

University of Durham
Department Of Geography

DISSERTATION ABSTRACT

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College: **St. Cuthbert's Society**

Degree for which dissertation will be submitted: **BSc. (Hons) Geography**

Dissertation Title: **Analysis of correlations between Sediment size and moisture content with Spectral Reflectance values from the Marab Suwei'id of the Wadi Ebd in the Badia region of Jordan.**

ABSTRACT:
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From samples collected in the Easter of 1994 from Jordan, Spectral reflectance tests, using the Milton Multiband Spectrometer, and sediment size tests were performed. The samples were totally saturated and then oven dried with spectra testing at regular intervals. The results were then logged and correlated with soil moisture content and from this Band 4 was found to be most sensitive to soil moisture. These Band 4 results were then compared to sediment size results. Consequently, sediment size seemed to have no bearing on the results and so soil colouring was deemed more important, leading to rapid 'jumps' in the resultant graphs. Consequently from good R-square values gained a final single model was produced for the Marab. This model was tested, using a crude testing technique, and was found to be relatively inaccurate. The most important conclusion of the study is that the extensive limitations listed must be accounted for and quantitatively assessed if this model is to used further.