
BISON IN ILLINOIS ARCHAEOLOGY

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This paper presents a review of archaeological evidence of the bison in Illinois in hope that it may elucidate certain problems of culture history and animal geography. As long ago as 1875 both J. A. Allen and N. S. Shaler pointed out that the "Mound Builders" apparently did not know the bison. Shaler postulated that the "Mound Builders" were too late to have encountered extinct forms of bison and had disappeared before the modern bison came into the area. Shaler further thought that the modern Indians who followed the "Mound Builders" had extended the limits of the treeless plains eastward by burning the land over and thus permitted the modern bison to enter the region. Otis Mason in 1895 questioned Shaler's statements. He asked first if it were true that the "Mound Builders" did not know the bison, and, secondly, if this were true, then did the bison cross the Mississippi after the "Mound Builders" disappeared, or was the appearance of the bison the cause of the decline of the "Mound Builders".

This problem could not be answered until the sequence of archaeological cultures had been established and some of their relationships had been clarified. The advances which have been made in Midwestern archaeology since these

men wrote make it possible to re-examine the problem of the bison.

THE BISON EAST OF THE MISSISSIPPI

The range of the bison in the eastern United States in early historic times provides one set of data. J. A. Allen (1875) has summarized this historical evidence and concludes that the bison east of the Mississippi was restricted largely to the areas drained by the Ohio and Illinois rivers and their tributaries. It was particularly numerous over the prairies of Illinois and Indiana and the country immediately bordering the Ohio and its upper tributaries. "Its range was hence restricted to the prairies, the scantily wooded districts, and the narrow belts of open land along the streams." (Allen, 1875, p. 115.)

Marquette, Marest, and Charlevoix, among others of the early French explorers, note both the presence of the bison in Illinois and its use by the Illinois Indians. As late as 1773 it was abundant along the Kaskaskia and Illinois rivers, but soon thereafter began to disappear rapidly, so that by 1800, according to Allen, not a bison remained east of the Mississippi south of the Iowa-Minnesota line.

The presence of the bison and information concerning its disappearance are established from history,

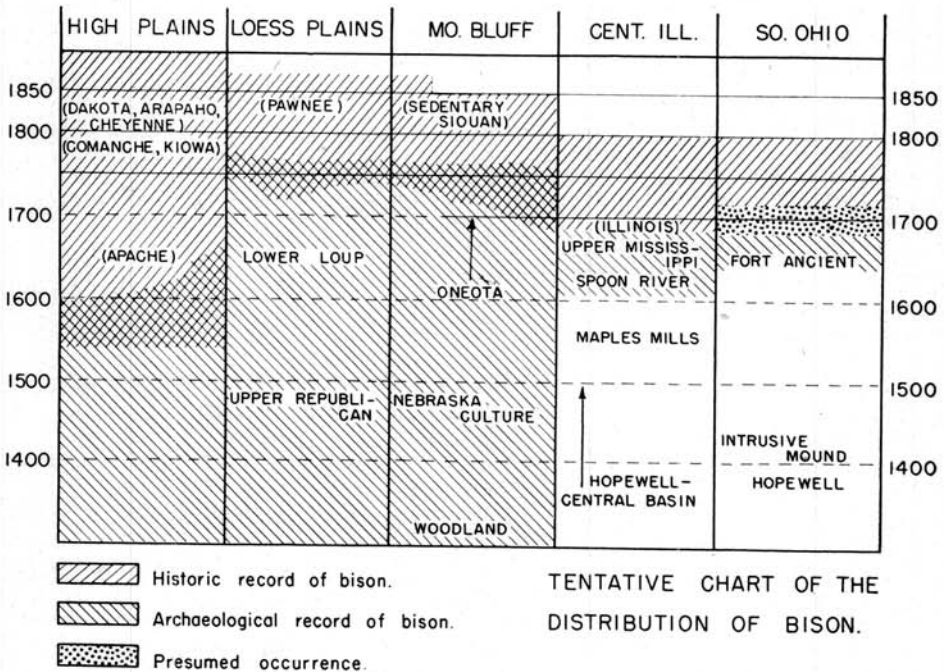
TABULATION OF BISON REMAINS FROM SITES IN ILLINOIS

Site	Culture	Notes on Bison	Reference
Abbott Mound #2 Scott Co.	Hopewell and Historic	3 molars, association uncertain	Baker (1941), p. 74.
Tr1, Clear Lake Tazewell Co.	Hopewell, Spoon River and Maples Mills	ca. 19 specimens Spoon River	Cole & Deuel (1937), p. 266 Schoenbeck (1942) and (1944).
Crable Site Fulton Co.	Spoon River and Oneota	remains including skull Spoon River-Oneota	Smith (1943), also unpublished data.
Fo12 Fulton Co.	Central Basin and traces of Maples Mills and Middle Mississippi	2 specimens, association uncertain	Cole & Deuel (1937), pp. 102-106, 266.
Fe680 Fulton Co.	Woodland burials and Mississippi occupation	1 specimen, with Mississippian	Ibid., pp. 106-108, 266.
Fo14 Fulton Co.	Red Ochre, Central Basin and Mississippian	2 specimens, in Mississippi refuse	Ibid., pp. 75-94, 266.
Fr35 Fulton Co.	Central Basin and Spoon River	1 specimen, probably in Mississippi refuse	Ibid., pp. 126-131, 266.
Fr49, Whitnah Fulton Co.	Hopewell and scattered Mississippian	1 specimen, association uncertain	Ibid., pp. 161-166, 266.
Fr574, Hummel Fulton Co.	Hopewell	1 specimen	Ibid., pp. 166-171, 266.
Kingston Lake Peoria Co.	Spoon River and Maples Mills	ca. 7 specimens Spoon River	Simpson (1939) Baker (1941), p. 74.
Plum Island LaSalle Co.	Upper Mississippi	1 molar in a pit	Baker (1941), p. 74.
Fisher Site Will Co.	Upper Mississippi, late Woodland & historic	humerus with burial of Upper Mississippi or Late Woodland	Unpublished Mss. of George Langford

but for information concerning its time of arrival we must turn to archaeology. Remains of the bison have been discovered in a number of sites in Illinois, and a tabulation of the major occurrences accompanies this paper. This table lists site and county, archaeological manifestations present at the site, number of specimens and where possible their association, and the references from which the data were derived. All twelve sites given in the table occur in counties bordering the Illinois River where we know the bison was abundant in early historic times. This point is not in itself significant, however, due to the paucity of faunal data from other parts of the state. The second point immediately apparent from the table is that in almost every instance the bison bones were discovered in sites

showing Mississippian manifestations. The only exception is the Hummel village site in Fulton County which shows a homogeneous Hopewell occupation according to Cole and Deuel (1937, p. 167). In several other instances it was not specifically stated from which of several occupations the bones came, but internal evidence in most of these cases suggests that it was either a Mississippian or Maples Mills manifestation. On the other hand, the Mississippian sites reported by Cole and Deuel which did not show the bison were represented by small collections and do not conclusively indicate that the animal was not present. In general, then, the bison in Illinois would seem to correlate with the Mississippian manifestations.

Tabulation of other areas of the



eastern United States has not been attempted because of inadequate reports of faunal remains of archaeological sites. This inadequacy largely results from a tendency on the part of archaeologists to have the faunal remains reported for the total site without regard to their stratigraphic occurrence.

Some comparative material is, however, available. J. B. Griffin (1943, p. 374) has published a table of faunal remains of sites of the Fort Ancient Aspect in Ohio and adjacent states. Of all these sites, the bison appears only at Madisonville and, questionably, at Anderson. In another place (p. 124) he notes that Willoughby reported finding some sixty to seventy beamers of bison bone at Madisonville. Myer (1928, pp. 608-609) notes specifically that he found no bison bones in the several hundred village sites he

explored in Tennessee, and particularly, that he found none at the Gordon and Fewkes sites, which are now classified into the Gordon-Fewkes aspect of the Middle Mississippi phase. Meyer (1928, p. 555) postulates that the bison had not yet arrived in Tennessee at the time these sites were occupied, but had arrived in Ohio by the time Madisonville was occupied.

West of the Mississippi, bison bones are found in archaeological horizons ranging much farther back in time, but no detailed citations are deemed necessary in the present paper. The accompanying chart of the distribution of bison shows tentatively the range of the bison through time in several regions both east and west of the Mississippi, based on both historical and archaeological documents. The culture sequences, and to a considerable ex-

tent the dating, are taken from Ford and Willey (1941) and Wedel (1940). It will be noted that the occurrence of the bison east of the Mississippi appears as a late spread of relatively brief duration associated primarily with Mississippian cultural manifestations.

CULTURAL IMPLICATIONS

Certain of the sites used in the tabulation of bison remains in Illinois belong to the Upper Mississippi phase, and constitute the latest known archaeological horizon in Illinois. Many lines of evidence favor dating this horizon from 1650 to 1700. The sites show some variation from one another and may in fact represent a time span; the earlier sites such as those in Jo Daviess County (Bennett, 1945) being transitional, and later sites such as Crable being a period of direct contact with other fully developed Oneota-like cultures (Smith, 1943). The time span would not be much more than fifty years in any case.

All of these local manifestations of Upper Mississippi in Illinois exhibit traits which seem related to the Oneota complex of the Central Plains, and the sites fall in the same time period. Since many of the traits which characterize this late horizon have a long history in the Plains, it seems plausible to assume that these traits were introduced from the Plains into the Illinois country. Wray and Smith (1943) have hypothesized such an eastward extension of Upper Mississippi, and particularly Oneota, traits in their reconstruction of the protohistoric period in Illinois. The proposed identification of Upper Mississippi cultures in Illinois with the Illinois tribes of the early contact period is based on the assumption that the preceeding Middle Mississippi horizon with horticultural economy was

disrupted by several factors and replaced by Upper Mississippi cultures derived from west of the Mississippi. This interpretation seems to be strengthened by the evidence of the migration of the bison into the Illinois region at the time period under consideration. This would provide the economic basis for a new cultural development.

A clue to this spread eastward of Plains culture is to be found in Waldo Wedel's synthesis of Plains archaeology (Wedel, 1942). He places the Oneota, Loup River and Painted Creek manifestations in the protohistoric horizon, dating between 1600 and 1700. He hypothesizes a general shift for this period from a horticultural economy with sedentary village life to a combined horticulture and bison hunting economy. This constitutes a reversion to the older hunting tradition which antedates the extension of Mississippi valley agriculture into the Plains. The villages of the period are fewer in number, but large and compact, and give evidence of the revival of old hunting techniques. Wedel interprets this change as the beginning of the Plains hunting economy as it is known in historic times, when it is characterized by the horse and firearms in the extensive exploitation of the bison herds. Since the horse and firearms are lacking in this protohistoric period, some other factor must be brought in to account for the abandonment of agriculture in favor of hunting. Wedel suggests that a period of drought in the Plains could have forced the village horticulturists to revert in part to nomadism.

The apparent coincidence of the appearance of the bison in Illinois with the adoption of a culture related to that of the Plains suggests that the emergence of Upper Mississippi complexes east of the Mississippi

river is in part a reflection of a change in basic economy. It may be stated as an hypothesis that the replacement of Middle Mississippi horticultural villages by Upper Mississippi villages with mixed horticulture and hunting economies represents the same shift which occurred at the same time in the Central Plains. This shift in economy brought with it the adoption of cultural patterns which had been developed around bison hunting in the Plains. Thus the spread of the bison east of the Mississippi, plus a disruption of village life in the Plains (and possibly in Illinois as well) by drought resulted in the replacement over a large area of horticultural groups by semi-nomadic hunting economies, with basically similar cultural complexes.

The spread of the bison which has been assumed here seems to be indicated by several bits of evidence. The lateness of arrival in Illinois appears substantiated by the archaeological occurrences of bison remains. The sites which belong to the Upper Mississippi horizon are without exception located in the northern part of the state, which constitutes an extension of open prairie similar to that found in Iowa and eastern Nebraska. This prairie is ecologically identical with the Plains, which formed the natural habitat of

the bison. Why the bison did not enter this region in earlier times is a problem which can only be raised and not answered at present. Possibly the droughts on the Plains forced the bison to migrate to adjacent regions which might offer better grazing.

CONCLUSION

In summary, the following tentative conclusions may be drawn. The bison appeared east of the Mississippi in large numbers no earlier than 1600 and became extinct in this area by 1800. The cause of this migration is probably to be found in a period of drought which forced the bison to seek better grazing land. The same period of drought may well have been responsible for the partial abandonment of horticulture by the aborigines at this same time. The cultural manifestations which emerge in this protohistoric period are closely related in the Plains and in the Illinois prairie land. This similarity may be interpreted as the result of the adoption of a common type of mixed horticultural-bison hunting economy, with the diffusion from the Plains of a culture complex built around this economy. The spread of this Plains culture into Illinois was facilitated by the disruption of the settled horticultural economy of the preceeding period.

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