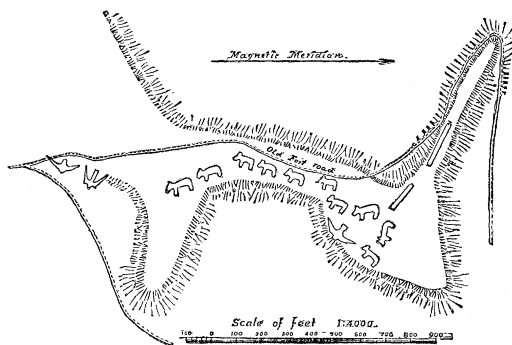


feet wide, and $1\frac{1}{2}$ feet high; the second, 138 feet long, 18 feet wide, and $1\frac{1}{2}$ feet high.

The animals represented vary from 79 to 109 feet in length, and are from two to three feet in height. No two are exactly alike in outline, though the difference is more in the shape of the head than in the general form. It will be noticed that they are all tailless, though, of the whole number of beasts surveyed by me to the present time, fully two-thirds have tails. Considered as works of construction,



they being in relief, these animals are very fine; but, taking the size and shape of the legs and head in proportion to the body, they are decidedly clumsy. Indeed, with a few exceptions, the animal-shaped mounds of western Wisconsin, also, are no exception to this rule. It is probable that each leg, as built, was intended to represent a pair of legs rather than a single one, and this may account for their clumsiness.

The birds of this group are each different in form, and are more symmetrical than the animals, which is usually the case. Though symmetrical, the wings of bird effigies are nearly always much longer than they should be in proportion to the length of the body and head as compared with natural birds.

An ornithological friend (Dr. Thomas S. Roberts of Minneapolis) has furnished me a list showing the actual length—from point of bill to the end of longest tail-feather—and breadth, from tip to tip of wings, fully outstretched, of some forty-six North American birds. Taking this length as the unit, I find the proportions of four of them to be as follows; viz,—

Of the Magpie (the lowest).....	1 : 1.28
“ Wild turkey.....	1 : 1.29
“ Bald eagle.....	1 : 2.365
“ Fish-hawk (the highest)....	1 : 2.80

Now, on examining the diagrams of forty-three undoubted bird-effigies surveyed by myself, it appears that fifteen are over the extreme natural limit given above—the ratio of one of them being as high as 1 : 7.20, and that of the very lowest not less than 1 : 1.50. The actual size of this longest ‘bird’ is, length of body, 77 feet; and from tip to tip of wings, 554 feet.

It will thus be seen that to classify these earthen imitations of birds according to any natural system is almost an impossibility, and, with a few exceptions, it is the same with the effigies of animals, reptiles, etc. An instance may be given of one near Viola, Wisconsin, which looks more like a deer than any other animal. Its head is turned as if looking over

its back, but the tail spoils the whole effect, on that supposition; it being 140 feet in length, nearly twice the length of the body (74 feet).

There are effigies undoubtedly representing turtles and lizards; there is also a class to which either name can be applied. The question is, To which category do they belong?

In view of all these facts, therefore, it would appear that attempts to speculate about the object or uses for which these fantastic earthworks were constructed, or concerning the precise kind of animal, etc., represented by the effigies, might be considered, in the present state of our knowledge of the subject, a little premature. As matters of fact, however, it may be stated that an examination of some hundreds of these mounds justifies the drawing of two conclusions, first, that the creatures point or head, with a very few exceptions, in a southerly direction; second, that when situated near a stream the feet of the quadrupeds are towards the water.

At intervals, between Guttenberg and Yellow River, there are mounds and embankments which occur either singly or in groups, but there are only two other points in that stretch where effigies occur. About one mile south and east of the group described in this article there is a single bird-effigy. Near Sny McGill, about three miles above Clayton, there is a group of 92 mounds; two of them represent animals, and two birds; the remainder are round mounds and embankments. While I was surveying this group, Mr. Frank Hodges of Clayton opened one of the larger tumuli, and found a number of skeletons in it.

T. H. LEWIS.

St. Paul, Minn., Nov. 2.

Coleoptera of America.

The note in *Science* (vi., 382) conveys a very erroneous idea as to the result of recent studies upon the number of species of North American beetles.

The number given in Austin's supplement is 9,735 (not 9,704, as stated in *Science*); but as the supplement was to be used in connection with Crotch's list, it was numbered continuously with it, and no allowance was made for the reduction and duplication of numbers. Taking these into consideration, the supplement contains but little over 8,850 species.

The list just issued by the American entomological society contains over 260 unnumbered names which should be added to the 9,238 when this list is compared with previous ones. Recent studies have increased, not reduced, the number of species of North American beetles.

SAMUEL HENSHAW.

Boston, Nov. 7.

Marsh's Dinocerata.

In my review of Professor Marsh's work on the Dinocerata occurs a blunder for which I wish to apologize (*Science*, June 12, 1885, p. 489). This error is as follows: “In the figure of Dinoceras, however, the humerus is incorrectly drawn (compare plate 28, fig. 2).” The figure here referred to is the humerus from the *inside*, that in the restoration is of course seen from the *outside*, and the two are in no sense comparable. I cannot explain how such an oversight came to be made, but now that my attention has been called to it, it is only proper to make the correction. This is, however, a very non-essential part of my criticism, which in other respects I do not wish to modify.

THE REVIEWER.