantities of

pottery, stone tools, and living debris scattered on the surface. This region of the NAL property was once covered with dense oak-hickory forest, and it appears that these Langford sites were occupied longer than the sites around the marsh, and may have been the locus of a different kind of hunting or gathering activity.

It is interesting that the area around the ponds in the southeast corner of the NAL property, which had been so popular with Archaic peoples, was not occupied by Langford cultural groups. This may have been because the largest areas of settlement belonging to the Langford culture are found along the banks of the large rivers where fish, shellfish, and water-oriented plants and animals were easily available. The reason Langford peoples visited the NAL region was not to exploit these resources but to obtain other types of food and possibly raw materials from the other ecological zones on the property.

It should be noted that all Langford sites which have been excavated and studied by archaeologists have been the large settlement and burial areas along the major river systems. None of the types of Langford sites which have been discovered on the NAL property have ever been defined before, and since the sample of artifacts and waste material found on the surface of these sites is very small and of limited variety, it is impossible to tell from surface samples what was the exact function of these sites. Information needed to demonstrate the function of the

sites--the animal and plant remains left behind as garbage--must be obtained by excavation.

It is evident, then, that there were two major cultural traditions represented in the artifacts and occupation areas found on the NAL property. The first of these, the Archaic tradition, is representative of several small groups of hunters and gatherers who, over a period of several thousand years, exploited almost all of the resource areas on the NAL land. The second major tradition which is well represented at NAL is the local Upper Mississippian Langford tradition. Langford peoples were living in many of the areas once occupied by Archaic groups and were exploiting the marshy central portion of the site and the forested western regions north and west of Indian Creek. These people had probably come to the NAL area from the large base settlements along the large rivers, and were using the natural resources at NAL in specialized hunting and/or gathering expeditions.

During the period of time which elapsed between these two major occupations of the NAL property, the site was used in a very limited manner for short periods of time by Middle Woodland peoples. These groups, however, restricted their activities to the western and northern portions of the site which were covered at the time with oak-hickory forest. It is apparent that the locality of the NAL property, away from any large river or stream, was not important to the Woodland

subsistence-settlement system. Woodland cultures, especially those belonging to the Middle Woodland tradition, favored other ecological zones for exploitation, primarily those along the major river systems.