

Geophysical methods are most successful as part of an integrated and flexible research design. Planning for geophysical survey should be considered from the inception of a project, and the potential information that geophysical data may offer should be anticipated. Planning of a hypothetical project might anticipate the following stages:

- Define research goals
- Site reconnaissance, sample collection
- Assess feasibility
- Develop appropriate survey design
- Conduct survey
- Develop preliminary interpretations
- Ground truthing (on-the-ground testing)
- Refine interpretations
- Excavation
- Model site context integrating excavation, geophysical, environmental and other available data

Flexibility must be designed into every stage of the research program, as survey results cannot be reliably predicted, and because each stage will inform subsequent stages.

As geophysical methods become increasingly common, their future use should be anticipated even when they are not part of current research plans. Noting conditions that might affect geophysical methods and collecting small samples of soils, rock, and cultural materials may be invaluable in the future. More critical, and often overlooked, is the effect of metal artifacts left on sites by archaeologists themselves. Steel pinflag stakes, nails, datums, and other items that are deliberately or accidentally left on sites can have a very detrimental effect on magnetic data. Whenever possible, Plastic, wood, or aluminum substitutes should be used for these items. Steel pinflag stakes are particularly problematic. Ubiquitously used, often lost, and difficult to find after the plastic flag has degraded and fallen off, the steel wire creates a surprisingly large magnetic anomaly. The slight inconvenience and expense of fiberglass-stake pinflags will be found to be well worth the benefits. It is hoped that these considerations will be reflected in standard archaeological practices in the near future.