

The Colonial Theodolite: A Historical Analysis of Land Surveying in Zimbabwe from Colonial Imposition to Sovereign Innovation

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Key words: History; Land Surveying; Zimbabwe; Theodolite; Land Tenure; Dispossession; Decolonization

SUMMARY

This paper presents a critical historical analysis of Zimbabwe's surveying (land / cadastral, mining, engineering) profession, tracing its evolution from an instrument of colonial dispossession to its current role in national development and technological modernization. The analysis is framed within the political, legal, and technical developments that have shaped the profession across distinct epochs.

The study first establishes how Zimbabwe's (formerly Southern Rhodesia) surveying system was imported from South Africa in the late 19th century. Mirroring Cape Colony and Transvaal models, it served as the primary technical tool for implementing racialized land policies, most notably the Land Apportionment Act of 1930. This legislation surgically divided the country along racial lines through precise cadastral surveys. The accompanying legal frameworks were carbon copies of South African laws, designed to entrench white settler privilege.

Following independence in 1980, the profession underwent profound transformation. This section analyses the political and legal shifts of land reform, exploring the tensions between redressing historical injustice and maintaining a functional cadastre and land market. It also details the technical challenges of integrating disparate systems and an initial technological lag due to economic sanctions.

The final section addresses the contemporary era of rapid technological adoption, detailing the leap from chain and theodolite to GNSS, GIS, and Remote Sensing. It examines the ongoing challenges of managing a dual land tenure system within a modern digital cadastral framework. This paper argues that the history of surveying in Zimbabwe is inextricably linked to the politics of land. Its future hinges on leveraging technology to solve uniquely African land governance challenges,

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thereby decolonizing its own legacy. This research provides a comprehensive Zimbabwean perspective, a narrative often overshadowed by its South African counterpart.

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