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## A Review of the Interstate Park, Wisconsin Bison Find

By HARRIS A. PALMER

In the fall of 1936, members of a C.C.C. Company engaged in excavating a ditch, uncovered the partial remains of several extinct bison in Interstate Park in Northwestern Wisconsin, about 40 miles northeast of St. Paul.

The site, located in Polk County and known locally as Mountain Meadow, was a former peat bog situated in an area of drift deposited by the Grantsburg sublobe of the Keewatin ice sheet. The drift has been mapped as Mankato.

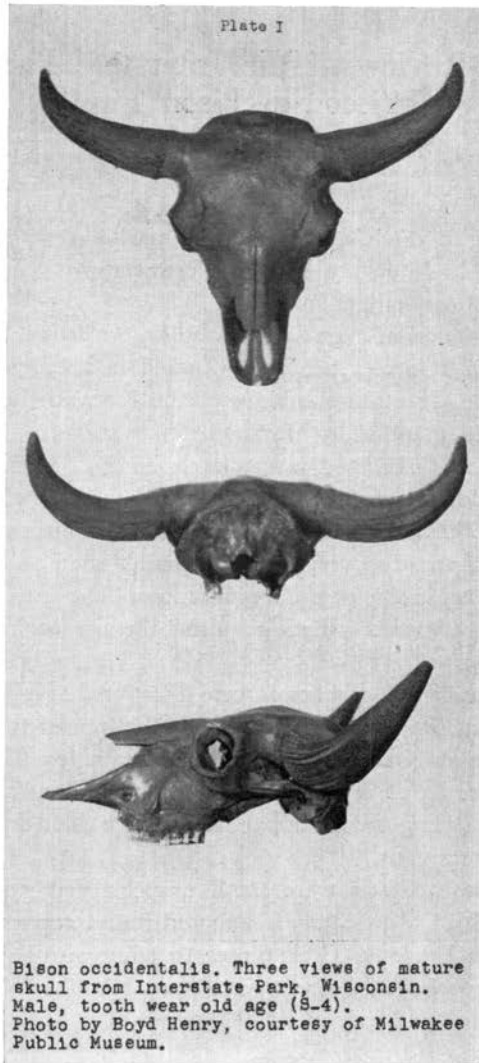
The find was reported immediately to Dr. Alonzo Pond, an archeologist formerly of Beloit College, who at the time was connected with the National Park Service. Recognizing the possible importance of the discovery, Dr. Pond established an archeological dig under very difficult field conditions. The site was subject to an inflow of water which required the use of hip boots and pumps.

Approximately 300 odd bones were discovered at a depth of three to four feet in the peat and close to the bottom of the bog. Three artifacts were also uncovered during the excavation. Unfortunately, they were discovered and removed during Dr. Pond's absence and against his standing orders, apparently to save them from abnormal floodwater conditions.

Two of the artifacts were small unspecialized stone projectile points; the third a delicately hammered round copper awl or pike about 10½ inches long. These pieces, together with a representative collection of bones and skulls were placed in the Wisconsin Historical Museum at Madison in 1936 where they were first observed by the writer.

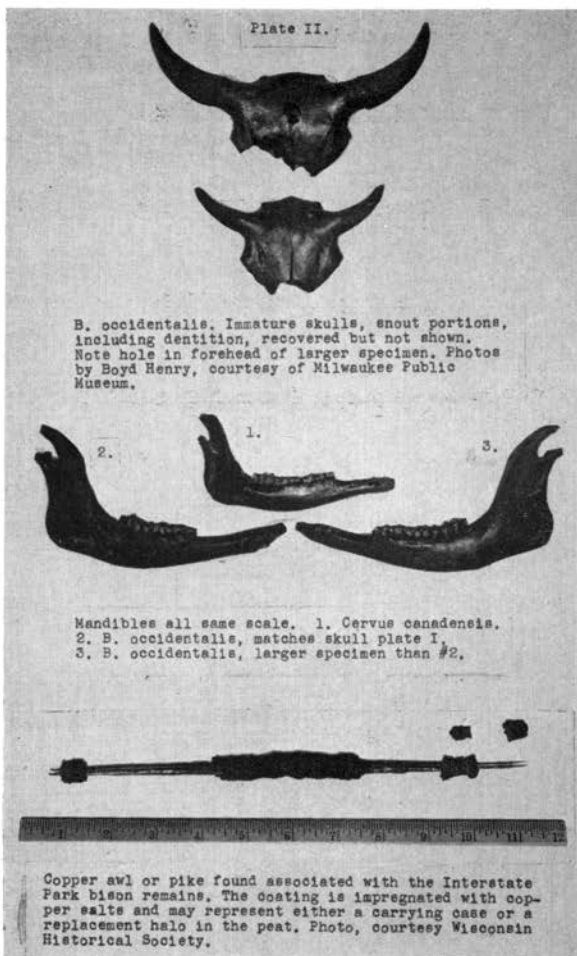
A short review of the discovery, including these salient facts, was published by Dr. Pond in the *Wisconsin Archeologist*<sup>1</sup>. He interpreted the find as a camp refuse site of a paleo-Indian culture and assumed an antiquity comparable to that of the Folsom culture found associated with remains of extinct bison in several of the western states. Since the publication of this paper some 17 years ago, the archeological world has taken no notice what-

<sup>1</sup>New Series, Vol. 17, No. 3, pp. 51-54. Milwaukee 1937.



soever of this discovery. It is the objective of the present investigation to reinterpret this find in the light of modern archeology and establish it in its proper perspective.

Since the bison bones had never been described or photographed, efforts were directed toward this end. The material was finally located in storage at the Milwaukee Public Museum and an institutional loan was arranged through the kindness of the Director. The more significant elements consist of three skulls with upper dentition. The one mature skull includes the right



lower jaw with dentition. An even larger mandible is also present. A much smaller mandible, showing mature tooth wear, seems to be that of an elk. One of the immature skulls has a neat hole about  $1\frac{1}{2}$  inches in diameter punched in the center of the forehead, as if done by a stone hammer. These observations seem to substantiate the view that the material is a camp refuse deposit.

Measurements and indices of the one mature skull compare very favorably with those obtained by Hay<sup>2</sup> from the skulls taken from the Riverton, Minnesota peat bog in 1921. This bog is located

<sup>2</sup>Hay, O. P., Proc. U. S. National Museum, Vol. 63, 1924, Art. 5, pp. 1-8.

TABLE OF MEASUREMENTS AND INDICES

	1.	2.	3.	4.	5.
1. Spread of horn-cores, tip to tip.	780	732	800		747
2. Greatest spread of horn-cores on outside curve.	820				782
3. Core length on upper curve, tip to burr.	334	263	280	332	279
4. Core-length on lower curve, tip to burr.	406	318	340	418	340
5. Length, tip of core to upper base at burr.	281	240	253	285	243
6. Vertical diameter of horn-core at right angle to long. axis.	96	94	102	96	91
7. Circumference of horn-core at right angle to long. axis.	314	294	316	305	290
8. Greatest width at auditory openings.	283	265	275	280	275
9. Width of condyles.	133				131
10. Depth, occipital crest to top of foramen magnum.	96				
11. Depth, occipital crest to lower border of foramen magnum.	142	145	142	146	158
12. Transverse diameter of core at right angle to long. axis.	107	91	105	99	98
13. Width between bases of horn-cores.	322	327	355	338	
14. Width of cranium between horn-cores and orbits	292	280	302	296	299
15. Greatest postorbital width.	344	328	355	330	351
16. Anterior orbital width at notch.	257	272	295	272	
17. Width of skull at masseteric processes above M <sup>1</sup> .	200				187
18. Rostral width at maxillary-premaxillary suture.	123				115
19. P <sup>2</sup> -M <sup>3</sup> , alveolar length.	147				147
20. M <sup>1</sup> -M <sup>3</sup> , alveolar length.	92				91
21. Length over all, occipital crest to tip of premaxilla.	560	518	572		573
22. Length, basilar, foramen magnum to tip of premaxilla.	503	472	505		516
23. Length, occipital crest to tip of nasals.					493
24. Length, occipital crest to nasal-frontal suture.					259

25. Length, beyond P <sup>2</sup> to tip of premaxilla.	150				153
26. Length of nasal bone.					
27. Angle of posterior divergence of horn-core.	72°				
28. Angle of proximal horn-core depression.	18°				
29. Index of horn-core curvature.	144	133	134	145	140
30. Index of horn-core roundness.	90	103	97	97	93
31. Index of horn-core proportion.	106	90	90	108	97
32. Index of horn-core length.	114	97	93	112	95
33. Index of tooth-row proportion.					

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Column 1. Mature male, Interstate Park, Wisconsin.

Column 2. Mature specimen, U.S.N.M. #10541, Riverton, Minnesota.

Column 3. Mature specimen, U.S.N.M. #10542, Riverton, Minnesota.

Column 4. Mature specimen, U.S.N.M. #10545, Riverton, Minnesota.

Column 5. Average measurements taken from Skinner and Kaisen, Op. Cit., Table 12, p. 170.

about one hundred miles northwest of Interstate Park and is also in an area of Mankato drift. The possible archeological value of this site was lost by hydraulic stripping operations in preparation for iron mining.

According to Skinner and Kaisen's<sup>1</sup> recent and comprehensive revision of the genus *Bison*, we are dealing with *B. occidentalis*, a widespread but extinct species of late Pleistocene and Recent times.

Previous to Skinner's revision, considerable confusion existed as to the distinction between *occidentalis* and a contemporaneous species *B. antiquus*. The picture was further complicated by the introduction of a number of new sub-genera, species, and sub-species found associated with various artifact types in the western states, including Folsom, Yuma, Eden and Scottsbluff blades. If Skinner's preliminary revision will stand the test of time, it will certainly have simplified the taxonomy of the genus.

Accordingly, the *B. occidentalis* of the Interstate and Riverton localities is not the same species as *B. taylori*<sup>2</sup> associated with Folsom artifacts. Radio-carbon determination made from charred bison bone excavated from a Folsom site at Lubbock, Texas has yielded a date of  $9883 \pm 350$  years. A similar determination of an unknown species of bison associated with Yuma artifacts from the Sage Creek, Wyoming site gave a dating of  $6876 \pm 250$  years. Available literature does not seem to contain a determination for the age of the Scottsbluff bison. This would make an interesting comparison with the Interstate material, as Skinner also considers the Scottsbluff specimens as being *occidentalis*.

Two very recent radio-carbon determinations of the Old Copper Culture at the Oconto, northeastern Wisconsin site show considerable variance. They were made from fragments of charred wood found in cremation pits. The first date announced early in 1954 is  $5600 \pm 400$  years. The second date released a short time later turned out to be  $7510 \pm 340$  years. The discrepancy of almost 2000 years is unexplainable. The latter date is said to be the oldest obtained from any cultural remains east of the Mississippi<sup>3</sup>.

In the opinion of the writer, these new dates throw an entirely different light upon the bison-artifact association at Interstate Park. The skepticism previously accorded this association no longer

<sup>1</sup>The Fossil of *Bison* of Alaska and Preliminary Revision of the Genus *Bison*. Bull. Am. Mus. Nat. Hist. Vol. 89, Art. 3, N. Y. 1947.

<sup>2</sup>Now considered as (*Simobison*) *antiquus figginsii*.

<sup>3</sup>Personal communication, Warren Wittry, Curator of Anthropology, Wisconsin Historical Museum, Madison.

seems warranted. The explanation that the artifacts were dropped into the bog at a much later date and sank by coincidence among the bison remains is no longer necessary. It seems to the writer, therefore, that this site might warrant further field investigation. As a step in this direction, negotiations for a radio-carbon dating are underway on the basis of carbonaceous peat recovered from within the horncores of the three skulls.

The writer is indebted to the American Association for the Advancement of Science for financial assistance in this project. He also wishes to acknowledge courtesies received from Mr. Elmer Nelson of the Milwaukee Public Museum and Mr. Warren L. Wittry of the Wisconsin Historical Society.

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