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Land Use at the Cove River Historical Site from the Time of Indigenous Societies Through the
Modern Day

Introduction:

The long journey of deciphering the history of West Haven began at the Cove River site in 2002 after the city purchased 15.28 acres of land that was deemed open space. The site gained prominence a few years later in 2004 when the people who sold the land informed the city that 254 Native American projectile points had been discovered on the site and were being held by the Peabody Museum in New Haven. The city quickly called the state archeologist, Nicholas Bellantoni, who dug test pits at the site and confirmed the site's importance and authenticity. Secure digging areas were quickly established, and the site has been used to conduct archeological and ecological research ever since.

Problem Statement and Research Information:

The purpose behind this project is to further explore how people have used the land at the Cove River Historical Site throughout history and use that information to learn how the land can be better protected and used in the present day to promote sustainability and conservation of resources. The research begins at the first evidence of a human population using the site. This occurred during the early archaic period approximately 11,000 years ago, and the land has been used by people on and off for various purposes up through modern day (Cuzzone). The independent variable for this project is the specific time period. For this site, there are eight

specific time periods that must be taken into account: early archaic, middle archaic, late archaic, terminal archaic, early woodland, middle woodland, late woodland, and contact. These time periods overlap significantly when obtaining artifacts. The dependent variable is the actual land use. Throughout the different time periods, different groups of people used the land for slightly different purposes. Research on the site has been conducted in conjunction with Catherine Iaccarino, Holly Cuzzone, and Nick Bellantoni.

Materials:

Trowel

Tape Measure

Screens (to filter soil)

Map of Site

Data collected on earlier digs

Graph Paper

Camera to document artifacts

Toothbrush

Brown paper bag

Tags

Plastic bags for holding artifacts

Permanent marker

Plastic bucket

Procedure:

The procedure used for digging is very meticulous, and one must always be alert focused. While digging, one should always have a permanent marker, a bucket, a tape measure, and a

brown paper bag. Before digging, one must prepare a new unit or obtain a preexisting one. In this simulated situation, it is assumed that the unit is preexisting. Next, choose one of the four quadrants of the unit, and measure its depth. Once this has been done, the following information must be recorded on the brown paper bag: unit number, quadrant, depth, date, and initials. This is very important as the brown paper bag will be used for temporarily storing all recovered artifacts. Once a brown paper bag has been properly labeled, it should look like the following image:

N235 E49
NW
0-10 cm
8/17/11
CM

Now that the bag has been labeled, the fun can begin! Digging is very easy, but also very time consuming. Never, under any circumstances, does one drive the trowel into the ground and lift up a trowel full of dirt at a time. Instead, one carefully lays the trowel parallel to the dirt and slides it across the top. This removes a very small portion of the dirt, but it ensures that no artifacts are damaged. Every time dirt is picked up; it is placed in the bucket. One must continue filling the bucket until the next interval of ten centimeters is reached. For example, the person who set up the bag above was digging at a depth of 0-10 cm. Once that person reached the depth of 10 cm, they would stop digging. All of the dirt would be sifted, artifacts would be identified and placed in the brown paper bag, and the person could then return to their unit and begin the process again. The only change is that they will have a new brown paper bag indicating a depth of 10-20 cm instead of 0-10 cm.

The most interesting part of the process, cleaning and documentation comes next. This is where one really gets to look, touch, and take in the artifacts that have been found. First, one

must take one brown paper bag, carefully empty its contents, and clean it using a toothbrush.

Carefully rub away all the dirt. Small amounts of water may be used if necessary. Once the artifacts in the brown paper bag are cleaned, they must each be moved to their own plastic bag.

Inside each plastic bag goes one artifact and one tag. All of the information found on the front of the brown paper bag, as well as what the artifact is and what it is made of, goes on the tag. Once an item has been “bagged and tagged”, it is cataloged, and either kept in storage or examined further if it proves interesting enough.

Data:

Artifacts Uncovered Personally

Unit	Quadrant	Item(s)	Depth	Period
N235 E49	NW	Blue-glass bottle; completely intact	0-10 cm	Contact
N223 E36	SE	horseshoe	30-40 cm	Contact
N228 E41	NE	Worked/pitted stone	30-40 cm	Late archaic
N228 E41	SE	pitted stone	30-40 cm	Late archaic
N233 E44	SE	Firecracked rock (feature)	20-30 cm	Late woodland

Observations:

The first observation deals with artifact density. Towards the surface, in between the depths of about 0 to 15 centimeters, is where the artifacts, called historic, at this depth, are the densest. As one digs deeper, the artifacts become very sparse, and one often spends hours searching before finding anything. There are a few possible explanations for this. First, societies whose artifacts are found at deeper depths simply produced less waste. The items they used

were natural, biodegradable, and earlier societies did not even live on the site full time. On the other hand, the site was permanently inhabited from the contact period through the late 1900s. Permanent residents, plus the fact that more items were used and almost none of the items are able to biodegrade quickly, created a treasure chest of history in the surface layers of most of the units on the site.

A second important observation is that the land itself has fully recovered from its days as a farm. The entire Cove River Site, even into the 1900s, was farmland. It was flat, had almost no trees, and various farm buildings, such as a house and shed stood on the site. Currently, neither one of the buildings can be found, and the forest has regained control of the area. This is an important observation because it shows that it is possible, through research and conservation efforts, to revert to the original state of land use. Hopefully, the Cove River Site will be used as a model for other towns and cities who wish to conserve their land and promote environmental sustainability.

Conclusion:

The Cove River Site's use can easily be traced from the time of the first people to settle on the land up until the modern day. The research will be discussed in a logical fashion starting with the oldest time period and progressing towards modern day. Evidence of human settlement in West Haven began during the late archaic period approximately 11,000 years ago (Cuzzone). Settlement periods during the archaic and early woodland periods are relatively predictable, and it is not until the late woodland period that the artifacts show a change in lifestyle. Evidence dating back to the archaic and early woodland period shows that the site was used for special purposes such as building tools and curing meats (CHRS). The data explicitly demonstrates this. In data table one, it can be seen that pitted stones dating to the archaic period were found in two

separate places. In addition, the Peabody currently holds a collection of points and tools from the archaic period. From this, one can infer that this was a place where people worked and hunted for or prepared food. The pitted stone suggests that people constructed tools in this area, and in some cases, the tools themselves were actually found. The abundance of tools found from this time period indicates that the people who made them probably did not live right on the specific site. Instead, people used the site for work. Preservation of meat, gathering food, and hunting game are all activities that most likely occurred on the site. While the site was frequented often during this period, it was most likely not the primary site of habitation.

The late woodland period prompted a change in lifestyle at the site. Artifacts dating to this period indicate that the site was growing into a more popular destination. Villages were established, and there is evidence that people now actually prepared food for eating at the site. Fire cracked rock, charcoal, and features indicative of fire pits and hearths indicate that people lived on the site (Cuzzone). The data table above says that one particular fire cracked rock feature was discovered at a depth of 20-30 cm, fitting it perfectly into the time period of late woodland. After the late woodland period, there is evidence of contact with European settlers (Menta). Typically, items indicative of the contact period are found at a depth of 0-20 cm. One can immediately notice that there is a huge discrepancy with this in the data table. A horseshoe listed as being from the contact period was taken from a depth of 30-40 cm. There is a very logical explanation for this. During the colonial period and even into the 1900s, the land was farmed. Ploughs stirred up the land continuously. The horseshoe was originally higher up in the soil, but it was most likely pushed down via man's interference. During the modern day, there is also evidence of a permanent dwelling. All types of items indicative of a home can be found. Shoes, nails, metal, ceramics, glass, and tools are all centered in one area. Also, there is a lot of

charcoal in the same area as the items. Records say that the house that used to stand on the property burned down (CRHS). The abundance of modern items as well as a surplus of charcoal all concentrated in one area proves this. Now, in 2012, the Cove River Site has come full circle. It is currently open space protected from human desecration. Land use in West Haven covers a vast array of lifestyles, and can be easily traced using archeological evidence. Next, it is important to look at the environmental implications of this knowledge.

The most important environmental conclusion surrounding this experiment deals directly with land use of indigenous societies compared with land use of modern societies. Indigenous societies produced almost no waste. In deep pits, those at depths between 20 and 50 cm, there is very little waste. Points, features, and evidence of food preparation can be found, but that is about it. It is a known fact that when indigenous populations made clothing, dwellings, and tools from animals, they wasted nothing. Everything was used and everything was respected. On the other hand, artifacts found in shallow pits, those measuring 0-20 cm deep, indicate that respect for the Earth had disappeared beginning at the time of contact all the way through the 1900s. This is evident because large amounts of discarded trash were found at the site. Broken leather shoes, bottles, jewelry, nails, and plates all indicate that unwanted items were simply discarded at the site and were eventually buried by the Earth as time progressed. Instead of working their hardest to ensure that no waste was produced, humans in the modern era discarded anything they did not want. If there is one thing that can be learned from how indigenous societies lived, it is how to respect the Earth.

Unfortunately, there are possible sources of error that must be taken into account. The main source of potential error is the dates given to each artifact. Oftentimes, the date given to each artifact is derived from the depth of soil from the unit where the artifact was removed.

Unfortunately, there are portions of the site that were ploughed and used for agriculture during the 1900s. While the plowing did not disturb the very deep layers of soil, it did disturb the uppermost layers. This type of human activity is noted when removing artifacts from certain areas, and professional archeologists are usually able to give the artifacts dates regardless of whether or not they were found on previously ploughed land.

This research can be easily continued, and it is a known fact that it will be continued. People perform digs on the site all year round. Until the units stop producing viable findings and information, which is not expected in the foreseeable future, the site will remain an active research center. Hopefully, people will continue to analyze findings in a more environmental way. Using the information gathered, researchers can figure out how early societies managed to maintain sustainability of their population while also maintaining the sustainability of the Cove River site. The next step for all researchers and for this project in particular is to pinpoint the exact source of sustainability and alter it for use in a modern world. Also, making people aware of this research would be fantastic. If people were to see that their lifestyle has an effect on the Earth for hundreds of years to come, they would become more responsible for their actions, and this would be a benefit to all.

This experiment has provided a valuable service to people living not only in West Haven, but to people all over the world. By tracing the history of one relatively small area of land, researchers can determine how populations throughout history have managed to conserve the biodiversity, sustainability, and health of the land. Due to the fact that this planet is facing an environmental crisis, it is important to know what past societies have done to make sure that the Earth remained healthy. The Cove River Site offers so much information regarding this topic, and archeologists have only scratched the surface. My mentor, Catherine Iaccarino, always says,

“The Earth is the best textbook because she doesn’t lie. Each turn of the page reveals a new and exciting lesson.” In closing, it is important to note that this endeavor was like a puzzle. The pieces included the artifact itself, how far back it dates, and its use. Although the pieces are hard to line up, they offer the archeologist a precious picture of life during another era when they finally come together.

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