

Dissertation Review
Council of Discipline of Archaeology
University of Warsaw

Full name of candidate: Dominika Sieczkowska

Title of doctoral dissertation: *Armakuna y phaqcha: uso ritual y seglar del agua en la "Ilaqta" de Machu Picchu y sus sitios satélites (Perú)*

Promoter: Dr Mariusz Ziółkowski

Reviewer: Dr Jason Yaeger

1. Scientific value of the dissertation

a. Originality of research (25-200 words):

Two important and interrelated topics in Inka archaeology have been the role of water (especially bodies of water like springs, rivers & lakes) in Inka cosmology and sacred landscapes and, relatedly, the relationship between political authority and the control of water. In this dissertation, Ms. Sieczkowska synthesizes the key literature in these areas of study (esp. Carrión Cachot and Sherbondy, also Gose, Dean, and Bray). This synthesis provides the foundation for her own original contributions to our understanding of Inka water management. Specifically, she makes four original contributions:

- (1) She compiles Quechua terms from colonial dictionaries for water-related constructions, features, and activities.
- (2) She argues that the Inka water management features that are often called ‘baths’ can be divided into two conceptual categories, *fuentes / paqcha* for secular use and *baños / armakuna* for ritual use, identifying criteria for distinguishing those categories of features.
- (3) She applies that approach to water management systems at sites in Peru’s Parque Arqueológico Nacional de Machupicchu (PANM).
- (4) She highlights the importance of understanding the position of water management features within larger sacred landscapes at both the micro and macro scales, particularly with respect to orientations toward sacred mountains.

b. Scientific value of chapters (25-200 words):

The dissertation’s primary scientific contributions are encapsulated in two chapters. Chapter 2 (together with Appendix 8.1) provides a compilation and analysis of Quechua terms for water-related features and activities. It is very useful to have all of these terms brought together in one place; it will be a valuable

resource for subsequent scholars working with Inka water management. In Chapter 5, Ms. Sieczkowska provides a catalog of the water management features in PANM and applies her interpretive framework to assess whether they are sacred *baños* or secular *fuentes*. This is a novel approach, and the methods and interpretations will help drive our understanding of Inka water management. Sections 5.4.8 through 5.4.10 on Chachabamba are particularly welcome, as the author presents a range of new data derived from archaeological excavations, LiDAR mapping, and geo-physical prospection. I think there is great potential in these applications of archaeometry to Inka archaeology.

2. **Substantive value of the dissertation**

(ability to present the research topic and clarity of the formulated research hypotheses, choice of research methods, critical analysis of the results and ability to interpret them, background of the literature on the subject, clarity and accuracy of the conclusions) (25-200 words):

Ms. Sieczkowska's dissertation was well-organized and flowed logically. She synthesized the appropriate background literature and situated her study within that domain. The overall presentation could be improved by strengthening the integration between the semantic / terminological study and the archaeological analysis, in the concluding chapter if nowhere else. The factors (observations, criteria, variables) that she uses to interpret the function of a particular water feature, discussed in Section 5.3, could have been highlighted by enumerating them and using that same enumeration when she applied them to the specific examples in the PANM sites that follow in that chapter. This kind of structure would have reinforced to the reader that the study is systematic. I appreciated the forward-looking aspect of Section 5.6, which made me excited to see the next steps in this young scholar's career. That said, I felt that the concluding chapter (Chapter 6) did not do justice to the full contributions of the dissertation.

3. **Editorial correctness of the dissertation**

(layout of work, clarity of style, layout, etc.) (25-200 words):

In general, the dissertation was well-written, with only a few grammatical or typographic errors. I would have appreciated a table of figures. The photographs were very helpful, as they allowed me to follow Ms. Sieczkowska's arguments. A map of the Andes region showing the sites discussed in section 4.1 and a map of the Cuzco region showing the sites discussed in section 4.2 would have been welcome. The map of PANA was difficult to read because the map was so dark and the text so small. In general, many of the maps would have benefited from being reproduced at a larger size and having more labels showing the features discussed in the text.

4. **Critical comments**

As Ms. Sieczkowska moves her dissertation forward toward publication, I would recommend that she consider the following feedback:

- I believe that the masonry style (fine cut-stone masonry vs rustic uncut stone walls) is an important marker of function, even if it was sometimes hidden under stucco or plaster. The labor investment would have been significantly different, marking some baths as distinct. Furthermore, the fine masonry itself likely brought value and meaning to the activities that took place in that particular bath. If it wasn't important, wouldn't they all have been made with 'cheap,' rustic masonry?

- Distinguish orientations (where features line up along an axis) and intervisibility (where two sites / features can be seen from one another). Some of the connections described as ‘orientaciones’ seem to refer to a line-of-sight that allows a person in a particular water control feature to see a sacred peak. Distinguishing those cases from more formal orientations doesn’t detract from Ms. Sieczkowska’s larger point about the intimate links between apus and water systems.
- The sacred / secular dichotomy is, at times, more of a hinderance than a help, for two reasons. First, the Cartesian distinction between sacred and secular is applied in ways that reflect a European / Western cosmology, in which rituals are sacred and everything else (agriculture, drinking water, non-ritual bathing, toilet) are secular. While nothing would seem more secular than urination to most of us, the fact that indigenous Andean women would urinate on canals carved into a rock (thus joining their bodies as sources of fluid to the great inter-connecting subterranean water system that led back to Lake Titicaca and connected the place of creation with the pacarinas of all Andean people) in order to get pregnant suggests a very different understanding of urine, at least in some contexts. In Andean cosmologies, it might be particularly difficult to disentangle the secular and the sacred in water management systems, given the belief that the flowing water connected all features and water sources together and linked them back to Lake Titicaca. Second, I would strongly advocate for using the adjectives ‘sacred’ and ‘secular’ not to describe features, but to the activities that occurred there. A given feature can be the venue for both sacred/ritual activities and utilitarian ones, just as the same ceramic vessel can be used to drink chicha or to pour an offering to Pachamama. Some baths are clearly built with the express intent of accommodating ritual activities, but in many cases, they probably also fulfilled utilitarian functions, too.

5. **Final Evaluation (justification 25-200 words):**

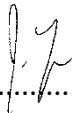
In her dissertation, Ms. Sieczkowska presents a novel approach to understanding Inka water management systems and ably applies it to sites in the Parque Arqueológico Nacional Machupicchu. She also provides a very useful compilation of Quechua terms relating to water. The study is well conceived and the dissertation is well written. Most importantly, it makes an original contribution to our understanding of the Inka, particularly their understanding of and manipulation of water.

I, the undersigned, apply for a award for the doctoral dissertation. Justification of the application (25-200 words)

In my evaluation, this dissertation should qualify Ms. Sieczkowska for the doctoral degree. It is a well-conceived, well-written, and innovative study that makes original contributions to our understanding of Inka water management.

10 June 2022

 date of review



 reviewer's signature