

Archaeology Internship Cowell Lime Kilns & Cooperage UC Santa Cruz

3/20/13: The Announcement:

This Spring Quarter, Patricia Paramoure, archaeological consultant for UCSC, will lead a group of eight UCSC students in an archaeological internship at the Cowell Lime Works Historic District. The field and lab sessions will take place on Saturdays. If you are interested in participating, email her for more information and to obtain an application. Deadline for applying is Friday, March 22. patparamourearcheconsult@gmail.com

Week 1: April 6, 2013

Patricia Paramoure, Project Director and UCSC Consultant



The crew was greeted by cool and cloudy weather at our first meeting this past Saturday. After signing in, we started the day with the assignment of the day's excavation teams and a review of our safety guidelines, before we each grabbed some flagging tape and looked around the site before tying the tape on trip and bump hazards located in the project area. Clearing brush went quickly with the group all chipping in to remove weeds and small brush around the cooperage and excavation areas.

Following a review of the forms we will be using to document our work, and a guided tour to view the inside of the Cooperage and the kilns from the top, Pat gave an excavation tutorial and we set up the screening areas.



TA, Christina Powell, took on photographer duties for the day, documenting activities and photographing our trenches and units before the students collected artifacts from the surface of the excavation locations. Excavation finally began after lunch and the students enjoyed getting their trowels dirty and screening the soil removed from the excavation locations. Next week, dig teams and excavation locations will change, so that each student can work with everyone else and at each different excavation site.

Week 2: April 13, 2013

Melissa Jenkins, Senior Anthropology Major



Excavating Unit 2 uncovered various artifacts as well as the opportunity to employ as many tools as possible to get around rocks and clear away dirt. Trowels, brushes, axes and fist fulls of dirt eventually allowed us to level the unit in order to photograph it for further documentation along with drawn and written records of the artifacts found.

We had break, but I never felt the desire to remove my hard hat and some others even continued troweling during break. After sifting the dirt through screens, we were eager to begin digging another level. It's ironic how during the actual digging, we can't seem to get rid of the dirt fast enough, but still we are just as excited to start the process again on the same patch of earth. So we continued onto the next level until the end of the day, spotting the occasional spider and lizard who shared our archaeological interests.



Students unearthed these "Snowball" brand firebricks in the kiln area; made by the Derwenthaugh Fire Brick Works in Swalwell, County Durham, England; est. by James and George Snowball; in production 1854 - 1935.

Week 3: April 20, 2013

Miriam Lopez-Rodriguez, Junior exchange student from Spain.



When I went through the UCSC entrance on the bus last September, passing in front of the Cooperage structure, the first thought that went through my mind as an Archaeology major, was that I wanted to work there. Seven months later, that's what I'm doing.

The first week, we cleaned the space we were going to work on; once done, we started digging and getting our hands dirty with the fun stuff, but mostly swearing at rocks strategically and annoyingly put in the way.

The second week we changed location on the site; while cleaning some more rocks, I got close and intimate with a tick that found my pants quite fascinating. Meanwhile my poor ears fell off screaming at me for not using sunscreen, something I haven't forgotten since, as I'm still feeling their pain even today.

The third week, last Saturday, I got the opportunity to work inside one of the kilns. We found a wooden floor with some metal work on the fire pit after getting down and dirty with some of the more stubborn rocks in our way.

Although exciting, because every other shift of the wrist with the trowel would uncover either nails, pieces of glass or ceramic, I'd recommend training with the circus before thinking of studying archaeology, because when working in small places, it's impossible to find the right posture making you wish you hadn't done it the next day.

As of now, for me it's impossible to walk without limping, but the reward to be able to uncover history from the remains left behind with my own hands, makes it all worth it.

Week 4: April 27, 2013

Olimpia Vazquez Ojeda



This Saturday, April 27th, the crew was divided into two teams. One of them continued the excavation

project on the two trenches and two units, while the other team was in charge of the, perhaps not so adventurous, artifact analysis.

Cleaning, sorting, bagging, and cataloging the artifacts recovered on fieldwork is essential to develop a successful archaeological project. While ones might consider this step tedious or boring, I believe that cataloging is an exciting way to come face to face with the objects excavated on site.

Besides being able to avoid the sun for a couple hours, when we clean artifacts we are able to observe their actual color and form, compare them to other artifacts, and discard the ones that do not provide sufficient information about the site.

One of the main identified materials was metal, iron and possibly copper. Large amounts of nails of various sizes, staples, some type of connector plate, and many irregular pieces that wore off from other metal artifacts.

Glass was also a common material found in bottle fragments, and small pieces of different sizes and colors, some of them sun affected.

We also cleaned fragments of bricks of two main types: red brick, and firebricks, which was probably imported and widely used in the construction of the kilns for its resistance to extremely high temperatures.

Fragments of glazed ceramics, white, pink, and blue fabric fragments, and small-size faunal remains are also present in smaller proportions in the collection.

As of now, all the artifacts recovered throughout the four weeks of fieldwork have been cleaned, roughly sorted, and bagged.

This learning experience brought our team closer to the material culture of the cooperage and the kilns because it gave us the opportunity to take a look at the artifacts in a neat setting, acquire a general understanding of the main materials found within these structures, and also remember that archaeology goes beyond digging.

Week 5: May 4, 2013

Jacque Prescott-Frazier, a junior from Napa



On May 4, the whole team was back at the excavation site. We chose who we wanted to work with and which unit we wanted to work on. In unit 1 and trench 2, most of the day was spent using picks of various sizes to break through rocks and a surface of a lime and pebble conglomerate.

In trench 1, most of the day was spent removing rocks, until they reached a layer of the lime and stone conglomerate around 16-18 inches down, which may agree with the same layer in trench 2. We are still not sure what this material was doing there, or whether it was intentional or the result of a spill of some sort.

Unit 2, inside the continuous kiln, proved most interesting. The soil was full of enough ash and charcoal to leave the people working there covered in black dust. That unit also contained some interesting artifacts, including a metal strap that could have been used for almost anything, but we hypothesize that it was either part of a barrel or a wagon wheel.

The team working in trench 1 found a fragment of a fire brick that says, "...TCO...". It is likely part of a Gartcosh brand fire brick made in

Scotland. This brand of fire brick had not been previously recorded at this site, so this discovery provides new information about the Bay Street kilns.

Week 6: May 11, 2013

Sasha Schlesinger, a senior anthropology major from Belmont



If you asked the average college student how they felt about willingly waking up at 7:30 AM on a Saturday morning, they would probably tell you that you're crazy.

As I waited for the two cups of coffee to kick in, everyone began choosing which units they wished to work on. I decided to pair up with Miriam on Trench #1 since it was the only unit I had yet to work on for this project. This trench had been broken up into three separate sections.

For the first major chunk of the day, Miriam and I began the task of bringing the first section down to a 12 inch level. As Miriam plowed through a layer of tough asphalt with a pick axe, I tediously dug around chunks of rocks and fire roasted brick until they became loose enough to pluck out of the trench.

After lunch, the team started to feel the heat of working in the sun. Miriam and I continued on to the second section of the trench, and almost completely leveled it out to a depth of 18 inches. Interesting finds for this trench included a bullet casing, a rather large chunk of charcoal, small pieces of wood and another brick brand that had yet to be recorded at this site: GARTCRAIG.

Unit 2, inside one of the kilns, also came across some large metal spikes and some textiles. By cleanup time, everyone yearned for a cold shower after a day of sweating it out doing archaeology.

Week 7: May 18, 2013

Melissa White, a senior from Ventura



I was back in Unit 2, but this time the goal was to break through a limestone floor to see what lay underneath.

The 1st step was to saw through and remove a wooden plank that was embedded in the side wall, and then to screen the pile of dirt that had been supporting the plank. In the process of screening, I uncovered many artifacts, but the majority was bits of white and red textiles and rusty bits of metal and nails. The most unique artifact found was a long metal rod-like object that was caked in dirt, which had its own treasure trove of artifacts embedded in the dirt. I can't wait to see what it will look like once it's been cleaned, but for now we just have to guess at what its purpose could be.

The next step was to clean the lime floor and make it camera ready. Once it was cleaned and photographed, we were able to start breaking through the floor. Now was the time to use the hand pick-axe, and begin the slow process of breaking the limestone. This task took a lot of patience because the lime crumbles and turns into a dusty powder that continually had to

be swept away.

We didn't complete this task, but we were able to uncover part of what lay underneath. What we saw was bricks that looked as if they were arranged in a particular pattern into yet another floor. I can't wait until the rest of the lime floor is broken, but that won't be my task. It was a rewarding day, even though the day of excavation ended before we had a chance to break and sweep away the whole limestone floor.

Week 8: May 25, 2013

Libby Tjoa from Grass Valley



Many of today's activities have revolved around wrapping up the site, and the trenches and units within it. The North section of Trench 1 was brought down to 18 inches, and the final Middle and South sections were cleaned up to be ready for the coming records to be completed for them.

Trench 2 had some more nails found in the Middle section and as the lower section was being finished, they broke through a lime layer which also contained some charcoal; a welcome change from the rocks, but alas there was also the usual continuation of pick axing on rocks in order to move them out. The final photos were executed for Unit 1.

Unit 2's feature record for the brick floor was completed after finding a brick with the name "Garnkir[k]" (the k was missing, but we are confident that this is what it was spelled like according the "Lime Kiln Legacies"). Whilst referencing the book, we also found that this brick was not previously recorded at this site, which was most exciting!



Week 9: June 1, 2013

Liam Zachary, a senior Anthropology major from Berkeley

This week at the cooperage/kilns the interns split up. Half of us were in the field finishing excavation, and the other half processed the artifacts collected so far.

Libby, Jacquie, Miriam, and myself cleaned and sorted artifacts in the lab. We did a rough material sort of all the artifacts; the main artifact we encountered was nails.

Olimpia and Melissa Jenkins finished the 16-24 in. level of trench 2 (south section). The soil in trench 2 was very high in clay content compared to trench 1 and the two units excavated.



Christina and Melissa White finished and closed trench 1, recorded a feature (feature 7), took photos, and completed a profile drawing of the trench. Feature 7, a layer of asphalt, was surprising because it extended through the entire trench.

Sasha did a birds-eye view drawing of unit 2, and did contour drawings of the SW, SE, and NW walls of unit 1. Andrew, one of our TAs, took over 60 photos throughout the day, while helping others finish excavation.

Final Week: June 8, 2013

Christina Powell, TA and UCSC grad from Petaluma, CA

The bittersweet final day of the 2013 Cowell Limeworks Internship began with a flurry of preparation for invitees to our "Open Hole Day". This was a chance for us to show appreciation to donors of the project by allowing them an exclusive student guided tour of the site. Jacquie and Miriam prepared a small sample of the artifacts for display while Libby and I finished bagging the remaining artifacts. Then it was time to don our official Cowell Limeworks Internship t-shirts for the meet and greet!

We were graced with the presence of donors, Friends of the Cowell Lime Works board members, and UCSC staff and faculty, all of whom had contributed to making this internship a reality. Tom Schreiner, a local Mayan Archaeologist and an expert on lime production, not only toured the site but gave us a healthy lecture on the historical manufacture and use of lime.

After lunch we were back to work, finishing the final excavation level in Trench 2.

Then while Melissa White and I finished profile and plan view drawings of Trench 1, Melissa Jenkins, Miriam, Jacquie and Olimpia dove in to the trenches to help finish the final drawings in the south section of Trench 1 and all three sections of Trench 2. Meanwhile, final photos and drawings of Unit 2 were completed.

Before we knew it, the end of the project was upon us, and it was time to backfill the units we had worked so hard to uncover. Pat, the TAs and all the students lined up on the trenches to do the can-can and pack the dirt back down, thus returning the site to its pre-excavation state.



Although some of our students will be graduating this week, and some will be continuing at UCSC or moving on to other field experiences, we are all grateful for the opportunity that this internship provided. We discovered things that no one has discovered in a location so central to the heart of the UCSC campus. We have collected data that will add to the continuing rediscovery and restoration of the Cowell Limeworks. This project was as fun as it was intensive, as memorable as it was educational for all participants. Best of luck to all, and thank you for a wonderful spring!

PROJECT NOTES

Project Director: Patricia Paramoure - Soquel, CA

Teaching Assistants: Christina Powell - Petaluma, CA; Andrew Woodhead - Santa Cruz, CA

Archaeology Crew: Melissa Jenkins - Spring Valley, CA; Miriam Lopez-Rodriguez - Solsona, Spain; Jacquie Prescott-Frazier - Napa, CA; Sasha Schlesinger - Belmont, CA; Libby Tjoa - Grass Valley, CA; Olimpia Vasquez Ojeda - Tijuana, Mexico/Ventura, CA; Melissa White - Ventura, CA; Liam Zachary - Berkeley, CA

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For more information or to join the Friends of the Cowell Lime Works: <http://limeworks.ucsc.edu/>
Facebook: [Friends of the Cowell Lime Works Historic District](#)