

J.E. FITTING

(Accepted September 1970)

SCHEDULING IN A SHARED ENVIRONMENT:

LATE PERIOD LAND USE PATTERNS IN THE SAGINAW VALLEY OF MICHIGAN•

ABSTRACT

While late 18th and early 19th century accounts describe a Chippewa occupation of the Saginaw Valley in Eastern Michigan, earlier accounts suggest much more ethnic diversity. In order to understand these accounts, it is necessary to understand the relationship between ethnic units and technic ecotypes in the early historic period and to deal with these technic ecotypes using concepts such as "scheduling." This approach 'makes it possible to reconcile both early and late descriptions of the region.

HISTORY OF THE AREA

The Saginaw Valley, an area of over 6,000 square miles, played a key role in Great Lakes prehistory. W.B. Hinsdale (1932: 30-31), on the basis of site distribution, estimated that "almost 30 percent of the Indians of Michigan frequented the Counties of Bay, Saginaw, Genesee, Shiawasee, and Tuscola." In 1969 the central site files at the University of Michigan listed more archaeological sites for Saginaw County alone than for any other single county in the state.

In 1819 approximately 4,000 Chippewa were represented as "owners" of the Valley at the signing of the Treaty of Saginaw. Norman L. Miller told Fred Dustin that as late as 1845, 2,500 Chippewa gathered in Saginaw to receive their annuities from this treaty. These figures, however, include Chippewa from at least as far north as the Straits of Mackinac and I suspect that even then they might be inflated. They still indicate the aboriginal significance of the Valley. At least ten percent of the estimated 25,000 Chippewa of the late 18th Century (Kinietz 1940: 320) had some claim to the Valley.

Exclusive Chippewa claim to the Valley may have been a very late development. Dustin (1968: 18) believed that the resident Indians were Chippewa but that their very name for the area meant "the place where the Sauks were." Dustin related the old legend that there was a great battle at Green Point where the Chippewa defeated the Sauks and drove them from the Valley to support this position. A number of other sources indicate that the Chippewa moved into the Valley at a rather late date. The earliest reference cited by Kinietz (1940: 319) to a Chippewa Village in the Saginaw region is in 1723. Brose (1966:16) has demonstrated that the accounts of a sizable Chippewa concentration in the area date to the mid-18th Century, or later.

Dustin was convinced that the Sauk had been in possession of the Valley before the Chippewa arrived. I questioned this interpretation on the basis of archaeological evidence several years ago (Fitting 1964). Since then, Wakefield (1966) has suggested that the Ottawa rather than the Sauk were in the Valley before the Chippewa. As of this writing, however, I would tend to concur with Brose's observation (n.d) that "...there is no good evidence for the existence of any ethnically identifiable group in Michigan prior to the middle of the 17th Century" and by then talking of anyone's "homeland" is rather fruitless.

The very ambiguity of these early accounts may have value in itself. There are several 17th Century accounts which suggest a varied ethnic composition in the Saginaw Valley. Baron Lahontan left an account of the groups which he met while crossing the mouth of the Saginaw Bay in the 1680's which has recently been reprinted with editorial notes by Emerson F. Greenman (Lahontan 1957).

In April of 1686, he encountered a party of Huron and "four or five hundred" Ottawa who had

*Paper presented at the 34th Annual Meeting of the *Society for American Archaeology*, Milwaukee, Wisconsin, May 3, 1969.

spent the winter hunting beaver in the Saginaw Valley. At Michilimakinac, the Ottawa were building a fort as a precaution since a Huron had been killed by four Ottawa in the Saginaw River Valley the previous winter. He also observed in this account that the Ottawa hunt within the Valley every two years while the area around Glen Lake is hunted only every third year. Kinitz (1940: 231) has also cited evidence for Ottawa in the Saginaw Valley between 1712 and 1751 and "possibly earlier."

A slightly earlier account was left by the Jesuit Henri Nouvel. Greenman (1957) has discussed the several translations of Nouvel's report as well as annotating Margaret Guta's (1957) translation. Greenman has presented convincing evidence that, in spite of some discrepancies in travel time, the Saginaw Valley is the most likely place for the activities in the account to have taken place.

Nouvel left the Straits of Makinac on November 8, 1675, with a company of "Amicouet," a group which Greenman identified as the Amikwa which he considered to be a Nipissing clan. In the region of Thunder Bay they came to a village of "Oupennengous" married to Nipissing women. Earlier renditions had translated this as "Huron" but Greenman interpreted it simply as "easterners"; possibly Mohican, Naticoke or Shawnees. In early December, his group entered the Saginaw River, missed the mouth of the Tittabawassee, and camped near the mouth of the Cass. Several "Christians" were found in this area and they have been considered as Huron. Greenman noted that one Indian name for this river was *Nodowesibi*, which he translated as the Huron (or enemy?) River.

Nouvel's party retraced its steps to the Tittabawassee and found an abandoned village site 20 miles up this river with "...evidences of the good hunting they had had, the remains of the bears, the deer, the turkeys they had killed; the pike and other fish that they had caught..." By December 7, a winter camp was established in Isabella County. Within several days journey of this Amikwa camp were camps of Nipissings and Missaukis. There is also a reference to this being the "former country of the Sachis."

Several things are important in this account. While the Thunder Bay coastal village is mentioned, no village sites were encountered in the Saginaw Valley until they reached an area near Midland and even this was an abandoned hunting camp. Several Indians were contacted near the mouth of the Cass but they too seem to have been transient. In this account, northern Algonquin groups, the Amikwa, Nipissing and Missauki, all have access to the Valley as do the Huron and possibly other eastern groups. In the Lahontan account, Ottawa and Huron frequented the area. The Saginaw Valley seems to have lacked permanent villages in the 17th Century and to have been open to almost every group in the Great Lakes Region. This is a very different situation from Chippewa hegemony of the late 18th and early 19th Centuries.

HISTORIC SCHEDULING PATTERNS IN THE GREAT LAKES REGION

In several recent papers, Fitting and Cleland (Fitting and Cleland n.d., Fitting 1969.) have discussed early historic and late prehistoric land use systems in the Great Lakes Region. Such groups as the Chippewa, Ottawa and Potawatomi have been discussed as representatives of technic ecotypes as well as ethnic units. Each technic ecotype represents an adaptation to a major environmental zone within the region; the Chippewa to the Canadian biotic province, the Potawatomi to the Carolinian biotic province and the Ottawa to the transitional area between the two major biotic zones.

A variety of plant and animal resources were common to groups in all three areas. The differences in availability of other resources lead to different patterns of resource utilization with subsequent differences in social organization and settlement systems in each area. In each area, "scheduling decisions" were made when different patterns of resource exploitation came in conflict. As Flannery (1968: 75) has described it, scheduling "...involves a decision as to the relative merits of two or more courses of action." In the northern Canadian biotic province the major resource procurement systems were deer and small game hunting and fishing. Fishing was most efficiently

scheduled as a major activity for the warmer months, deer hunting for the late fall, and small game hunting for the winter. Plant resources do not seem to have furnished a major food source although possibly wild rice was harvested in the prehistoric period (Johnson 1969). Alexander Henry (in Quimby 1962) observed that maple sugar furnished almost the sole food source for a Chippewa group in the early spring.

The fishing activities of the warmer months could support dense population concentrations. During the winter, small family groups scattered to exploit the more scattered resources which were available during these months.

The scheduling pattern characteristic of the historic Potawatomi is one specifically adapted to the Carolinian or Carolinian and Illinoian biotic provinces. It is found in areas suitable for regular productive maize agriculture, the major plant procurement system in this region. As Flannery (1968: 77) has noted, plant procurement systems generally take precedent over animal procurement systems. Spring, summer and fall hunting and fishing activities were subordinated to agriculture to the extent that they took place near the village rather than at specific hunting or fishing areas. This might have been possible because of the richer concentration of animal resources in the Carolinian and Illinoian biotic provinces. Winter hunting, in contrast, was carried out at some distance from the village but the entire village unit, excluding the older people, moved out to the winter hunting grounds.

There are accounts of northern groups moving into the richer southern hunting areas in the winter. The frequency and extent of such movement seems to have been determined by the amount of hostility with which northern groups were greeted. In one such situation in Wisconsin (Hickerson 1962), it is clear that northern groups choose to accept a constant state of hostility in order to have access to the richer southern resources.

The intermediate region between the Canadian and Carolinian biotic provinces was occupied in the early historic period by groups with a distinctive adaptive patterns of which the Ottawa are a representative. Agricultural villages were present but agricultural activities were not subordinated to hunting and fishing. Men fished, hunted and traded away from the villages in the summer and hunted away from the villages in the winter. During the winter, these male groups were in potential conflict with the family hunting bands of groups with a Chippewa type of adaptive pattern in the same areas. In the summer, groups like the Ottawa seem to have taken advantage of the population concentrations of groups of the Chippewa and Potawatomi ecotype to act as middle men in trade situations (Wright 1967). In fact, within this ecotype, both plant and animal procurement systems seem to have been subordinated to trading activities. Emphasis on male mobility left Ottawa villages undefended for most of the year and this had to be compensated for by moving the villages at frequent intervals.

In all cases, scheduling decisions were determined by available resources and strategic location. It is clear that the geographic limits of any particular ecotype were circumscribed by military as well as economic factors. There was a constant conflict between resource utilization patterns and military position. Smaller population units fragmented to take the option of hunting in poorer areas rather than fighting larger groups who occupied richer areas. Other groups adopted a weak defensive position to exploit exchange between biotic zones. Decision making involved not only decisions between different food sources but between food and lives.

LATE PREHISTORIC LAND USE PATTERNS IN THE SAGINAW VALLEY

Sites of the Late Woodland period in the Upper Great Lakes conform very closely to the site types predicted by the historic models discussed above (Fitting and Cleland n.d., Fitting 1969.). Sites of the Chippewa type are found in the earlier Middle Woodland period in both the Canadian and Carolinian biotic provinces. The sites conforming to the Ottawa and Potawatomi systems, which are directly dependent on agriculture, do not appear until after the adoption of this trait in the Upper Great Lakes some time after A.D. 500.

The Saginaw Valley presents an unusual situation in the Late Woodland period. No single settlement system seems to be represented as in earlier time horizons. The Late Woodland sites are numerous, more numerous than in earlier periods, but there is a wide range of site types, artifact styles and economic patterns.

There are sites with ceramic styles similar to those found in northern Michigan. The Stadelmeyer site (Bigony n.d.) on the Tittabawassee and the Butterfield site (Wobst 1968) in the nearby Pinconning drainage are examples. Some fishing was carried out at both sites, as was true of the winter camp described by Nouvel, but hunting seems to have furnished the greatest amount of animal protein. Portions of the Late Woodland occupation at the Schultz site, particularly in the Levee area where the faunal material was studied by Cleland (1966: 117-144), seem also to have been very dependent on hunting. The Mahoney and Fosters sites (Bigony n.d.) also appear to have been Late Woodland hunting sites. These sites would all fit the pattern expected of a Chippewa winter hunting camp.

Some of the Late Woodland levels in the channel area of the Schultz site, where the fauna was analyzed by Luxenberg (in Fitting *et al.*, n.d.), seem to have been primarily fishing occupations. It has also been suggested that the Hodges site (Fitting and Sasse 1969) was a fishing station. Both sites have produced ceramics with a relationship to the Spring Creek site in western Michigan (Fitting 1968).

The Late Woodland level at the Schultz site has been radiocarbon dated to A.D. 1180 \pm 100 years (M-1648). The Late Woodland component at the Bussinger site has been radiocarbon dated to A.D. 1220 \pm 100 years (M-1746) and A.D. 1290 \pm 100 years (M-1755). Halsey (1967) has related this component to the Fort Wayne Mound, the Intrusive Mound Culture in Ohio and, eventually, to the Kipp Island Phase in New York. There is also a radiocarbon date of A.D. 1100 \pm 110 years (M-2123) on the Malone site for a component which has been equated with the Glen Meyer Phase in Ontario. These dates are all roughly contemporary with the dates suggested by Bigony for the Stadelmeyer site with ceramics similar to those from the Straits of Mackinac area. These sites are all located within ten miles of each other.

The Malone site (Spencer 1969) has another component which has been radiocarbon dated to A.D. 1410 \pm 100 years (M-2122). This appears to be a fairly dense village site with a ceramic related to some of the Upper Mississippian materials in Illinois and Wisconsin. Both the artifact styles and site type seem similar to the Moccasin Bluff site in southwestern Michigan. In his analysis of fauna from this site, Cleland (1966: 211-223) suggested that the Moccasin Bluff faunal remains fitted the pattern that would be expected of an agricultural group. The problem of site type definition centers around whether these sites are permanent summer villages or temporary winter camps of groups with their main villages elsewhere.

The Late Woodland archaeological sequence in the Saginaw Valley is derivative from all surrounding areas. There is no clear cut pattern of internal cultural development. Furthermore, there is no consistency of site types or settlement systems. In short, the archaeological confusion is as great as the confusion of the early historic records.

SCHEDULING IN A SHARED ENVIRONMENT

The situation in the Saginaw Valley is confusing only from a position requiring fixed land ownership. If we abandon the idea that only one land use pattern can exist in any particular territory, then we have opened the way for ordering the situation described above. The scheduling patterns of a number of groups with different technic ecotypes could all incorporate the Saginaw Valley into their yearly economic cycle.

The Saginaw Valley is in an intermediate geographical position. While the majority of the Valley falls within the Carolinian biotic province, parts are clearly transitional and the upper reaches of the Tittabawassee are located within the high pine plains of Michigan in the Canadian biotic zone.

The historic information suggests that the Ottawa, Huron (a group with an adaptive pattern roughly similar to the Ottawa), the Chippewa and, possibly, the Sauk (a group which probably had an adaptive pattern similar to that described for the Potawatomi) were in the Valley in the late 17th Century. There is also evidence that groups with all three adaptive patterns were in the Valley in the prehistoric period.

The proposed scheduling patterns would suggest that the Ottawa and Huron groups fished and hunted in the Valley in the summer. Chippewa, Huron and Ottawa type groups could have hunted in the Valley at various times during the winter or indifferent years. Groups with a Potawatomi pattern could have been in the Valley in either summer or winter, or both. It would not be necessary for a group to return to the Valley every year. Finding, or hearing of, groups in other parts of the Valley seems to have been cause for moving to a different hunting location. This informal sharing seems to have minimized conflict. When several Ottawa killed a Huron in the Valley in 1688 it was a significant and unusual event, enough so to cause the Ottawa in the Straits of Mackinac to build a stockade.

Chippewa family hunting groups would probably have avoided Ottawa and Huron winter hunting parties. The Ottawa and Huron parties would have consisted of six to eight males; the Chippewa units, consisting of several males and their families, would have been at a distinct military disadvantage. This position of vulnerability, would have been reversed in the summer. Historic records, however, tend to stress the cooperation rather than the competition between these groups.

The legendary battle of the Chippewa and Sauk is a more significant conflict situation-- assuming that the Sauk had a Potawatomi type of land use systems. If winter hunting parties came into conflict, the Sauk would vastly outnumber the Chippewa and there would be no conflict. A more likely conflict situation would arise from the Sauk trying to establish a summer agricultural village at the same time that the Chippewa were trying to establish a summer fishing village. Rather than one side decisively defeating the other in battle, I would suspect a Sauk withdrawal to avoid Chippewa attacks which would conflict with the more important activities of sowing and harvesting crops. The Chippewa would not necessarily have won since Ottawa and Huron fishing parties, consisting primarily of males, would have been in the Valley in the summer with a great deal of tactical mobility. To retaliate against Ottawa and Huron attacks, they would have to leave their own villages undefended. In other words, they would need to abandon the Chippewa adaptive pattern to fight with Ottawa on their own terms. I think that this frequently happened. Groups who were ethnically Ottawa or Chippewa could be either ecotypically Ottawa or Chippewa, or both, in different seasons. Those who were ethnically Huron were probably ecotypically Ottawa only after 1654 and probably had their own ecotype prior to that time.

The Chippewa moved into the Saginaw Valley in large numbers only after the southern agricultural groups were strongly influenced by European culture and decimated by European disease. The Saginaw Valley was probably, at best, a marginal frontier area for groups with a Potawatomi pattern and would have been one of the first areas to be abandoned with population decline. The Ottawa never seem to have been a major group and they tended to merge ecotypically with the Chippewa in the late 18th Century as their role as middlemen was eliminated. As competing groups diminished in size, the Chippewa moved south into the richer biotic areas where they first filled the vacuum left by the southern groups and later gave way to the more efficient adaptive patterns of the incoming European settlers.

ACKNOWLEDGMENTS

Many of the ideas presented in this paper were developed while receiving support from the National Science Foundation under grants GS-666 and GS-1486. Earlier drafts of this paper were subjected to critical comment by David S. Brose, Mary Ellen Fitting and Gary A. Wright and I thank them for their efforts which have helped me to clarify my own thinking on several of the issues discussed above.

REFERENCES

- Bigony, B. (n.d.). Late Woodland Occupations of the Saginaw Valley. Unpublished manuscript in possession of the author. Author of title below.
- Brose, D.S. (1966). The Valley Sweets Site, Saginaw County, Michigan. *The Michigan Archaeologist*, Vol. 12, No. 1, pp. 1-21. (n.d.). The Direct Historic Approach to Michigan Archaeology. Submitted to *Ethnohistory*.
- Cleland, C.E. (1966). The Prehistoric Animal Ecology and Ethnozoology of the Upper Great Lakes Region. *Anthropological Papers, Museum of Anthropology, University of Michigan*, No. 29.
- Dustin, F. (1968). Saginaw Valley Archaeology. *The Michigan Archaeologist*, Vol. 14, Nos. 1 and 2, pp. 1-130.
- Fitting, J.E. (1964). Ceramic Relationships of Four Late Woodland Sites in Northern Ohio. *The Wisconsin Archeologist*, Vol. 45, No. 4, pp. 160-175. (1968). The Spring Creek Site, 20MU3, Muskegon County, Michigan. *Anthropological Papers, Museum of Anthropology, University of Michigan*, No. 32, pp. 1-78. (1969). Settlement Analysis in the Great Lakes Region. *Southwestern Journal of Anthropology*, Vol. 25, No. 4, pp. 360-77.
- Fitting, J.E. with special contribution by A.L. Allison; D.S. Brose, F.V. Brunett, F.W. Fischer, B. Luxenberg, A. McClary, P.F. Murray, J.D. Speth and G.A. Wright. (n.d.) The Schultz Site at Green Point: A Stratified Occupation Area in the Saginaw Valley of Michigan. *Memoirs of the Museum of Anthropology, University of Michigan*. In press.
- Fitting, J.E. and C.E. Cleland (1969). Late Prehistoric Settlement Patterns in the Upper Great Lakes. *Ethnohistory*, Vol. 16, No. 1. In press.
- Fitting, J.E. and S. Sasso (1969). The Hodges Site, 20SA130, Saginaw County, Michigan. *The Michigan Archaeologist*, Vol. 15, No. 3, pp. 157-177.
- Flannery, K.V. (1968). Archaeological Systems Theory and Early Mesoamerica. *Anthropological Archaeology in the Americas*, pp. 67-87. The Anthropological Society of Washington. Washington, D.C.
- Greenman, E.F. (1957). Wintering in the Lower Peninsula, 1675-1676. *The Michigan Archaeologist*, Vol. 3, No. 3, pp. 5-12.
- Guta, M. (Translation) (1957). Journal of the Last Winter Mission of Father Henri Nouvel, Superior of the Missions of the Ottawa. *The Michigan Archaeologist*, Vol. 3, No. 3, pp. 13-20.
- Halsey, J.R. (1967). The Bussinger Site. *The Saginaw Valley Archaeologist*, Vol. 4, No. 2. Unpaged.
- Hickerson, H. (1962). The Southwestern Chippewa: An Ethnohistorical Study. *American Anthropological Association*, Memoir 92.
- Hinsdale, W.B. (1932). The Distribution of the Aboriginal Population of Michigan. *Occasional Contributions from the Museum of Anthropology of the University of Michigan*, No. 2.
- Johnson, E. (1969). Archeological Evidence for the Utilization of Wild Rice. *Science*, Vol. 163, pp. 276-277.
- Kinietz, W.V. (1940). The Indians of the Western Great Lakes, 1615-1760. *Occasional Contributions from the Museum of Anthropology of the University of Michigan*, No. 10.
- Lahontan, Baron (1957). Michigan in the 1680's. *The Michigan Archaeologist*, Vol. 3, No. 1, pp. 11-21.
- Quimby, G.I. (1962). A Year with a Chippewa Family, 1763-1764. *Ethnohistory*, Vol. 9, No. 3, pp. 217-239.
- Spencer, B. (1969). Mississippian Expansion into the Saginaw Valley, Michigan. Paper presented at the 34th Annual Meeting of the Society for American Archaeology.
- Wakefield, F. (1966). The Elusive Mascoutens. *Michigan History*, Vol. 50, No. 3, pp. 228-234.
- Wobst, H.M. (1968). The Butterfield Site, 20 BY 29, Bay County, Michigan. *Anthropological Papers, Museum of Anthropology, University of Michigan*, No. 32, pp. 173-275.
- Wright, G.A. (1967). Some Aspects of Early and Mid-Seventeenth Century Exchange Networks in the Western Great Lakes. *The Michigan Archaeologist*, Vol. 13, No. 4, pp. 181-197.