#  **Backyard Archeology**

This assignment focuses on backyard archeology as a bunch of activities including a survey of the site, excavation, gridding, documentation, analysis, and interpretation, which in this case demonstrates the study in Military Base Camp Lejeune in North Carolina. In this precept, it is imperative to point out that gridding and documentation are fundamental activities that aid archeologists in reconstructing the site and obtain information about past activities and the way of life of the past population in the area. To understand this process and the challenges that archeologists face in their work, I conducted a backyard archeological study and presented my findings in this report. The hypothesis of the archeological work was to identify the existence of early human habitation and activities in the area.

## Description of the site

The site is a large field bordered by a forest and a flowing river. From historical records the field is located in Military Base Camp Lejeune in North Carolina. Some portions of the field are covered with grass and most of it is bare. There are visible paths and exposed ground an indication of human activities in the region. The exposed land surface is an evidence of erosion in the area. Small reels and depressions can be observed in the field and ensure easier access to artifacts. Test pits reveal a soft soil as the ground can be easily dug with a shovel. Stone flakes, metal pieces, rocks, wood fragments, rubber, concrete, and bricks can be easily observed in the field. Closer examination of the cite reveals buried plastic bugs and fabric closer to the surface.

## Documentation of Artifacts and Features

The field is rich in material culture that can be analyzed and interpreted to explain the past activities and inhabitants of the area. One material culture I identified in the area is remains of permanent houses. Remains of houses are features that indicate early human habitation of an area. There are building foundations covered in grass, stones, and concrete. Besides remains of houses, another significant feature I noticed on the site was soil stains. I also collected several artifacts rich in material culture that can provide valuable information about the activities of the previous occupants in the area. The artifacts collected include stone flakes, charcoal pieces, metal pieces, rubber, plastic pieces, animal remains, bones, wood fragments, old garments, pieces of glass, stones, concrete blocks, and potsherds including ceramics and glass pieces. The artifacts were of different shapes, colors, sizes, and quantity.

Most of the glasses were rectangular and curved in shape were mostly located in the areas having stained soil which were likely dumping sites. Some had irregular shapes due to intense disintegration and aggregation. Most of the glasses were transparent and of different colors such as brown, green, and orange. Some had circular bases and curved bodies indicating they emanated from bottles or round vessels. Some were thick glass with a rough texture while some were thin with a smooth texture. Some had marks and writings that looked ancient and required further analysis.

Besides pieces of glass vessels and bottles, the site also had a considerable amount of broken pieces of ceramic vessels. I could hardly locate complete ceramic vessels, possibly they are deeply buried or they were transferred from the site. I collected few complete circular ceramic bases measuring approximately 4-10 cm in diameter. There were pieces of curved ceramic handles and lids. Some of these ceramics could possibly be cutlery or decorations. A closer look at the pieces revealed unclear markings and writings that required further analysis. Most of ceramics were soiled and looked brown given the soil covering them while some were white in color. Some ceramic pieces formed a cluster indicating that they broke in the area. In addition, the area had different types of metallic pieces including iron, aluminum, copper, and steel elements. The metallic elements ranged from nails, iron sheets, broken cutleries, metal rods, wires, motherboard parts, to vehicle parts. These metal pieces may have been exposed due to erosion in the area. Most of the metal pieces were covered in rust due to exposure to water and organic acids. They were also fragile indicating that they are very old.

The areas with stained soils, suggesting dumping sites, had a considerable amount of bones most likely limbs and skulls of animals and birds given their sizes. Some of the bones were long, some short and some were curved. The small bones are likely from lower limbs of chicken or turkey. The curved bones looked like animal ribs and the collected skulls and horns were from animals. Further analysis is necessary to identify the skulls. The bones were very fragile indicating they are very old and lacked bone marrows hence were light.

## Analysis and interpretation

People depend on archeological interpretation of material culture to learn about the ancient past. Misinterpretation of archeological data results to wrong information about the past such as technology and food culture among other areas. For instance, in the fictional book *Motel of the mysteries*, archeologist Carson misinterprets the artifacts in an ancient American motel thereby giving wrong information about the 20th century USA (Smith, 2009). The material culture I collected provides rich information about human inhabitation and activities in the area. The old buildings and concrete remains confirm human occupation of the area. The old garments, modern cutleries, and vehicle parts suggest the inhabitants were from the 20th and 21st century. The nearby flowing river and the nearby forest are likely to suggest that the occupants practiced hunting and fishing. The presence of bones and skulls from animals further indicates that the occupants practiced hunting and fed on animals.

Further archeological analysis is necessary to clearly reconstruct the past and provide dating of the artifacts and features. The chemical composition of archeological materials has rich information on technology, dates, and social and economic development (Maschner and Chippindale, 2005). Determining the chemical composition of the collected artifacts such as ceramics, glasses, cutleries, metal pieces among others can give information on when and where they were manufactured and the technology used. One of the methods for chemical analysis is neutron activation analysis (NAA) which uses electrons to determine the chemical composition of artifacts (Crow Canyon Archaeological Center, 2017). Soil analysis methods are also useful in archeology. Floatation analysis is an analytical technique that identifies organic and chemical materials in soil (Hester, Shafer and Feder, 2016). Performing the technique on the stained soil can give valuable information such as the feeding culture of the people by separating small organic pieces such as fish bones, hair, fur, and plant remains. Radiocarbon dating can be used to date the bones.

## Challenges

A major challenge I faced during my study was unfavorable weather conditions especially rain. Heavy rains destroy artifacts and carry them away thus transferring valuable information. Very hot conditions are also unfavorable for fieldwork activities such as excavation. Another challenge I realized from my study is time, labor, and money. This challenge requires archeologists to use samples to interpret the whole site. This may give inaccurate information if sampling is poorly done. It is also a challenge analyzing and interpreting artifacts that have been heavily disintegrated due to physical or human activities such as construction. Ethical and legal issues also pose a challenge in excavation and disturbance of human remains.

In conclusion, the study provided the insights of archeological methods and techniques. I have learned that archeology requires proper planning, time, effort, personnel, and money for its success. I also discovered that regardless of proper planning, unpredictable bad weather such as rain is a challenge to archeology

References

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