The conservation of Holocene sediment archives in the Mediterranean and its relevance for geo-archaeology.

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Mediterranean countries have laws and regulations that ensure the protection of their heritage, which often includes their 'geological heritage', such as in Italy where this geology is protected to an extent that is unknown to most Central and Northern European countries. This protection or geo-conservation, however, pertains largely to mineral and fossil bearing areas and sites, and rarely to relatively recent (Holocene to Late Quaternary) sediment archives. Such sediment archives play an increasingly important role in geo-archeology, allowing for precise dating and description of early cultures and their environment, as well as of the impact of man on his environment in connection with early land use and past climate changes.

Holocene paleoecological archives are relatively scarce in the mediterranean, because of the climatic conditions which promote rapid and strong decomposition of organic remains. Current high quality archives pertain largely to crater lake and deep sea cores, which are hardly relevant for geo-archeology. Excellent archives may be available in coastal plains as was recently demonstrated for the Agro Pontino, allowing for detailed paleoecological studies as well as tephrochronological dating. Such archives are crucial for modern integrated geo-archeological studies and merit to be protected against degradation brought about by the often intensive agriculture in these plains that is marked by deep drainage and ploughing. In the Agro Pontino, such agriculture has already led to a virtually complete destruction of the Late Holocene (Roman and later) record in its former marshes. Based on this experience, authorities are strongly advised to include areas with important Holocene geo-archives in the geo-heritage to be conserved.