

Review of: "A Methods Note on Remote Sensing Platforms and Large-Scale Archeological Impact Assessments (AIA) in the Philippines"

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Potential competing interests: No potential competing interests to declare.

The intent of this paper is very interesting, but the execution is extremely poor. I would recommend the paper be rejected and the authors rework the paper into an example, using one or more real projects. The paper could easily be re-written into a "how to" where a new user, in the Philippines or elsewhere, could follow the methods, including recommendations of tools. My recommendation to the authors, would be to write it like you were training a new employee to run this project, including all steps and tools; then re-write it including the why and generalizing a little of the mundane steps.

This paper is extremely poorly written and hard to follow at points. It is lacking references to key topics and generalizes about entire fields of study (ex. Geospatial analysis and predictive modeling) without references or expected background.

Specific comments by section are below. Good luck.

Abstract

- Sentences are too complicated. They are difficult to read with too many clauses. Each sentence should be reviewed and consider splitting into 2 or 3 sentences each.
- The basic ideas are in the abstract, but a lot of time is spent spelling out what tools and techniques are required. Words are wasted explaining this is a "research note" and "methods note".

Keywords

- "Intersectional predictive model map" - might check each word and get a definitions. Intersectional is not even defined in the Oxford dictionary? Why include map at the end of predictive model, a GIS model implies a map?

Background

- Why not start by defining what you mean by AIA? The exact meaning of archaeological impact assessment varies around the world, especially with different requirements.

- Great background on how the requirements have changed, but I'm left wondering why these areas have been developed and had AIAs conducted at some point in the last 50 years (since the legislation in 1977). You mention development, but have not made it clear that this development is on undisturbed areas? Or are you focusing on historical changes to the areas? None of this discusses at what point in the past something becomes archaeological and not, for example, a crime scene if human remains are found.
- Figure 1: Please add labels to the three images (a-c) and identify what is shown in the image. This then needs to be expanded in the caption too.
- What type of "predictive model for archaeological sites" are you referring to? Can you add references to help clarify, please.
- "Archeological materials that may be recovered from these targeted locations may then be subject to further analysis. " what are you trying to say? This is assumed that any archaeological materials recovered would be analyzed? Do you mean, locations where archaeological materials are identified will undergo further investigation?
- "Full work process" should be something more like "The process flow for this method are expanded in Figure 2 "
- RS-GIS or RS GIS?
- What specifically are you doing with the satellite data? The resolute sounds great for identifying features, which tools or models are you using for feature identification? How is this incorporated in the predictive model?
- Figure 2 - 1) Why not make this linear from top to bottom with the categories beside the flow chart? 2) "geospatial analysis" is an entire field of study, just saying you will do this is skipping significant explanations. What tools/algorithms are you using to create the predictive model AOIs? How will these AOIs be different than the Judgement based ones? What percentage of low potential locations will be further tested to ensure the model's viability? Where is the step that incorporates known archaeological sites?
- Why are there no references in this section of the paper.

Stratified Random Sampling the Predictive Model

- Figure 3 - Sorry, but I don't find this figure useful. The caption doesn't provide any additional information to make this informative. This could be covered by explaining when the contemporary Period and Historic periods are in this region and referring to relevant literature.
 - The dotted arrows are confusing, please explain in the caption, if you are keeping this figure. What do you mean by "positive features, negative features, open sites". Does a cluster of artifacts constitute a feature to you? What is a feature? What do you mean by "open site" (at least a reference to a prior definition)?
- Bronson's 1977 paper is a "speculative model", not a **predictive model**! What you are proposing to do is not predictive modeling in the classic sense, it is using the rivers to classify the area. Have you looked at Dunnell and Dancy's (1983) site-less survey concept? You are focusing on features, but everything in-between can hold archaeological evidence too?

Heads-up Remote Sensing of the High-Resolution Maps

- This section should be cut and the information can be added above when you are referring to this technology.