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Satellite remote sensing and multiscale geophysical investigations for geoarcheology: case studies from Perù

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Satellite remote sensing as well as geophysical techniques proved to be successful tools for characterizing archaeological areas. In order to provide useful information on the presence of buried structures and the iteration between the aqueducts (Puquios) and the local hydrogeological setting, a multi-disciplinary and multi-scale approach based on the integration of satellite remote sensing and geophysical techniques was applied in different sites of Perù.
Such investigations were carried out by the Italian mission ITACA, funded by the Italian Ministry Affairs and composed of researchers of two institutes of CNR (IMAA and IBAM), which provides a scientific support for archaeological research, since 2007.
In detail, the archaeological Cahuachi site (0-400 AD) was investigated by geoelectrical and georadar prospecting, in order to highlight buried structures and platforms. The detection and characterization of perhispanic aqueducts and canals were the main aims in the Nasca drainage basin and in the Ceremonial Centre of Pachacamac (500-1400 ADF). Finally, the integration of all data acquired by the different remote sensing techniques allowed for spatially characterizing the archaeological features, thus providing important information for the planning of next archaeological excavations and glimpses into the use and management of water resources by prehispanic civilizations.

References

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