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THE USE OF GEOGRAPHIC INFORMATION SYSTEMS IN PREVENTING ILLEGAL EXCAVATIONS FOR THE DESTRUCTION OF CULTURAL HERITAGE

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ABSTRACT

Accessibility between illegal excavation sites that destroy cultural assets and gendarmerie stations responsible for public order and security is an issue that has not been studied until now. Geographic Information Systems are widely used in archaeological studies, but only for certain analyses. There are difficulties in obtaining data for archaeological studies focused on conservation and accessibility. The study area was determined as the provincial border of Antalya and 286 illegal excavations identified between January 2015 and May 2021 were reproduced by assigning random points in a unique frame. The current situation was examined using two different scales and the system was tested. Illegal excavation sites were matched with the closest 54 gendarmerie stations. The system efficiency was examined by calculating the time and distance costs of these routes. It is thought that measures can be taken against illegal excavations by increasing the accessibility of the gendarmerie station with the use of GIS. With the spatial analysis techniques used in the study, the areas where there is a lack of stations and the ways to be improved were determined.

Keywords: Geographic Information Systems, Spatial Analysis Techniques, Illegal Excavation, Accessibility, Antalya.