**Analytical Cadastre in Israel:**

**Restoring Land Boundaries Based on Photogrammetric Tools**

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**Key words:** analytical cadastre; photogrammetry; restoring land boundaries; GIS/LIS.

**ABSTRACT**

The modern replacement for the traditional form of cadastral information is the cadastral database. The definition and compilation of an accurate cadastral is based on analytic reconstruction of cadastral boundaries. In the mid 1990’s, an analytical restoring process, which analytically imitates the traditional field-based process, was developed in Israel for urban areas, relying on precise field location of building corners. The paper presents an additional method for establishing an analytical cadastre in areas where measured land features no longer exist. This method suggests a “virtual journey in time” process by combining two mapping realities: the current and the previous. Four “mapping environments” are being dealt with: the current reality (in terms of field surveying); new aerial photographs (taken recently); previous aerial photographs (enabling to measure the land reality at the time when the cadastral maps were prepared and the original land features still existed); and the previous reality (as defined by the cadastral maps and the original field books). Research results showed the feasibility of using this technique for improving the graphic cadastral data in order to establish the Analytical Cadastre.

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