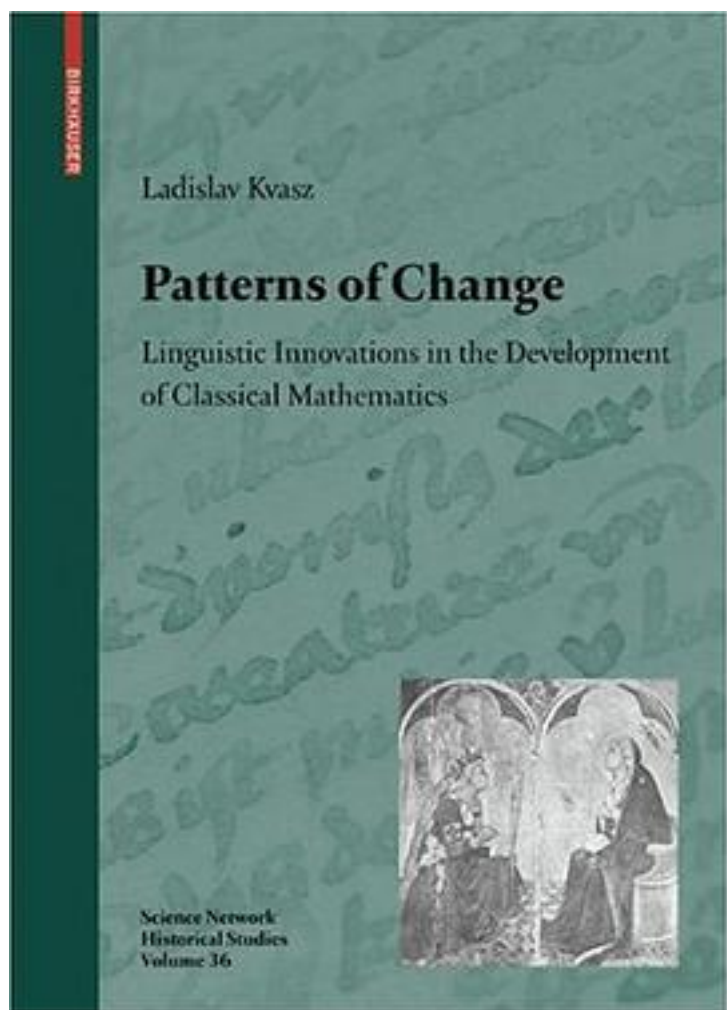


Patterns of Change



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The book offers a reconstruction of linguistic innovations in the history of

mathematics. It argues that there are at least three ways in which the language of mathematics can be changed. As illustration of changes of the first kind, called re-codings, is the development along the line: synthetic geometry, analytic geometry, fractal geometry, and set theory. In this development the mathematicians changed the very way of constructing geometric figures. As illustration of changes of the second kind, called relativization, is the development of synthetic geometry along the line: Euclida (TM)s geometry, projective geometry, non-Euclidean geometry, Erlanger program up to Hilberta (TM)s Grundlagen der Geometrie. Changes of the third kind, called re-formulations are for instance the changes that can be seen on the different editions of Euclida (TM)s Elements. Perhaps the best known among them is Playfaira (TM)s change of the formulation of the fifth postulate.

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