

The Abacus at Echternach in ca. 1000 A.D.

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The single sheet of manuscript from the Benedictine monastery of Echternach, catalogued as no. 770 in the Bibliothèque nationale de Luxembourg, is probably the nearest thing we have to the abacus board devised by the famous mathematician and educator of the late tenth century, Gerbert d'Aurillac (d. 1003). This article describes the board in the light of what we know of Gerbert's own instrument and also introduces another smaller example of exactly the same board. Both examples have hitherto been unnoticed by scholars.¹

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1 The Gerbertian Abacus

From the late tenth century until at least the mid twelfth century the principal method of studying practical arithmetic in the schools of Western Europe was that of the abacus with marked counters. This was a board or sheet of parchment ('abacus board') on which parallel lines were drawn to provide columns for powers of ten. Counters marked with each of the numerals were placed in the columns and successively replaced in the course of an arithmetical calculation. Rules were written to describe the sequences of procedures, especially for division and multiplication.

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