

PROFESSOR YUAN'S DISCOVERIES

On the 24th Professor YUAN returned from his successful researches at the northern foot of the Bogdo-ula.

In May he had investigated some iron and coal mines to the south-east of San-t'ai. On the strength of the fossil-finds he made he came to the conclusion that he had here to do with Jurassic deposits. Farther to the east he had found plant-fossils, probably of Permian age.

During the summer he had carried out archaeological excavations at San-t'ai, Jimasa, Ku-ch'eng-tze and Mu-li-ho, besides excavating ruins of what he believed to be the ancient Besh-baliq. He had triangulated an area of 40×70 kilometers, in order to provide a basis for the geological detail-map he drew of this foreland zone covered by deposits representing the so-called Angara-series.

At the end of August he discovered very well-developed red beds, twenty li to the south of San-t'ai. He felt at once that it should be possible to make fossil finds here; but not until October 11th did he find, on the crown of a red hill, fragments of a metatarsus belonging to a dinosaur. He continued his excavations for forty days, and during this time he found in several different places in the valley fragments of thirty full-grown individuals, three young ones as well as a dinosaur egg. His methodical work was thus crowned with great success, and he rightly emphasized the importance of the find. YUAN gave this reptile the preliminary name *Tienschansaurus*.

Dinosaurs occurred in the upper parts of lower Jurassic strata. They indicate changes in climate and land formation in contradistinction to the superposed and underlying strata, which are lacustrine or marine beds.

By following the fossil-bearing lime-stones 320 li to the east, YUAN was able to show that there, as also elsewhere in the T'ien-shan, a transgression had taken place in the middle of the Carboniferous, and that the sea was then full of life.

I need not dwell upon the gratification we felt at headquarters over these finds; but I hope that the French newspaper that later came under my notice was alone in the misunderstanding to which in the following news item it treated its readers: »SVEN HEDIN annonce que le professeur YUAN, un geologue chinois qui fait partie de la mission, a trouvé dans la region d'Urumtchi trente dinosaures adultes vivants . . . C'est la première fois qu'on découvre des specimens vivants de ces animaux attribués à l'époque jurassique, c'est-à-dire à une période vieille de plusieurs millions d'années.»¹

¹ Almost as rich was the heading in a Swedish newspaper concerning these finds: »Reptile eggs in the desert the size of a donkey,» whereas of course only the full-grown individuals had attained that size. F. B.