



**BIWEEKLY COLLOQUIUM**  
**Monday, 4 February 2013**

**EXAMINING FOREST EXPLOITATION IN THE ANCIENT MEDITERRANEAN**  
**Dr Robyn Veal, McDonald Institute for Archaeological Research**  
**(University of Cambridge)**

In ancient economy estimates, we have lacked the tools to explicitly model the significance of the contribution of fuel. This has been due especially, to a lack of tools to extend base charcoal identification practice into more detailed socio-economic analyses. Fuel and its availability, social utility and economics through time are constants in human development and fuel use can reflect social behavior as well as environmental use. Archaeological charcoal is currently a part of our material culture that is not always collected, and its potential is as yet unrealized. Recent developments in charcoal research offer new ways of understanding cultural practices in forest management and fuel cropping. Economic modeling as to fuel types and quantities, coupled with transport and marketing considerations can provide a complete view of the *chaîne opératoire* of fuel production and consumption. Using examples from ancient pre-Roman to Late Roman sites, this presentation will overview new scientific methods in the field, and demonstrate how these can enhance archaeological, and ultimately, cultural understanding. The types of questions that this approach may address include:

- Whether sustainable or exploitative forest management strategies were used;
- The key factors that governed fuel selection for different cultural uses such as domestic heating and cooking; industrial functions such as iron smelting and working; and ritual purposes;
- Whether high selectivity for heat value existed; or if cultural, or economic (e.g. cost of transport) imperatives dominated choices;
- Whether differences in silvicultural practice can be identified in different areas, and if so, explained;
- The interactions between the timber and wood fuel economies, (where these may be observed);
- The strategies for transport and marketing of fuel that may have existed.

**Venue: Seminar Room 204 Leibnizstraße 1, CAU Kiel**

## Biography

**Dr Robyn Veal**, (BSc BA (hons) MBA PhD), recently commenced a three-year post-doctoral fellowship at the McDonald Institute for Archaeological Research (University of Cambridge) for a project entitled '*Forest exploitation and sustainability in province and empire: a comparative study of the ancient wood and fuel economies of Romano-Britain and central Roman Italy in the Imperial period.*' Preliminary research for the project was carried out in 2011-12 in a fellowship at the British School of Rome. She is an honorary research affiliate at the Department of Archaeology, University of Sydney, and is also associated with the university's Australian Centre for Microscopy and Microanalysis. She graduated in geosciences/IT, business, and arts, before completing her doctorate in archaeology at Sydney on the fuel economy of Pompeii (2009). Her interests include natural resource economics in the ancient world; native Italic and Roman history; archaeological science, archaeological theory and whole assemblage analysis; and GIS and information management systems for archaeology. She works with a number of international excavation teams, mostly in Italy (but also in SE Asia and the UK) as an environmental archaeologist and historian, and charcoal specialist. She is co-organizing a colloquium called '*Fuel and Fire in the Ancient Roman World*' and an associated charcoal workshop, to be held at the British School of Rome (March 7-9, 2013).