2012 Underwater Archaeology Field Training Course

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Part I FTC
Over the weekend of June 23 and 24, 11 students (all of whom are licensed scuba divers) attended the Sport Diver Archaeology Management Program (SDAMP) underwater archaeology Field Training Course (FTC) at Fort Johnson Marine Resource Center in Charleston. Through a series of lectures and hands-on activities, SDAMP manager Ashley Deming and archaeological technician Carl Naylor instructed students on the techniques of scientifically recording underwater sites.

The students spent Saturday morning in the Department of Natural Resources classroom of the Maritime Resources Research Institute listening to lectures on the types of underwater sites in South Carolina, as well as the theory pertaining to recording underwater sites. After a practice session in the classroom, all 11 students headed outside in the afternoon, thankfully in the shade, to a mock wreck site set up on the lawn. Students divided into buddy pairs to attempt to record the site. The site contained five separate “stations,” including a mock wreck, two one-meter grid frames, an artifact scatter, and an anchor site. Students practiced drawing measured sketches, measuring from a central baseline, and triangulating each station back to the wreck to create an accurate site plan. The students did an incredible job with their first stab at archaeological recording.

On Sunday, the FTC students met SDAMP staff at a scuba training pond just outside Mt. Pleasant, SC, for the underwater component of the course. A similar mock site to the one students had worked on the previous day was set up underwater for them to try their newfound skills in a more challenging environment. Again, students were paired off to work in teams on each of the five underwater stations. The students performed admirably with the new underwater factor and came up with some very impressive drawings for their first experience.

Part II FTC
Once students pass Part I, they are eligible for Part II. Part II offers students the opportunity to move to the next level of training where they work on a real wreck site in South Carolina along with Maritime Research Division staff. Three students participated in the 2012 Part II FTC, which took place from July 12-15 on Hilton Head Island.

The wreck that was the focus of this project was reported to SCIAA in late 2010. SDAMP went to look at the wreck in March of 2011. The wreck is beached not far from Harbour Town in Sea Pines Plantation. Only a small portion of the wreck outline (six meters) could be seen exposed above the sands at low tide. Immediately, it was obvious that the wreck needed further study and that it would make a wonderful FTC project. Plans developed over the next year to determine how to excavate and record the wreck using the help of students. The goals for the project were twofold; 1) to record the wreck before the elements deteriorated it much further and 2) teach students how to effectively record a real shipwreck site.

While working on the project, staff, including Ashley Deming, Carl Naylor, and Joe Beatty, and students stayed at DNR’s researcher housing at Waddell Mariculture Center in Bluffton. Students met staff there in the afternoon of July 12 for a brief refresher course on shipwreck mapping and to discuss the plans for the next day. After being shown images of the site and discussing the methodology that would be used, students were very excited to get out to the site the following morning.

Each morning everyone helped load up the pontoon boat, and the crew headed out to the Broad Creek public boat landing. From there the FTC Part II team motored out into Calibogue Sound and up to the wreck. The total trip from Waddell to the site took about one hour. This meant being on the road by no later than 7:30 AM each morning to make the most of the tides. We had only about four hours each day to excavate and record before being forced out by the incoming tide.
Students worked diligently each day to reveal and record more and more of the wreck. Shovels and trowels were used to get through the first layer of sand and oyster shell, a layer of sand, then mud as the sun pounded down on our heads. The work was backbreaking, but uncovering history was well worth it. Each day we uncovered more frames, planking, the keelson, and a few ballast stones. Carl and Joe expertly filled sand bags while the students worked on recording the site. Everyone had a job to do and enjoyed themselves despite the heat.

The site was separated into six sections (A-F) using surveyor’s tapes to accurately record the site. Only A and F were excavated during this FTC as these sections were expected to yield the most information. The team excavated to the 50 centimeter level in the time allotted for the project. At the end of each day, the team filled the wreck back in with the sand bags to minimize damage to the exposed areas and to create a layer signifying where the work had finished the day before. Once the sand bags were in place, the pontoon was loaded back up, and we headed back to Waddell to draw up the measurements from the day on gridded drafting paper.

The team decided to dig a test pit outside the wreck to determine definitively if we were looking at the bow or the stern. The pit revealed sacrificial planking, a draft mark, and a fabric presumably treated with a sealant. Additionally, the bluff shape of the exposed remains strongly suggested that we were working in the bow section of the wreck. The draft mark is a Roman numeral two, meaning that it is two feet above the keel of the vessel.

The vessel appears to be listing to its starboard side, so there is much more to uncover to get down to the starboard frames and planking. The port side is almost entirely gone, but it still retains some inner and outer hull planking. There is significant evidence of burning in the frames and planking and quite a bit of charcoal has gathered inside near the stempost. The burning event appears to have taken place after the vessel was deposited on the beach, as we would expect to see a more even burn line should it have happened while the vessel was upright on the water.

Very few artifacts have been found so far, but more may be uncovered in the depths of the starboard side. The team did uncover a wine glass stem that may date to the 1750s, a piece of salt-glazed stoneware, and a wooden sheave. The wine glass was found high in the sand matrix of the site, reducing the likelihood of it being associated with the wreck. The stoneware was uncovered in the test pit next to the outer hull, thus calling into question its origins. The sheave is the only artifact that most likely can be associated with the wreck as it was buried in mud stuck between the stempost and the first cant frame. The sheave is in excellent condition and appears to be made of Lignum Vitae, which is a very hard wood often used for ship fittings due to its denseness and resistance to water damage.

Samples of the charcoal, wood from the wreck, fabric, and the other artifacts have been brought back to the SDAMP office in Charleston for further analysis. All artifacts are being kept in fresh water that is periodically changed out to lower the salinity in the artifacts and keep them stable until further conservation can be done.

Much more work needs to be done on this wreck to ascertain its age, how it came to be in that location, and how it was used (i.e. warship, cargo vessel, pleasure craft). Current plans are to revisit the site next year with another group of students. The students from the 2012 season are all interested in coming back next year and helping out with future Maritime Research Division projects.

Many thanks to USC’s Office of Media Relations for helping to promote this project locally and nationally. Thanks to Piggly Wiggly for their support with feeding our hungry troops. A very special thank you to the Hobby Diver, who would like to remain anonymous, for donating 300 sand bags to the project. Last, but not least, thank you to all of the staff and students who made this project possible. We had an incredible time and are all looking forward to returning for the 2013 season.

Students participating in the Field Training Course Part I, include Brianna Blacklock, Sandra Boyd-Spoden, Shane Carter, Nate Fulmer, Mark Hall, Bruce Orr, Owen Osborne, Richard Painter, Rick Presnell, Carl Purdy and Mike Slot. The Part II students were Brianna Blacklock, Don Davis and Bruce Orr.