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Resumen
The automatic placement of map labels in graphically dense areas is one of the challenging problems in modern cartography. Creation of the annotation layer still requires human interaction and automation of this process has significant potential for reducing the time required for map production. In this paper, we present a software technique for the key numbering process that we applied to approximately 20% of the 1:25,000 topographic maps of Turkey. The results were compared with those obtained from the traditional manual method. The consistency of the results is above 90%, achieving time savings of 70%, which indicates an substantial improvement in topographic map production.

Resumen
This paper reports findings of a laboratory study that attempts to establish the limits of legibility for fundamental cartographic symbology on modern smartphone screens of varying pixel density. In a controlled setting, participants were asked to discriminate different types of cartographic symbology, while stimulus size was gradually reduced. From the collected results, the limits of discriminability for each symbol type and screen resolution are derived. The paper gives a detailed report and statistical analysis of the results of the experiment and proposes updated guidelines for minimum cartographic symbol sizes for settings in which a high-density display device can be reliably provided.

Resumen
The article concerns the transformation of the nineteenth–century cadastral map in the cadastral coordinate system to the current Polish national coordinate system (PL-1992, EPSG:2180). This map provides source information on land ownership and shows the state of topography nearly 200 years ago. The task of changing the georeferencing was performed for its sections covering the area of Krakow, using information on the cadastral system in Western Galicia and the Krakow local coordinate system (ULK). A single-step algorithm is proposed and can be used to transform coordinates from the Krakow area. In particular, it can be used to georeference sections of a cadastral map. The advantage is its independence from unchanged topographic points. These points are either difficult to determine or there are few of them in that area. The accuracy of the coordinate transformation model is at the level of 30 cm and the actual accuracy – is about 1 m.

Resumen
Historical maps are popular reference tools for historical, archaeological and temporal analysis, and there has recently been an increase in their use. However, for various reasons, the planimetric accuracy of maps produced before the nineteenth century is usually considered to be lower than today. In this paper, a new method for assessing maps is proposed, using a series of processes, such as radial-based function artificial neural network, magnetic declination, and also MapAnalyst software. The map used in the current study (of Europe and the Mediterranean Sea) is a small-scale map; therefore, control points were produced by taking reference from large-scale maps drawn by the same cartographer, Piri Reis (c.1465–1553). While developing this method, affine transformation (six parameters) was compared in terms of planimetric accuracy. The results indicate that Piri Reis's Mediterranean map offers us unique information in many areas.

Resumen
This paper analyses the maps of East Asia and Central America drawn by Europeans between the sixteenth and eighteenth centuries, and illustrates the distinctions in the roles of Europeans in these two civilizations through the investigation of cartographic differences. In the initial stage of Europeans' entry into East Asia and Central America, the local maps have both the characteristics and techniques of the outsiders and the insiders, reflecting the distinct scene of the encounter of civilizations. In the process of localization, the map system of East Asia deconstructed European cartography, the original purpose of early Europeans entering China was digested by Chinese society, and their role changed from missionary to royal courtier. European cartography deconstructed and colonized the traditional cartography of Central America, which corresponds to the history that Europeans gradually became the rulers of indigenous people in real life.