An Ethnoarchaeological Approach on the Musical Culture of the Warao:

How ethnographic analogies may benefit archaeological interpretations of the musical culture of the Warao of pre-Colonial and early-Colonial

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Preface

Musical instruments have been a relatively rare finding in the Caribbean. Due to the perishable nature of these instruments — being made of organic materials such a calabashes, bone, and beetle wings — it has made them allusive archaeological artefacts. While findings by Antczak (2006) and Cabello (1988), to name a few, have presented us with striking Pre-Hispanic archaeological musical instruments, these were typically made out of the less perishable ceramics. For this reason, past peoples that did not construct their instruments of materials such as clay are underrepresented in the musical archaeological data, and in the archaeological data as a whole. As a result, the supplementary archaeological approach of ethnoarchaeology is being taken in this thesis out of necessity as an attempt to fuel archaeological interpretations of early-Colonial and pre-Colonial Warao. Furthermore, this thesis will shed new light on role of music among archaeologically recovered societies.

Their musical expressivities have survived due to their rather secluded ecological nature. However, this culture along with their music is slowly disappearing. With the pressures of modernization from the Western civilization rising, the Warao indigenous culture is slowly vanishing. More and more constructions are being built to strip resources in the rain forests of Venezuela and the surrounding regions. Subsequently, it is becoming increasingly difficult for the Warao to continue living in their homeland of the Orinoco Delta. The hardwoods are being extracted from the rain forest, leaving the Warao with only softwoods to build the foundations of their homes, resulting in a collapse of their houses. Destructive behaviors with alcohol is becoming more common as it becomes more easily accessible with the money earned from jobs like working at the sawmills that strip the wood of their own people. Their homelands are becoming inhabitable by the Warao as western infiltrations prioritize ecological exploitation over the subsistance of the indigenous inhabitants, the Warao (Olsen 1996, 421-422). In fact, many native inhabitants such as the Yanomamö Indians — southern neighbors to the Warao — have been massacred by Brazilian gold miners in August, 1993. While this tragic incident was covered by the media, many do not and will simply go unnoticed or uncared for by many (Olsen 1996, xxv). All such factors combined has lead to a loss of indigenous Warao culture, a culture that will soon not be able to even be viewed ethnographically.

While ethnoarchaeologicy is still contested in its abilities to interpret the past, meaningful ethnoarchaeological approaches are being taken today. Analyses such as the

Ethnoarchaeology of female herders at seasonal sites in northern Europe by Eugene (2018), and the *The Ethnoarchaeology of ambush hunting* in Botswana by Hitchcock *et al* (2019) show us the potential and the usefulness of the use of ethnographic analogy in archaeological research.

From a perspective of archaeological and cultural heritage, this ethnoarchaeological approach will benefit in our interpretations of musical instruments of past and present culture, and may influence presentations of musical instruments in museums around the world to maintain certain authenticity and appropriateness. For example, ten ritual Amazonian musical instrument are presented in the South American collections of the Museum of Ethnology, Vienna. While they are regarded as a people's most sacred possession — with their meanings amplified through secrecies and taboos — their presentation strips away some of those powers. Additionally, their presence in a museum seem like signs of a vanishing culture (Hill 2011, 357). In the case of the Warao this is becoming a reality. With their culture in an inevitable state of dilution their musical instruments may start to lose their sacredness, and may become an 'exotic' commodity at markets (Hill 2011, 359; Wilbert 1980, 5). Subsequently, this thesis will additionally serve as a motivation to understand their musical culture better for the sake of an expanded archaeological and ethnographical knowledge, but also to understand and pay homage to their indigenous culture, and as a result save a people by preserving their music — both in its material and immaterial form — as a piece of cultural heritage of the Warao.

Introduction

How can ethnographic analogies may benefit archaeological interpretations of the musical culture of the Warao of pre-Colonial and early-Colonial? This thesis shall investigate the music of the Warao people, the native inhabitants of the Orinoco Delta of Venezuela. By means of a combined ethnomusicological and ethnoarchaeological perspective this thesis will serve to fuel archaeological interpretations and extol their native musical expressivities. I will investigate their musical culture through means of ethnographic analogies, oral folklore, ethnohistorical transcripts, with some applied music cognition to better understand their cultural changes.

In order to gain an understanding of their musical material culture, and as an introduction to certain musical expressions, I will present and briefly analyze fifteen of musical instruments of the Warao that Olsen (1996) has presented in his book *Music of the Warao of Venezuela: Song People of the Rain Forest*, winner of the 1997 Alan P. Merriam Prize for "Most Outstanding Book in Ethnomusicology" (music.fsu.edu).

Furthermore, I will then, I will investigate several different aspects of their musical culture — including music for pleasure, music for utility, and music for theurgy — through an ethnoarchaeological perspective to gain insight into Warao musical culture. Additionally it will shed light on this approach for our interpretation of the early-Colonial and pre-Colonial past. While each investigation I present may deserve its own paper, I will apply a multitude of different ethnoarchaeological methods to suggest constructive solutions to pace the way for future research of musical cultures of the past.

The Warao — Canoe People of the Orinoco Delta

In Eastern Venezuela the easily navigable, but maze-like, waterways of the Orinoco Delta can be found — an area of approximately 18,000 km^2 (Fog 2017, 213; Wilbert 1980, 3). These gentle streams are surrounded by a lush rainforest similar to that of the Amazon but with trees less tall, and with a coastal belt of mangroves at the swampy Lower Delta. Within and along this river delta live a number of wildlife including parrots, crocodiles, snakes, stringrays, eels, and piranhas (Olsen 1996, 19; Wilbert 1980, 3-4). Among this wide array of flora and fauna navigate the native inhabitants of the delta — the self-denominated and auto-designated Warao, meaning the "canoe people" (*wa* = canoe; *aroao* = owners of). As the name of the Warao suggests, canoes are an integral part of their culture as it is the only mode of transportation to traverse the water maze of the Orinoco Delta (Olsen 1996, 21-32). In addition, not only do the Warao fully integrate canoes in the entirety of their lives, it also symbolizes birth and life as the canoe is seen as a vaginal symbol. Perhaps contrastingly at first, next to a symbol of birth and life they also integrate canoes in their ceremonies of death. In their funerary customs the body of a deceased Warao is "buried" in a canoe, making the canoe not only a secular mode of transportation but also as a vehicle that carries the body from a secular place back to the this symbolic representation of the womb (Olsen 1996, 21-32, Wilbert 1972, 7-8).

As a modern-day canoe culture that is surrounded by water their main form of subsistence today is fishing. However, before becoming a fishing culture they were primarily gatherers that laid special importance on the moriche palm groves that grew on the deltaic island of the Orinoco Delta. Occasionally they would hunt, as well (Olsen 1996, 21). However, food was seasonal making the storage of food a necessity. Later, they started building their houses on stilts to protect themselves against floods. They began using canoes as their main mode of transportation and made fishing their main form of subsistence (Fog 2017, 213). Today, the moriche is still collected and is part of their mortal diet as well as sustenance for their gods which they refer to as *kanobotuma*, meaning "our grandfathers" (Olsen 1996, 21).

The Warao spend most of their lives fulfilling their role in appeasing the supernatural entities. By satisfying these Supernaturals, the Warao aim to obtain blessings in the form of health, fertility, good harvest, or other aspects of well-being. If such Supernaturals experience distress as a result of a Warao, then this will cause the counter-reaction of illnesses, ailments, or even death. A Warao who has lived by strict and specific

cultural and ethical codes can reach an afterlife of profusion. The shamans are an essential role in this, as they are the supernatural communicators that can appease these entities (Wilbert 1980, 8).

To preface the following section about Warao shamanism it is important to talk etymology and definitions. While the exact origins of the word “shaman” is unknown, many scholars agree on the notion that is comes from the Tungus people of Siberia as *saman*. Hoppál, however, links this to the Sanskrit term, meaning “song". This implies that a shaman is literally the person who sings the song (Olsen 1996, 12). Despite this, the term “shaman” is not a Waraoan word as they have different names for different types of supernatural communicators — further discussed below. However, to ensure a clear transfer of information and avoid confusion, I will be referring to these as “shamans” in addition to their Waraoan name. This is not to discredit or generalize these important figures in Warao culture, but for a mutual understanding of the discussed topics. As such, I will define a shaman as the religious specialists and supernatural communicator, and shamanism as their role of communicating and bridging the natural and supernatural worlds (Olsen 1996, 13).

Shamanism is an extremely important part of Warao culture as they are the specialists for their cures, with each of these cures incorporating music into their rituals. The Warao recognize three shamans designating to cover three supernatural forces, respectively — *hebu*, *hoa*, *bahana*. Each of these forces are responsible for a specific type of disease or ailment inflicted upon man. The first supernatural force, the *hebu,* is covered by the *wisiratu.* The *hebu* sicknesses are related to internal pressure in the body caused by the introduction of a metaphysical essence. The second force, the *hoa*, is covered by the *haorotu.* The *hoa* related ailments are caused by specific animal and plant properties as caused by the introduction of such *hoa* essences. The third, the *banana*, is covered by the *bahanarotu.* The *bahanatoru* cures physical ailments such as a material object that has penetrated or entered the victims body caused by *bahana* (Aretz 1991, 270; Olsen 1996, 38-39). However, the Warao recognize a fourth type of ailment. These require no shamanic for healing as despite this, they are believed to have not come through direct contact with the supernatural. Though, communication in song form is directed at the material object or animal that caused the ailment or at the blood or pus itself (Olsen 1996, 38-39).

Since prehistoric times the Warao have inhabited the Orinoco Delta. The dense, and complex water mazes and mangrove swamps made it practically inaccessible for

those unfamiliar with it, therefore, serving as a type of barrier that protected the Warao. Their isolated nature is why even though Columbus set foot on the Delta coast in 1499 there is only a small amount of mentions of the Warao from this time. However, European Conquests were not the reason why the Warao isolated themselves deep within the delta. In fact, the Warao already have taken refuge here hundreds of years before European Conquests has begun. Due to extensive expansion of the Arawakan and cannibalistic Carib tribes the Warao retracted further into the Delta. Due to this, and the fact that the Spaniards had their attention fixed on the previous metal deposits of Peru and Mexico, the Orinoco Delta remained rather un-investigated during the colonial period (Olsen 1996, 21-24; Wilbert 1980, 4). Even during times or early missionaries during the mid-18th century, the Delta remained an isolated territory with very little accounts on the Warao. However, in 1925, Spanish missionaries of the Capuchin infiltrated the core of the Orinoco Delta — the homeland of the Warao. This among other changes, lead to an intensification of European-derived music and musical instruments, subsistence agriculture, boarding school, and Christianity resulting in a loss of Warao culture (Wilbert 1980, 5).

Today, the Warao are moving out of the swampy area of the delta and are moving up to the river banks. They have largely given us their refuge of the Orinoco Delta (Wilbert 1980, 5). Their cosmological theurgy have largely been suppressed by the pressures of modernization by oppressive outside forces. As the Warao people are being spread then, so is their culture. Access to Western medicine has overruled the shamanic healings, deeming satisfying their gods unnecessary. With Warao admixing with non-Warao — both indigenous and non-indigenous — their cultural and cosmological bonds are breaking and their refuge relinguished. As a result, the Warao culture and blood is slowly vanishing (Wilbert 1980, 9).

Defining “music”

We all perceive the world phenomenologically as we experience and define our surroundings through our consciousness. Our experience is defined by, and thus a product of, the interrelationship between consciousness and our environment. Due to the abstract but intuitive quality of music it is difficult to define what music truly is, and making it, in turn, easy to misapply in a research. While one may support the idea that music is a universal phenomenon, it can be difficult to identify a universally shared concept of music. Understanding the phenomenological nature of music is, therefore, an essential element in music archaeology to recognize that music is defined transposably in its intentionality, both across cultures and time.

While literature agrees on the notion that music is a universally shared experience, defining what music is and is not can be difficult. To base a piece of research on the preconceived notion that an individual has on what music can and cannot be is inherently problematic, especially if the individual does not express these parameters. Therefore, a phenomenological perspective on music archaeology as *step 0* is of the essence in any research as one needs to acknowledge that music as one experiences is, in fact, defined by one’s experience. Subsequently, in an attempt to undermine such biases I will adhere to a concrete definition of music prior to any further application of it. Adhering to a definition that encompasses multiple aspect of musical performance and perception, containing transposable intentionality, and deliberately avoids cultural context makes an analysis more universally understood.

Therefore, it is of utmost importance to express by what definition this thesis will adhere. Cross defines music as follows: “Music embodies, entrains and transposably intentionalises time in sound and action” (Cross 2003, 79). This definition specifies and avoids certain biased elements of music in the following ways. It encompasses two elements of musical expression and perception by referring to the auditory element (“sound”), and the corporeal element (“action”); both elements of the expressivity of music as an embodied experience. Furthermore, it specifies that these elements can be experienced differently by different people and peoples in different contexts (“transposable intentionality”). By avoiding cultural specificities and impositions it is general and robust enough to have universal application. Additionally, by stating properties of music that are seemingly universal it may encompasses a wide variety of activities that may be considered musical both across cultures and through time. For the

benefit of the reader and in interest of conciseness, I shall adhere to this definition in this thesis unless specifically stated otherwise.

Music is universal, but culturally diverse. While concepts of music may vary, all cultures appear have some sort of sound and dance (Mithen 2005, 12). Nonetheless, one must not forget these cultural nuances of the peoples as we view them — including those of the Warao — and I will attempt to do so. This is not to say that I, as a non-Warao, can fully understand the nuances and intricacies of their musical concept. While this thesis is does attempt to argue for or against the idea of certain concepts to fall under the musical category, it is important to keep in mind for both the reader and myself that certain biases are inevitable.

Musical material culture

The Warao have an extensive amount of sacred musical instruments that are able to be separated into four distinct classifications by which they produce desired sounds. Each instrument has a unique set of music gestural expressions according to both its classification and further use as an individual instrument. Before exploring each instrument based on classification (in this section) and based on category of musical expressiveness (in the next section) it is of use to understand how the classification is conducted. The four main classifications are not based on importance or any quantitative value, nor are they based on a specific event of use, but rather by the way the performers vibrates the required part of the instrument to produce the desired sound. This system of musical instrument classification has been implemented by Sachs and Hornbostel in 1914, and is thus referred to as the Sachs-Hornbostel or Hornbostel-Sachs classification system (De Arce 2013, 44-45). Each of the classifications used in the Sachs-Hornbostel classification system are derived from a classification mode from 1880 devised by Victor Mahillon. Mahillon implemented this to more easily and consistently analyze and classify the vast collection of instruments in the Musical Instrument Museum of Brussels. Mahillon created this consistent classification system with a consistent variable that classifies instruments according to the elements that cause the part of the instrument to vibrate and create the desired sound. Subsequently, Mahillon's terms all contain the same suffix of the Greek word "phono", meaning "sound" (De Arce 2013, 44). Perhaps it is not incidental that along the definition given by Cross (2003, 79) the suffix itself sustains the idea that these instruments produce mere sounds and that without musical intentionality they cannot be considered music. The prefixes of the classifications are based on the main elements that cause the specific instrument to produce sound. Thus, the nomenclature is based on an independent variable and a dependent variable; the sound, and by which one produces the sound, respectively (De Arce 2013, 44-45).

The four main classifications are (1) idiophones, (2) membranophones, (3) cordophones, and (4) aerophones. Firstly (1), idiophones produce sound by striking, rubbing, or shaking a solid instrument. Secondly (2), a membranophone creates sound by the vibration of a membrane stretched tightly over a frame which is struck or rubbed. Thirdly (3), a chordophone is a stringed instrument in which the sound is produced through the plucking, striking, or rubbing the cord, creating a vibration that emits sound through the vibration of the instrument itself. Fourthly and lastly (4), the aerophone is a wind instrument in which a stream of air passing over an irregularity produces sound (Hernández 1985, 12; Hill 2011, 11).

Before exploring the Warao instruments Olsen (1996, 41-112) has identified I must discuss briefly the musical elephant in the room — the human voice. It may be contested whether the human voice falls into the classification of the aerophone, or whether can be considered an instrument at all. Due to the complex nature and intricacies as well as in interest of a clear communication I will be not consider this an aerophone. Rather, I will be referring to this separately as the human voice, as the discussion on its identity as a musical instrument is neither here nor there. As such, the expressivity of the voice will be investigated in relation to the musical classification.

Olsen (1996, 41-112) has identified the fifteen Warao instruments in the three musical categories of pleasure, utility, and theurgy and gathered information relating to historical, folkloric, ethnographic, and mythological sources. It is still of great importance to be aware of the instruments used to better investigate a qualitative insight of musical expressiveness and to better understand the interaction between the experiential nature of musical energy (Bergeron 2009, 6; Davidson 2007, 385). Hereby, a brief overview of each instrument and their place within Warao culture before analyzing its expressive potential in the next section.

(1) Idiophones — *sewei*, *habi sanuka*, *hebu mataro*, *moriki*

The first classification is that of idiophones whereby the vibrating instrument itself produces the desired sounds. The instrument can vibrate and produce sound when the performer strike the idiophone against another objects, like another idiophone or against the ground, or when it is shaken, rubbed, or scraped. Four Warao instruments are part of this sections, all of which are a type of rattle.

The *sewei* is one of their most important and sacred sound instrument and consist of a several hard organic materials such as beetle wings, nuts, fruits, seeds, or small hooves — each difficult to obtain. The *sewei* is used during the *nhanamu* harvest dance, and due to its nature as an idiophone is shaken to produce sound. This is done either by tying it to the top of a pole or to the dancer's right leg (Olsen 1996, 42-43).

The *habi sanuka*, a container idiophone, is a made from a small calabash containing between one and two hundred small seeds. Such instruments are highly sacred to the Warao and are used during the *habi sanuka* fertility festival. Its' connection to

fertility comes down to the very shape of the instrument with the handle representing a phallic symbol and the calabash a uterus (Olsen 1996, 46).

The *hebu mataro* is a calabash rattle like the *habi sanuka*, however much larger in size, and thus, is able to produce and project a higher volume of sound. These larger calabash are more difficult to get as they outside of the lowlands in which they live. Due to its impressive size and musical quality the Warao consider this instrument to be of great sacred and powerful nature when played by a *wisiratu* shaman (Olsen 1996, 47). Adding to its sacredness are the stones inside the large calabash; about 50-200 small quartz pebbles, which are known by the Warao for containing spiritual qualities. The process in which the shaman created these *hebu mataro* includes them blowing out smoke from tobacco infused with resin, alluding to the idea that a shamans breath becoming visible is as much of sacred importance as the fragrance of it, making this a multi-sensorial experience (Olsen 1996, 49). Given the difficulty of each of the elements it takes for a shaman to construct the *hebu maturo* they will empower the instrument during a ritual song which describes all the items required to construct it (Olsen 1996, 50-56). Much like the *habi sanuka,* this instrument may be used during the *nahanamu* fertility rituals (Olsen 1996, 70). In fact, part of its' name is related to fertility; the Warao word for calabash, *maturu* or *mataruka*, refers to the word "hymen" (Olsen 1996, 51).

The final idiophonic instrument is the *moriki* and is another container idiophone. However, unlike the *sewei*, *habi sanuka*, or the *hebu mataro*, this one is not made from a callabash. Instead it is made of a wicker-like vegetable material in a criss-cross patterns making a basket rattle (Olsen 1996, 68). This instrument may have once been considered sacred based on a narrative by Wilbert (1970, 377-378), mentioning a basket rattle present at a ritual dance with a large musical ensemble. Nowadays, it is used as a child's toy or as souvenir to tourists.

(2) Membranophones — *ehuru*

The second classification, membranophones, are musical instruments in which the sound is produced by either rubbing or striking a leather membrane that has been tensioned over a frame or hollow body. This frame or body can have any shape and can be made of wide variety of materials, including but not limited to wood, clay, or a gourd, and can have either one or two membranes at the ends. Percussive sounds can be created with the striking of ones bare hands or with drumsticks against the membrane, or

combination of the two. Friction is done by rubbing it with one fingers or a rod or rope that can transmit vibrations to the membrane (Hernández 1985, 12).

In fact, the Warao only use one instrument from this classification, the *ehuru*. This instrument is made from a log which has been hollowed out and shaped like an hourglass. On either heads of the log are usually fashioned with the skin of the howler monkey and held inlace by a wooden rim, creating a symmetrical hourglass design. However, the skin of a deer or jaguar has been seen to be used by the Warao, as well (Olsen 1996, 69).

(3) Chordophones — *sekeseke*, *wandora*

Thirdly, the chordophones are musical instruments by which the sound is produced by the striking, strumming, rubbing, or plucking of the strings which produces a sound vibration. These actions can be done with the fingers and barehands of the player or with the use of a secondary tool such as a plectrum or bow to create vibrations. The strings can be made of a wide variety of materials including silk, gut, horsehair, vegetable fibers, metal, or synthetic fibers like nylon. The number of strings can be placed in singles or in sets of two and three. Often, chordophones consist of a sound box with a rounded shape to amplify the vibrations of the strings (Hernández 1985, 13).

The *sekeseke* is accepted by the Warao people as one of their traditional instruments, even though the instrument is evidently an imitation of European chordophones (Olsen 1996, 106-111). The *sekeseke* appears to be a combination of two European chordophones — namely the violin, viola. The body of the instrument resembles a European violin, but the instrument has a a bow resembling that of a viola da gamba, in that it is convex instead of concave and lacks a nut to tighten the hairs (Olsen 1996, 104-106). The *sekeseke* is made from local light sangrito wood with metal strings, with the hair of the bow made from the fibers of the Moriche palm (Hernández 1985, 149).

The w*andora*, much like the *sekeseke* is a European-derived string instrument likely permeated Warao culture by early Spanish and Portuguese explorers. The instrument resembles a Portuguese braga with its' small body and four strings and is built much like the Hawaiian tenor ukulele (Olsen 1996, 111). The Warao use the *wandora* to play Venezuelan folk and popular songs Warao dance songs, both typically accompanied

by singing. The instrument is not equally universally popular to the Warao, as the prominence is much less significant in the regions where outside influences, such as the Catholic missions, is less pronounced (Olsen 1996, 112).

(4) Aerophones — *muhusemoi*, *hekunukabe*, *daokohota*, *harihari*, *isimoi*, *heresemoi*, *bakohi*

The fourth final classification consists of wind instruments known as aerophones whereby a current air vibrates by passing over an irregularity within the instrument and causes a sound to be produced. The current of air can be expelled through the mouth or nose of the performer (Hernández 1985, 13).

First in this section is the most frequently observed aerophone, the *muhusemoi* (*muhu* = bone, *semoi* = wind instrument). This flute with a saddle-shaped mouthpiece with three tone holes and is made of the tibia of a deer which has been crafted into a musical instrument (Olsen 1996, 72-79). The process by which these bone flutes are made is intriguing as they show the symbiotic relationship between man and nature. After the deer has been hunted and killed, the hunter cuts both the distal and proximal end of the tibia. When he has taken out as much of the marrow as his knife can reach, he places the bone within reach of cockroaches that will eat out the remaining marrow within the bone over the course of a few days, and consequently, hollow out the bone. Finally the hollowed out bone is crafted into a *muhusemoi* by shaping the mouth-end and boring tone holes on top (Fox 2004, 103-104: Olsen 2013, 18).

The *hekunukabe* is much like the *muhusemoi* in that is a three tone holed flute with a saddle-shaped mouthpiece. Instead of bone this flute is made from a plant stem that has been followed out and pierced by a hot ember stick. Hence, its' prefix has been derived from the Warao word for "fire". As per the plant material of the flute it is destroyed after it has served its' use of playing in an ensemble or *ehuru* drum during a ceremonial proportion or yuruma starch (Olsen 1996, 80).

Less is known about the *daokohota* ductless vertical flute. However, it is known that this flute is made from the pincers of the blue crab, and instead of having multiple tone holes producing multiple tones like the two aforementioned flutes — the *muhusemoi* and the *hekunukabe* — this flute produces only one tone. As such, it would allude to the

idea that it would be used as as utility like a signaling instrument as its' dynamic qualities — or lack thereof — are of lesser importance. However, a Warao narrative suggests a ritual-dance ensemble as a Warao religious practitioner returned in his canoe and overheard music including the *daokohota* among several other Warao instruments nearby (Olsen 1996, 81-82).

The *harihari*, a horizontal, cross blown flute, derives its' name from its tonal qualities with *hari* meaning "toucan". Therefore, the flute can be referred to as *harihariesemoi* or *esemoi harihari*, the "flute of the toucan". Its' appearances are not toucan relatated, however, as it is a ductless horizontal bamboo flute. This instrument is no longer played today and is almost completely unknown to contemporary Warao (Olsen 1996, 81-82)

The *isimoi* is among the most sacred aerophones of the Warao. A trumpet-like, oboe-like, large flute-like flute, is in fact a single-reed concussion aerophone, more akin to a clarinet. Unlike the flutes previously mentioned, this type of aerophone consists of several individual parts together creating an *isimoi*, and gets its' individual parts dismantled and reassembled yearly. This includes removing the wax, detaching the reed stick, and cleaning out the calabash — all elements are kept unless they are broken and need replacement. It is held with only one hand when played, despite the size of the *isimoi* being larger than the previous aerophones discussed. This is because this instrument does not have tone holes, and can only produce two distinct notes by increasing or decreasing air pressure from the player (Olsen 1996, 85-98).

The *heresemoi* is a conch shell trumpet made with no extra elements. To make this shell into a usable aerophone it is required to cut off the end of the shell with a sharp object. However, due to the tough and hard nature of this part of the shell it is often damaged and, subsequently, repaired with wax. The *heresemoi* has its' primary function as a signaling aerophone. This utilitarian aerophone encompasses a wide range of signaling types such guiding canoes at night as its' main use, but can also be used to signaling departures and arrivals or crabbing canoes or to announce a tribal members death. The shell from which it is made, however, is not locally available and requires traveling to the island or Margarita to gather it or may be traded nearby. Similarly to the *isimoi*, the lack of tone holes require changes in air pressure to change tones. However, instead of producing two distinct notes the notes gradually increase in pitch with a higher amount of air pressure blown into the instrument (Olsen 1996, 99-100).

Finally, the *bakohi.* This lip-concussion aerophone can be made from a few different materials including a cow horn — hence the word *bakohi* combining the Spanish *vaca,* meaning cow, and the Warao *ahoi,* meaning horn — but can either be made of bamboo or wana wood, as well. This instrument has largely replaced the *heresemoi* as the *bakohi* is less rare and much more readily available with local raw materials (Olsen 1996, 101).

Ethnoarchaeology of musical functions

Music is entangled within Warao culture. This entanglement ranges across the three musical categories of pleasure, utility, and theurgy. Nearly in every corner of the life of a Warao has some form of music embedded into its existence (Olsen 1996, 12). To derive pleasure from music is not uncommon among the Warao as they like to sing and generally enjoy music often just singing while they are relaxing in their hammocks or just to pass the time (Olsen 1996, 35). Music for utility can present itself in several forms, each a form of communication, whether that communication of pace, location, directions, or survival (Olsen 1996, 37). Each of these musical forms of utilitarian communication will be investigated below. In contrast to a *dakotu* — or music for pleasure — the work song is a necessary component to the work itself in order to complete this work task. Unlike music for pleasure which is meant to ease the tedious nature of everyday tasks, these musics aid in the completion of tasks discussed further below (Olsen 1996, 35). A component of musical definitions that often get disagreed upon is whether aesthetic value is a necessary component. As per this type of music, aesthetic value is not a general concern. Like the definition I have chosen to follow, aesthetics are not a criteria for something to be considered music (Cross 2003, 79). While they may enjoy the sound of their instruments, its utility functions are prioritized. Music for theurgy — as in, music as supernatural communication — includes the majority of Warao music (Olsen 1996, 37). These are typically performed by one of the three shaman types — *hebu*, *hoa*, *bahana.* Through musical performances they communicate to their Supernaturals to rid forces that are responsible for inflicting the illness or ailment (Aretz 1991, 270; Olsen 1996, 38-39). As will be investigated below, the multi-sensorial performance creates a impactful ritual experiences to the Warao participating in it (Olsen 1996, 58). One must note that these musical categories are not mutually exclusive as overlap such as a utilitarian song that may be pleasurable, as well, for example (Olsen 1996, 35).

If one examines transcripts — with caution — starting form the 16th century during the European Conquest then one may argue that some of this pre-colonial music may still be played today. A transcript from 1536 by Fernández de Oviedo y Valdés — the oldest ethnohistorical transcript of the area — present a second-hand description of dancers to dance all night with rattles tied to their leg. Additionally, the transcript describes a funerary ceremony to be accompanied by singing. A transcript from 1690 by Ruiz Blanco confirm this to still exist at the time he wrote it. Furthermore, in 1724 Gumilla mention the maraca of medicine men and funerary ceremonies, an instrument

likely similar to the maraca used today for ritual curing and funeral rituals (Aretz 1991, 13). These similarities may be due to their isolate nature of the Orinoco Delta that allowed them to continue practicing the musical beliefs (Wilbert 1980, 5). While the ethnohistorical sources of the area or the Warao are extremely limited in both quantity and quality, these description largely match descriptions of musical performances of today.

Furthermore, I will be presenting studies on European-derived musical experience relating to our cognitive and physiological abilities. While this does not prove that the Warao of the past were the same as those of the present, nor does it suggest that that little to no change has occurred over time. This would also demean the impact of the conquest of the Americas, as well as further historical events much alike. However, due to the idea that certain universalities exists among humans may have certain musical innateness to subconsciously recognize rhythm or to use it as a tool to project an emotive quality, for example. It may indicate that the Warao musical expressions may have shared a significant amount of resemblances. While the product may have been different in terms of lyrics or melodies, the intentionality was possibly very similar.

With much emphasis I say that this does not to imply that the music of the Warao today is identical to the pre-colonial Warao. Ethnographic analyses or music cognition cannot be used in order to full explain or understand past sociocultural phenomena that come from different temporal and spatial frames. However, these may be indications that at least certain aspect in their musical culture has changed only marginally. Furthermore, investigating their musical culture as well as their change and how has affected their musical may lead to an increased understanding of the Warao musicocultural complexity to be applied to the interpretive analysis on possible future archaeological remains (Beck 2015, 163, Kramer 1979, 12)

Music for pleasure

Musical diversion

The most common type of music for pleasure is called by the Warao as *dakotu*, which translates into English as "dance song". Despite its' name, the context of the dance is no longer present, and all that is left is the song (Olsen 1996, 35). *Dakotutuma*, the plural form of a *dakotu*, are typically sung by men and women while they do their daily chores or work. These are typically sung alone. Even though work is involved in the use of this type of music it is not a necessary component to complete the task and is, thus, not music for utility. While it may act as a musical diversion which eases the tedious monotony of every day chores, it is not a crucial element. Furthermore, in contrast to Warao songs of other types, *dakotutuma* can unfold indefinitely as there are no defined number of verses allowing the freedom to continue or stop at any point in the song. Furthermore, the songs do not appear to follow any European-derived musical meters. Of course, this does not mean that the singer does not feel an internal rhythm, it is just not a rhythm that is familiar to a European-derived ear due to its' uncommonness in European-derived music. Nevertheless, the rhythm appears to be more inconsistent than what a European-derived ear may be used to. However, a d*akotu* is rhythmical, European-derived meters are simply too restrictive to accurately represent temporal freedom (Olsen 1996, 119). This freedom may add to the pleasurable freedom of *dakotutuma*. Another feature that that appears to be in line with such freedom lies within the freedom of expression. Due to the pleasurable nature of the song amplitude is often high, as the singer loudly sings their song. Furthermore, singing the song the a 'correct way' does not seem to have a prominent position in this type of music; mistakes will never cause the singer to stop or start over. *Dakotutuma* are not only sung, as they are at times accompanied by chordophones such as a *sekeseke* or a *wandora* (Olsen 1996, 119).

While a *dakotu* allows for some freedom in its song length, rhythm, and volume there is still consistency in some rhythmic, melodic, and textual aspect across the same *dakotu* songs. The same examples of *dakotu* was sung by multiple Warao from different villages were compares showing that these songs have close to the same musical expressions across Warao culture (Olsen 1996, 122). With songs showing such similarities across such the vast area that is the Orinoco Delta one may argue that these are from the same tune family and were not developed in isolation from one another. As such is the case, then perhaps such songs have not derived from their original form any

significant amount (Olsen 1996, 120-124). If one allows for the comparison with a game of whispers or telephone, as the same song was whispered into several divergent directions, then one could argue that if the song was able to survive and share their core essences of rhythmical, melodic, and textual aspects among all of the outcomes then it is likely that the original song was close to the outcomes in such essences. However, such conclusions may be drawn with caution as two elderly Warao played two version of the same song, and despite them being from the same village they sang the same songs quite differently with different texts and meanings. The songs did share musical commonality in their fast paced rhythmic pulse, and in some of their musical qualities. These musical qualities indicate a lack of ability to harmonize with Western European chords, suggesting an archaic origin. Furthermore, while the texts and their meanings were different they were each comprised of non-lexical vocables for the majority of their lyrics. Non-lexical vocables, such as "na na na" can be found in each song (Olsen 1996, 125-128). While perhaps not all songs are preserved it is entirely possible that a certain amount has largely contained its musical features to an extent. In addition, we can indicate that certain songs are likely sung before the infiltration of missionaries around 1925 (Wilbert 1980, 5). While this does not specify an archaeological date of when these songs originated it may give us an insight into what these *dakotu* songs from the archaic sounded like.

To be able to sharpen our insight in archaic songs and what they sounded like we have to take into account the *dakotu's* origin as a dance song before it became a song of diversion. This disappearance of the dance aspect of the songs were caused by the missionization of the area. However, these were not prohibited from being performed due to religious regions, but instead due to the public ridicule from outer cultures (Olsen 1996, 132). Certain statements by Barral (1964, 575) describes the Warao as "bumpkins when it comes to movements" and comments on their under-developed legs. These statements about the Warao are based on the fact that they are a riverine culture which resulted in their physical attributes showing an unbalanced proportions. As their preferred method of traversing the Orinoco Delta by canoes it resulted in a well-developed upper torso with a less-developed lower body. Nevertheless, as the *dakotu* songs were for pleasure and were not related to their cosmology the dance aspect was put to an end, leaving the *dakotu* as a song without corpeal expressions causing the original harmony of sound and action to have since been lost. However, Barral (1964, 578) does describe some of the dances he ridicules in a seemingly more objective way. In his descriptions he mentions specific foot placements and movement, as well as when the singing among the crowd and dancers begin. Furthermore, he shares how they turn and bow to the group of

elders and chiefs before the proper dance begins. He continues to mention how as the as the dance goes on the elders may join and dance with the young people (Barral 1964, 578). From these descriptions these songs appeared to be done for the purpose of pleasure. However, unlike the *dakotu* of today, they were not used as a method of diversion. Rather, they were dances that were set up for a shared pleasurable experience. They were events that may have been anticipated by the Warao as an experience of emotional release by ways of singing and dancing (Olsen 1996, 134). These were musical festivals for which dancing platforms were specifically constructed for all-night dancing (Olsen 1996, 371). With a transcript collection of 371 *dakotu* songs recorded by a Christian priest in 1964, it is suggested that an even larger amount of songs are among the Warao (Olsen 1996, 132). With this lars amount of dance songs existing in the 20th century it suggests that these songs have been a part of their culture for a significant enough amount of time. If such is the case, then may point to the idea that these songs may have survived centuries of generations, and perhaps predate the colonial period. With our current knowledge of their ability to survive time and insights into how they may have been experienced until recently, as well as the remnant of these ancient songs, it paints a picture of how the Warao pre-missionary, and perhaps pre-colonial, may have experienced these musical events.

Music for utility

Rhythmic music to traverse the Orinoco Delta

An example of a work song where the aspect of pacing is on the forefront of the songs purpose is during the use of the rhythmic use of the *ehuru* drum while performing a specific task. The rhythm of a work song will match the pacing of whatever work they are performing to rhythmize and synchronize a movement. This is typically played while they paddle in their canoe, so all paddlers are paddling at the same time in the same rhythm (Olsen 1996, 37). Unlike, *dakotutuma* — music for pleasure — that may be sung by the paddling men, at times, the use of the *ehuru* is an element necessary to complete the task (Olsen 1996, 35).

Rhythm is a pattern in time, and not only is rhythm often described as the central element of music — although non-rhythmic music does exist — it is equally, if not more prominently the central element of bipedalism as it is essential for us to walk or run (Mithin 2005, 150). Accomplished musician and director of the Center for Biomedical

Research at Colorado State university, Michael Thaut, investigated the relationship between rhythm and movement in several of his studies. One of such studies involved people suffering from Parkinson's disease, which affects and disturbs the temporal aspects of motor control through an impairment of the basal ganglia of the brain. In this study, Thaut investigated the impact of an external rhythm source by means of a steady beat on the sufferers' ability to walk on flat and sloped surface. Thus, exploring the effect of rhythmic auditory stimulation (RAS) on the sufferers' motor control. Thaut divided the patients into three groups. The first group received a thirty minute gait training (a type of physical therapy used to improve ones ability to stand and walk) with RAS for three weeks. The second group received the same gait training but without RAS. The third group received neither gait training nor RAS. The results showed that only the patients that were exposed to RAS showed significant improvements to their walking abilities with a 25 percent in stride velocity, 12 percent increase in stride length, and a 10 percent increase in their step cadence. While difficult to grasp improvements expressed as numbers, video footage of Thaut's work are striking as an impressive amount of improvement is seen in the fluidity and muscle control. By means of an extended study the improvement slowly faded over the course of five weeks and were no longer visible after this (Mithin 2005, 151). While this study shows amazing ways to help those in need, it also shows the importance of rhythm in bipedalism. While it is impossible to make the claim that therefore rhythm is universal, it is practically undeniable that bipedalism is a universal feature in all humans — it is, in fact, one of the main features that makes us human. Another study by Thaut he required participants to match the tapping of their fingers with the rhythm of a beat presented to them. He discovered that even when the beat was altered by a an amount below the threshold for conscious perception, the participants were still able to alter the finger tapping tempo with the new rhythm, even when the participant did not realize any change in rhythm had occurred (Mithin 2005, 151).

The purpose of the Warao work songs is to synchronize the external rhythmic source with the work — paddling their canoes long stretched through the Orinoco Delta. As the reasoning behind this becoming suggestive of an auditory-motor pathway in the nervous system, even though, scientists have yet to discovered exactly how these natural structures work together (Mithin 2005, 151), then such musical structures are indeed part of our rhythmic bipedal nature as humans. If such a universality between all humans exists then the ancestors of the Warao may have felt this rhythm much like them. Pointing towards the idea that the Warao have been using this technique of utilitarian rhythm in the past as they likely experienced the benefits early on in their riverine culture. This ability

of rhythmic innateness may have benefit them to adapt to a riverine environment like the Orinoco Delta, and may helped them become a riverine culture.

However, where this notion of internalizing an external rhythm as a universal feature becomes less robust when analyzing certain Warao traveling songs. Just like the work song previously investigated, this too uses the *ehuru* drum. One of the functions of the traveling song is diversion when traveling. A Warao may accompany their travel song singing with a *ehuru* drum. Similar to the *dakotu*, this type of song has seemingly no recognizable steady rhythm either. In an example recorded by Olsen (1996, 71) whereby he analyzed the rhythm of Talejo Tovar, a *wisiratu* shaman, the rhythm of the drum gradually increased in its tempo (Olsen 1996, 71). While a gradually increasing song is not unheard of in music, it may be unexpected for European-derived individuals for a song that accompanies one walking. While a deeper analysis into how the Warao experience rhythm may or may not tell us more about why such phenomena occur, I believe that the rhythm of the *ehuru* is simply unrelated to the pacing of the walk. While a military march whereby the pacing is synchronized to the rhythm of a drum, this is simply not that. Perhaps indicative of the fact that the song increased in tempo is the idea that the player was not concerned with keeping a steady rhythm. This is not to say that the Warao would have not been able to synchronize, which they can — like I explored in the paddling work songs — but it may have simply been not of any interest to do so. In the example recorded by Olsen (1996, 71) the song of the shaman increased in tempo. However, if one has no concern of the tempo of a song then it may have decreased instead. An ethnographic of these traveling songs may show either a consistency or inconsistency in the change of tempo of the song pointing to either an implied cultural intentions behind the change or a lack thereof, respectively. The shaman did not give any reasoning behind the change of tempo characteristic, perhaps pointing to the idea that this increase in tempo is simply a lack of concern to keep it steady.

If this lack of concern to keep a steady rhythm is the case then this does not undermine the hypothesis of rhythmic universality. Subsequently, the notion that the Warao have been paddling with the accompaniment of an *ehuru* drum for centuries still holds value as the Warao were actively seeking and allowing rhythmic synchronization.

Additionally, the aspect of diversion of this traveling song may be more accurately classified to be a song for pleasure rather than a song for utility as seemingly no aspect are demanded for the completion of the task. However, these traveling songs have several purposes other than diversion from the task. If this traveling song is played

while traveling with other Warao then it has at least two more functions. When the Warao men are traveling they will play their *ehuru* to communicate to the other his position in relation to the others (Schad 1953, 417) and to scare away jaguars and evil spirits (Turrado Moreno 1945, 227). These features make the travel song crossover into three musical categories; it is pleasurable to divert from mundane tasks; it is utilitarian to communicate positioning and to frighten off jaguars; it is theurgical to frighten off evil spirits. What this may tell us is that in addition to the difficulty of being able to categorize musical categories, it also shows that the instruments themselves contain supernatural energy. While the men are not shamans they are still able to scare off evil spirits simply by playing an *ehuru*. To add to its theurgical nature, photographs by Wilbert (1956, 10) suggest these to have used for this until relatively recently. Today, now the *ehuru* is not longer played during the *nahanamu* fertility rituals. Instead, they have been replaced by the large *hebu mataro* rattle for reasons unknown to us (Olsen 1996, 70). As more Warao culture gets diluted more musical instruments will stop being used (Wilbert 1980, 9).

Music to combat high infant mortality rate

A second form of music for utility comes in the form of the lullaby, or *hoerekitane*. The lullaby is meant to comfort and soothe the child. This happens both by the presence of a familiar person and by the voice of that person, even though the delivery of lullabies are more harsh than what a European-derived individual may be used to. Furthermore, lullabies can act as an informal education about Warao daily life and mythology (Olsen 1996, 37).

Singing to babies actually appears to be a cross-cultural phenomenon, as there exists a uniformity in the melodies, rhythms, tempos, according to studies carried out by Sandra Trehub, a professor of psychology from Toronto University. Lullabies are so distinctive in their overall sound that adult listeners were able to distinguish lullabies from non-lullabies when presented song in an unfamiliar language. As much as they are distinctive they are effective as infants exposed to their mothers' singing rather than simply speech show a greater physiological response. This may indicate that humans identify singing as a sign of care, making music a care-giving tool, in ways (Mithen 2005, 79). Additionally, Jayne Standley of Florida State University carried out studies at neonatal intensive care units showed that lullabies sung by a female vocalist resulted in an improvement in the babies' suckling abilities making for a greater weight gain during a crucial stage of their lives. Music was found to enhance the physical development of the

premature babies, as well, as it would stabilize their oxygen saturation levels (Mithen 2005, 80).

The Warao were more than likely aware the physiological advantages of singing to their baby. Even though this awareness was perhaps not on a scientific level, they could instinctively feel like singing was the right thing to do when comforting and soothing an infant. The Warao show great affection for their children and the baby is nearly inseparable from the mother in the first two years and will continue to be breasted for about three to four years (Fog 2017, 215; Wilbert 1980, 109). In addition to singing to her baby frequently, she will bathe the several times a day. Not only will this keep the child clean it is also believed to allow the child to stand and walk earlier (Wilbert 1980, 109).

Ellen Dissanayake, a child psychologist from Seattle believes that human bipedalism is in fact the primary reason that mothers take on this musical nature in communication with their babies (Mithen 2005, 197). Our physiological change of walking on our hind two legs benefited humans to be able to walk long distances and to carry a weapon or tool while traversing (Meldrum 2004, 155), it caused human infants to be born in a state of physical helplessness, as well. Due to our evolution to bipedalism, our hips evolved to become more narrow, resulting in a narrow birth canal which limits the infants' size at birth. As a result, childcare became more extensive (Mithen 2005, 197). If one follow the definition of Cross (2003) presented in the introduction of this thesis, then music embodies not only sound but also action. Colin Trevarthan, in fact, believes music to be a 'multimedia' package consisting of body language and facial expressions, as well as the sounds themselves. Dissanayake, argues that the mother's singing not only soothes the child, but in turn, soothes herself, as well. In addition, she shares, reinforces, and teaches a quality of emotiveness through the body and face of the mother to the child. By singing the mother's were able to control the baby's attention and arousal levels and have their emotions regulated allowing for a increased cognitive development, resulting in a number of benefits to the baby's ability to survive and ultimately reproduce (Mithen 2005, 197).

Over time, culture specific rules may have extended this phenomenon over to not only the mothers but also the fathers and others to sing to a baby, as well. Such may be the case for the Warao lullabies, *hoerekitane*, that are not limited to only be sung by mothers. In the past, the Warao culture rules may have limited only mothers or women to sing lullabies and that gradually or due to a traumatic historical event this feature became more gender widespread. Or, perhaps this presumed cultural change occurred even before the Warao became a people. In contemporary Warao societies the survival of a child is of utmost importance throughout the entire community. With infant mortality at 50 percent a

high amount of care is placed on not only the child itself but on the propitiation of the cardinal gods (Wilbert 1980, 109). In addition, the Warao believe that children are most likely to fall victim to any shortcomings or wrongdoings of man. Only through communal rites and good conduct can the Supernaturals be swayed to spare the life of the child (Wilbert 1980, 8). Next to lullabies, rituals such as the *nahanamu* and the *habisanuka* are conducted for the gods to support their fertility (Wilbert 1980, 109). One may derive from this that such fertility rituals may have only emerged when the infant mortality rate increased. Currently, a Warao woman who lived to an old age would have on average nearly nine children based on statistics on fertility rate are measured after the introduction of modern medicine. Statistics on the past may be estimated to have been similar in the past, but the infant mortality rate may have been a lot higher (Fog 2017, 214). Indicated by the rapid incline of Warao population it does indicate that mortality rate has rapidly decreased over the past few centuries, and vital statistic back this up (Wilbert 1980, 61). As such, it appears that fertility ceremonies were likely deemed a necessary survival method to prevent a decline in Warao population numbers. Lullabies and performing fertility ceremonies may have become a part of their musically intertwined cosmology as a result of this.

Music for theurgy

Healing musical expressivities

As mentioned previously, the Warao recognize three types of shamans. the *wisiratu*, *hoarotu*, *bahanatoru,* correlating to the three supernatural forces, the *hebu*, the *hoa*, and the *bahanu.* However, the Warao recognize a fourth type of ailment. These require no shamanic for healing as despite this, they are believed to have not come through direct contact with the supernatural. Though, communication in song form is directed at the material object or animal that caused the ailment or at the blood or pus itself. All four of these ailments require a curing song whether that would be shamanic or non-shamanic. Only the *wisiratu* and the *bahanarotu* always make use of the two tools during these supernatural curing rituals — the wina cigar and a rattle. The *hoarotu*, on the other hand, only uses the wina cigar (Olsen 1996, 38-39).

A rattle used in such a curing ritual may be a *hebu mataro*. This instrument is played is a few different manners — whichever is appropriate for the specific task — but must be held with both hands to be able to be shaken as it can be up to 70 centimeters in

length and therefore very heavy (Olsen 1996, 58). In addition to necessities by the way the instrument has to be held due to physical limitations are necessitates by the way the instrument has to be held according to cosmological abidances. During a curing ceremony the *wisiratu* shaman will first sit with the *hebu maturo* holding it an angle over the patient. Then, will stand up to lean over the patient and shake the instrument horizontally. The instrument is held vertically during a cosmological experience of the *wisiratu*, in which he allows his soul to go straight up to the cosmos by holding the instrument upright. During a curing ritual the instrument is spun clockwise over a patient increasingly spinning faster. Due to its size it has great dynamic dynamic range making the sound of the *mataro* increasingly louder the faster it is being spun (Olsen 1996, 58).

The wina cigar, while of course not a musical instrument, would have added to the experiential aspect of the curing song. The addition of scent may have amplified the musical experience by making it a more prominent multi-sensorial experience. These additional impulses will have added to the impact of these experiences for those involved significantly increasing the potency of musical curing. However, while tobacco is not generally cultivated and was originally absent in the Orinoco Delta this does not diminish the significant importance of it to the Warao and their shamans. Tobacco is seen are being able to cleanse and reinvigorate along with the shaman's breath. The wina cigars can be as large as 50 to 75 centimeters long, as large amount of tobacco may be smoked or ingested to induce trance states (Wilbert 1972, 55-60). The use of smoke is not an uncommon feature in shamanic rituals of the South American lowlands and has been the focus of ethnologists and ethnomusicologists for a few decades now. Studies done of the Wakuénai of the Upper Rio Negro region and of the Wayãpi of French Guiana, respectively, showed a significance of blowing tobacco smoke to make an audible breath visible, as well (Hill 2011, 20-21). The Warao may experience a similar amplification of significance and healing properties of the shaman's breath. While the shaman is singing, the wina cigar tobacco smoke made this a visual experience as well as an audible experience next to an olfactory experience that accentuated and heightened its' supernatural nature. These considerations of musical performances as multi-sensory experiences may fuel archaeological interpretations to consider these senses for a more nuanced perception of the past.

Lost ritual musical instruments

The signaling aerophone the *heresemoi* is a one note conch shell trumpet. This instrument is used to signal canoes for directions as well as signal grief at the death of a Warao. Due to its' single note its' melodic abilities are limited, designating the instrument as a utilitarian device rather than an instrument with sacred qualities (Olsen 1996, 99-100) However, an instrument with this lack of melodic abilities appears to not always be designated to serve a utilitarian function, and an instrument with a single tone hole is not necessarily indicative of a type of signaling device. As mentioned previously, the *daokohota* is an aerophone that can produce only a single tone. Not much is known about this flute other than that it was made from the pincer of the blue crab. One of the indication that this was not a signaling flute is a mention of the flute in a Warao narrative (Olsen 1996, 82). In the passage "Usiramani, the woman of the hog plum tree", a shaman overhears music of aerophones accompanied by basket rattles — possibly the *moriki*, that are now mainly used as a kids toy — as he returns to his canoe. When the shaman approaches the music he find himself at the house of the other shaman. Among the aerophones that the shaman heard was the *daokohota.* This suggests the aerophone to have a ritual purpose, rather than a utilitarian purpose like a signaling instrument (Wilbert 1970, 377-378).

The other aerophone the shaman heard was the *harihari.* Much like the *daokohota,* not much is known about this instrument. The *harihari* is a bamboo flute, with its name referring to the toucan. While the instruments' physical attributes are not associated with the appearance of the toucan, its' tonal qualities are meant to sound like the toucan. A unique playing technique is necessary to produce the toucan sounds. The ends of the bamboo tube are closed and one blows through the side-blown embouchure hole placed between the tone holes. Each side of the mouth will have tone holes with one one theft and two on the right (Olsen, 1996, 83). A Warao remembered his uncle making these flutes and constructed one for Olsen (1996, 83), however, he did not know how to play it. According to him the instrument was played by bachelors for stranding purposes, however, contained no love-charm powers. Furthermore, it was simply an instrument that men played at any point of the day of night when they are relaxing in their hammocks (Olsen 1996, 83). The narrative of the *harihari* and the *daokohota* having a ritual purpose and the information the Warao man presented about its secular nature clash. However, this may be explained that these narratives may be based on different point in time, possibly suggesting that before the *harihari* had its function as an instrument for pleasure it may have had supernatural qualities used by shamans possibly extending back into pre-Colonial times.

Experimental archaeology may be a necessary technique to resuscitate the ritual music from these times. Not much is known about he *daokohota* other than the notion that it is made from the pincer of a blue crab. Much like the *heresemoi,* it likely consists of a single piece of raw material that is resulting in the ability to only play a single tone Constructing this instrument with the known aspect of the instrument would resurrect the lost sounds of this instrument. Furthermore, when paired with the *harihari* and basket rattles we may be able to interpret a lost ritual music.

Conclusion

The Warao peoples are unified by their music. With the importance of their entangled cosmology, music is the vital element that fuels it. Their music is the communication mechanism by which they can communicate with the supernaturals of their belief system — music for theurgy. On a secularly functional level, the Warao use music to sustain daily existence to raise their babies, to direct and paddle their canoes through the Orinoco delta — music for utility. Additionally, they use music as a pleasurable way to divert from mundane tasks — music for pleasure. Together it incorporates a great deal of Warao subsistence resulting in a culture rich in musical spirit and power.

Their cultural music has been able to persevere through an oppressive past due. However, their culture along with their music is slowly disappearing. As encountered several times in this thesis, the enemy of their musical expressiveness if the pressures of modernization of Western civilizations. As they are pushed out of their homelands, their culture slowly dies. With the lack of concern that started in 1492, the native inhabitants are being silenced. Next to archaeological purposes of this thesis are ones to as a motivation to understand and pay homage to their indigenous culture, and as a result aim to save a part of the Warao by preserving their music — both in its material and immaterial form — as a piece of cultural heritage of the Warao. Nevertheless, the world is in a constant form on change.While it is difficult to understand historical changes, ethnoarchaeology has benefited greatly from viewing a contemporary case as an example of their ongoing change and their adjustments. Applying such knowledge has given us insights into how they may have dealt with such processes. Furthermore, with ethnoarchaeology it is becoming progressively more noticeable that we able to infer certain things for material remains and unable to infer certain other things.

By means of a combined ethnomusicological and ethnoarchaeological approach this thesis served to fuel archaeological interpretations of the Warao past. Through ethnographic reports from times of missionization and oral passages from the Warao, we have come to suggest the origins of the modern-day diversion songs to possibly be early-Colonial or perhaps pre-Colonial remains of a dance ritual song. Through means of music cognition, we analyzed the rhythmic nature of the work songs playing during canoe paddling, pointing at a human innateness to follow external rhythmic sources, and how it may have benefited them to adapt to a riverine environment to become a riverine culture.

Furthermore, we investigated lullabies and their physiological advantages to combat infant mortality, with suggestions that this and their fertility ceremonies may have been deemed necessary survival methods and has become part of their musical culture as a result of this. Investigating this utilitarian music, as well as Warao music for the diversion of monotonous tasks such as household chores or traveling through the rain forest, may extend the interpretation the music of the past to include analogies of music with roles of pleasure and utility, next to its' often assumed ritual use. In addition, we explored a multi-sensorial ritual curing song, whereby the scent of tobacco may play a role in the amplification of the musical experience, fueling archaeological interpretations of the past beyond that of sight. Additionally, through narratives by the Warao and their cultural memory we may have gained an insight into lost ritual musics. With the use of experiment archaeology we may be able to ply their ancient musical instruments and resuscitate their ancient musical sounds. While the ethnoarchaeological implication presented in this thesis is not conclusive in their own right, they are each presented to fuel the archaeological interpretation of the musical entangled culture of pre-Colonial and early-Colonial Warao people.

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