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# Prehistoric Sites, Indigenous Voices, and Preserving Identities: Using Sound Mapping to Engage with Indigenous Sites in North America

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## ABSTRACT

*Scattered along the Southeastern United States, thousands of stone wall and mound sites existed in the landscape long before explorers and subsequent settlers came to the area. These structures were formed by prehistoric Indigenous people of the area and mark this area's cultural heritage and landscape as holding importance beyond the current development taking place. In this paper, I will explore the cultural landscape of Skeleton Mountain and the surrounding Mountain Longleaf National Wildlife Refuge, Alabama, USA. This site holds regional and national significance to the Indigenous population's cultural heritage and the United States heritage. There have been ongoing development efforts with increasing human populations and changes in human development and settlement that pose a challenge to protecting and managing these cultural and historical sites. The use of sound mapping and place provides a way for us to communicate and educate others about the stories and histories of the Indigenous peoples of North America and their imprint on the landscapes which still exist.*

## 1. INTRODUCTION

Atop Morton Hill in Calhoun County, Alabama, are several mysterious rock formations that have been attributed to the Native American tribes that once inhabited the area. However, their purpose is largely unknown. One prominent hypothesis is that they hold a spiritual function, perhaps amplifying sounds from the nearby springhead to places of worship or the village sites at the base of the hill [1]. This contributes to the belief that connections between the sacred and profane spaces in the mountains exist through sound. To explore these sites further to shed light on their purpose and use in Indigenous cultures, recordings of the soundscape were made, and field journals were kept to explore and preserve the affective experiences of the soundscape in these places, to replicate what the Native Americans may have experienced.

Soundscape modeling and distance decay methods were also utilized to explore how sound traversed the space of the sacred and secular in the area and how it might have been experienced by its native inhabitants. Additionally, maps of the recording locations with descriptions were made to propagate the findings. By investigating what effect the soundscape and setting of the sites has on an individual and how sound travels from the hill to village spaces, we examine the purpose of the structures and how they played a role in native mythology, society, and worldviews. ArcGIS Story Maps (sound maps) were created to create a narrative of these sites. These sound maps allow us to preserve and share the stories of these places, their prehistory, history, and the connections made to them by Indigenous descendants this as their homeland. The sound maps allow us to distribute our research findings to a larger community of scholars and citizens to enjoy the history of these places and their cultural/Indigenous meanings.

## 2. LITERATURE

Soundscape archeology is a new field in the interdisciplinary collaborations between archeology, geography, music, sound studies, and acoustics. According to Steve Mills (2014), auditory archeology is a broad field that spans the theoretical and practical, detailing a connection between the senses that is important for thinking about the past [2]. There exists a science and art behind sound and acoustics which offers a way to explore what exactly is being recorded when we record in the field and how it may affect listeners and connect prehistoric people to their Indigenous descendants. Sound is a powerful tool that can be used to craft a narrative around the soundscape. Sound and archaeology can combine to provide studies of the correlation between the soundscape and art within prehistoric settings and present places to demonstrate the complexity of methodologies used in sound archaeology [3].

The study of Indigenous spaces, both present and prehistoric, is grounded in soundscape ecology and the use of GIS to explore sonic experiences. There exists a connection between the biological, geological, and human-produced sounds, with case studies and goals of research for the developing field that can help us understand our connections to our landscapes/soundscapes and those of prehistoric peoples. They provide different ways of perceiving sound in the field and offer new questions regarding the soundscape [4]. Kristy Primeau and David Witt (2018) produce a practical application of soundscape theory via a Soundshed Analysis GIS tool, crafting a way

to examine how people hear their surroundings with the example of Chaco Canyon. Applying what Primeau and Witt contributed to the prehistoric study of sound, it can be visualized using GIS technology that relates to a larger audience [5].

Using the previous literature, the work seeks to join the fields of geography, anthropology, archeology, and sonic studies to examine native rock wall structures in Northeast Alabama. Using acoustic archeology methods and tools available in GIS, recordings will allow researchers to examine interactions between sound and space. To better understand the role of sound in place and the development of Indigenous sound studies of Northeast Alabama, it is necessary to further discuss the site of Morton Hill [6].

## 3. SOUND MAPPING INDIGENOUS SPACES

The Morton Hill site was chosen for this project because of its proximity to Jacksonville State University and the unique and distinctive rock wall features found on the landscape. At each site, the rock wall formations stretch 1.89 miles and curve around hydrologic features such as three spring heads and a pond. The walls are parallel and follow the contours of the slopes along a natural amphitheater and terminate in boulder outcrops or assemblages. The sheer number of stones required to create such structures shows that they were important to the group that inhabited the area. Archaeological research indicates that some structures may date back to the Archaic period, while others may have been added during the Woodland, Mississippian, and protohistoric periods. The structures were probably built by the Creek or Cherokee to interact with the spiritual world.

In both Creek and Cherokee cultures, running water and rivers symbolize purification and healing through spiritual means. Additionally, springs and mountain streams were seen as pathways and doorways into a spiritual realm or an Underworld. The rock walls built near them may be methods of repelling or guiding spirits that emanate from the spring heads. At the same time, individuals would likely visit these locations to commune with spirits, following the streams to reach the supernatural portals. It is apparent, then, that these structures and hydrologic features held sacred significance to the area's inhabitants. When recreating this sacred experience, it is paramount to not only replicate the visual aspects but to focus keenly on the aural aspects and how the soundscape may contribute to such an experience.

## 4. CONCLUSIONS

The current work in sound archeology is developing to offer new ways to explore prehistoric and historic sounds. When analyzing the data, this project consulted several other works for clarity on data analysis. Factoring in the clarity of speech, the acoustics of each location, how sounds echo from each location and differentiating the source of the sounds in recordings as from biological, geological, or anthropogenic sources are all incorporated into this study. The soundscapes and interviews, along with sound journals that were collected, are presented in a story map, a type of sonic mapping, format via ArcGIS Online. An example of this is the creekside recording location at the Bains Gap village site, which is denoted by a point for the reference map. Clicking on the point shows a description, a photo, and an audio recording of the location. Additionally, there is a link to the story map with an attached narrative that will immerse the audience in the setting. For example, the narrative of the Bains Gap creek location illustrates how an Indigenous person gathered water for the village, washed themselves or any possessions, fished, and/or dumped waste in the creek (see the following link: `https://arcg.is/1W4av80`). This experience may be replicated by examining what sounds would have been occurring at the location, such as birds chirping, insects calling, noises from the village a few meters away, and the sound of water in contact with something. In addition to the narrative, the story map portrays numerous images and recordings at each location, describing the sounds in the recordings. Along with each sonic map are narratives from observers and Indigenous individuals from various tribal backgrounds who visited the sites of their ancestors and described their connection to the places they heard. Connecting the soundscapes to the places they are heard, along with meaningful insights from those who have personal and cultural connections to those spaces, creates a way to preserve the Indigenous soundscapes that have been altered greatly through the course of history.

It would be impossible to replicate the experiences and actions of prehistoric Native Americans without soundscapes and acoustics playing a large role in that understanding. If anthropologists, geographers, and musicologists seek to recreate and comprehend the culture and lifestyle of the people they study, it is imperative to factor in the auditory realm. In spaces like caves, the wilderness, and mountains that are considered homelands for many Indigenous peoples, sound has not changed much from the past until now, so audio-archaeological studies are a direct way to connect with the past. Recording in situ captures an experience that a researcher possibly shares with individuals of eras long gone and can help piece together a culture, location, or event and connect present Indigenous people with their homelands, past, and culture, and bring a great understanding of these places to a wider community. (An example of one sound map from this project is linked here: `https://arcg.is/1P4KCe`).

## 5. REFERENCES

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