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Extension of a Rapid Visual Screening to a survey system including quantitative information for vulnerability studies

G. Bourlotos (1, 2), **M. Bostenaru Dan** (3)

(1) now in Athens, Greece (2) work completed at the Institute for Technology and Management in Construction, University of Karlsruhe, Germany, (3) ROSE School, IUSS di Pavia, Italy

For the survey of urban areas it is usual to employ the Rapid Visual Screening, a method which encompasses:

- filling a check-list with qualitative information on the building;

- photographing the building.

As one can see the quantitative information is missing, although this might be useful for ulterior evaluation of, for example, the vulnerability of the building stock. To overcome this deficiency, the post-processing of the photographs taken on site on computers in the office has been considered to have potential.

This work deals with the various possibilities of the building survey. It is particularly focused on the survey of the building geometry. Also the investigation of the construction materials is considered. First the classical way to survey buildings is presented. The techniques and instrumentarium are visualised in sketches and respectively photos. Then the modern survey systems are reviewed. The usage of computers makes it possible that photos are digitally evaluated and measurements are possible in the office. This is useful not only in the survey of built substance but also for controlling on building sites. The mathematical background is explained and a mini-software, a script for CAD software is developed. The usage of computers in everyday life generates an increase of information density. This is met by modelling approaches in the last part of the work.