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Diagrams — sources hitherto ignored.

Most of the manuscripts of Greek mathematical works (and of other mathematics influenced by Greek mathematics) contain diagrams, which are indispensable for the understanding of the text. However, the features and variants of diagrams have rarely been analysed by scholars, and modern critical editions have been content with reconstructed diagrams which are only mathematically correct, often ignoring real drawings in the manuscripts.

One of the reasons of this less critical attitude to diagrams (in contrast with its critical treatment of the texts) may have been the difficulty of examination and comparison of diagrams in manuscripts owned by libraries in distant places before the invention of the photography.

We have developed softwares which aid to register the features of diagrams and re-draw them (the programs will be distributed gratis according to the GNU GPL license). We present diagrams of the first four books of Euclid's Elements in principal manuscripts are presented, and discuss their features. (Received September 12, 2006)