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Locating the rock art of the Maloti-Drakensberg: identifying areas of higher likelihood using remote sensing

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Abstract

This dissertation examines the role of remote sensing on rock art survey and is motivated by two key objectives: to determine if remote sensing has any value to rock art survey, furthermore if remote sensing is successful to determine if these individual remote sensing components can contribute to a predictive (site locating) model for rock art survey. Previous research effectively applied remote sensing techniques to alternate environmental studies which could be replicated in such a study. The successful application of google earth imagery to rock art survey (Pugin 2012) demonstrated the potential for a more expansive automated procedure and this dissertation looks to build on that success. The key objectives were tested using three different research areas to determine remote sensing potential across different terrain.

Owing to the nature of the study, the initial predictions were formulated using the MARA database – a database of known rock art sites in the surrounds of Matatiele, Eastern Cape – and were then applied to surrounding areas to expand this database further. Upon adding more sites to this database, the predictions were applied to Sehlabathebe National Park, Lesotho and then 31 rock art sites in the areas adjacent to Underberg. The findings of this research support the use of predictive models provided that the predictive model is formulated and tested using a substantial dataset. In conclusion, remote sensing is capable of contributing to rock art surveys and to the production of successful predictive models for rock art survey or alternate archaeological procedures focusing on specific environmental features.