Research Roundup

On April 13, 2015, Dr. Robert Bates and nine of his students presented a lecture for the Siegfried H. Horn Archaeological Lecture series entitled Making a Future for Our Past: Student Research at the Institute of Archaeology and the Siegfried Horn Archaeological Museum. After a brief introduction the lecture, was divided into eight sections with groups of students reporting on their research projects.

The Institute of Archaeology and the Siegfried Horn Archaeological Museum contain many types of artifacts including excavated materials, cultural and historical artifacts, and historical replicas. Some of these artifacts have not previously been thoroughly studied. Over the past five years, students taking Dr. Bates’ history and behavioral science courses (including Introduction to Archaeology; Culture, Place and Interdependence; and Civilizations and Ideas) were given an opportunity to examine, analyze, catalog, and record the artifacts in the museum as one of their class research projects. Students chose a project that directly contributed to the research goals of the Institute and gave them hands-on experience working with ancient material culture.

Ceramic sherds are the most ubiquitous finds on an excavation and hold the key to understanding many aspects of ancient culture. Krystal Uzuegbu, a junior anthropology major, scanned sherds from the Tall Jalul excavations with a 3D scanner. After editing each image, she converted it into a 2D drawing for publication. Kori Mecklenburg and Seth Andrews of the Berrien County Math and Science Center also examined ceramic sherds from the Tall Jalul excavation. Their research focused on the material and construction of ceramic vessels. They analyzed the external, core, and interior colors of the sherds as well as particle inclusions and voids found in each sherd to determine what was mixed into the clay before the vessel was fired.

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Ryan Jacobson of the Berrien County Math and Science Center examined faunal remains from the Tall Jalul excavation. One of the most frequently discovered objects, animal bones can give an indication of what species were being kept or eaten at a site. Some have also suggested that certain faunal remains like pig bones can be an indicator of ethnicity because of dietary restrictions. Jacobson analyzed over 8000 animal bones from Fields A and C and discovered that only 0.02% were pig bones. Indeed, there were more cattle, bird, human and dog bones found than pig bones.

Artifact documentation is another important aspect of archaeological research, including photography and art illustration. Over 6000 photographs have been taken of the objects in the museum vault as a part of this on-going project. These photos are a permanent record of the collection and are being uploaded into the museum database. Amairis DeSilva, an art history minor, illustrated objects from the Jalul excavation using a stippling technique, where small dots indicate shading to give artifacts a 3D appearance. Although artifacts may be photographed, stippled ink drawings demonstrate how an artist can highlight subtle details that would otherwise be lost in a photograph.

Two artifacts were featured during the lecture. Christopher Jenkins, a junior anthropology major, conducted research on a faience pendant that was found during the Tall Hisban excavations in 2014. This artifact had a through hole that allowed it to be strung as a necklace and worn around the neck. The pendant/amulet was molded in the shape of the ancient Egyptian Umdat or Eye of Horus. Jenkins concluded that although the object did not have a clear provenience, stylistically it may date to the Iron Age, although questions still remain as to why it was at Tall Hisban in Jordan.

The Horn Museum has many coins in its collection. Some coins were excavated from Tall Hisban and while others were donated to the Institute. Ben Shafer and Sam Burck of the Berrien Springs Math and Science Center conducted research on the coin collection. They scanned, weighed and measured each coin before researching its origin. Shafer and Burck noted the minting method of several of the coins and traced them to the Ottoman Period. They found a striking similarity between these ancient coins and the information found on modern coins. Yarleth Gomez, an anthropology major, also conducted coin research. She explained that Ottoman coins include the Sultan’s name and the year the coin was minted during his reign. She was able to date the coins by translating the Arabic numbers and names. She also found that several coins were converted into military awards and service metals.

The final student presentation described an experimental archaeology project by Emily Cancel. There is a mystery surrounding the purpose and function of certain Iron Age II perforated-tripod vessels. Cancel’s research project tested several of the prominent theories using
replicas of known vessels that she made by hand. She determined that most of the current theories do not stand up to experimentation and that it is unlikely that these tripod vessels served as either incense burners or strainers. Further study is still needed to determine their actual function.

To date, over 250 students from five different classes have participated in one of the research projects at the Institute of Archaeology and Siegfried Horn Archaeological Museum. Some of the results from their research are being prepared for publication while other data requires further study. These students have made important contributions and their ongoing research continues to open new areas of study. The Institute of Archaeology and Siegfried Horn Archaeological Museum greatly appreciates the hard work and careful research. (Robert D. Bates)

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In order to obtain this valuable resource please send your email address to: hornmuseum@andrews.edu
Fortifications Found at Ashdod-Yam:
Archaeologists have recently uncovered remains of a massive fortification wall and enclosure at the coastal site of Ashdod-Yam, in Israel. Locally-made and Phoenician ceramic imports date the compound to the Iron Age II (8th - early 7th centuries BC). The fortifications were probably erected in order to protect the man-made harbor. Ashdod-Yam became one of the most important international emporia on the Mediterranean frontier during the Assyrian period. Remains from the Hellenistic period have also been found at the site.

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Ancient Cush:
While Egypt is known for its pyramids, further south in Sudan, ancient Nubia was ruled by the Cushites. Their capital at Kerma, dating as early as 2500 BC, is where more than 250 pyramids and 30,000 graves have been found. Although the Cushites were influenced by the Egyptians, who had earlier established colonies in the region, they later developed a line of kings who became the 25th Dynasty (760-656 BC), ruling over Upper Egypt, and rivaling the Saitic 24th/26th Dynasties in the Delta.

Harbor at Corinth Excavated:
Ancient Corinth derived its wealth from maritime trade, but was located 3 km from the sea, necessitating the construction of two harbor towns: Lechaion on the Corinthian Gulf, to its west, and Cenchrea on the Saronic Gulf, to the East. Recently, underwater archaeologists excavating the Lechaion harbor have discovered two monumental moles, constructed with ashlar blocks, a smaller mole, a breakwater, and an entrance canal to the harbor basins.

Roman Legion Barracks Found:
The barracks of the 8th Roman legion of Augustus, dating to the mid-1st century AD, have been found by archaeologists in Bulgaria. The structure is 16 m x 42 m, and is divided into equal-sized segments. Artifacts include volute oil lamps, glass bottles and cups, fragments of bronze vessels, buckles and pieces of armor, as well as bronze surgical instruments.

Ancient Kitchen Found:
A 2,000-year-old, Roman-period kitchen has been discovered in the ancient city of Sagalassos, in Turkey. A furnace was set into the beaten earth floor of the room. It was heated by coal, and used to make bread and keep food warm in various ceramic vessels.