Abstract

I am a doctoral student in the Interdisciplinary PhD Program (I.PhD) who specializes in Geoarchaeology (the application of geological methods and techniques in archaeology) and past Environmental Studies in the Central Andean region, particularly the Peruvian territory. In September 2012 I started my doctoral dissertation research, which included five months of field work followed by several months of laboratory analyses and data processing, part of which is still in progress.

My investigation focused on the archaeological site called Los Morteros, located on the lower Chao Valley, north coast of Peru. Previous superficial excavations in the 1970’s at the top of this mound-shaped site classified Los Morteros as a “stabilized dune” whose top was used as a cemetery during pre-proterry times around 5,000 years B.P. (before present). In 2010 a crew from the University of Maine carried out geo-radar explorations of this mound which indicated that there was evidence of architecture of monumental dimensions lying under thick layers of sand. This architecture would pre-date the superficial findings dated around 5,000 years B.P., which would make Los Morteros one of the oldest monumental sites of the Andean region and the Americas.

Within this context, my research had the objectives of analyzing the human occupation of Los Morteros, uncovering the architecture detected through geo-radar, and understanding the process of formation and transformation of this site in relation to its environment. Archaeological excavations carried out as part of the field work have uncovered a very complex history of formation of the mound of Los Morteros which includes architecture of monumental characteristics. Excavations indicate that the human occupation of Los Morteros would have
stated as a small domestic mound where people lived exploiting marine resources of the ancient embayment that was once closer to the site, the evidence of this period is a series of hearths found in the deepest deposits excavated in the mound. Later in time, people of Los Morteros built big rooms carefully made of mud bricks, plastered walls, and thick mud floors that would have been used for non-domestic, perhaps ceremonial purposes. The last phase of use of the site is represented by superficial stone architecture that can be related to the human burials found during the 1970’s excavations.

These results indicate that human occupation of Los Morteros and the surrounding archaeological zone was closely related to the rich marine and coastal environment that characterized this part of the lower Chao Valley more than 5,000 years ago. More importantly, the architecture found at Los Morteros is unique to Andean sites of that time. Data obtained in my research are very important for understanding how early societies went from using simple stone hearths to building complex ceremonial architecture in a milieu that is now a hyper arid zone. Within this context, placing in time these finds from Los Morteros is a crucial part of the research that remains to be done.

I am asking the support of the GSG to cover the air ticket from Lima, Peru to Boston, MA to bring to the US, archaeological samples selected for radiocarbon analysis to date the evidence recovered from Los Morteros. Based on the results so far obtained, this evidence would open a new chapter of the Peruvian and Andean archaeology. The dating of these remains would also benefit the reputation of the University of Maine as research center in Andean Geoarchaeology and Climate Studies.
### Itemized Budget

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<th>Source (Company)</th>
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<th>Individual Cost (US$)</th>
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Budget explanation

I am asking for the support of GSG to cover the cost of the airfare from Lima, Peru to Boston, MA in order to bring to the US archaeological samples for radiocarbon analysis. Peruvian legislation prohibits mailing of archaeological samples and requires somebody to bring them personally to the country were the analyses will be done. I have already obtained the permit to take selected samples for this analysis.

I plan to fly to Boston and then go to Orono, ME for a week to take the maximum advantage of this trip and meet with my committee thesis to discuss thesis progress and to review literature at the Fogler library.

Prices shown in the above table are the best results of booking using Travelocity, Orbitz, Expedia, Hotwire, and United airlines websites. I am planning to fly on November 5\textsuperscript{th} because I can get better ticket prices around that date. I will use personal funds to cover the cost of the bus ticket from Boston to Orono and I am asking the Graduate School for lodging during the week I will spend in Orono, to reduce the cost of my stay.

Even though I have been very successful in getting research funds, after more than a year of research (including excavations and analyses), those resources are practically gone. This is why the support from the GSG is critical to complete a very important part of my dissertation by helping to date of the unique finds discovered through my excavations. I have no other funding resource that I could use to cover this expense. Funding for the dating ($375 x 4 samples - $1500) will be covered by the NSF funded project with which I am associated. The project is now in a no-cost extension and does not have enough remaining funds to cover my transportation.
Radiocarbon dates are not only a key element to my dissertation but are important for the future of this research and my career, since dates would help to obtain funding for future research and are essential in publishing the results on major journals.

I appreciate the time reviewers are taking to carefully read this application and ask to consider it to be funded with the maximum support that the GSG can give to its graduate fellows.