

cients arose might well lead to a quite different solution.

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THE HISTORY OF BAER'S LAW

IN his article, "Significance of Baer's Law,"¹ R. J. Russell mentioned that the so-called Baer's Law "was apparently first advanced by Babinet,² though it is customarily called Baer's Law because of its formulation by Karl von Baer in 1866."³ However, both Babinet and Baer had their predecessor in P. A. Slovssov, author of the Russian book, "Historical Review of Siberia." This book, the result of a life-work, was practically a summary of everything that Slovssov knew or learned about Siberia. Speaking of the Yenissei River, Slovssov says: "The right shore is always (everywhere) high, as it is in all Siberian rivers running in the direction of meridians; since long we considered this condition as the result of daily rotation of the Earth globe."⁴

Slovssov's book was known to Baer, although apparently he worked out his theory quite independently of the former. Slovssov was given due credit by Baer, who expressed his surprise that Slovssov's ideas had remained quite unnoticed in Europe, and were not mentioned even in fundamental works on hydrography of Russia. Ideas of Babinet and other French scientific men, interested in this question, were known also to Baer, but the latter treated the problem in its physico-geographical application, while French scientific men approached it chiefly from a mathematical point of view.

Baer arrived at the discovery of his law in 1853, when he traveled down the Volga River to Astrakhan. On this occasion he was much impressed by the very pronounced difference between both shores of the river, the right one of which was unusually high, while the left one—low. Such an unsymmetry of valleys is very well expressed on many rivers in Russia running more or less in the direction of meridians, and was noticed by many scientific travelers of the last two centuries. Some of them tried to explain it by local geological structure, or dislocations; even the activity of the wind was taken into consideration, but no explanation was, as it should be, sufficiently universal to cover all observed cases. As was emphatically stated, in 1847, by a geologist, Major Wangenheim von Qualen, such a common phenomenon should depend in all cases on the same general cause.

While at Astrakhan, in 1853, Baer reported his ob-

servations and conclusions to a few friends in that town. The next winter, 1853-1854, he repeated his report before a larger audience in St. Petersburg. In 1854 he published in a Russian magazine (*Journal of the Ministry of State Domain*) a report on his travel, into which he included his explanation of the unsymmetry of the Volga valley. Later he published several Russian articles in different magazines on the same question. He did this not only to attract more attention to the problem but also to provoke its discussion. It is possible that at that time Baer learned of Slovssov's ideas about the same subject. In 1860 Baer published his article, "Ueber ein allgemeines Gesetz in der Gestaltung der Flusssbetten,"⁵ in which he considered the matter in all its detail and in reference to rivers of the whole surface of the earth so far as they were known at that time. He was surprised to find that no scientific man, among those who had observed and described unsymmetrical valleys, had come to this conclusion. He attributed his discovery of the law to the fact that he had worked on such problems as rotation of winds and of sea currents and was accustomed to pay attention to the influence of the diurnal rotation of the earth on its surface.

Baer, a member of the Academy of Sciences, was a first-class scientific man. His authority was greater than the modest reputation of a Siberian worker. Slovssov, who published only in Russian, was considered more of a historian than a naturalist. Therefore, it is no wonder that Slovssov's share in this question has been forgotten completely, even in Russia. A better name for Baer's Law would be Slovssov's Law, or at least Baer-Slovssov's Law. I. P. TOLMACHOFF

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GLACIAL STAGNATION IN OHIO

WITHIN recent years several papers have appeared on glacial stagnation, and there has been a revival of interest in the problem. There is promise of much good work to come out of investigations now in progress. Among the workers who are studying this problem is George W. White, professor of geology of the University of New Hampshire. He has spent several summers in field work in Holmes and adjacent counties in Ohio, and two papers have been published as a result of his endeavors.¹ The present writer had an opportunity to examine at first hand the area studied by Professor White. A careful inspection of

⁵ Bull. Acad. Imp. d. Sc. de St. Petersburg, Tome II, pp. 1-49, 218-250, 353-382.

¹ George W. White, "An Area of Glacier Stagnation in Ohio," *Ohio Journal of Geology*, Vol. xl, No. 3, April-May, 1932, pp. 238-258; "Glaciation of Northwestern Holmes County, Ohio," *Ohio Journal of Science*, Vol. xxxi, No. 6, pp. 429-453.

¹ SCIENCE, vol. 75 (1932), No. 1953, p. 584.

² In 1849.

³ Correct year of the publication of Baer's article is 1860.

⁴ P. A. Slovssov, "Historical Review of Siberia," Vol. II, p. 196, 1844.