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COVER PHOTO: *The church at Botshabelo was built to serve the larger mission community that was established in South Africa’s Mpumalanga province by members of the Berlin Missionary Society in 1865 (Photograph by Dr. Hadley Kruczek-Aaron).*
A Note from the Editor

Welcome to this year’s issue of the Collegiate Anthropologist! Another busy year has passed in the Anthropology Department. We welcomed a new chair of the department - Dr. Kruczek-Aaron - and defeated St. Lawrence University in an epic atlatl battle! We also had 16 students from the Anthropology Department present at the 56th Annual Northeast Anthropological Association conference in Saratoga Springs. If this is your first time with us, allow me to introduce our publication.

This journal is an annual publication put together by a diverse group of students from various academic departments at SUNY Potsdam. However, the publication showcases different aspects of anthropology including: biological anthropology, cultural anthropology, archaeology, linguistic anthropology, and applied anthropology. The Collegiate’s mission is to publish original work done by undergraduate students who are advised by a faculty member of the Anthropology Department. The pieces are also edited by a student-run editorial staff.

This year’s issue encompasses many different experiences and research done by our students, including archaeological excavations, GIS research, a special “how to” advice column, and many more. We also offer a "Where are They Now?" alumni profile for those students who are curious about life after college. In this year’s issue, each field of anthropology intertwines with each other, and displays many exciting opportunities students are offered here at SUNY Potsdam.

I would like to thank this year’s editorial staff for your hard work in putting together this issue of the Collegiate Anthropologist. I would also like to thank our faculty advisor Dr. Kruczek-Aaron for her continuous guidance and dedication to the journal, as well as motivating the editors and authors to become well-rounded academic writers. The journal will continue to be published every spring semester. For those who are interested in submitting their work to the journal, submissions are due during the fall term. Pieces such as photo essays, academic articles with original research, and internship reflections are encouraged.

The Collegiate Anthropologist offers students the opportunity to have an active role in the peer-review publishing process. It has been a wonderful experience to work on this publication, especially in the role of editor-in-chief where previously I was an author (2014 issue). I am proud of the Anthropology Department for offering numerous opportunities to those who wish to go above and beyond in the field of Anthropology! I hope you enjoy reading this edition of the Collegiate Anthropologist!

Sincerely,

Linden

Linden Montague
Editor-in-Chief
There and Back Again:
The 2015 Field School/Abroad Experience in South Africa

EMBERSTAR WAKEFIELD

“Wednesday, July 29th, 2015. Day 7 in South Africa, day 3 of field excavations. Another sunny one in South Africa… the morning started off chilly and continues to be very windy. The wind is blowing dust into the units, into the sorting trays, and into our eyes, making the sorting of sediments from artifacts somewhat difficult. The wind and sun are very drying on the exposed earth. Our unit walls are holding up surprisingly well for how much they always seem to be crumbling small sprays of powder down into the unit. We just have to be diligent in sweeping up the falling sediments so they do not get mixed in with the older material below.

Group 1 is still excavating units R19 & S19, working through levels 3, 4, and 5 and starting level 6 (or as they call it here, spit 6 - a spit is a term for an arbitrary level). Across the site, our arbitrary levels are all 10 cm deep. The midden displays some interesting temporal variations in the deposits, seen as lenses of different material, pockets of certain types of artifacts…”

This was a pretty typical start to my field journal entries, giving the weather conditions, anything that may be affecting our fieldwork on that day, and the units and levels we worked. Field notes would continue with the range of soil colors and textures for each level, and of course, the artifacts and other notable qualities of e. Then, one of my favorite parts (besides the actual finds themselves), the interpretation of the day’s data.

Let me back up a few days though, because this was not just an archaeology field school but an experience abroad...

The first two days, we explored Johannesburg and Soweto, spending time learning some of the cultural, political, and socio-economic histories of the area by visiting museums, monuments, restaurants and markets. We toured the city to see some highlights, such as Nelson Mandela’s house surrounded by stones painted with messages of love and peace left in memorial to South Africa’s champion; the FNB stadium built for the 2010 World Cup; the largest hospital in the southern hemisphere; and the township of Soweto, which originated under apartheid. In Soweto, we visited the Hector Pietersen Museum of the 1976 Soweto uprisings, which were led by students and aimed at the influence of apartheid and the dominant Afrikaans language in education. We visited Mandela’s house, now a museum of his life and many accomplishments, and toured the Apartheid Museum. It was an eye-opening experience offering insights into the historical and political landscape of the past few generations of black and white South Africans.

Our third day was spent on some of the rich archaeological and anthropological history of the area known as ‘the Cradle of Humankind’. In
Gauteng, we toured the Sterkfontein caves, home to such anthropological finds as the ‘Mrs. Ples’ and ‘Little Foot’ fossils of two Australopithecus species. The caves were huge, winding chambers, with various rock formations and mineral deposits and in one cavern, an active archaeological dig site. All around, it was an awesome spelunking adventure into our human origins. At the end of the day, we enjoyed dinner at a small restaurant in Jo-burg (the affectionate nickname given to Johannesburg by the locals), known for its décor and large communal meals of traditional foods. The food was a wonderful variety of flavors and dinner was topped off with face-painting and great music… a fantastic last night in the city before heading out to pursue our fieldwork the following week.

It was our fourth day in South Africa when we went to tour the Botshabelo mission station, our new field site. We met with the University of South Africa (UNISA) students and the field school director, Dr. Natalie Swanepoel, who led us on a tour of the mission and of our site. The field site was a midden in the northwest corner of the mission grounds. Middens, old garbage dumps of archaeological gold, can be very useful in providing information. This is, in part, because there is such a mixture of nearly everything that comes out of a person or group’s residence. The deposits will accumulate over time into layers that roughly reflect changes in diet, hygiene, and style during that period. The building directly south of the midden was at one time a blacksmith’s workshop, when the mission was still a self-sustained community. There are various dormitories, dining halls, and meeting rooms scattered among the private houses of the missionaries and little clusters of native roundhouses. German missionaries established the mission in the early-mid 19th century as a ‘place of safety’ (hence the local name of ‘Botshabelo’) for any Christians from various native groups seeking refuge from intercultural violence. A stone fort and wall were built up on the hill above the rest of the mission as the last safe haven in times of danger, and it was used more than once.

After the mission was transformed into a teachers’ college by the 1950’s, the fort and most of the houses were no longer used; students then occupied the rest of the buildings. The mission remained an active teachers’ college until the late 1970’s, after which it went unused for a period until it was taken up again as a cultural heritage site and museum through the 90’s and up until just a few years before our visit in 2015. Today, there remain a few small groups living at the edges of the mission grounds and scattered on the other side of the stream; some are descendants of the Ndebele, who were part of the original mission community. Botshabelo mission is now surrounded by fenced game reserves, not far from the Loskop reservoir, with some scattered
Field school essay

One of the chalets that the field schoolers stayed in during the excavation portion of their trip. They shared these houses with their UNISA colleagues and ate meals buffet style in a separate dining hall (Photograph by Emily Steckline).

clusters of houses and gas stations between it and the nearest town, Middleburg.

In one of these clusters, we were bunking with the UNISA students in some lovely little chalets, surrounded by gardens of flowering trees and aloes, abundant sedums and the occasional bush baby or gray go-away bird. Our lab work was done here in a spare room at the end of the day, organizing, re-bagging and re-labelling artifacts, going over paperwork for each level of each unit that was worked that day. This was often slightly hectic, as everyone wanted to hurry and take showers before dinner, but it was always a good way to wind down before we all gathered for dinner. The next morning we would be up before the sun, our breath misting out into the chill, crisp air, bundled up, gathering the equipment and paperwork from the lab and loading it all into the vans.

It was about a 30-45 minute drive from our accommodations to the field site, depending on whether or not we got stuck waiting on the one-lane road construction. Though long, the drive was usually worth it, with lots of views of fantastic scenery. The landscape varies greatly across that part of South Africa, with game reserve fences abutting the road (allowing us views sometimes of impala, zebra, and giraffe), and plenty of great geological features; all on a changing backdrop of hills with aloes the size of trees to the open plains dotted with classic savannah acacias.

At the mission by 8:00, we drove to the midden site, unloaded and carried the equipment to set up and start working wherever we had left off the day before. In our first day, we set up a datum point and baselines along one side of the midden, which we then used to lay out a few 1 x 1 meter units across the site. Simply put, a datum is established as a point of reference that does not change and the baseline is created as the start of the grid for the site excavation units. These are both necessary so that the exact position of each artifact and layered deposit can be recorded based on the datum and grid. We worked in three different groups, with a few of us SUNY students in each group with a few UNISA students and faculty members. Each group started with two units, and expanded to three or four by the end. The UNISA students and faculty, except for Dr. Swanepoel, left after the first week of excavations since it is typical for them to spread out their field school as hours worked on various different projects.

Students found the finish of a dark green bottle that was not machine made. It was likely made in the late 19th century (Photograph by Hadley Kruczek-Aaron).
We certainly enjoyed our time with the UNISA folks; the field site and the dining tables were much quieter after they left.

We excavated our units with trowels, using an arbitrary level system of 10 cm, which was adapted for obvious changes or horizons in the deposits. In typical treatment of midden refuse deposits, we used mesh screen to sift everything that came out of each level, discarding only the finer sediments, which went through the screen. The remaining larger particles were sorted on site, and any artifacts were separated based on material, function, and decoration. The artifacts were then bagged and labeled to be taken back to the lab at the end of the day, along with the paperwork and soil samples for the levels that were excavated.

The top of the midden deposits started with the more recent material, a lot of cosmetic, hygiene and medicine-related bottles and containers, along with a plethora of ink bottles. This was consistent with recent use as a teachers’ college and suggests that many students with a strict sense of hygiene and bodily health, were still living on the premises. The upper levels tended to contain a lot of plastics, indicative of the mid-20th century or later.

Just past a half-meter depth in our units, we started to find more domestic items, such as fancy little perfume bottles, shoe polish tins, BB gun beads, buttons, nuts, pits, bone, and fabric fragments. These were found in the same level as two bottles with 1946 date stamps, diagnostic artifacts, which place these items from the late 40’s or possibly early 50’s if they were re-used, when the property was still a mission. This was starting to show us a lot about the living habits and personal lives of the people here in the early 20th century, including those who made very careful, formal attire into a large part of their lives. This was getting closer to what we were really looking for, which was evidence of the daily lives of the people living at the mission during its earlier years in the 19th century. We just needed to find the older material, buried somewhere deep within the midden.

Over the duration of our field school, we made it through most of the midden deposits in our units, down to bedrock in some, finally finding material indicative of the 19th century. Most of the midden that we excavated appeared to be from the early-mid 20th century, so anything before the turn of the century was rather exciting. The artifact in question was the neck and finish of a very worn, green glass bottle; this vessel lacked any mold seams down the sides (which would have indicated a bottle made by a machine in the 20th century), and instead showed...
Clockwise from top: 1. Most of the SUNY Potsdam/UNISA field crew is pictured here at the end of their joint field season. 2. In one excursion, students learned about the region’s wildlife at a cheetah conservation center. 3. In another trip, students gained firsthand experience with gold panning while learning more about the area’s mining history. 4. Vervet monkeys were frequent visitors to the field site (Photographs by Emberstar Wakefield and Hadley Kruczek-Aaron).
the hand-tooled finish (or smoothing around the lip) that was characteristic of late 19th century glass bottle manufacture. Objects with such heavy use-wear can be deceiving, however, since it may have continued to be used over many years into the 20th century and deposited much later than its original manufacturing date. But it was still a great find and left us excited at the prospect of more items like it to be found during the next field season when Dr. Swanepoel comes back and re-opens our units and starts new ones, to continue the archaeologists’ never-ending search.

During the field school, we participated in foot surveys and site mapping, trowel excavations of units and soil screening techniques, documentation and analytical interpretation of soil horizons and artifacts, as well as drawing profiles of soil horizons and objects in the unit walls. This provided an excellent opportunity to learn first-hand the archaeological methods and techniques typically used in many site excavations. I think every one of us left that field school with much more confidence and familiarity with archaeological methods as well as a much grander sense of field archaeology itself.

The whole experience in South Africa also left me personally with a grander sense of things, having been my first major trip abroad and to a destination I have always hoped to find work in the future. We were given some very good, grounding insights into the historical, personal and very human landscapes of South Africa, and I for one cannot wait to see more.

Acknowledgements: To Dr. Natalie Swanepoel, director of the 2015 UNISA field school at Botshabelo Mission Station, and the other UNISA faculty and students who welcomed us and made this whole trip possible - it was grand! To Dr. Hadley Kruczek-Aaron, our SUNY Potsdam 2015 field school director, who tirelessly worked to organize this trip across the world for an incredible field school and so much more! And to the financial contributors and administrators of the Powell Archaeology Field School Scholarship at SUNY Potsdam, which helped make this trip possible for myself.

About the Author

Emberstar Wakefield graduated from SUNY Potsdam with the completion of the above field school. She holds degrees in Archaeology and Biology, and intends to continue her graduate studies with a multi-disciplinary perspective. Her studies have concentrated on wildlife and environmental conservation as well as archaeoecology and cultural ecology. She intends to use zooarchaeological research as a means of furthering efforts in conservation biology by examining cultural reliance on and interactions with the natural world.
A Landscape Not to be Taken for Granite: Landscape Change at the Jones Brothers Co. Granite Manufacturing Complex

COOPER SHELDON

Project summary
This project aimed to understand the rise and fall of the Jones Brothers Company Complex, a repurposed granite monument manufacturing company in Barre, Vermont, and the current state of the landscape by identifying prominent industrial structures and visible archaeological features above ground. The research was conducted in order to understand both the anthropogenic change of the Jones Brothers Company Complex and its placement within industrial development, from the late 19th to the mid-20th century. To do this, I conducted historical background research, followed by preliminary remote sensing and feature documentation from aerial photos. The project culminated in the creation of eleven maps, displaying the change of the landscape over time, that are now on display at the Vermont Granite Museum in Barre. This work reinforced the importance of understanding the long term effect of humans on their surroundings and the impact of social, economic, and technological processes on industrial landscapes.

Historical Background
The Jones Brothers Co. was a wholesaler in American granite monuments during the late 1880s, up until its disbanding in 1963 (Jones, 1942: 15). In 1882, the Jones brothers, Marshall and Steward Jones, traveled to Boston, Massachusetts, where they set up an office (Jones, 1942: 11).

As their company grew, the Jones brothers expanded to Barre, Vermont, where they obtained all the necessary components to become a reputable granite manufacturing company. Barre’s granite is well known throughout the granite industry for both its hardness and fine blend of feldspar, quartz, and mica, leading to its use in construction and millstone production (Friends of the Aldrich Public Library, 1976: 62). In 1880, Barre’s population consisted of 2,060 people, rising to approximately 11,794 in 1900. Its population consisted of a mixed background that, early on, consisted of Italians, Irish, and Scots, paving the way for the introduction of Scandinavians, Spanish, Greeks, Lebanese, and French Canadians (Friends of the Aldrich Public Library, 1995: 7). The immigrants, who settled in Barre, and across the country, came from stone working backgrounds, such as carving, quarrying, sculpting, and drafting. The granite that these laborers quarried from Millstone and Cobblestone Hill was transported down to granite manufacturing sheds in Barre. Once in the manufacturing shed, the granite blocks would be carved and sculpted by artists to the specifications of the customer; who would either pick up their order in person, or have the shed ship it to them via horse and wagon (Chambers & Lorentzen, 2014: 14). Once introduced to Barre’s granite industry, the Jones Brothers expanded their production of granite monuments.

The Jones Brothers Company cutting shed #1, a storage shed, the Jones Brothers office building, and the boiler shed are the last remaining standing structures of the Jones Brothers complex, with small features scattered across the site. The Vermont Granite Museum occupies cutting shed #1, the Jones Brothers office building is occupied by the Washington Mental Health Clinic, and the boiler shed is now owned by the New York and Vermont Motor Express Inc. Even though the Jones Brothers Company is no longer in business, by taking a tour through the shed one can still get the impression of what it would have been like to work in what was once the world’s premier facility for granite production.

Methods
During my research on the Jones Brothers Company, I focused on the changes in the cultural landscape between the late 19th and mid-20th century, with reserved attention to the granite industry in Vermont. To do this, I conducted a qualitative comparative analysis of maps using
the specific functions of the features as they change spatially over time. My research involved the following:

- Field surveying the site by taking pictures and flagging the features that were both above ground and culturally significant
- Consulted Sanborn fire insurance maps and historical records
- Conducted deed research in Barre City’s archives
- Utilized surveying and remote sensing technology.

**Results**

The project recovered 66 identifiable features on the Jones Brothers property that I used in my analysis of the anthropogenic landscape. From my analysis, I found that there was a marked increase in the number of identifiable features between 1894 and 1923. In contrast, there was a dramatic drop in feature count between 1925 and 2015. The highest number of identifiable features was 31 in 1910, with the lowest being seven in 1894. Moreover, 16 features were constructed during the 1894 construction phase, showing the highest construction phases throughout the sites history. In contrast, the 1925 construction and destruction phase indicated that 15 features were removed from the site. Similarity, the largest amount of change and feature clustering occurred around the main three granite sheds, with smaller features being added onto the buildings. Speaking to clustering, significant feature grouping was observed around the modes of granite movement and transportation, such as the railroad tracks and the derrick.

The qualitative comparative analysis is focused on the actual features themselves, and how they have been repurposed. When recording down the features, I gave each one a specific feature number. For example, cutting shed #1 would be recorded as F2 and cutting shed #2 as F12. These features were identified by examining the Sanborn fire insurance maps, historical records, and a phase 1a archaeological survey carried out by other researchers in 1998.

**Data Interpretation**

The data collected from my surveying, map work, deed research, and historical research has given me a greater understanding of the Jones Brothers Company’s cultural landscapes change over time. Cultural landscapes can be defined as providing “a sense of place and identity; they map our relationship with the land over time; and they are part of our national heritage and each of our lives” (Cultural Landscape Foundation, 2015). My research helps us map the relationship between the workers of the granite industry, their descendants, and the landscape that was developed as a result of industrial actions.

The history of the site and its involvement as an industrial complex played a large role in my interpretation of the site’s altered cultural landscape from the late 19th century to the present. The 11 maps created indicate two major construction and destruction events, occurring in 1894 and 1923; both significantly influenced the overall perception of the Jones Brothers Company complex. In 1886, the Jones Brothers rented a semi-circular shed in Barre, Vermont on Granite Street from the Mackie & Simpson Granite Company, as well as a light granite quarry on Millstone Hill and the tools for manufacturing granite monuments (Jones, 1942: 16). Granite sheds in Barre, Vermont during the 1880s were typically semi-circular one story buildings built along the Winooski River, with a water wheel located on the edge of the river to provide power to the facility, and an outside horse powered derrick, capable of moving tons of granite. The Jones Brothers, being constricted by the lack of space in their shed and seeking a way to help meet new demands, purchased the Mackie & Sons, Co. granite manufacturing complex in 1894. With the purchase of this new location, the Jones Brothers were

"My research helps us map the relationship between the workers of the granite industry, their descendants, and the landscape that was developed as a result of industrial actions."
able to introduce new technological advancements to the granite industry in Barre. Besides the semi-circular shed and the derrick, the rest of the property was readied for a new manufacturing facility that covered twice the production space as before (Jones, 1942: 16). By constructing a bigger shed, they could fill bigger orders, use larger machinery, and employ more workers.

Construction between 1900 and 1905, added cutting shed #3 and the incorporation of electricity. Cutting shed #3 would act as a storage bay to keep finished monuments before shipment, and would also serve as a granite cutting shed (Charles, 1999: 50). The construction of this feature between the major construction events relates a continued interest in expansion and development in production and industrial competition. In 1916 the Jones Brothers complex began using electricity, which was acquired from their hydro-electric dam, and the Green Mountain Power Supply Company (Wood, 2002). The use and introduction of electricity speaks to the incorporation of new technology that was growing in importance and use within industry during the 20th century. These improvements were necessary developments for the construction event in 1923 due to their importance and use in industry.

During the 1923 expansion, the Jones Brothers Company constructed additional buildings, some of which showed technological innovation. The changes in the cultural landscape reflect the introduction of automobiles, which were first used by the Jones Brothers Company after an auto storage shed (F20) was built on site during this construction event, with the second auto storage shed appearing in 1960. The automobile helped the Jones Brothers Company transport raw granite to the cutting sheds and ship finished granite products to the customer faster. In addition to the auto storage shed in 1923, the destruction of a wagon storage shed (F44), stable (F51), and storage room (F41), allowed for cutting shed #2 to be built. This destruction and construction event reflected the decreasing importance of stables and wagons as part of granite monument production; where the construction of cutting shed #2 reveals the consistency of granite monument demand and production. The erection of cutting shed #2 allowed for the Jones Brothers to increase the overall area being used for granite manufacturing, demonstrating their intent on increasing production. With all these innovations, the Jones Brothers Company held its own as the world’s largest and most well equipped granite manufacturing company during the first two decades of the 20th century (Charles, 1999, abstract).

The various owners of the Jones Brother Company property had anthropogenic effects on the cultural landscape. The Jones Brothers contributed to change on the property through the deposition of granite refuse from the production of granite monuments. Granite refuse includes granite scraps produced after a larger chunk of granite has been cut down in order to make a granite monument. The site survey of the property identified large piles of granite refuse on the banks of the river and in the surrounding woods. By dumping the granite refuse by the banks of the river, the Jones Brothers Company changed the course of the river. In 1963, the Jones Brother Company property was sold to Maurice Kelly, who used it specifically to reclaim granite abrasives through the production of granite products (Charles, 1999: 65). Once the Kelly family took over the shed they began to use the band saws cutting sludge, which was created during the granite cutting process--to make a profit by repurposing and reclaiming its abrasives, being sold off as its own product to other industries (Charles, 1999: 50). As the Kelly plant collected and repurposed these abrasives the property began to slip into neglect due to misuse

Figure 1. Historic photograph of the Jones Brothers Co. complex (c. 1900). Photograph provided by the author.
and piles of dumped byproduct. The Kelly family would continue this operation until 1975 when they closed their doors, thus ending their production of granite and the collection of abrasive material. The doors were not closed for long, because between 1976 and 1998 the property was used on and off by different groups, with cutting shed #1 being used for storing plywood and cutting shed #3 being used as a dumping grounds for food coloring and flavoring (Charles, 1999: 66). In the late 1900s the boiler shed was bought by the Vermont and New York Motor Enterprise Inc. Then in 1982, Central Vermont Health Inc. purchased the office building (F1) and a 2.01 acre lot from the descendants of Maurice Kelly and the representatives of the Maurice Kelly Trust. The property was slowly reduced until 1998, when cutting shed #1 (F2) and the remaining land was purchased by the Vermont Granite Museum, to be converted into museum space. When the property was bought by the Vermont Granite Museum in 1998, they removed a great deal of the sludge buildup from the Kelly plant activities and managed the overgrown brush that had engulfed the property.

The Jones Brothers Company’s complex was directly affected by the population increase between 1920 and 1930 because of the 1922 granite worker strike. The 1922 granite strike ended with very little gained by both the workers and the shed owners, but through the construction of a dining center (F30) in 1923 on the site of the old granite cutting shed, the strike altered the Jones Brothers Company complex’s cultural landscape (Vermont Historical Society, 2006, More Labor Unrest, para, 2). In the creation of this feature on the landscape, the Jones Brothers Company further altered the landscape to meet their employees’ demands and provide them a separate social sphere for relaxation and comradery. In an interview with Henry Chase in 1998, we find that by 1937 the dining shed had been joined to cutting shed #1 (F2) and was converted into a sandblasting studio (Chase 1998). By comparing these two different uses for feature 30, we can see how the personal lives of the workers were altered and how the Jones Brothers Company viewed its employees’ social wellbeing in the 1920s and 1930s.

Granite production technology changed as workers flowed into Barre’s granite industry. From the 1880s to the 1890s the number of cutting sheds grew from eight to 56, being directly influenced by the use of new technology and an influx of immigrant workers (Chambers & Lorentzen, 2014: 8). This flux of immigrants, in addition to the introduction of the locomotive, caused an economic and industrial boom in Barre (Friends of the Aldrich Public Library, 1976: 61). With more tracks installed, the popularity of locomotive based transportation increased and in turn allowed for more mobility, shipping granite out, and bringing immigrants in. As the Jones Brothers became more established they started hiring outside help to meet customer needs. The Jones Brothers would eventually amass an employee number of some 300 employees in 1921 with a peak of 500 in the mid-20th century (Charles, 1999: 33).

Technological advancements in industry, such as the boom and derrick, locomotive, and automotive, altered the Jones Brothers property’s cultural landscape. The movement of granite influenced the alteration of the landscape. Transportation techniques, such as wagons, trains and automobiles, allowed for the movement of granite in a relatively short period of time. Two wagon house footprints were recovered; these structures were removed...
with the construction event in 1923, making way for cutting shed #2. The destruction and construction event reflected the decreasing importance of stables and wagons as part of granite monument production, where the construction of cutting shed #2 reveals the consistency of granite monument demand and production. During surface surveys to the south of the granite museum, railroad lines were discovered, indicating that trains were present at the site. Similarly, automobiles were first used by the Jones Brothers Company after an auto storage shed was built on site during the 1923 construction event. The automobile helped the Jones Brothers Company transport raw granite to the cutting sheds and ship finished granite products to the customer faster than locomotives.

One technology used through all three transportation advancements was the crane. When the old shed was destroyed, the boom and derrick was kept in place, speaking to its importance to the Jones Brothers. The placement of the Jones Brothers
Company’s derrick and overhead crane, in relation to the railroad tracks, shows the railroad’s influence on-site, for the tracks passed to the right of the derrick heading into cutting shed #2, where it would be unloaded by both the derrick and cutting shed #2’s overhead crane. With a derrick, in addition to cutting shed #1’s overhead crane, the Jones Brothers Company could move more granite in a smaller amount of time in order to increase production rates. By situting the derrick and overhead crane in these locations, the Jones Brothers manipulated both machinery and structure placement.

Future Work

From the analysis of this site’s industrial past, we might be able to understand not only this site, but also the connection it had to other industries internationally. The Jones Brothers Company industrial complex could be understood further by answering the following questions with further research and documentation: Why did the Jones Brothers decide to build in 1923, directly after the 1922 granite worker strike, and how can the Jones Brothers Company represent the growing granite industry in the late 1800s and 1900s? Since there has been little done archaeologically with the granite industry and its production sheds within the United States, and more specifically in New England, this site might help us fill in the historical gaps. More importantly, further work may help us to understand how the landscape structured relationships between ethnic populations within the industry.

Conclusion

The analysis of the Vermont Granite Museum’s cultural landscape helps us understand how it has changed over time, as well as what internal and/or outside forces have affected its change. After conducting extensive research on the granite industry, the City of Barre, and the Jones Brothers Company, using historical maps, I was able to create eleven maps. By examining the eleven maps, we can relate that the landscape changed constantly over time due to Barre, Vermont’s changing population density, the complex’s technological innovations, social events, and the past and present owner’s anthropogenic effects on the landscape. The Vermont Granite Museum and the property surrounding it continues to change as a direct result of human activity, creating the site’s unique cultural landscape.

Acknowledgements

I would like to thank the various organizations and individual people who helped me develop and help collect data used in this project. Big thanks go out to the interns and staff at the Vermont Granite Museum, Dr. McLaughlin, and SUNY Potsdam’s Dr. Kruczak-Aaron. Additionally, family and friend support should be equally thanked, as they provided me with much moral support throughout the project.

Bibliography

B. Barre related the events of the 1883 and 1888 Jones Brothers Company fire (personal communication, July 24, 2015).


1900 Fire Insurance Map, Barre, Vermont.

1905 Fire Insurance Map, Barre, Vermont.

1910 Fire Insurance Map, Barre, Vermont.

1916 Fire Insurance Map, Barre, Vermont.


https://www.census.gov/prod/www/decennial.html


About the Author

Cooper Sheldon is an Archaeology and Anthropology double major, with a minor in History, at SUNY Potsdam. He has taken classes ranging from Geographical Information Systems and Geology, to Historical Archaeology and Environmental History of the Adirondacks. After completing his field school in the summer of 2014, he began to focus on archaeology in the Northeastern United States. This paper is a result of his Summertime Kilmer Fellowship Grant to conduct cultural landscape mapping at the Vermont Granite Museum in Barre, Vermont. After graduation he plans on completing various archaeology related internships before attending graduate school for a Masters in Archaeology.
Hiplife is a Ghanaian music genre that combines the rapping and beat-making of American hip-hop with the timbre and upbeat tempo of West African highlife. It emerged in a time of great economic inequality. The effects of structural adjustment plans installed by the International Monetary Fund were bolstering the pockets of the rich at the expense of the impoverished working class, who could now scarcely afford to feed their families. Hiplife rappers, responding with a swaggering and overt masculinity, using this newfound platform of success to reaffirm what they felt economic suffering had robbed of them.

Ghana gained its independence from Britain on March 6th, 1957 and was seen as a beacon of hope for Africa’s future. The people revered Prime Minister Kwame Nkrumah. The military, however, grew increasingly unsettled by his Pan-Africanism, and, in 1966, engaged in a successful coup d'état called Operation Cold Chop (Biney, 2009:81). This led to fifteen years of factional shifts in leadership, which wrought havoc on the stability of the nation. The late-seventies rule of the Supreme Military Council threw the nation into economic turmoil. Ghana’s gross domestic product declined 17% in the latter half of the decade (Ahiakpor, 1991:585). In 1981, Marxist Flight Lieutenant Jerry John Rawlings overthrew the government in the December 31st Revolution. He promoted himself with socialist rhetoric, famously stating, “I am not an expert in Economics and I am not an expert in Law, but I am an expert in working on an empty stomach and wondering when and where the next meal will come from” (BBC, 2000). With the promise of including all of the Ghanaian people in the decision-making of the country, he began enacting Marxist policies and aggressively consolidating his power (Adedeji, 2001:2-3). His maneuvers and policies failed to produce tangible results, and instead made Ghanaian workers financially vulnerable. This led to mass disillusionment and further economic decay. (Ahiakpor, 1991:587-589).

In 1982 Rawlings reached out to the International Monetary Fund and the World Bank for assistance. They brought in creditors who concluded that “structural adjustment programs” (SAPs) were necessary. These programs would require Ghana to completely reconfigure its economic policies. Ghana cooperated in full (Adedeji 2001:4). Business groups, landowners, and commercial farmers benefited from the resulting changes, which included opening Ghana’s borders to tariff-free imports and the relocation of work from urban to rural areas. Virtually all other parties suffered from a severe economic downturn. Urban workers faced massive job losses, firms could not compete with the influx of cheaper foreign goods, and job cuts abounded. Wages stagnated, stalling workers’ purchasing power (Adedeji, 2001:5-7). In addition, Rawlings used the SAPs as an excuse to interfere with the collective bargaining rights of labor unions (Adedeji, 2001:9). Any sign of resistance was met with brutal police repression (BBC, 2000). The severity of the crisis was so great that traditional breadwinners could no longer afford to feed their families. Protrusive collarbones were nicknamed the “Rawlings chain” (Ahiakpor, 1991:593). The economy stabilized as the rich grew richer and inflation flattened out, but the wealth gap continued to grow (Ahiakpor 1991:594). Even into the nineties, as the IMF touted Ghana as a shining example of the success of SAPs, the value of the Ghanaian cedi changed day to day, small businesses collapsed, and impoverished citizens, including some members of the government, turned to the drug trade (Akyeampong, 2005:441, 493). It took until 2010 for the CIA (2014) to reclassify Ghana as a “lower middle-income country.” This economic disenfranchisement laid the groundwork for hiplife.

American hip-hop was introduced to West Africa in the 1980s. It had a powerful appeal for Ghana’s impoverished youth. Though few could parse the rapid-fire English-language lyrics, many enjoyed its...
style, defiant attitude, and opportunity to rise above poverty and obscurity (Shipley, 2009:647). Hip-hop had a dual attraction for Ghanaians. It was relatable music written by the abused and downtrodden, and it offered a means to acquire a black cosmopolitan lifestyle (Shipley, 2013:62-67).

Ghana’s relationship with hip-hop gradually morphed from appreciation into engagement (Shipley, 2013:71). The music culture of the cities had been suppressed in the early days of Rawlings’ regime through the implementation of heavy taxes on imported instruments and a 6pm to 6am curfew (Shipley, 2013:56). Highlife musicians, with their large bands and elaborate set-ups, could not overcome these obstacles, and were forced into the church, where they evolved into the gospel highlife style. “Spinners,” also known as DJs, had cheap, transportable equipment (Collins, 2004:419). They introduced early hiplife music to their audiences. In the early nineties, the National Theatre began supporting hiplife by putting on shows for local rappers. Traditionalists raised questions about hiplife’s Western origins, but the endorsement of the National Theatre helped to legitimize the genre as a part of Ghanaian tradition and a legacy of Diaspora (Shipley, 2009:649-651; 2013:71-73). The National Theatre’s requirement that all rappers perform in their own language about socially conscious/educational topics helped as well, though many had begun to do this on their own (Shipley, 2013:71-72).

In 1995, hiplife gained its first superstar in Reggie Rockstone. Born Reginald Ossei, he had spent many years rapping in London and New York and wanted to bring it back to his homeland. His biggest innovations were rapping in the Twi language, sampling highlife music, and coining the term “hiplife” (Oumano, 1999; Shipley, 2009:632). His first album, Makaa Maka, surprised the nation by going #1, and his second album, Me Na Me Kae, performed even better. The single for Me Na Me Kae was the first commercially released Ghanaian single in over fifteen years (Oumano, 1999). Many saw Reggie’s success as an opportunity and pursued their own careers in hiplife. His influence is so significant that he is known as “The Godfather of Hiplife” (Shipley, 2013:81). Hiplife is now one of the most popular genres of music in Ghana, with many performers like Tinny, M.anifest, and Kwa Kese experiencing great success.

Hiplife is political, a reflection of Ghanaian economic realities and the influence of American hip-hop. This was the case right from the outset. Even when Ghanaians were still just lip-syncing to American rap, they were lip-syncing political lyrics. The immense popularity of Run-DMC in Ghana is a testament to that (Shipley, 2013:69). The legacy of highlife is relevant here as well. Hiplife was known for addressing social issues through veiled metaphors. Afrobeats, another genre often sampled by hiplife DJs, did so with far less subtlety (Shipley, 2013:93-96). Hiplife took that tradition and tore down the curtain, making social and political criticisms in much more bawdy and contentious ways (Shipley, 2009:637). This has been the case since the earliest hiplife releases. On his second album Reggie Rockstone makes light of abortion, African pride, and the challenges Africans face in getting visas (Oumano, 1999). On the track “Keep Your Eyes On The Road,” Reggie (2014) raps “The biggest crime in Africa, skin bleaching. Jerry curls, baby, now that’s a sin, and Jesus Christ was Abibini is what I believe.” In that same year fellow hiplife star Lord Kenya released “AIDS,” a track addressing the HIV/AIDS crisis (Oumano, 1999). Rap provided one of the few platforms underprivileged men had for free speech, so many chose to use it in a socially conscious way. As Reggie’s producer Rab “The International” Bakari said in an interview around the time of Me Na Me Kae’s release, “Some people might not know anything about Ghana, but hopefully through our album they can have a little idea” (Oumano, 1999). Traditional Ghanaian society dictated reverence to elders, so the youth were often demonized for speaking their minds.

"Hiplife is political, a reflection of Ghanaian economic realities and the influence of American hip-hop. This was the case right from the outset."
Hiplife provided a path around this stricture. This is still the case today. On his 2011 single “suffer” M.anifest (2011) raps “Gari soakings for breakfast, noodles for supper. Gotta eat proper but my pockets ain’t dapper… Stuck getting caught up in traffic in rush hour… Late for this interview, my fear getting louder. My chances of getting this job are gonna suffer.” Social consciousness is a defining feature of the genre.

Another characteristic of hiplife is the expression of masculinity. As in American hip-hop, it manifests itself regularly and aggressively. There are several different ways in which this occurs. The M.anifest (2012) single “Maka Makaa” demonstrates masculinity through bravado, congratulating oneself on one’s own talent and success. You can hear this when M.anifest raps “I’m the best from the GH, yeah, confirmed.” Yaa Pono expresses a similar sentiment on his track “Amen,” singing “I’m a bad man today… more money, more money we get. Jah blessing me all my life.” Another method of expressing masculinity is by knocking down rivals. On the same track Yaa Pono dares his rival to “Bring your knife” to challenge his success (Yaa Pono 2014). On “Maka Makaa,” M.anifest says “All your gyebedie [charcoal] raps, take ‘em out and burn ‘em. I got my stripes, but I had to earn ‘em.” He finishes the line with yet another assertion of a certain brand of masculinity, this time referencing what he has overcome and how hard he has worked to get to where he is. Finally, a particular form of masculinity is asserted though the overt sexualization of women. Reggie Rockstone (2014) does this on “Keep Your Eyes On The Road.” He raps, “The big behind baby come to shake her rear. Call me whatever you want, but don’t call me sir.” This is apparent in D-Black’s feature on Castro’s 2014 hit “Seihor” when he boasts “Babygirl’s low down for me.” The music video illustrates his claim by surrounding him with beautiful women (Castro, 2014).

It could be argued that the kind of masculinity expressed in hiplife derives from the influence of American hip-hop, but that oversimplifies both Ghanaian hiplife and the underlying motivations behind such expressions. Instead, it may be a reclamation of the traditional masculine power lost during Ghana’s economic crises. Without the ability to feed his family, the working/lower class man can no longer live up to the ideal male role of the “big man.” The braggadocio asserted by a rapper in hiplife lyrics is a proclamation of power over his own life and his control of others, particularly women, who are often viewed as commodities or signs of wealth (Shipley, 2013:102). Hiplife provides a venue for this in both words and actions. It allows participants to bypass the deference and politics of traditional Ghanaian society (Shipley, 2009:635). Furthermore, it provides young, underprivileged Ghanaians the rare opportunity to succeed in the economy on their own terms (Shipley, 2013:101-107). Hiplife has shifted youths’ perspectives on their lives in a capitalist world (Shipley, 2009:632). It empowers them to define themselves in their society rather than the other way around. They refuse to be subjugated by the corporate world that the IMF introduced by opening Ghana to the international market (Shipley 2009:633). In this way, hiplife may be viewed not just as a musical genre, but as an entrepreneurial venture. Their ability to address and criticize morality in a public sphere is a personal redefinition and reclamation of their lost masculine power. They subject the system they live in to scrutiny rather than allow themselves to be scrutinized and dismissed by the system (Shipley 2009:638-641). In this context lyrics function as political statements, on the one hand flaunting success achieved outside of new economic expectations, and on the other turning around and offering criticism. This masculine identity manifests itself both in the physical action of achieving success in hiplife and the verbal expression of overt masculinity and political consciousness in hiplife lyrics.

Hiplife provided Ghanaian youth with an economically and culturally viable venue to to define masculinity on their own terms, despite the economic depravity and effeminization their society dealt to them. I would be interested to research how this idea applies to American hip-hop, as I found nothing addressing it in my research. Nevertheless, American hip-hop in combination with West African highlife created a spark that allowed the young, underprivileged men of Ghana to reject the disenfranchising force of poverty thrust upon them by J. J. Rawlings and the IMF, and to reclaim and redefine their masculinity as individuals finding unconventional success in an economically
Oppressive society.

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Liam Kingsley is a SUNY Potsdam senior with majors in History and Musical Studies, a minor in Africana Studies, and a concentration in Music Composition. In the past his academic writing has been awarded such honors as the F. Roger Dunn Memorial Essay Award and the Amelia Morey Essay Award for writing in the field of Women’s and Gender Studies. As an African Historian and a feminist, he attempts to address issues of sexism, racism, classism, imperialism, and xenophobia in his writing as often as possible. After graduation, Liam hopes to pursue an MA/PhD in African History.
Photo Essay: The Ancient (and not so Ancient) History of Ireland

FAITH JACOBSON

During the fall of 2014 and the spring of 2015, I had the opportunity to study abroad in Cork, Ireland, for the academic year. In addition to my studies, I had the ability to travel in and out of Cork in order to truly learn about Irish history, life, and culture. I was able to see (and venture inside) prehistoric sites such as Newgrange and Dún Aonghasa, medieval castles such as Trim Castle, Blarney Castle, and Castle Ward (where Game of Thrones was filmed), as well as more historical sites such as the Guinness and Jameson factories. In addition, I was able to take in some of the stunning geological sites in Ireland, such as the Cliffs of Moher, the Burren, and Tollymore Forest (another Game of Thrones filming location). My travels in and out of Cork allowed me to meet many fascinating people and learn about a culture in a way I would not have been able to do so elsewhere. These experiences have given me a better understanding and appreciation of Irish life and culture.
LEFT: The Cliffs of Moher, Co. Clare, Ireland. This is one of the most popular tourist destinations in Ireland and has appeared in several films. There is an O’Brien castle on site.

RIGHT: Christ Church Cathedral, Dublin, Ireland. Originally a Viking cathedral, it was used until the early 1800s.

LEFT: Tollymore Forest, Co. Down, Northern Ireland. This popular state park was used as a filming location for Game of Thrones and provided wood for the Titanic.

ABOVE RIGHT: The Burren, Co. Clare, Ireland. This rocky landscape is home to a number of megalithic tombs and various historical sites.

LEFT: Howth, Co. Dublin. This suburb of Dublin began as a small fishing village but is now home to one of Ireland’s oldest homes: Howth Castle.
Introduction

To better understand modern humans, many research studies have focused on various aspects of non-human and human primates. Studying non-human primates offers insight into early hominid evolution and development. Research focused on primates has provided insights into the evolution of complex behavior, including social structures, tool use, and communication. In terms of HIV/AIDS, primates provide a glimpse into how this disease may have developed, as well as its transmission across various species. This article studies the evolutionary relationship between SIVcpz, otherwise known as SIV, and HIV-1. By looking at the origins of HIV and AIDS, researchers can better identify its implications for future generations.

SIV

SIV stands for simian immunodeficiency virus, where immunodeficiency is a disorder where the body’s immune response is reduced or absent (Updated by: Stuart I. Henochowicz, 2015). SIV is a type of lentivirus, a subfamily of retroviruses. Retroviruses are viruses that use RNA as its genetic material (Genome.gov, 2015). Moreover, a lentivirus is a retrovirus with a long incubation period (Meštrovic, 2010). Therefore, SIV is a virus that has a long incubation period, uses RNA genetic material, and overall affects the immune system’s efficiency. Due to the lack of infection in infants and juveniles, it is believed that SIV is transmitted sexually, or through aggression. Mother to infant transmission is rare (Klatt et al., 2011). There are approximately thirty-six non-human African primate species that are infected with SIV (Sharp et al., 2005). The virus suddenly appeared in macaques in primate centers in California, New England, and Washington (Klatt et al., 2011). Serological surveys have shown that in African non-human primates, SIV infection is widespread, and found in nearly all species (with the exception of bonobos and patas monkeys); however, the prevalence of the disease varies across species (Klatt et al., 2011).

To understand SIV and its relation to HIV, it is important to understand its evolutionary history. Within a single phylogenetic, or evolutionary, lineage of the primate lentivirus, each species has its own type of SIV, forming a monophyletic clade (Sharp et al., 2005), or a group of organisms believed to have evolved from a common ancestor. SIV is estimated to be about 32,000 years old (Klatt et al., 2011). However, estimations for the origins of SIV are controversial. Some closely related monkeys, like the species of African green monkeys, have closely related SIV strains. This, as well as SIV not being prevalent in wild Asian non-human primates, has led to the hypothesis that SIV coevolved with its host (Sharp et al., 2005), meaning that today’s monkeys were infected with their ancestor’s respective SIVs. However, the problem with this hypothesis is that estimating the age of SIV has produced time estimates much closer to the recent ancestry of monkeys (Sharp et al., 2005). More so, there is evidence of cross-species transmission, which disrupts the evolutionary timeline. Thus, primate lentivirus evolutionary history is complex and involves virus and host coevolution, as well as interspecies transmission. The evolutionary timelines are still being investigated by many researchers (Sharp et al., 2005).

Each species of African non-human primates (with the exception of mandrills, which show two strains of the virus) contain one strain of the virus (Klatt et al., 2011). However, there may be multiple subtypes of the virus (Sharp et all 2005) that affect related species. These related viruses are a result of the recombinant nature of SIV after infection, showing that many of the SIV strains are a result of the recombination of different species after being transmitted (Klatt et al., 2011). For example, SIVcpz (discussed later) is a recombinant of two monkey species. Another example is SIVagmSab (SIV in African green monkeys from the West African sabeaus species),
which is recombinant of the SIVagm ancestral form and SIVrcm (SIV in red-capped mangabeys). There are seven distinct lineages of non-human primate SIV: (1) SIVsm from sooty mangabeys, (2) SIVsgm from the four species of African green monkeys, (3) SIV’s from the Ceropithecus genus (guenons), including SIVgsn, SIVdeb, SIVmus, (4) SIVcpz and SIVgor from the chimpanzees and gorillas, respectively, (5) SIVlho from L’Hoest monkeys and SIVsun from sun tailed monkeys, (6) SIVcol from colobus monkeys and (7) from red capped mangabeys SIVrcm and SIVmnd and SIVdrl from the mandrills and drill monkeys (Klatt et al., 2011). Two of these strands transferred to humans. SIVcpz transferred to humans and developed into HIV-1, while SIVsm developed into HIV-2.

SIVcpz

HIV-1 was transferred to humans by a sub strain of the SIVcpz virus. SIVcpz, as stated previously, is the result of two SIV strains recombining upon transmission to the chimpanzee. SIV in chimpanzees is clustered into two phylogenetic evolutionary lineages (SIVcpzPtt and SIVcpzPts) based on three chimpanzee subspecies: P. t. troglodytes in Central Africa P. t. schweinfurthii in Eastern Africa, and P. t. verus in Western Africa (Sharp et al., 2005). SIVcpzPtt is found in the P. t. troglodytes in central Africa while SIVcpzPts is found among the P. t. schweinfurthii populations in eastern Africa. However, the P. t. versus subspecies does not have SIV naturally occurring within its population. After multiple studies, it was concluded that SIVcpz was acquired by cross-species transmission after Pan troglodytes diverged and after the subspecies diverged approximately 1.5 million years ago (Sharp et al 2005). It is theorized that chimpanzees acquired SIV from the recombinant form of the red-capped mangabey (SIVrcm) and greater spot-nosed (SIVgsn) monkeys. These SIV subtypes are similar to the SIVcpz genome. SIVgsn shows close relation with SIVcpz but only within the 3’ prime region of its genome, while the 5’ prime region of SIVcpz shows relation to SIVrcm (Sharp et al., 2005). The vpu accessory gene is used to trace the origins of HIV-1, as it was only found in HIV-1, then SIVcpz. However, SIVgsn was found to have this vpu accessory. This relationship shows that chimpanzees contracting SIV was through the recombination of the SIVrcm and SIVgsn ancestors (Sharp et al., 2005).

Chimpanzees mostly likely contracted the virus by hunting the greater spot-nosed and red-capped mangabey monkeys. There are two theories that may explain this event. The first one states that a singular chimpanzee contracted SIVrcm and SIVgsn and the viruses recombinated to create the SIVcpz, and then it spread from this specimen to other chimpanzees. The second theory states that one chimpanzee contracted the SIVrcm and another contracted the SIVgsn. These two specimens infected a third chimpanzee, where the viruses recombinated. Because of the overlap of the species, it has been determined that HIV-1 originates from the SIVcpzPtt, which is the P. t. troglodytes in central Africa (Sharp et al., 2005).

The transmission of SIV to HIV was first hypothesized by looking at SIVcpzGAB1. SIVcpzGAB1 was a specimen found in Gabon that had the vpu accessory gene, which is the first specimen to show this gene besides HIV-1. More so, phylogenetic analysis showed that SIVcpzGAB1 was closely related to HIV-1 than any other SIV (Sharp et al., 2005). This was challenged, however, because SIVcpz was shown to have a low
infection rate compared to other SIV strains. This left researchers wondering if chimpanzees were the true reservoir, or the long-term host of a pathogen of an infectious disease. A true reservoir often does not get the disease carried out by the pathogen, or is subclinical and asymptomatic. Because SIVcpz is non-pathogenic, it was thought that SIV was naturally occurring in chimpanzees. However, because of this newfound data, it was discovered that SIVcpz was contracted by other means (discussed above). Thus, the phylogenetic data shows that the subspecies P. t. troglodytes was the source of HIV-1. This virus crossed over at least three separate times, which explains the different strains of HIV-1. HIV-1 shows the greatest diversity in Kinshasa, Democratic Republic of Congo, suggesting this is the region in which HIV-1 originated (Sharp et al., 2005).

Pathology of SIV

It is unclear why there are no immunological responses to SIV in African non-human primates. However, researchers have discovered that the African non-human primate immune system attacks the virus differently than Asian non-human primates and humans. One hypothesis is that African non-human primates have a higher CD8+ cell count in their peripheral blood than humans, as well as some Asian non-human primates (Liovat et al., 2009). In African green monkeys, it is theorized that they have lower CD4+ T cells, which affects the nonpathogenic nature of the SIV (Liovat et al., 2009).

HIV

HIV/AIDS in the United States was first discovered when unexplained cases of rare diseases were found among young, otherwise healthy, homosexual men in New York and California. Doctors published a report in the U.S. Center for Disease Control and Prevention’s Morbidity and Mortality Weekly Report (MMWR) on June 5, 1981 of five homosexual men in New York and California. Doctors published a report in the U.S. Center for Disease Control and Prevention’s Morbidity and Mortality Weekly Report (MMWR) on June 5, 1981 of five homosexual men infected with Pneumocystis carinii, which is usually found in severely immunosuppressed patients (Amfar.org, 2015). On July 3rd of the same year, twenty-six cases of Kaposi’s sarcoma, a rare cancer, were reported in New York and California. Because of these rare diseases being found in homosexual men, this new disease was labeled “GRID”, otherwise known as gay-related immune deficiency.

It was not until the disease was found in women, infants, and hemophiliacs that the disease was labeled AIDS, otherwise known as acquired immunodeficiency syndrome. In 1983, a major outbreak was found in central Africa. Around the same time, researchers in France isolated the virus and called it “lymphadenopathy-associated virus” (LAV; Amfar.org, 2015). Shortly after classifying the virus as a retrovirus, the U. S. Department of Health and Human Services Secretary, Margaret Heckler, predicted that a vaccine for AIDS would be available for testing in two years (Amfar.org, 2015). Meanwhile, public awareness for AIDS was growing, and a stigma developed for those who contracted the disease. For example, a thirteen-year old hemophiliac with AIDS was banned from school, and famous celebrities, such as Rock Hudson, died of the disease. It was not long after that the first International AIDS Conference was held in Atlanta, Georgia.

In 1987, AZT became the first HIV drug, costing $10,000 a year, and the U. S. government began to bar infected immigrants (Amfar.org, 2015). Three years later, The Americans with Disabilities Act was passed, which protected those with HIV/AIDS from facing discrimination. In 1993, patients started to show signs of AZT resistance, as the first trials of antiretroviral therapy begin (Amfar.org, 2015). However, between 1995 and 1996, new drugs became available to treat the disease, and were combined to create the “cocktail”, which in turn caused death rates to decline (Amfar.org, 2015). As of 2015, approximately 1.2 million are infected with HIV in the United States (Cdc.gov, 2015), and the monthly cost of treatment for HIV is approximately $2,000 to $5,000 (Aguirre, 2012).

Similar to SIV, HIV is a lentivirus that attacks the immune system, specifically CD4 cells, a type of white blood cell (Aids.gov, 2015). It is transmitted by direct contact with bodily fluids, such as blood, semen, pre-seminal fluid, rectal fluids, vaginal fluids, and breast milk (Aids.gov, 2015). After HIV enters the body, it attaches itself to CD4 cell membranes. Envelope proteins that are on the outer membrane of the virus bind to the CD4 receptors. Next, an enzyme called reverse transcriptase initiates the virus’ RNA (the virus’ genetic material) into the cell’s DNA.
This viral DNA is then able to enter the nucleus of the CD4 cell and integrate itself into the cell’s DNA, designating it a provirus (Adarc.org, 2015). A provirus is “an inactive viral form that has been integrated into the genes of a host cell” (AIDSinfo, 2015). After this integration process, the provirus DNA acts as a template for the creation of the new viral RNA, which happens through transcription. The new viral RNA then leaves the nucleus of the cell, carrying the code for the viral proteins and enzymes. The code is translated into amino acids, which fold and form into new proteins and enzymes. The new viral particles move to the outer membrane where they collect and begin to bud. The host cell then cuts this bud off, releasing the new virus. The enzyme (protease) cuts the HIV polypeptide chains during maturation, creating infectious virus particles (Adarc.org, 2015). This new cell then infects a new CD4 cell, and repeats the process.

There are different stages of HIV post-infection. Within the first few weeks of contracting the virus, there is an acute primary infection, where one might feel flu like symptoms. However, not everyone has symptoms during this stage (Avert.org, 2015). These symptoms are a result of the body reacting the virus. The immune system tries to attack the cells infected with HIV virus to produce antibodies in a process called seroconversion, which happens within forty-five days’ post-infection. This process can take up to a few months to complete (Avert.org, 2015). The next stage of infection is clinical latency, also called asymptomatic stage, or HIV inactivity or dormancy (Cdc.gov, 2015). During this stage, the virus reproduces at low levels, often with no symptoms. For people who do not start treatment, this stage could last a decade or longer; for those on treatment, this process could last several decades. At the end of the clinical latency stage, the viral load increases while CD4 cell count decreases, which is the beginning of stage three – acquired immunodeficiency syndrome (AIDS; Cdc.gov, 2015). People are diagnosed with AIDS when their CD4 cell counts drop below 200 cells/mm and have developed one or more AIDS-related illnesses (Cdc.gov, 2015).

Because there are no cures for HIV/AIDS, the virus is controlled through medications known as ART (antiretroviral therapy). The current protocol for HIV/AIDS treatment is to start treatment as soon as one is diagnosed with HIV. Treatment is often a combination of medications known as an HIV regimen, or “HIV cocktail” (HAART: highly active antiretroviral therapy) (Aids.org, 2015). ART/HAART drugs are broken into six drug classes, with more than 25 medications, based on how they molecularly interact with HIV/AIDS. These drugs prevent the virus from replicating, reducing the amount of HIV in the body, and allowing the body’s immune system to recover. However, these drugs are toxic to the body, and can cause adverse affects, including high cholesterol, lower bone density, cardiovascular disease, diabetes, and various other issues (AIDSinfo, 2015). Because of these adverse affects, some people choose to implement CAM, or complimentary and alternative medicine, to help manage the HIV virus. Complimentary refers to practices that one uses alongside (complimentary) biomedical treatments (mainly ART/HAART).

The simian immunodeficiency virus (SIV) is a lentivirus affecting the immune system of non-human primates. Although the virus is non-pathogenic in African primates, it can be harmful to non-human Asian primates, and can develop into SAIDS, or simian acquired immunodeficiency syndrome. The origins of SIV are murky and unclear because of the complexities of cross-species transmission. Therefore, it is hard to estimate

"By understanding how this virus has developed in non-human primates, researchers can get a better understanding of its potential evolution among humans, as well as its potential outcomes..."
the age and ancestral history of SIV. SIVcpzPtt, the chimpanzee SIV virus that was transmitted to humans and subsequently caused the HIV-1 outbreak, is a result of cross-species recombination and occurred after the divergent of the Pan troglodytes species and P. t. troglodyte subspecies, which is located in central Africa. Knowing the history of this devastating virus can help researchers understand how this virus evolved and changed over time, and how it can affect, and adapt to different populations. By understanding how this virus has developed in non-human primates, researchers can get a better understanding of its potential evolution among humans, as well as its potential outcomes - if virus is going to be continuously deadly as it stands now, or if humans may evolve a form of immunity, similar to those of the non-human primates.

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Recreating the Past using Experimental Archaeology:
My Summer Making a Dugout Canoe
Brooke Becker

In the summer of 2015, nine students (including myself) took a step back in time by enrolling in a class that taught us how to build a dugout canoe without the help of modern day tools. The class focused on experimental archaeology, which is a living analytical process used to re-create aspects (in part or in whole) of ancient societies in order to test hypotheses or proposed interpretations (Johnston, 2015). While we focused on the construction of the dugout canoe for the four-week course, we also spent time each week exploring a different technology that would have played a role in this process. Among other things, this experience allowed us to better understand the amount of labor and material involved in building this ancient watercraft.

Our routine
Every morning at 8 o’clock we would begin by setting up our base camp, which included two large canopies, totes that held all of our tools, and sometimes tarps that we would place on the ground beneath one of the canopies. Then, the students and our professor Dr. Tim Messner would begin foraging through Lehman Park for wood to start the fire that would burn on top of the log. After everyone had brought back a significant amount of wood, we would weigh it to see how much we had gathered. The class would do this each time we gathered firewood; once we finished weighing the wood, we totaled the weight to see how much firewood was used all together. This was an important step because as time went on, it became harder to find good firewood without breaking down trees or going farther away to find good material. If we had been staying on site like past people probably did, we would have had to use the firewood for more than just the canoe, such as staying warm or cooking food. This suggested that collecting that much firewood to create a dugout canoe could have affected the environment.

After we had foraged for wood we were split into three groups; one team was always on log duty while the other groups would explore different aspects of experimental archaeology. The group on log duty would make sure that the fire was constantly being monitored and wood was being added. After lunch, the groups would rotate. Once the fire was extinguished, one group would come over to scrape the charred material left from the fire on the log. They would start by removing all the coals that were on top of the log by dragging them off the ends of the canoe. Once the coals were removed from the log we would pour water over them to extinguish the flames. By doing it this way, we could avoid pouring water directly on the log. For this process we used a variety of tools. Three ground stone adzes were made in advance. An adze is a ground stone tool that is similar to an ax but is positioned at a ninety-degree angle. Each adze was made of a different material: the first was argillite, the second was diorite, and the third was anorthosite. We also used wooden scrapers and a caribou antler that...
Dugout canoe

had been hafted onto a wooden handle with rawhide, which is untanned leather.

As the inside of the log became shallower, we had to be more careful with the fire. If the fire was too hot or left unattended, it could burn a hole through the wall or the base of the canoe. Before we started the fire we would apply processed clay to the walls so that the fire would not be able to burn through. To process the clay, we began by mixing the clay-rich soil with water, often by using our feet. We would then add more water to spread the clay across all of the walls. Once the canoe could not be burned anymore because it was possible that we could go through the bottom or the walls, we sanded down the boat. We used sandstone from the riverbed around us, running the rocks up and down the canoe until it was smooth. After the canoe had been sanded down, we had to tackle moving the canoe across Lehman Park. To do so, we used several smaller logs as rollers to move the canoe towards the bank. Two logs would be underneath the canoe at all times. Then, using rope, we pulled the boat while the logs moved the canoe forward. Once one log would roll behind the canoe, it would have to be moved to the front and that was repeated until the canoe was at its final destination. Once the canoe made it into the water it was the moment of truth. The canoe floated successfully!

Other research projects

Along side of building the canoe, we focused on other aspects of experimental archaeology. The first week we focused on flint knapping so all of us received a kit with the basic tools for a beginning flint knapper. This kit included a hammer stone, an antler billet, goggles and a few leather pads to project our hands and legs from the sharp flakes. Flint knapping is the shaping of flint, chert or other materials that fracture conchoidally when struck with another object. Soft and hard hammers are used during this process, soft hammers being an object like an antler and hard hammers being a type of rock. Sandstone can also be used as an abrader.

The second week we focused on ground stone tools, which are created by pecking and grinding on another rock. Through the week, the stone would become smooth where it has been ground and pecked. Ground stone tools could be made into an array of things such as axes and adzes, as well as pestles and mortars, which can be used for preparing different foods. The third week we focused on cordage and the different plants that could be used. We created cordage using milkweed, basswood fiber, dogbane, and cattail. We then compared the processes of acquiring these materials, which fiber sources seemed to be the strongest, and which were the easiest to work with. Fibers can be used for many different purposes.

We also learned about hot rock cooking. We would heat up the rocks by placing them in the fire and then carefully remove them with a branch that had been cut to hold the rock. We placed the rocks in and out of a pot until the water boiled.

Each student chose a research project from all the things we experienced. We then had to create and test our projects. The projects focused on all types of things such as how many calories you would burn by
using an adze to cut down small trees or comparing the time and material it took to create a net versus a fishing line, while looking to see which appeared to work more efficiently. Other students created axes and adzes with different hafting techniques or their own bow drill kit with just a single flake. A bow drill kit consists of a branch that is bent into a bow shape and a type of fiber such as rawhide that is attached to the bow. Then by using a spindle that is placed in a fireboard, which is just a small piece of wood, the bow can be used to create more friction.

As a class we learned about making hand drill fires. All of us started with a spindle made from mullein, a plant that can be found locally, and a piece of cedar fireboard and practiced moving our hands up and down the spindle to create friction. Unfortunately, if you did not evenly move your hands up and down the spindle, band aids would be in your near future. If enough friction is created between the spindle and the fireboard, then a small coal will be produced. The coal then needs to be placed in a nest of fibers (we used cedar bark), and by blowing on the nest of bark with the coal inside the flame would be created.

All of these different tasks we completed alongside of the canoe helped us to better understand how people would interact with the environment around them. Thanks to those 90 days of building and then launching the canoe, we can now better understand these processes, the resources they entail, and what evidence could be left behind. The use of experimental archaeology is extremely beneficial in many ways and our journey was just one.

Bibliography
Johnston, Grahame

About the Author
Brooke Becker is a senior archaeological studies major with a minor in museum studies. After graduation she hopes to conduct fieldwork for a CRM company. Eventually, she would like to pursue a career in museum curation or collection management.
Where are they now?
Alumna Rebecca Nelson Shines under the Mayan Sun

LINDEN MONTAGUE

Dr. Rebecca L. Nelson, a SUNY Potsdam anthropology and archaeology alum, has been busy since graduating from Potsdam in 2007. At that time, she went straight into the master’s and PhD program in anthropology at the University of Connecticut, where she completed a dissertation on volunteer tourism in grass root development organizations. I recently interviewed Rebecca in order to learn more about her experiences after SUNY Potsdam, as well as her current position as an Executive Director of America Solidaria USA.

Although she had majored in both anthropology and archaeological studies (she even did a field school at James Madison’s Montpelier during her time here), Rebecca’s interests were leaning towards cultural anthropology when she graduated. As a result, she pursued graduate work in the subject and began her fieldwork in Quetzaltenango, Guatemala.

Rebecca’s original research interest was looking at the handicraft industry in tourism. She volunteered with a federation of Mayan weaving cooperatives. However, she started to realize her growing interest in volunteer tourism. Volunteer tourism is a new way for tourists to discover a country by playing a role in the local community. Rebecca spent three years in Guatemala refining her dissertation on the dynamics between the international volunteers and their hosts. In other words, volunteer tourists shared their knowledge and experiences about their countries with their hosts and in return the cooperative leaders exposed them to Mayan customs and weaving classes.

She specifically focused on how volunteer tourism created capacity or dependency in host organizations and the dynamics of cross-cultural interactions between the host and the volunteer tourist. Another aspect of her dissertation involved Mayan leaders commodifying their culture to promote their products in international markets.

Dr. Rebecca Nelson was an anthropology and archaeology double major at Potsdam before going on to the University of Connecticut to earn a Ph.D. in cultural anthropology (Courtesy of Rebecca Nelson).

After Rebecca completed her dissertation in 2015, she became executive director of America Solidaria U.S, an organization that takes volunteers from the United States to various Latin American countries to improve the quality of life for poor individuals. The
Dr. Nelson carried out ethnographic fieldwork at Mayan weaving cooperatives in Guatemala for her dissertation research. She is now the executive director of America Solidaria U.S. (Courtesy of Rebecca Nelson).

organization also takes Latin American families to the United States to volunteer on various projects.

One of the many tasks that Rebecca is involved in is talking to the Latin American families that come to the U.S., and in those conversations she gets to hear how they compare cultures. She states that there is a lot of cross-cultural cheering that takes place during these discussions.

The organization is open to graduating students with a strong Spanish language background, even offering a stipend for those who volunteer. To apply, you can go to their website and click on the “participate” link. Rebecca encourages all who are interested to apply, she states that she would love to have a fellow SUNY Potsdam student experience what this organization has to offer.

For more information about America Solidaria, visit: http://www.americasolidaria.org/en/.

About the Author

Linden Montague is a senior at SUNY Potsdam and is pursuing a degree in biology (B.S) and archaeological studies (B.A) with a minor in biomedical anthropology. Linden plans to attend graduate school and become a top researcher in the fields of biological anthropology, genetic and biomedical sciences, paleopathology, and archaeology. This is her first year as an editor for the Collegiate.
Advice Column

The Beautiful Mess of Pre-Fieldwork

Kaitlyn Burrows

In most introductory anthropology classes, students are introduced to ethnographies. We become aware of the procedures surrounding fieldwork, romanticizing that one day we may be able to execute such research. Within ethnographies we read about experiences in the field; sometimes the researcher struggles and experiences setbacks with their research. We don’t hear about what it took to get into the field, the world of grant writing, or project proposals. If they made their research happen in remote locations around the world, conducting research locally would be a breeze, right?

With all the opportunities that surround us within the anthropology department at Potsdam, I decided I wanted to conduct my own research. Initially my project involved surveying and interviewing nurses within correctional facilities to assess the effects of health reform. I needed a faculty sponsor, someone who could guide me on my journey as an undergrad. I remember knocking on Dr. Campbell’s door slightly terrified that she might say no. Dr. Campbell has experience conducting fieldwork, creating surveys, interviews, writing grant applications, and sending project proposals through the Institutional Review Board not to mention she’s pretty cool. Her experience has helped me through all of the success and struggles throughout my project and continues to do so.

In the spring of 2015, I wrote my project proposal for the Kilmer Grant offered on campus. This was my first time writing a grant or creating a budget. It was time consuming but not as difficult as I thought it might be. Though it may be on a small scale it’s good experience for the future. Since my project involved working with people I needed to send a project proposal through Potsdam’s Institutional Review Board (IRB) and to complete the Collaborative Institutional Training Initiative (CITI). Through courses offered through the department, most anthropology students take the CITI course eventually, but the IRB is a whole other animal to deal with. Creating a project proposal for the IRB consists of answering a list questions about procedures and methodologies that also speaks to the ethical nature of your project. With the project I started on, I also had to go through the NYS Department of Correction’s IRB as well. After submitting everything I essentially had gained SUNY Potsdam’s IRB permission, but I also needed the approval of the Department of Corrections before moving on with my research. It felt like I was in a stalemate with these two institutions for months. Finally, over the summer a letter arrived from the Department of Corrections. I took a deep breath and opened it; as I scanned the letter I saw the word “unfortunately,” and I knew it was over. The Department of Corrections denied my research proposal because I am an undergraduate student. I still blame the escaped convicts for possibly swaying the departments vote. I cried for a solid five minutes and sent Dr. Campbell an email.
Within the week, I was changing the focus of my project from nurses in corrections to nurses in patient-centered medical homes (PCMH). These are new health care models that focus on creating better environments for workers and patients by taking a more holistic approach. I started sending emails to directors of PCMHs around the North Country and was getting positive responses. They seemed helpful and I thought, “finally I can start research.” But boy was I wrong. For IRB approval yet again, I needed their hospitals to approve my research by signing a waiver for the IRB. Everyone seemed like they wanted to help, but no one was willing to sign the paper. Mid-way through the fall semester of 2015, Dr. Campbell said the words I was dreading to hear “unfortunately I think we need to change your project again.” I just felt so defeated, and I thought I was not going to have enough time to start over.

Dr. Campbell had me looking broader, and we looked into nurses’ unions to gain access to people to interview and survey, but when no one would respond back to us we decided not to work with organizations. Instead, I decided to gain access to those participants on the Facebook page of a nurse’s union. While fixing my IRB proposal and editing the appendices, Dr. Campbell had suggested I use discourse analysis. Discourse analysis is looking at language and analyzing the power structure behind it. I used data found online to perform this analysis. Since I did not need IRB approval to do discourse analysis I ended up having a good portion of research done by the end of the fall semester. In January, after what seemed like forever, my IRB proposal was finally approved and I had permission to start my field work portion of my research. I may not have had as much time as I thought I would, but I am so glad I pushed through and never gave up. I would like to thank the IRB on campus for helping my research and for their continued support through the crazy changes and situations of my research.

For any student thinking about doing research, do it! If my experience didn’t make me quit, you should go for it. Even though my pool of participants was smaller than I had hoped, I am just as proud of my research. I have learned so many skills, and it has been an overall great experience. I just have some advice, pick an awesome professor to be your advisor (our department is the best so you can’t go wrong), do a project that sparks your interest, and be confident. You will gain so much no matter what level of research you’re doing; no project is too small.

About the Author

Kaitlyn Burrows is a senior anthropology major with a bio-medical anthropology and community health minor. She is also president of the Anthropology Club. Her interests include sexual health education, public outreach, and program planning. She recently presented her Kilmer Undergraduate research “Nurses of the Northeast and Health Reform” at the North Eastern Anthropological Association Conference.
Collegiate Anthropologist Editing Team

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Maureen is a senior archaeological studies major and museum studies minor. She is a student researcher through the Presidential Scholars program and hopes to continue her research into graduate school. This is her first year as an editor for the Collegiate Anthropologist.

Lissa Herzing
Lissa is a junior anthropology and archaeological studies major as well as a Presidential Scholar. As a Presidential Scholar she is planning to educate the community about the role of women at SUNY Potsdam throughout history using material culture. She will do this by creating an exhibit featuring objects selected from the College Archives. This is her first year as an editor for the Collegiate.

Faith Jacobson
Faith Jacobson is a graduating senior at SUNY Potsdam who majors in Anthropology and Archaeology. She also holds a certificate in Irish Studies from the University College Cork. Her interests include the Irish, Iron Age, Medieval Europe, and the study of Anti-Semitism. Upon graduation, she is hoping to work for a number of years before attending graduate school.

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.
“In judging our progress as individuals, we tend to concentrate on external factors such as one’s social position, influence and popularity, wealth and standard of education... but internal factors may be even more crucial in assessing one’s development as a human being: humility, purity, generosity, absence of vanity, readiness to serve your fellow men – qualities within the reach of every human soul.”


A quote displayed at the Nelson Mandela House in Soweto, South Africa (photograph by Emberstar Wakefield).