



IDENTIFICATION OF BURIED ARCHAEOLOGICAL RELICS USING DERIVATIVES OF MAGNETIC ANOMALIES IN NIF (OLYMPUS) MOUNTAIN, WEST ANATOLIA: A CASE STUDY

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Nif (Olympos) Mountain is a wide archaeological site in west Anatolia (Turkey). Surface investigations and excavations have been done in the area since 12 years. The magnetic method as a geophysical prospection method was applied on an area of 500 m². This method was chosen because such a prospecting technique provides a great amount of high-resolution magnetic data in a very short time. A correlation could be made between the derivative methods used in this study. Analytic signal (AS) method revealed not only grave but also surrounding stones. The total derivative method could not separate stones and grave. Normalised Standard Total Derivation (NSTD) method gave similar results with AS.

Magnetic investigations in Dagkizilca sector of Nif (Olympos) Mountain revealed some interesting results. We expected all anomalies to belong to buried archaeological materials in this area due to the surface disturbances of this site. The data processing identified interesting magnetic anomalies that lead to test excavations, which in turn resulted to the unearthing of a grave, as well as, illegal intervening by antiquity robbers.

KEYWORDS: (Olympos), Dagkizilca sector, Magnetic data, Byzantine and Hellenistic, Derivative method
