

The Visible Boundary: More Than Just a Line Between Coordinates

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SUMMARY

Within land administration, the primary role of the surveyor is to determine the boundaries of people's land plots (or parcels). From a legal-societal perspective, a boundary is where one person's interests in land end and the next person's interests in land begin. In most conventional contexts, this 'surface' is depicted by the line where the lines intersect with the earth's surface. In 19th and early 20th centuries, during cadastral and land granting activities, surveying technologies used were (e.g. plane tables, chains and compasses), and the associated precisions available were accepted. Later, equipment became more advanced, and so did the accuracy with which the surveyor could determine the line (the question is whether the neighbours, and society, can – and should – bother indicating this line with an ever increasing precision). Whereas ground survey methods (incl. GNSS) have continued to be more and more precise, geospatial technologies also brought us aerial and space based approaches: these are much faster in covering large areas, but have not (yet) caught up in precision when compared against the latest ground methods. In any case, visible boundary features are by default not infinitesimal. The above issue manifests itself in the 'coverage over accuracy' debate, of which the most recent chapter often refers to '70% of the world's land parcels not yet mapped' and culminates in the "fit-for-purpose land administration" publication by FIG and WB. What we prefer to call 'visible' boundaries actually fit all land management and land information systems purposes, perhaps with the exception of reconstruction of boundaries between conflicting parties. Such conflicts are not unimportant, but do not rank as the highest land issues reported by land holders in recent PhD works. A broad analysis of what visible boundaries bring in benefits to society and land right holders (and what not) is presented, as a contribution to underpinning the 'fit-for-purpose land administration' approach.