Collegiate Anthropologist

State University of New York College at Potsdam

INSIDE:

Archaeology Through the Ages

Language Origins

The Globalization of Yoga

A faculty profile, advice column, and more...

Editor-in-Chief	Amber Rounds
Assistant Editors	Sierra Cullum, Emily Boozel, Tara Stern, Alexandra Borden
Advisor/Publisher	Dr. Lydia Rodriguez Assistant Professor, Anthropology

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COVER PHOTO*: SUNY Potsdam students participate in a copper smelting demonstration during the Anthropology Festival Anthropalooza. Photograph by Dr. Timothy Messner.*

Dedication

The *Collegiate Anthropologist* is dedicating this issue to Dr. Steven J. Marqusee, whose many years of teaching and stewardship at SUNY Potsdam helped shape the Anthropology Department into the fantastic program that it is today.

Dr. Marqusee's interest in anthropology, and in particular, archaeology, can be traced back to his childhood; he has always had a deep appreciation of and fascination with the past. Entering his undergraduate studies at the University of California in San Diego, Dr. Steven J. Marqusee started as a marine biology major. It would not be until three major switches later that he would take an introductory anthropology course that would lead to his developed interest in the culture and archaeology of Latin America.

Dr. Marqusee traveled to Guatemala, as a part of his studies, where he was immersed in the archaeology of indigenous Mayan cultures and communities. His passion for the field only amplified, and soon he would be pursuing graduate studies. Obtaining his Master's Degree and a Ph.D. from the University at Albany, Dr. Marqusee continued his study of the Maya, looking particularly at the art and iconography of a Mayan community as part of his dissertation.

Dr. Marqusee joined SUNY Potsdam in 1976, where his long and impactful career at the institution would begin. In his fourty-three years of teaching, and eventually with his appointment as Dean of Arts and Sciences, Dr. Marquesee has had a profound impact on the anthropology department, and in the College. He is responsible for the creation of the archaeological studies major, one of the few that exists is the Eastern United States. Dr. Marqusee led eighteen field schools and many student trips, taking students to places like Virginia, New York, Guatemala, and many other regions of Central and South America.

Dr. Marqusee's impact on the department will be ever-lasting. Recently, the archaeological studies award given by the department faculty to a student every year has been renamed the Steven J. Marqusee Archaeological Studies Award, to reflect the gratefulness we all feel towards his many years of commitment to the program. We wish Dr. Marqusee a very happy retirement. He will be greatly missed here at Potsdam, and again we thank him for everything he has done!

A Note From the Editor

The Collegiate Anthropologist is proud to present another issue of incredible work from the students of SUNY Potsdam's Anthropology Department. This journal provides excellent opportunities for undergraduate students in the department to engage with professional writing, disseminate the results of their original research, and truly showcase the skills and knowledge that this field has to offer! The hard work of both the student body and this year's editorial team has come together to create another wonderful edition of the Collegiate Anthropologist.

Throughout this issue you can find work that represents multiple sub-fields within anthropology. From tackling massive questions like the origin of language to examining the effects that globalization has had on the practice and tradition of yoga, this issue has a lot to share! You will also find instructions on how to cook with bone marrow and can learn about the archaeology of classic sites like Pompeii and Herculaneum. This is only a portion of the fantastic work that students have written about, much more awaits in the pages to come!

As my third year of editing, and time being the Editor-in-Chief, for the Collegiate Anthropologist comes to a close, I have nothing but absolute gratitude to share towards those who have made this possible and given me the opportunity to be part of something so unique and fulfilling. I thank the editorial team for all the hard work they have put in to make this publication what it is. Thank you to the dedicated students who authored the work you see in this issue; it is your passion and dedication to this field and the fantastic work you pursue that makes this journal thrive. Lastly, thanks to Dr. Lydia Rodriguez for all the time and effort she has put into this year's publication, and for leading our editorial team in all of our endeavors. The dedicated work of all these people is what brings you this year's wonderful publication. Enjoy!

Sincerely,

Amber

Amber Rounds
Editor-in-Chief

Archaeology Through the Ages

PHILLIP RONDASH

Mount Vesuvius seen from the city of Pompeii. Photograph by Ronel Reyes. Source: Visual Hunt / CC BY-NC-ND

Introduction

Regarded as two of the greatest archaeological discoveries, the sites of Herculaneum and Pompeii saw their first excavations in 1738 and 1748 respectively (Capasso 2000, Barcio 2014). Both cities were buried under volcanic debris as a result of the eruption of Mt. Vesuvius in 79 CE (Barcio 2014). There have been a multitude of techniques used over the 280 years of ongoing excavations and research at these sites. Experimental methods used in the past had groundbreaking results; our understanding of the daily lives and values

of the city's residents has greatly improved. Research and excavation at both sites continue today. Modern technology is used to make new discoveries that were previously not possible and shines new light on past discoveries.

City Beginnings and Ends

Pompeii and Herculaneum are both located on the Italian peninsula, near Mt. Vesuvius. Pompeii is located to the south of the volcano, while Herculaneum is situated to the west. This area was thought to be an ideal location for growing cities due to the fertile soil and plentiful

Pompeii and Herculaneum

sea resources. Archaeological evidence shows that Pompeii was inhabited as a city by the sixth century BCE. The earliest evidence for the occupation of Herculaneum indicates that people inhabited it throughout the fourth century BCE. Based on historic writings dated to these times, we know that both cities were originally populated by the Etruscan peoples (Cooley and Cooley 2014). As a result of the Social War (91-88 BCE) fought between Rome and various Italian tribes who wanted Roman citizenship, both Pompeii and Herculaneum came under the control of the Romans (Cooley and Cooley 2014). Evidence shows that, in the years prior to the eruption of Mt. Vesuvius, there were a series of earthquakes in the area where the two cities are located. Inscriptions and reliefs detailing the damages and ongoing repairs to Pompeii before the eruption have been found buried in the city and have been analyzed (Cooley and Cooley 2014). The eruption, witnessed and recorded by Pliny the Younger, occurred on August 24th, 79 CE (Cooley and Cooley 2014). Wind carried the ash and pumice from the volcano south, burying Pompeii over the course of a few days. Although the lighter debris had been carried south by the wind; heavier materials, such as the volcanic mud, ran down the side and buried Herculaneum (Barcio 2014).

"In the years prior to the eruption of Mt. Vesuvius, there were a series of earthquakes in the area where the two cities [Pompeii and Herculaneum] are located."

Rediscovery and Excavations

Both cities were rediscovered in the 18th century, and invasive excavations began. Although Pompeii had been temporarily uncovered during a construction project in 1594, no one was interested in pursuing it at the time. Subsequently, it was left forgotten for 150 more years. During a small construction project in 1709, expensive marble from the city of Herculaneum had been found but was quickly sold. After learning the origin of that bit of marble, an Austrian officer, Prince d'Elboeuf, began digging in the area to find more marble for his own construction project. He

also had the hopes of finding long lost artifacts that he could either sell or display for himself. Prince d'Elboeuf did ultimately find a set of three statues, which he proceeded to sell to a collector back in his home country of Austria. Eventually, the land came under the control of Spain (Robbins 1990). Upon the discovery of the artifacts stored in Prince d'Elboeuf's house, Charles III pushed for the resumption of excavations in 1738. The methods used to uncover the city included aggressive mining and blasting. His efforts resulted in the discovery of the theater of Herculaneum, which led to the identification of the city. Because of the identification, Charles III was persuaded to fund the excavation at Civita; Civita was then thought to be the site of Herculaneum's sister city, Pompeii. As it turned out however, Civita was a suburb of Pompeii, located approximately 700 meters away from the actual site. An early German archaeologist by the name of Johann Joachim Winckelmann traveled to the sites to record some of the findings. He met opposition in his attempts to enter the sites and draw/examine some of the finds. Winckelmann would go on to make efforts in contacting other scholars to raise interest in the significant sites and worked to change the use of poor excavation techniques (Robbins 1990, 116-117).

Giuseppe Fiorelli, an Italian archaeologist, became the director of excavations at Pompeii in 1860. He had been working as a professor of archaeology at the University of Naples prior to his designation as site director. Upon his inspection of the hollows riddled with remnants of bone and other artifacts, he determined that they were in fact created from the volcanic ash that had trapped people during the city's destruction. Fiorelli came up with the idea to fill the hollows with plaster and let it set before removing the volcanic debris. His idea resulted in the casts of some of Pompeii citizens' last moments of life. The casts by Fiorelli are still on display at Pompeii (Robbins 1990). Due to the nature

Plaster cast of Pompeii victim and items excavated from Pompeii. Photograph by Greger Ravik. Source: VisualHunt / CC BY

of the casts, they cannot be moved like other artifacts for display in exhibitions. In more recent years, there have been efforts to bring unique visages of the casts to people who may not be able to travel to see them. The work of artist Gary Staab has contributed to this spreading of the powerful images of Pompeii. Staab was commissioned to create portable models of some of the casts. Using carefully positioned rulers and digital photography, he was able to import pictures of the requested casts into a 3D-rendering program. Once rendered, the images were sent to a computer-controlled cutter, which cut the figures out of a high-density foam. Staab then reinforced the newly

cut foam models with steel rods. Lastly, he covered the foam in plaster so that the original look of the casts was maintained in the models (Lobell 2011, 39-41). The models and images created by Staab have afforded people the opportunity to study some of Pompeii's most iconic artifacts without the necessity of going out to the field.

Advances in Technology
Geographic Information Systems and 3D Models
Modern advances in computing and photography have contributed greatly to the understanding and collection of information in the

Pompeii and Herculaneum

Excavation at Herculaneum. Source: www.wikipedia.com

contexts of archaeological analysis. Even sites such as Pompeii and Herculaneum, which have been in continual excavation for nearly 300 years, are seeing new discoveries with the help of advancing technology. Some people have been using a combination of digital photography, 3D-rendering programs, and geographic information systems (GIS) to create repositories accessible globally through the Internet. Archaeological features and artifacts are photographed with scales in the frame; they can then be converted into digital 3D models accurately, maintaining their relative proportions. Photorealistic textures can then be placed over the model for future viewing. Laser scanning is another method that can be used to capture the form of an object, allowing for it to be converted into a 3D-model. The benefits of laser scanning are that it can detect and record variation in the surface of an artifact, something that cannot be achieved when simply importing photographs to the computer. Once models are created, features can then be mapped spatially using GIS technology. Artifacts and images can also be added as either an object on a map, or as an attached note. The implementation of this technology serves as a valuable function in increasing access to archaeological data, while simultaneously maintaining important contextual information needed for accurate analysis and interpretation (Apollonio, Gaiani and Benedetti 2012).

Despite the helpful resources these methods generate, they also possess several flaws. The equipment required to capture the images can be expensive and complicated to use. Importing the images and creating the models takes very specialized training that is not a standard part of an archaeologist's education. Both the real-world acquisition of data and its subsequent digital processing can be very time consuming, which can result in increased costs. Once all the initial work of creating the master images and maps is completed, they then have to be scaled down to smaller, more easily accessible file sizes for both practical record-keeping purposes and hosting for others to view online. The growth of relative technologies and increasing demand for related skill sets will eventually cause these issues to become more obsolete; in the future, they will become a standard tool utilized by archaeologists in their studies (Apollonio, Gaiani and Benedetti 2012).

Reflectance Transformation Imaging

In the ancient cities of Pompeii and Herculaneum, people often used graffiti to leave messages on the plaster walls that littered them. The word "graffiti" comes from the Italian verb "graffiare", which means to scratch. The people of these cities often scratched names, short messages, poems, and pictures into the walls. They would use small metal tools such as a stylus or nail to create these scratches on the plaster surfaces of walls. As time has passed and the walls have seen much human interaction, the plaster is now chipping and peeling. To combat the loss of the walls and the ancient artwork on them, the Herculaneum Conservation Project is attempting to capture and store the images digitally through the use of a process known as Reflectance Transformation Imaging (RTI). RTI uses a fixed camera to take multiple pictures while a flash is moved through a series of positions equally distant from a single point but from different angles and directions. This allows the images to be combined to create a new image in which all of the scratches on the walls are visible. The method of moving the light source to make lines more visible had been used previously to get more viable photographs of the graffiti. Nonetheless, images in direct sunlight are difficult to see. RTI images of graffiti in direct sunlight can still be difficult to decipher; however, when compared to old photography methods, they have major advantages and possess greater quality.

Acquiring RTI images in the environment on Herculaneum did present some challenges. The process can be time-consuming and difficult to set up on larger works. The vertical surfaces require the flash to be held and moved manually to each required position. The camera, once positioned, cannot be moved for the entire duration of picture taking, otherwise the images will not properly overlay. This work is also often performed in a public space, which sometimes results in people interrupting the process and even trying to touch the equipment. Despite these challenges, the ability of RTI to create detailed images of graffiti while keeping their contextual information put it ahead of standard photography and line drawings in terms of ability to document the archaeological record (DiBiasie Sammons 2018).

Archaeological Analyses

Bone Analysis

Due to the type of volcanic deposits covering Herculaneum, proper excavation has been slow and labor intensive. In 1982, excavation of the beach uncovered boat sheds filled with the remains of people who had not managed to completely evacuate the city when the volcano erupted. About 250 individuals were found between the sheds and the beach itself. Analysis of the differences in how the remains were preserved can tell us what they were doing when they died. The placement of the remains in boat sheds suggests that people were making their way to the sheds when they got hit by the pyroclastic flow. The few caught out on the beach had been knocked down. Their bones had been charred. They did not, however, show typical cracking patterns developed by bones as they reach cremation temperatures, around 800 degrees Celsius. The bones of those on the beach actually show that the temperature of the volcanic flow was around 350 to 400 degrees Celsius; these temperatures are consistent with the carbonized wood found within the city. The skeletons of those sheltered in the boat sheds show that they, for the most part, were not directly exposed to volcanic material. Their positions and the coloration of the bones suggest exposure to the same temperatures as those who were caught outside. The difference, however, is that the temperature had built up gradually, which caused tissues to dehydrate and contract. Because of how those in the sheds

"Through the analysis of isotopes present in the collagen in the bones of past peoples, we can identify variations in diet between populations, age groups, people of different social status and sex."

had died, some organic material became carbonized and retrievable. The identified carbonized organic material included lice, organ tissue, and a small tumor. In addition to the effects of the heat on the bones, the ages and medical conditions were able to be identified for some of the individuals. The discoveries at the boat sheds of Herculaneum provide us with significant insights about the lives of this people (Capasso 2000).

Isotope Analysis

Archaeologists have also studied what types of food people in the past ate in order to develop a better understanding of their lives. Through the analysis of the isotopes present in the collagen in bones of past peoples, we can identify variations in diet between populations, age groups, people of different social status and sex. Due to the people of Herculaneum perishing in the same manner at the same time, testable samples show greater variability as there were no cultural treatments to the deceased that resulted in some demographics to be more or less represented than others. Testing of the remains found at Herculaneum showed increased amounts of variability in marine protein for people over the age of thirty. Males in this age group were generally found to have more marine protein than females. However, in the younger age group, females possessed more marine protein in their bodies. Younger females also had consistently more marine protein than older females, but still tended to have less than older males. Younger males had close to the same amount of marine proteins as older females, but rarely more than the average older male (Martyn et. al. 2017). In addition to testing for isotope levels, archaeologists can make inferences on diet through the identification of certain organics in coprolites and the immediate area. Some of these discoveries have even led people to question the exact date or season of the eruption. Many food remains,

"Testing of the remains found at Herculaneum showed increased amounts of variability in marine protein for people over the age of thirty. Males in this age group were generally found to have more marine protein than females."

such as seeds, found in Pompeii and Herculaneum have been identified. Large quantities of chestnuts, figs, pomegranates, and walnuts indicate that fall harvests had begun (Cooley and Cooley 2014).

Conclusion

Advances in modern technology combined with innovative minds of archaeologists continue to advance the field. Improvements in methods of recording and sharing data found at sites have generated greater public interest in archaeological endeavors. New discoveries at sites like Pompeii and Herculaneum continue to create opportunities for archaeologists to test new methods of data acquisition, as well as revisit old data, artifacts, and features with a new lens that allows for more accurate and insightful analysis and interpretation.

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About the Author

Phillip Rondash, from Carmel, NY, is a senior at SUNY Potsdam with a major in archaeological studies. He will be working at Fort Drum as a field technician doing Cultural Resource Management work. This is his first published work.

Language: Uniquely Human, But How Long Have We Had It?

John Davidson

Language Origin: the never-ending question

After lifetimes of data collection and countless years of debating research results, at the end of the day there remains the question: "when did language develop?" And it will continue to remain, indefinitely, as some answers must be accepted as unattainable. However, "unattainable" does not mean "not worth searching," and "unknown" does not mean "uninteresting," and so we have been able to use various tools and knowledge in the fields of linguistics and anthropology, and their appropriate sub-divisions, to narrow an answer into range, and give ourselves enough substance as to be able to stand on solid ground with an approximate answer. Looking at the stages of human evolution not only from a biological point of view, but through a linguistic-anthropological lens, we can develop a strong hypotheses for language origins by focusing our lens on aspects such as cranial physiology and cultural and sociocultural development.

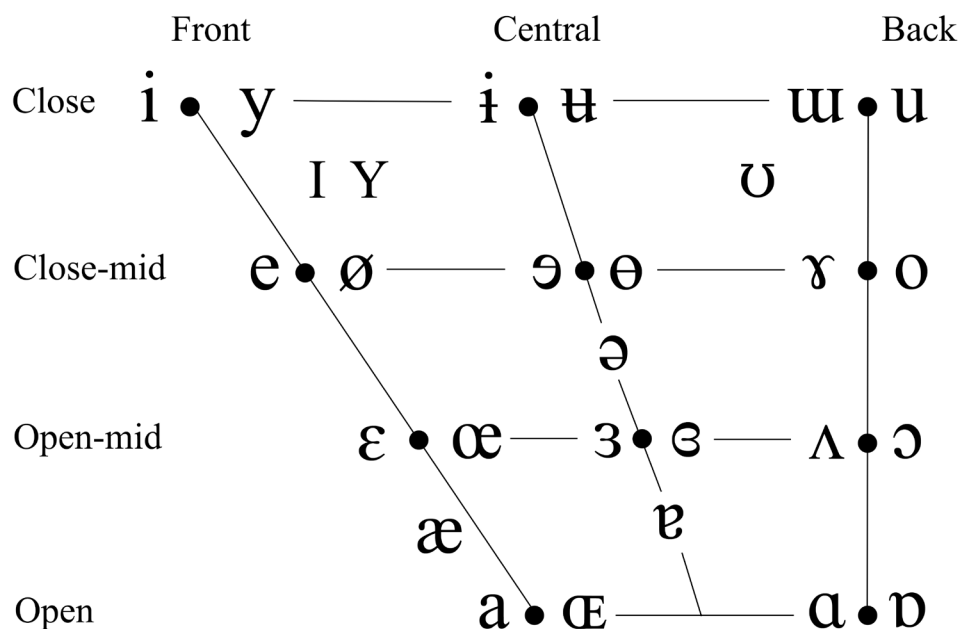## Why are humans the only species capable of speech?

Multiple studies have been done to prove a correlation between the formation of the base of the skull and the position of the larynx in order to understand the biological differences that make language unique to humans as a species on this planet. One such study was conducted by Jeffrey T. Laitman and colleagues (1984) in which they analyzed the skulls of different species of mammals, revealing two different formations: a flat skull base with a high-positioned larynx, and an arched skull base and a low-positioned larynx. The crucial difference between them is that the latter is found only in humans past infancy, with the former being characteristic of all other mammals, and humans less than two years of age. This means that a high-positioned larynx is the prerequisite for speech capability (Stanlaw 2015). Philip Lieberman, with his colleagues, made a similar investigation and studied this evolution of the vocal apparatus (Lieberman, Shankweiler, Fischer and Carter 1974). By comparing the skulls of modern adult humans with those of newborn infants, Neanderthals, and contemporary apes, they observed the crucially unique features of the modern adult human brain in respect to "the position of the larynx and the size of the pharynx that lies directly above it" (Stanlaw 2015: 168). In modern humans, the larynx is positioned quite low, resulting in a larger supralaryngeal area and allowing for the production, vocal control, and manipulation of "extreme" vowel sounds due to their "far" vocal positioning: close/front (tense/unrounded) [i], close/back (tense/rounded) [u], and open/back (tense/unrounded) [a] (Figure 1). By studying this cranial structure and creating reconstructions and comparing them as previously described, Dr. Laitman and Dr. Lieberman were able to conclude that this capability was most likely not developed until the arrival of *Homo Sapiens Sapiens*, as they have the first skull-base arching comparable to that of the modern human, appearing about 300.000 to 400.000 years ago (Stanlaw 2015). These findings have since been replicated, including a 2017 study by the University of Vienna's Tecumseh Fitch and colleagues in which scientists used advanced techniques to model every

> "*Looking at the stages of human evolution not only from a biological point of view, but through a linguistic-anthropological lens, we can develop a strong hypothesis for language origins by focusing our lens on aspects such as cranial physiology and sociocultural development*"

VOWELS

	Front	Central	Back
Close	i • y	ɨ • ʉ	ɯ • u
	ɪ Y		ʊ
Close-mid	e • ø	ɘ • ɵ	ɤ • o
		ə	
Open-mid	ɛ • œ	ɜ • ɞ	ʌ • ɔ
	æ	ɐ	
Open	a • ɶ		ɑ • ɒ

Where symbols appear in pairs, the one
to the right represents a rounded vowel.

Diagram showing the whole range of vocalic sounds made by humans. "Extreme" vowel sounds are shown at the edges of the diagram. These sounds are produced in the perifery of the oral cavity: close/front [i], close/back [u], and open/back [a]. Lieberman and colleagues hypothesized that the capability to make these sounds was most likely not developed until the arrival of Homo Sapiens Sapiens. Image adapted from IPA Chart, http://www. internationalphoneticassociation.org/content/ipa-chart, available under a Creative Commons Attribution-Sharealike 3.0 Unported License. Copyright © 2015 International Phonetic Association. frominternationalphoneticassociation. org/content/ipa-chart, available under a Creative Commons Attribution-Sharealike 3.0 Unported License. Copyright © 2015 International Phonetic Association.

vocal tract shape a macaque is able to produce, confirming that macaque's vocal tracts were incapable of producing said vowels, yet argued that they were "speech-ready" nonetheless, as "research has long since established that these vowel sounds are not prerequisites to language (Lieberman: 2018: n.p.). Therefore, thanks to the studies done by Lieberman and Laitman we conclude that skull base structure is an indicator for estimating vocal capability.

Our hominid ancestors: what were they capable of?
In addition to what can be learned from the skull shape and degree of basicranial flexion, crucial information on the development of language can also be inferred from examining the material remains left by our hominid ancestors. There is a general consensus in concluding that the development of culture "must have been paralleled by developments in communicative behavior, and

that a positive feedback must have existed between the two" (Stanlaw 2015: 165). That is to say, as the complexity and extensiveness of a culture increases, it must be matched with a communication system able to accommodate it. For example, the early, simple hunters such as *Homo Habilis* were known to collaborate together but not to accomplish anything as complex as their later relatives *Homo Erectus* or *Homo Neanderthalensis.* We can confidently assume that there was a physical capability in *Homo Habilis* to match their successors, and that they would have been *physically able* to execute the same hunting prowess, yet their accomplishments, while still revolutionary, were not as advanced. Why? Imagine attempting to plan, organize, and execute a hunt in which members need to figure out how to use fire to scare large game into specific areas in order to collectively take down a large beast, without any use of verbal communication. It's just not possible. Hockett argues this point as well by saying "true language is such a powerful instrument for technological and social change, that if our ancestors had it 500.000 or 1 million years ago, why did it take us so long to get where we are?" (Hocket 1973: 413). In other words, language could not have existed until more recently (historically speaking) because if it had existed 500.000-1.000.000 years ago, we would have reached today's advancements much sooner. Therefore advancements are dependent upon ability to communicate information.

> "*As the complexity of a culture increases, it must be matched with a communication system able to accommodate it.*"

Language and culture: a first meeting

Now to apply this consensus to human development, we see the first revolutionary collaboration, cultural development, and technological progression in *Homo Erectus*. Credited as the first hominids to successfully survive a winter, we have substantial evidence to recreate a hunting scene in which "a band or bands of Homo Erectus hunters of 200.000 to 400.000 y.a. managed, by either brandishing torches or setting grass afire, to stampede elephants into a swamp area, and so render them defenseless for the kill" (Stanlaw 2015: 165). The planning and the execution of such a successful hunt would only be possible with a sort of pre-language, showing signs of displacement as well. As one of the most advanced of Hockett's design-features that together define 'language,' displacement refers to the ability to "talk about things that are remote in space and/or time from where the talking goes on" (Hockett 1960: 6). This includes communicating about future intents and objects that they would encounter in them (like planning an elephant hunt) and having some method to indicate terms such as "elephant" and "fire." We must also consider the level of forethought and planning that went into the hunt. To be able to understand that their group cannot take down an elephant simply with their weapons is not as 'impressive' as recognizing that you first need to take down its defenses. Instead of trying to match the force and prowess of an elephant, they developed a strategy to impair its defenses and utilize its weaknesses, displaying a certain level of intellect.

We see an even greater leap in cultural development in the Neanderthals. We know that they were extensive tool makers, fashioning spears and other weapons from stone. Even though Neanderthal technology is far less advanced than Homo Sapiens', Neanderthals "adapted the stone working techniques of their predecessors to produce far more varied and carefully finished tools and became even more proficient hunters" (Stanlaw 2015: 166). Most importantly, they also cared for the feeble, and partook in some important ritualistic behaviors. Sites in places such as *Grotte Chauvet* in France show set-ups that support important cultural aspects—bear skulls are noted to have been deliberately placed in a ritualistic fashion, concluding anything from a burial, to a mourning ritual for a lost one, religious or spiritual purposes, or maybe even support for animism. They may have

Le Moustier Neantherthals, by Charles R. Knight. Source: Wikimedia Commons https://commons.wikimedia.org

been respecting the spirits of the cave bear or of other animals and their respective bones. This drastic step is revolutionary in that, linguistically speaking, it would be even more substantial evidence to support displacement (Hockett 1960: 6). The development of spiritual beliefs, such as the belief in an afterlife, are inherently based on communicating outside of your immediate time and space, which is the definition of displacement. While still drawing breath, all communicated thoughts regarding the soul after death is referring to something intangible and not visible in the vicinity, an ability almost entirely reserved for the modern *Homo Sapiens Sapiens*.

And so, at the end of the day, the correlation is indisputable between communicative progression and a culture's ability to advance. These two particular developments in hominids as documented in the fossil record and material remains are eye-opening to say the least, yet it is how they overlap that shows the truly substantial data in trying to pinpoint language development. We see the first notable advancements in culture in *Homo Erectus*, and in this same time period is when we notice as well the first notable arching of the skull base, and the first rapid expansion of cranial capacity (Stanlaw 2015). The two features most widely studied in this research overlap in the progression from *Homo Habilis* to *Homo Erectus*. This duality is repeated again with the *Homo Neanderthalensis* from *Homo Erectus* in regards to an increasing drop in the larynx as a result of an

Language Origins
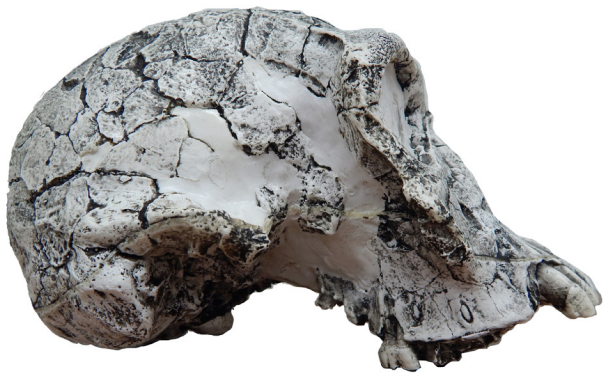
Australopithecus Afarensis "Lucy"

Homo Erectus

Homo Neanderthalensis

Homo Sapiens Sapiens

Casts of the skulls showing different degrees of basicranial flexion. Australopithecus Afarensis has an almost flat skull base, and an ape-like projecting face. Homo Erectus shows incipient basicranial flexion, which resulted in a lower larynx. Homo Neanderthalensis' skull base is more arched than Homo Erectus', but the more arched skull base, allowing for the lowest position of the larynx can be seen in Homo Sapiens Sapiens. This arched skull base allows Homo Sapiens Sapiens to produce the whole range of vocalic and consonant sounds that human beings are capable of pronouncing. Photographs by Dr. Lydia Rodriguez.

increased arching of the skull base, complemented by a cultural boom and rapid expansion of advancements in hunting, socialization, and group collaboration. Thus, "the full story [of language development] involves a great deal more than communicative behavior alone. The development must be visualized as occurring in the context of the evolution of the primate into the primitive society of food-gatherers and hunters, an integral part…of the total evolution of behavior" (Hockett 1960: 8).

So… when did we first use language?

In light of the discussed features, it is argued that *Homo Erectus* would have had some sort of prelanguage (based on the degree of arching in the skull base and their cultural development) and *Homo Neanderthalensis* would have had an incipient form of language. There is obvious speculation about whether the Neanderthals would have been the ones to develop language or their predecessors, and the range of sounds that Neanderthals were able to produce. In 1971, Lieberman and colleagues published a "computer modeling study of a reconstructed Neanderthal vocal tract…and concluded that Neanderthals had vocal tracts that were similar to those of newborn human infants and monkeys and hence could not produce the quantal vowels [a], [i], and [u]" (Lieberman: 2018 n.p.). Nevertheless, evidence from the archaeological record shows an impressive

"The development of spiritual beliefs, such as the belief in an afterlife, is based on communicating outside of your immediate time and space, which is, by definition, displacement"

use of symbolic thought and of the displacement feature of language, "suggesting that their brains were quite advanced, and that, unlike monkeys, they could talk, albeit with reduced intelligibility" (Lieberman 2018 n.p.). Hockett stated that "the task of working out the sequence by which ancestral [communication] systems became language as the hominoids…became man" was to be achieved by comparing human communication with that of other hominoids, while looking at the progression and accumulation of design-features over time (Hockett: 1960:5-6). Regardless of any existing debate over language among the Neanderthals, "the presence of language among the Cro-Magnons cannot be disputed" (Stanlaw 2015: 167). While the complex history of biocultural evolution cannot be reduced to pinpointing a specific "date" for the origins of language, at the very least "today, no one would question the assumption that language was well established at the time of the relatively brief Mesolithic period that followed the Upper Paleolithic and ushered in the Neolithic" (Stanlaw 2015: 157). These revolutionary changes could not possibly have taken place without a fully-fledged language. Thus, it is supported that language capability most closely resembling our own would have developed in the transition from *Homo Erectus* to *Homo Neanderthalensis*, some 300.000 years ago (Lieberman: 2018).

Language Origins

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About the Author

John Davidson is a senior majoring in French with a minor in linguistics and a passion for anthropology. In addition to his studies, he has enjoyed being a Research Assistant at the SUNY Potsdam Linguistic Anthropology Research Lab, analyzing speech-accompanying gesture with Dr. Rodriguez. After graduation, John plans to serve in the Peace Corps before attending graduate school. This is his first published work.

The Effects of Globalization on Yoga

NICOLETTE DESANTO

Introduction

For centuries, Yoga has been a practice in South Asia that transcended the boundaries we know within the world today. Recently, within the millenniums of this bodily and spiritual practice, we have seen Yoga continue to transcend these fixed boundaries as globalization has led to an enormous practitioner pool of people coming from all different walks of life. However, with that spread come challenges that these practitioners must face daily, ranging from differing ideas of how Yoga should be performed (varying between schools of practice and even beyond), to who should be permitted to perform it, to the differing expectations that they create based off of preconceived ideas. I will be looking at these challenges to understand how people view Yoga in our current time due to the popularization of this practice through globalization.

A Brief Summary of Yoga

Yoga has been around for centuries, being an important spiritual practice that was made to be experienced differently by every individual, much like bhakti in Hinduism, on a personalized level (there is a form of Yoga known as *Bhakti Yoga*). But just how long has Yoga been in the world? Well, there is no definite way to know for certain, though we understand that it has been around for at least five

Ashtanga-Vinyasa Yoga pose. Source: wikimedia commons
https://en.wikipedia.org/wiki/Ashtanga_vinyasa_yoga

thousand years, as mentioned in the *Rigveda* and later, the *Bhagavad Gita* during the *Vedic Age*. However, many believe it has existed for even ten thousand years, long surpassing most, if not all, other practices that are similar in their connections with the world through spiritual meditation and bodily workouts (Achanta 2018).

The uncertainties aside of just how old Yoga is as a practice, it was not until the 2nd century AD when Patanjali created the *Yoga Sutras*, the first book that would contain the systematic representation of Yoga was written. This period in Yoga's history was aptly named the *Patanjali Age* as he became known as the Father of Yoga, having laid the groundwork for how we understand Yoga today. Within the *Yoga Sutras*, Patanjali discusses the "Eight Limbs of Yoga," which are the steps one must take through their body in order to reach an ultimate goal of enlightenment (which differs from person to person). The eight limbs are known as *yama* (mortality), *niyama* (discipline), *samadhi* (self-realization), *dhyana* (meditation), *asana* (physical exercise), *pranayama* (breath control), *dharana* (concentration), and *pratyahaya* (detachment) (Achanta 2018).

Following the *Patanjali Age* was a period of time known as the *Hatha Age* in which enlightenment became an important feature within Yoga attained through the relaxation and focus of the body and mind, lasting into modern Yoga practices (Achanta 2018).

Currently, we are within the *Present Age* of Yoga in which we are exposed to at least eight concrete, different forms of yoga: *Ashtanga Yoga*, which builds internal heat; *Vinyasa Yoga*, which "combines movement and breath" so that each pose performed has a certain breathing pattern to accompany it; *Kundalini Yoga*, which is akin to meditating; *Iyengar Yoga*, which uses props like a number of other workouts found at the gym or in classes while also

"Yoga allows its practitioners to decide what they want to do and how they want Yoga to influence their bodies, minds, and spirits, since the goal of Yoga is to achieve enlightment, which is different for every person."

paying close attention to the certain positions to ensure the ultimate workout; *Power Yoga*, which is a fast and strenuous exercise; *Bikram Yoga*, which "is a set of [twenty-six] postures . . . practiced for a duration of [ninety] minutes in a heated room"; *Jivamukti Yoga*, which I view as a combination of the main tenants of Yoga as it is a hybridization of spiritual, physical, and meditative ideologies; and *Restorative Yoga*, in which you hold the poses for long periods of time, allowing your body to react differently before ultimately relaxing. There are forms, such as *Bhakti Yoga,* mentioned above, or *Karma Yoga*, that are not part of these eight. These forms of Yoga have many beneficial impacts to the body, spirit, and mind, allowing for anything ranging from a great workout to a great night's sleep (Achanta 2018). However, is it not just these types of Yoga that make the *Present Age* what it is.

Thousands, if not millions, of people participate in Yoga to any extent. Some heavily follow one type of Yoga, while some casually participate in multiple, and others may even combine certain ones to fit their needs, finding what works best for them. Yoga allows its practitioners to decide what they want to do and how they want Yoga to influence their bodies, minds, and spirits since the goal of Yoga is to achieve enlightenment, which is different for every person. However, as a result of this modern age of globalization in which most of the 7.5 billion living on the planet have access to one another (while all having differing ideas), we are beginning to find that there are some who have certain ideals of what Yoga and its connection to India should be and believe in certain, strict rules for the practice, as opposed to the flexible guidelines many attribute to Yoga.

Western Practitioners in India

Between the 1970s and 1980s, Mimi Nichter

A session of festival of Kundalini Yoga. Photograph by Jaime Ramos. source:https://commons.wikimedia.org/wiki/File:A_session_of_festival_de_kundalini_yoga.jpg

conducted research at the Sri K. Pattabhi Jois Ashtanga Yoga Institute ("SKPJAYI") in Mysore, South India, in order to understand the social aspect of Yoga as experienced by Western practitioners visiting SKPJAYI for Yoga retreats. According to Nichter, health tourism in India is a big commodity that attracts many, possibly because of its connection with Yoga, as people spend thousands of dollars to participate in spa-like luxuries before or after Yoga sessions (Nichter 2013).

Nichter points out the ways in which the Westerners arriving in Mysore were influencing how this tourist city ran, despite Mysore being known for plenty of other activities or locations beyond SKPJAYI. Classes were individually created by teachers and held in the morning so that the rest of the day could be devoted to tourist-related activities in which the Western practitioners could relax and see more of what they believed to be an orientalist-based, "Ideal India" (Nichter 2013: 206-207).

As the practitioners visiting SKPJAYI who were interviewed by Nichter were all from the West, they had developed ideas of what India should have been upon their arrival. Through years of globalization in which the cultural spread of Yoga has occurred through migration, capitalist appropriation and marketing, and the media, many of the practitioners, if not most, were disappointed in the "lack of authenticity" (Nichter 2013: 208) found once they got to Mysore and SKPJAYI. After years of participating in *Ashtanga Yoga* classes in their home countries in the West, they had developed an ideal of what India should be within their minds and thus, were dissatisfied with what they found when reality settled in. Some practitioners, depending on where they were from in North America or Europe, had different experiences with aspects of Yoga that they may not have anticipated prior to their arrival

Statue of Patanjali, known as the Father of Yoga. Source: www.pinterest.com

in India, often even finding connections to their own cultures (Nichter 2013).

For example, a Finnish woman enjoyed the precision that *Ashtanga Yoga* provided, and a Japanese man simply enjoyed the workout it offered. However, there were students who were unhappy with aspects of it. An Austrian man who was living in San Francisco prior to attending a class at SKPJAYI did not enjoy that Pattabhi Jois did not speak much English, as he would have preferred for steps and poses to be clearly articulated as they went along instead of simply being shown as students how to follow along. North American males also felt uncomfortable with their appointed gurus, as they were often unsure of how to properly interact with the guru and were skeptical towards accepting them.

North American women felt that many attending the retreat were only there for wild vacations and would then use Yoga as a detox of sorts after "smoking and doing drugs" (Nichter 2013).

Due to the fact that the Westerners interviewed who were attending SKPJAYI were not a homogenous group, each had different expectations, being either happy or disappointed in their experiences at the Institute. Many felt that they received misinformation, a commonality within this age of globalization because of how easy communication is between individuals. There is no way to know what is and is not the truth, but when it comes to Yoga, most believe that there is no one truth, that it can be a personal experience intertwined with individual enlightenment.

Two Extremes

The line "yoga threatens Christian America" (Jain 2014: 1), or knowing that Pat Robertson wrote a book about a devotee of Shiva joining forces with the Antichrist to kill the President of the United States, The End of the Age (1995), or even the belief that Yoga belongs to one group of people all feel rather extreme to me. However, there are plenty of extremes in the world, and Yoga is no exception.

In her article "Who Is to Say Modern Yoga Practitioners Have It All Wrong? On Hindu Origins and Yogaphobia," Andrea R. Jain discusses two extremes that have become present in our world with the globalization of Yoga. "Hindu origins," introduced by the Hindu American Foundation in 2010, is the idea that Yoga belongs solely to Hindus and Hinduism, and anyone else who performs it is merely joining in on the capitalization and marketing of Yoga. On the other hand, "yogaphobia" as Jain defines it is the Christian-American fear that Yoga severs one's ties with God and should not be performed by Americans or Christians unless altered to fit into more Christian ideologies (Jain 2014). Yogaphobia truly is a fear felt throughout Christian America as many have developed an otherness approach with a "them versus us" attitude, meaning Hindus versus Christians, and a fear that Yoga is one of the influences of a "post-Christian" nation (Jain 2014: 440). Yoga is seen as an antireligious threat

to Christianity in the United States, with yogis and casual practitioners alike facing swarms of hatred and threats for years. An example of these attacks is that even during the 1960s, when postural Yoga was becoming more and more popular in America, yogis were being driven out of towns and cities across the country. Many Christian Americans, such as a man by the name of Anthony Comstock, felt that they had to protect their ideologies by eliminating anything that they felt would disrupt their way of life. Comstock, a United States Postal Inspector, founded the New York Society for the Suppression of Vice in order to censor whatever he deemed to be a possible threat to Christianity, following true with this yogaphobic idea. Yoga was not just deemed a threat to Christianity and a threat to keeping America as Christian as it has been in the past, but was and still is viewed as antireligious and even Satanic (Jain 2014).

The only way for Americans to participate in Yoga, according to Christians who support a yogaphobic stance, is if the Yoga they participate in has severed any connections with Hinduism and India and is transformed into a Christian-related workout that focuses on building up one's muscle and connection with God. While this is not necessarily far off from how many view Yoga (a strengthening of the mind, spirit, and body), Christian Americans believe in cutting out any possible mention of anything relating to Hinduism. There is even one company called PraiseMoves that offers a Christian alternative to Yoga to ensure that yogaphobic Christians who still desire to participate in Yoga are able to (Jain 2014).

Whereas yogaphobic Christians have believed that Yoga was an antireligious practice that should never be performed by Christians, those who support a Hindu origins stance actually agree. Both extremes feel that, despite the inevitable spread of Yoga and

> *"Many who support the Hindu origins worry that this appropriation of Yoga is a form of neocolonialism, one more aspect of their culture stripped away by others who decide what to do with it. "*

the hybridization of it through globalization, anyone outside of Hinduism has no right to be participating in the practice.

There are some understandable concerns of those who support the Hindu origins stance, such as the concern that, with Yoga being practiced all over the world in so many new ways, people will forget where Yoga comes from, or that Yoga is merely a marketing tool for monetary gain as opposed to some form of a sacred practice. Many who support the Hindu origins extreme worry that this appropriation (in their eyes) of Yoga is a form of neocolonialism, one more aspect of their culture stripped away by others who decide what to do with it. However, globalization and this hyper-active spread of ideas has been going on throughout human history. What we know as Yoga today could have been completely different four thousand years ago, with mirrored arguments to those we find today (Jain 2014).

These concerns are often overshadowed, perhaps even forgotten, by the vast majority of practitioners of Yoga, Hindu included, who feel that Yoga is only a spiritual act, not a religious one. An important aspect of Yoga is that no one person or group of people owns it as it is meant to be beneficial for any and all who decide to partake in it, regardless of religion or where one is originally from. Even yogis with studios are not necessarily looking to destroy a piece of culture and history just because they are not Hindu themselves (Jain, 2014).

Both extremes of Hindu origins and yogaphobia seek to separate people from the others, creating a disconnect in the world. Yuj, the Sanskrit word that Yoga is derived from, literally means "union" (Achanta 2018). Yoga is meant to connect people with others not necessarily physically, but mentally, as the goal to enlightenment is found through one's being open-minded and understanding.

Conclusion

Through globalization, many different practices, customs, or even companies and foods, have transcended international boundaries. Yoga is no different. Yoga has been caught in a battle over what is authentic, modern, adapted, or even right, with no one person having the correct answer because it has been changed and modified by millions. Due to the fact that Yoga is a personal experience that is meant to be right to every individual, it has grown in popularity, in partnership with globalization's spread of it.

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About the Author

Nicolette De Santo is a graduate of SUNY Potsdam, earning her Bachelor's in Anthropology. Currently, Nicolette is working for the Walt Disney Company in Walt Disney World Resort, and looking to join the company doing applied anthropological work. This is her first published work.

The *Collegiate* Profile:
Dr. Faris Khan, Sociocultural Anthropologist

TARA STERN

Dr. Faris Khan teaching cultural anthropology students in the Digital Anthropology Lab. Photograph by Jason Hunter.

Dr. Faris Khan is a cultural anthropologist in SUNY Potsdam's Anthropology Department. This is currently his fourth semester teaching here.

After earning his Doctorate from Syracuse University, Dr. Khan was hired as a visiting assistant professor at Sarah Lawrence College. Afterwards, he worked as a visiting professor at Brandeis University for a year, then as a postdoctoral research scholar for another year in their Anthropology Department.

When he came to Potsdam a little over a year and a half ago, he was impressed with the amount of student participation that he witnessed, whether it was in the form of the Anthropology Club or the students just coming to meet with him. The ability to have a one-on-one conversation with students provided a welcomed connection. Dr. Khan was also impressed that, unlike many colleges, the SUNY Potsdam Anthropology Department is representative of all five subfields of anthropology: cultural, linguistic, applied, biological, and archaeology. The fact that the department did not focus exclusively on any one subfield, and that the faculty were encouraging and supportive of their students and colleagues, made the environment very collegial.

Dr. Khan did not originally start out studying anthropology; in fact, he began his college career as a theater major. He enjoyed working both on and off stage. It would be the ideas and professors of anthropology that he encountered in his undergraduate career that would result in him

switching his major. He appreciated the way that the discipline provided the concepts and methods to engage in productive conversations and ways of understanding cultural differences. To him, the anthropological approach was "thought-provoking" in that it can make a person question their common-sense assumptions about the world.

Dr. Khan's interest in performance never left him though. In fact, when asked about the reasons that he likes teaching, Dr. Khan explained that it reminds him of "that performative aspect." He explained that "you're putting on a production of sorts for the benefit of education and imparting knowledge." This also correlates with another reason that he likes teaching; it allows him to explain the ideas that provide students with the tools to better understand people who are different from us. He went on further to explain, "I think it's so important for us to be able to understand cross-cultural differences that can help us engage in conflict resolution or to avoid conflict altogether." He believes that teaching offers the opportunity to make a huge difference even when working with a small group of students.

Dr. Faris Khan (right) with khwaja sira activists at an NGO in Karachi. Photograph courtesy of Dr. Khan.

Dr. Khan's area of expertise includes gender and sexuality, which is demonstrated through the research that he has conducted throughout the years. His dissertation focused on the *khwaja sira*, a group of people that do not conform to gender. His recent research has looked into how South Asian queer minorities use digital technology and social media to change their lives. He explained how social media has given these minorities the opportunity to control their representation when the mainstream media "demonizes" them. It gives them the ability to have a voice and offers the space to promote activism that can result in positive change.

The incorporation of technology into anthropology can also be seen in his Cultural Anthropology classes. Dr. Khan says, "As the world around us changes, anthropologists' research methods need to adapt to those changes." In one of his labs, he has his students create short ethnographic films, which allows them to gain first-hand experience in using technology to gather data. This exercise helps students learn how to use technology to collect, examine, and share their results. These videos were shown on screen at the Digital Anthropology Film Festival (DAFF) that was a part of Anthropalooza, an event put on by the Anthropology Department that showcases various aspects of Anthropology.

When talking about the use of technology in anthropology, Dr. Khan explained, "My goal is to use digital technology to access broader publics." This is what brought about the creation of the Digital Anthropology Studio. "It's a space where I work with students. We produce original content, such as videos and podcasts, through which we are able to share anthropological knowledge and insights and circulate them through social media platforms."

While he was working on creating this space, he also developed an internship program through which students can collaborate to make content. Some of what they have created was shown at the DAFF. He hopes to offer this internship every fall because it can help students develop both practical and research skills.

Dr. Khan took over as the advisor for the anthropology club in the Fall of 2018. He enjoys being involved in an aspect of Potsdam that made him

Dr. Khan and his Digital Anthropology interns stop for a picture at the Digital Anthropology Film Festival. Photograph courtesy of the SUNY Potsdam Digital Anthropology Studio.

interested in the program to begin with. It allows him to have a greater ability to interact with students in a different capacity than a classroom. "It's a creative space," he explained. "It's such a pleasure to be a part of the group and to help come up with new ideas, to brainstorm what else can we do that is different."

Talking with Dr. Khan was truly a pleasure. After listening to him, it is evident that he is passionate about his field of study and teaching it to others. He is a great asset to the Anthropology Department, and I look forward to taking classes with him in the future.

About the Author

Tara Stern is a junior majoring in Archaeology and minoring in Biomedical Anthropology. She is also part of the Honors Program and the Presidential Scholar Program. This her first work published in the *Collegiate Anthropologist*.

How-to column

How to Cook With Bone Marrow

SIERRA CULLUM

My mother has regaled her children with the horror-stories of her dad's archaic dining practices for as long as I can remember. Every time they had chicken for dinner, Grandpa Carl would tell his daughters they weren't finished eating until they had broken all the long bones on their plate to eat the marrow inside. Oh, how she boasted to us about single-handedly slaying that family tradition, choosing instead to raise her kids with the dietary preferences of the modern age! Her mistake was letting my brother and I go off to college, particularly SUNY Potsdam's Anthropology program.

As students are learning in Archaeology and Anthropology classes, bone marrow is a popular ingredient for many ancient and modern cultures around the world. Did you know bone marrow is full of nutrients? Many people find it delicious. It is popularly served in up-scale restaurants as a fancy side-dish, but it's actually inexpensive to buy marrow bones and whip something up in the comforts of your own home. Why not give it a try to find out for yourself? Welcome back, family tradition. (Don't tell my mom!)

Let me begin this exposé into the world of adventurous dining by saying that I am by no means a cook, just a curious Anthropology student with a somewhat open mind and access to a tiny community kitchen. Also, even though eating bone marrow isn't uncommon for many people all over the world, a fair warning to those wishing to cook with bone marrow is that some people will find it weird, even off-putting. I chose to begin this endeavor on a weekend when my boyfriend, Jim, was visiting… mostly because he knows how to use an oven. This is basically how that conversation panned out...

Me: We should cook with bone marrow tonight instead of going out to eat.

Jim (the one who actually cooks): Ew, gross. I'm not eating that.

The project was off to a great start.

The first thing you need to do when cooking with bone marrow is choose a recipe. It's one thing to crack open chicken bones and eat the marrow, but there are many recipes out there that use bone marrow as an ingredient, a garnish, or a spread. I found bone marrow soup recipes that call for thirteen-hour cook times and roasted marrow bone recipes that only take fifteen minutes in the oven. Because I'm a beginner at this whole bone marrow thing, I chose what seemed like the easiest and quickest option: roasted marrow bones.

Now that you've chosen a recipe, you're going to need to acquire the ingredients. The most elusive ingredient is probably going to be the marrow bones themselves. You're going to be hard-pressed to find this ingredient at your local Walmart (although I desperately tried), but if you're really serious about cooking with bone marrow, many recipes helpfully recommend you get in contact with your local butcher, who should easily be able to supply you with the type of bones you need. Your butcher will also usually take care of cutting the bones for you, which is extremely helpful.

When cooking with bone marrow, you will usually be using beef long bones because they have the most marrow inside. However, venison bone marrow is also popular. For roasted marrow bones, you don't want to extract the marrow so much as cut the bones in a way that the marrow is exposed. The most common way is to cut the bone into disks, but you can also cut it lengthwise for easier access. If you're like me and don't have bone-cutting equipment, you're going to have to rely on your butcher to cut the bones for you.

After you've gathered the necessary supplies, it's time to start cooking. I discovered early on that the recipes for roasted marrow bones can substantially differ: a few say to soak the bones before cooking, others recommend seasoning them with different spices, most call for only a light salting of the exposed marrow, and some don't even call for that. It's really up to your preference and sense of ambition which specific recipe looks good to you, but for the cooking process itself, the task was simple across the board: place the bones on a foil-lined baking sheet and stick them in the oven. I set my oven to 450°F and did just that. Generally, they are going to cook for 15-20 minutes. The marrow bones are done when the marrow is soft and separating from the bone without melting.

Once the marrow bones are done cooking, they're ready to enjoy! Two popular dishes recommended to go alongside roasted marrow bones are salads and toasted breads. With a small fork or spoon, you can scoop the roasted marrow right out of the bone and eat it on its own or spread it on toast. It is a simple, straightforward way to branch out and try something different, and it'll be a memorable experience in appreciating other cultures and walks of life.

About the Author

Sierra Cullum is a junior majoring in anthropology with a minor in writing. As a military child, she grew up all over the country before settling in New York. She aspires to incorporate her love of traveling, anthropology, and writing into her future career. She has previously been published in the 2017 edition of the Black River Review.

Anthropalooza

NICOLE WEED

On November 10th, 2018, the SUNY Potsdam Anthropology Department hosted Anthropalooza, the inaugural day-long event celebrating culture, ancient technology, and art. The day began at Lehman Park, where established copper smelter Fergus Pardis Milton worked for hours in the bitter cold temperatures with the help of students to build a kiln for the copper smelting workshop. He demonstrated the ancient techniques utilized by past peoples who engaged in the practice of copper smelting. While this was happening, so was the Atlatl Battle, a friendly competition between the atlatl team of SUNY Potsdam and the team from St. Lawrence University using atlatl darts to "hunt" large haybales and an assembled burlap mammoth. The atlatl was an ancient hunting tool used in various places around the world, used to throw darts at targets for a quiet and accurate hit. Following this was the opening reception at the Charles T. Weaver Anthropology Museum, where the exhibition "Living With Art" was revealed. Finally, an Ethnographic Film Festival was shown on campus, where students of Cultural Anthropology and Experimental Archaeology presented their video projects on various aspects of SUNY Potsdam culture, and vlogs documenting original research relating to ancient technologies and techniques. A video created by Dr. Faris Khan's Digital Anthropology interns was also shown, its creation the result of Dr. Khan's desire to make anthropology more accessible outside of academia. In the video, numerous professors of the anthropology department were interviewed, and their work was displayed to encourage the study of anthropology and share what it is really about. The whole day turned out to be a huge success and the department looks forward to hosting the event again next year!

ABOVE LEFT:
Students stand and await their turn during the atlatl battle. Photograph by Dr. Timothy Messner.

ABOVE RIGHT:
The winning team from the atlatl battle stands proud with their new trophy. Max Gardner, Holden Crary, Cameron Murry, Isaiah Cullum, and Matthew Hunt (Left to Right). Photograph by Dr. Timothy Messner.

RIGHT: Looking down the bellow entry of the furnace, one can see the glowing hot coals located deep within. This photo would go on to win "best photo" tagged with #potsdamanthropolooza taken at the event. Photograph by Amber Rounds.

ABOVE LEFT: Fergus Milton holds a clay ball that he has just extracted from the furnace. He lets it cool before breaking it open to reveal the newly formed copper inside. (Taken by Dr. Timothy Messner)

ABOVE RIGHT: Exciting results from the copper smelting. Malachite and tin were placed in clay balls within the crafted clay furnace where they were exposed to extreme heats, resulting in the creation of smelted copper. (Taken by Dr. Timothy Messner)

ABOVE CENTER: Fergus Milton is instructing students about the process of crushing up malachite into finer pieces. The increased surface area of the malachite increases its chance of successfully being smelted into copper. (Taken by Dr. Timothy

ABOVE LEFT: Students, parents, and community members stand around the clay furnace as Fergus Milton pumps the bellows to maintain consistent heat for the smelting process. Photograph by Dr. Timothy Messner.

ABOVE RIGHT: Students take the reigns of crushing up the malachite, a material used in the copper smelting process. Photograph by Dr. Timothy Messner.

RIGHT: The Anthropology Department faculty stand on the red carpet and get their picture taken at the Digital Anthropology Film Festival. Photograph by Digital Anthropology Studio.

Advice Column

The Great Niche Hunt

EMILY BOOZEL

Finding your niche can be hard, especially in a field with as many specializations as anthropology, but it does not have to be. Look no further! Presented here is a crash course designed to point you in the right direction. This is for those of you that want to decide which subfield of anthropology is for you, learn about all the great options in the field of anthropology, or just gain a better understanding of everything anthropology has to offer.

We are going to begin with a little questionnaire to see where your interests might fall.

1. Do you enjoy learning about how morals, laws, beliefs, art and knowledge affect different cultures?

2. Would you enjoy learning about past peoples through what has been left behind (ceramics, grave markers, etc.)?

3. Do you find yourself wondering how we evolved from primates?

4. Are you the kind of person that enjoys solving practical problems with the use of anthropological theory and methods?

5. Would studying language and how it can be used to understand culture make your brain excited?

If you responded with a robust "yes" to any of these, congratulations! You are an anthropologist in the making, and you have found your "niche" in anthropology. Here is the breakdown:

1. Those that enjoy this side of anthropology are more likely to be cultural anthropologists.

2. Those that lean towards question two are likely archaeologists.

3. Biological anthropologists enjoyed question number three.

4. Applied anthropologists, I see you liked number four.

5. Has anyone ever told you that you look like a linguistic anthropologist?

I hope this little questionnaire helped you out a little bit, or at least made you giggle. If you still are unsure of where you fall in the field of anthropology, do not worry. My best advice for you would be to take any classes that interest you and to talk to those professors. They will be more than happy to speak with you about what they do because they are passionate and excited about their fields. I wish you the best of luck in finding your niche and I hope that you enjoy the journey.

About the Author

Emily Boozel from Clymer, New York, is a Junior majoring in history and archaeological studies as well as minoring in museum studies. In addition to her studies, Emily is the secretary for the History Association and a member of the Anthropology Club at SUNY Potsdam. This is her first published work.

Collegiate Anthropologist Editorial Team

EDITOR-IN-CHIEF

Amber Rounds
Amber is a senior anthropology and archaeological studies major with a minor in Native American Studies. She recently completed her Presidential Scholars project at SUNY Potsdam where she conducted experiments to better understand the progenitors of crops associated with the Eastern Agricultural Complex. This will be her third year editing for the Collegiate Anthropologist and first as Editor-in-Chief.

ASSISTANT EDITORS

Emily Boozel
Emily is a junior majoring in history and archaeological studies as well as minoring in museum studies from Clymer, New York. In addition to her studies, Emily is the secretary for the History Association and a member of the anthropology club here at SUNY Potsdam. This is her first published work.

Alexandra Borden
Alexandra is a freshman Archaeological Studies major, her main interests lie in the ancient Near East. She worked on the graphic content in this issue. This is her first year working for the *Collegiate Anthropologist.*

Sierra Cullum
Sierra is a junior majoring in anthropology with a minor in writing. She aspires to incorporate her love of traveling, anthropology, and writing into her future career. She has previously been published in the 2017 edition of the Black River Review.

Tara Stern
Tara Stern is junior majoring in Archaeology and minoring in Biomedical Anthropology. She is part of the Presidential Scholars Program. This her second year in the *Collegiate Anthropologist*.

SUBMISSION INSTRUCTIONS

Anthropological research papers, personal reflections or journals on internships and study abroad programs, photo essays, and generally anything pertinent to the study and experience of anthropology is welcomed for submission. Papers should be submitted in electronic form (.doc or .docx please) to collegiateanthropologist@yahoo.com. Electronic submissions on cd-rom are also welcomed via mail to the following address: *Collegiate Anthropologist*, Anthropology Department, SUNY Potsdam, Potsdam, NY 13676.

630007
Department of Anthropology
SUNY Potsdam
Potsdam, NY 13676

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