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SOUTH DAKOTA FOSSILS

From the standpoint of the eager student the word "fossil" is a term of reproach, indicating an entire lapse of usefulness on the part of the recipient of this sorry title. Nor are more mature and worldly minds inclined to give the fossil his just due.

The fossil as an aid in the investigation of rocks and ores has a practical, scientific value, not only to the Paleontologist, but also in the more commercial profession of Mining Engineering.

The educational value of fossils is unquestioned. The study of important fields in Biology is supported by much fossil evidence. The public interest in, and the instructional value of, exhibits is witnessed by the large amount of space, in well equipped museums, devoted to mounted specimens of fossils of all sorts from the lowly mollusk to the terrible dinosaur.

But this article makes no attempt to prove or enlarge upon the above recognized uses of fossils. The less obvious use of a fossil, its value as a commercial commodity, needs more support. To the uninitiated, the fact that a fossil can be measured in dollars and cents and has a market value comparable to real estate, coal, an old master, or iron ore, comes as a distinct shock. The money value of fossils naturally is dependent on the other values above indicated but is none the less real or actual on that account.

South Dakota has a large variety of fossils and an especially good assortment of reptilian and mammalian forms. Fossils from South Dakota now repose in all the large museums of this country and in some of the collections in Europe. Many a well organized expedition has come fossil hunting in our state. Such affairs are almost of yearly occurrence. Even in the early territorial days the desire for South Dakota fossils was so insistent that military escort was provided for some expeditions.

A canvass was made of three of the larger museums of this country to determine the number and value of South Dakota fossils contained therein. Some startling figures have been obtained, as follows: -- In one case the money expended to secure 700 cycads amounted to \$2572.71. And 70 Titanotherium skulls were taken to be worth at least \$14,000.00. The cost sheets of another museum show an aggregate of \$19,543.00 for a list of thirteen items. A single turtle (Archelon) from South Dakota is valued at not less than \$2000.00.

These three museums place a value on their South Dakota material totalling not less than \$100,000.00 to \$150,000.00. In all cases the figures given are reported as conservative, covering merely the cost of collecting, or purchase, and preparation. None of these collections could be duplicated for twice the amounts listed, if indeed, at all.

Since these figures were obtained, one instance, at least, is known of a collector refusing \$1000.00 for the skeleton of a fossil horse found in South Dakota. If all the museums in the country should supply data concerning the value of their South Dakota material, the total amount would be even more striking.

The distressing fact must also be recorded that the institutions of South Dakota do not have fine collections of their own material. The collection of the State Survey is decidedly ordinary not to say poor. The reason for this is that no funds are or ever have been available for making a thorough and systematic investigation of the fossil areas.

Another distressing fact is that the longer that collecting is put off the harder it is to secure specimens. Undoubtedly there are many thousands of fine specimens entombed in the strata of our state. But to locate them and then secure them with the least trouble and expense we must needs depend upon Dame Nature. She, by her processes of weathering and erosion, loosens the rock and removes the covering material. These processes are not rapid when judged by human standards. A large share of those fossils exposed to view by Nature's activity have already been picked up, and some are being gathered each year. When these are all gone it will be a long wait before Nature exposes some more of them.

If we should assume (Oh, Extravagance!) that we had \$4000.00 a year to spend on investigating and collecting the fossils of our state just what might be the returns of such an investment?

In the first place our collection would be sure to be augmented each year. We would begin to possess material equal to that in many of the better museums. This in itself would be soothing to our pride. In a few years we could undoubtedly have the best collection of South Dakota fossil in the world. This would mean a great deal to our state. Aside from the educational value to our students and the general public, we would get a great deal of advertisement out of such a superior collection. Educators and investigators from other states would naturally visit our museum, just as today many scientists from various parts of the world go to the large eastern museums to study material that can be seen no where else.

Then there is the matter of duplicate specimens. These could be used for exchange material to increase our stock of specimens from without our state. And many of these duplicate specimens would have a cash value often running into high figures. It is quite within the range of possibility that the sale of duplicates might maintain the expenses of the department.

Field work in fossil investigation may easily bring to light information concerning other natural resources in the same region. Development of the state's resources and settling of many debatable points in Biology and Stratigraphy would probably follow as by-products of the fossil industry.

Let us hope that the much maligned and little understood fossil may some day come to his own in South Dakota.

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