

von Humboldt, Alexander

Über die bei verschiedenen Völkern üblichen Systeme von Zahlzeichen, und über den Ursprung des Stellenwerthes in den indischen Zahlen. (About the common systems of numerals used by different nations, and the origin of the place value of the Indian numbers.) (German)

[ERAM 004.0156cj](#)

[J. Reine Angew. Math. 4, 205-231 \(1829\).](#)

In Europe for several centuries many mathematicians did not realize that the so-called “Arabic” numbers 1, 2, 3, ..., 9, zero and place value were originally developed in India. Some scientists (M. Stifel, S. Stevin, R. Bombelli, L. P. Fibonacci, P.-S. Laplace) knew about it, but in the 19th century there were different opinions and discussions about it, and also about the development of algebra and analysis. Alexander von Humboldt, who travelled a lot and spoke several languages, also reflected on this question. He discussed it in his extensive correspondence with C. G. J. Jacobi, among others. In the article at hand he assumes that our current numeration system was developed in India step by step in Sanscrit, Devanagari (Hindi), Telugu and Gobar (West-Arabic). By comparing it to the enumeration system of other peoples and civilisations (Mayans, Greeks, Romans, Chinese) he tries to understand how the Indian method arose. Individual suppositions have since been proven wrong (see Joseph Hofmann: Alexander von Humboldt in seiner Stellung zur reinen Mathematik und ihrer Geschichte. [Zbl 0088.00507](#)), but on the whole it is in many respects an accurate and impressive piece of work.

Reviewer: [Silke Göbel \(2010\)](#)

MSC:

[01A32](#) History of Indian mathematics

[01A07](#) Ethnomathematics (general)

Keywords:

[Arabic numbers](#), [Indian numbers](#), [place value systems](#)

Full Text: [DOI](#) [EuDML](#)