

THE APPLICATION OF PHOSPHATE ANALYSIS TECHNIQUES ON AN IRISH COASTAL MONUMENT COMPLEX

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Phosphate analysis has been used as a tool for site prospection, identification, and use-of-space modeling in archaeology since the late 1920s (Arrehnius 1929). Phosphate analysis is highly applicable to the investigation of earthworks through the ability to identify areas that have been enhanced through the deposition of phosphate rich material. At earthwork sites phosphate analysis can identify areas of interest for excavation, can help determine the intensity and/or duration of use and can help identify the function of structures within the enclosure. The nature and properties of phosphates acting in a soil system allow for the rapid and inexpensive identification of areas of archaeological interest. Phosphate testing on a grid over an historic site can influence the planning and execution of excavation on areas of interest, thus saving the time usually spent on randomly testing sites to find such areas. The interpretation of phosphate patterning can also suggest possible use-of-space models based on the organization of activity and deposition areas. Phosphate analysis aids in the identification of archaeological sites and site organization through the accurate and efficient detection of areas that were used by humans for the preparation, storage, and discard of organic materials. These applications make phosphate analysis relevant to any archaeological endeavor.