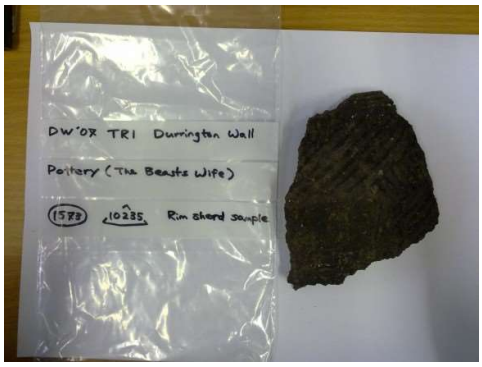
FEEDING STONEHENGE – A VIEW FROM THE LABORATORY

June 29, 2012 Castles And Coprolites Day of Archaeology, Day of Archaeology 2012, Prehistory, Science Archaeology of the Americas, Department of Archaeology, Durrington, Durrington Walls, food products, food residues, Grooved ware, Henges, MS, Native American history, pottery, research associate in the BioArCh group, settlement site, Stonehenge, University of York, Wiltshire



Large pottery sherd from Durrington Walls

So, today is another day of laboratory work for me. I work as a research associate in the BioArCh group at the Department of Archaeology, University of York. I am part of a large team of archaeologists working on the AHRC funded Feeding Stonehenge project, which is investigating the provisioning and consumption patterns of people who lived at Neolithic Durrington Walls – the settlement site associated with the construction of Stonehenge. My role in the project is to analyse the distinctive Grooved Ware pottery for food residues and to see if there were differences in the types of food products that were being consumed by different households, and to see whether certain animals were selected for feasting. I have already looked at over 300 individual pottery sherds, and today I'll be analysing another 10-20. I'll also be supervising undergraduate students who have recently started their dissertation projects, working on pottery from other archaeological sites. One student is carrying out work on modern reference pottery that has been used to cook and process marine animals. The results from these experimental studies can be used to help us interpret what we find in archaeological pottery. The day starts off by coming into the lab and switching on the kit in the fume hood – we have to heat the samples to 70 degrees so I have to do this first so it gets up to the right temperature. Then it's time for the first coffee of the day….

There's me drilling some pottery from Durrington Walls

Morning

Ok so the first step of extracting food residues from pottery is collecting a sample. We do this by taking a modelling drill and scraping out around 1-5 g from the inside of the pot sherd. These have all been photographed and recorded before we start drilling holes in them!

Then we add some solvent to the pottery powder and give it a good shake for 15 minutes (there's actually lab kit that does this for you, you don't have to stand shaking a tube for 15 mins!). All of the fats that were absorbed into the pottery when it was used in the past dissolve in the solvent. It is incredible to think that food residues would survive for such a long time, but they do!

Lunchtime

More coffee! We have a great coffee room in S-Block (the archaeology laboratories at the University of York). Sometimes there's free cake. None today alas!

Afternoon

Ok so we've got our solvent containing all those fats from our prehistoric pottery, now we want to find out what's in it. We take a small amount of the solvent and put it in a machine called a GC/MS which seperates out all of the different fats and compares them to a database to identify what they are. This afternoon there's a bit of a queue to get stuff

Bioarchaeology student David prepares some samples for residue analysis

done today. We'll leave the samples running over the weekend, so the results will be ready on monday. And there we go – a day in the life of the archaeological science team at the University of York! For more updates and information on what we get up to, check out my blog, Castles and Coprolites. Thanks for reading!