THE ZIBBY GARNETT TRAVEL FELLOWSHIP

Report by Abigail Duckor

Photograph by J. Cutajar

Conservation of Archaeological Stone and Organic Artefacts
With Olduvai Geochronology and Archaeology Project
In Oldupai Gorge, Tanzania
7 July- 21 August 2015

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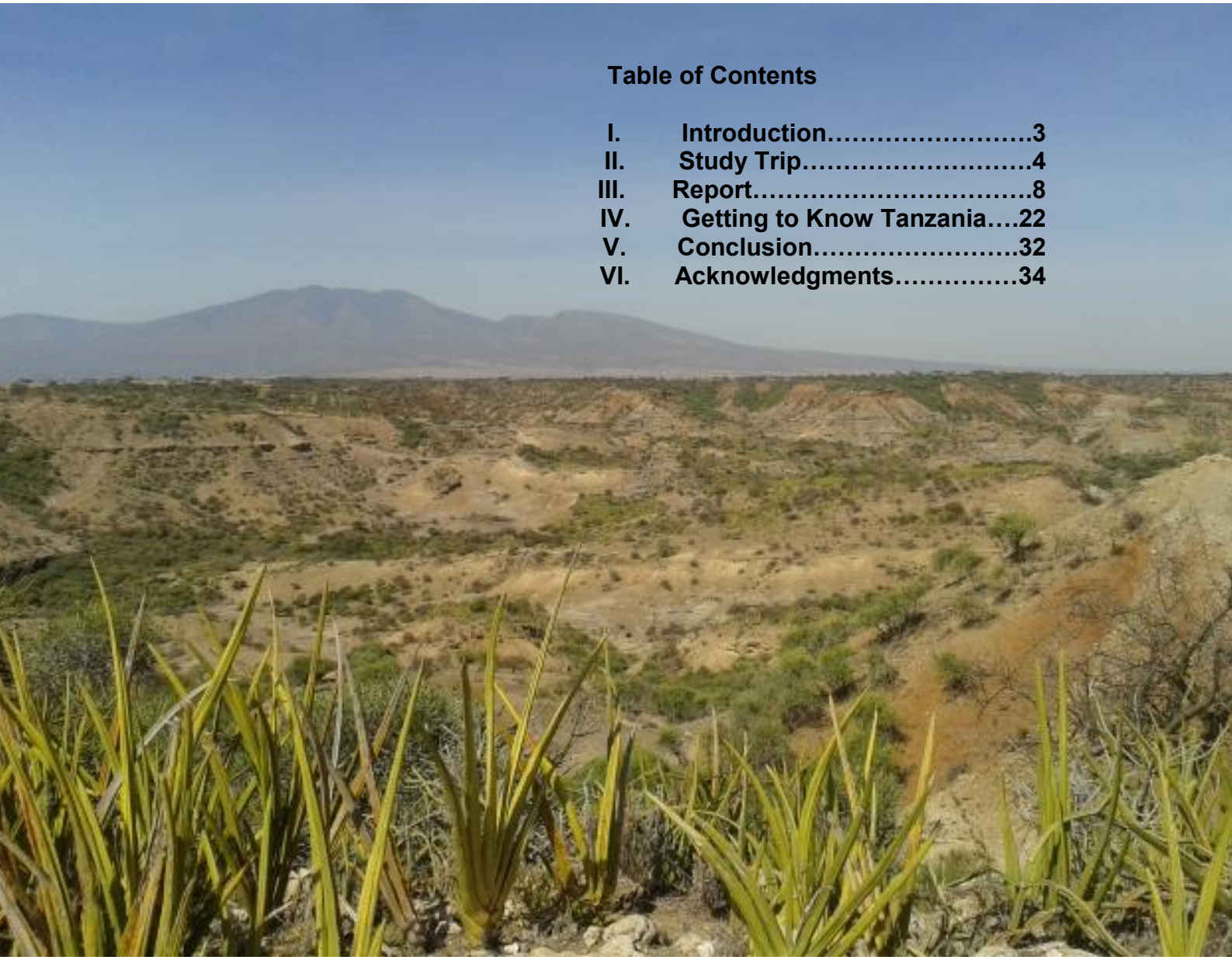


Photograph by A. Duckor

View of Oldupai Gorge.

In the foreground is the Oldupai plant, from which the gorge is named after. The area was incorrectly called Olduvai Gorge by early researchers and is commonly referred to as Olduvai Gorge in English publications. This report will refer to Olduvai Gorge as Oldupai Gorge, as it was the expressed desire of those in the local community to correct this mistake in translation.

I. Introduction

My name is Abigail Duckor. I am 25 years old and currently pursuing a Masters of Science degree in Conservation for Archaeology and Museums at University College London. I was born in New York and I have British citizenship through my Mother, who was born and brought up in London.

With this degree I am studying object conservation. The programme is based out of the Institute of Archaeology. There is a focus on the conservation of archaeological artefacts, but the program prepares us to work on many different types of materials. This includes metals, ceramics, glass, organic and composite objects. Throughout my studies I have enjoyed discovering the peculiarities of every material and object. At this point, I have chosen not to specialize in just one group of material. Within the current job market there is more benefit in being skilled in many areas. If I ever do specialize in one type of material or object it will be the result of a development over time.

Once graduating from University College London I will have a Masters degree in Principles of Conservation and a Masters of Science degree in Conservation for Archaeology and Museums. With these qualifications I hope to work in a museum or organization as an object conservator. These would preferably be small institutions where I could be involved in many aspects of their infrastructure. This could include exhibitions, education and community outreach. My intentions are to find a career in the United Kingdom, but I see the job hunt as being an opportunity to travel more. If given the opportunity, I will take advantage of the chance to explore a new location.

My supervisor at University College London, Dr. Renata F. Peters and previous students in the MSc conservation programme, informed me of the Zibby Garnett Travel Fellowship and encouraged me to apply.

II. Study Trip

The money provided by the Zibby Garnett Travel Fellowship allowed me to go to Oldupai Gorge, Tanzania to work for the Olduvai Geochronology and Archaeology Project. This project excavates fossil and stone tools, dating from 1.79 to 1.15 million years in Oldupai Gorge, the cradle of humanity. This is a critical time period in which there were many changes in the fauna, stone tools and climate. The excavation and subsequent research aims to understand the development of the Olduwan to the Acheulean homin group in Oldupai.

On this trip I hoped to achieve the following:

- Practice conserving fossilized bones and stone tools
- To learn conservation techniques particular to fieldwork, such as lifting and the application of cyclododecane
- Practice running a conservation programme on an archaeological site
- To learn how to reach conservation aims with limited resources
- Experience teaching conservation techniques
- To work with a diverse group of people and to learn from their practices
- To gain experience involving a community in the conservation of their heritage
- To explore Tanzania and to learn about the Tanzanian culture

For the OGAP project, I worked with the conservation team conserving finds to prepare them for research, storage and transportation. Since 2012, the OGAP project has had a conservation team led by Dr Peters (Head of Conservation), who established all current conservation protocols and supervised all of our work. More information on these protocols which are described in this report will soon be available in forthcoming publications by Dr Peters in collaboration with OGAP.

Our main goals as a conservation team on this project involved repairing broken or fractured finds, cleaning the artefact surface to reveal significant markings and stabilizing as many artefacts as possible. This was in combination with our other major goal, which was to teach the field school students and the excavation workers conservation practice. With the guidance of Dr. Peters, the conservation team has hopes to be a leader in conservation practice in field archaeology. Through teaching best conservation practice to the students and workers, the artefacts receive the best possible treatment ensuring their use for research in the future.

Our lofty goals required a dedicated team. The team (shown in fig. 1) consisted of 12 full-time staff by the end of the field season.

Figure 1. The conservation team and helpers in front of the Laetoli Lab. From right to left, top row: Justin Mahhu, Abigail Duckor, Anna Funke, Lucy Mshana, Naisoki Paul, Niroshi Zebeday, Renata Peters, Jan Cutajar, Sekwai Babi, Eli Diaz, Neil. Bottom Row: Isak Faustin Lyimo, Ngonyani Lihumi, Dani Mainaya, Edwin Paresso. Photo courtesy of R. Peters.

II.I Itinerary

Oldupai Gorge is located in a remote location in the Ngorongoro Conservation Area (a world heritage site). In order to get there, we first

flew into Kilimanjaro Airport in Arusha, Tanzania. Arusha is the closest large city from the site. It was also where we bought any supplies that we could not bring from London. After a day to buy supplies, we drove to the site, which was a 7-hour drive from Arusha (see figure 2). When we arrived, the excavations had already begun. The excavations continued for 5 weeks. During this time we were very busy conserving as many objects as possible and teaching conservation techniques. Our last week at the site was spent packing up the entire lab, as all the materials are stored away until next season.

We worked every day, except for Sundays. On Sundays the project arranged for us to go on trips in the local area. These trips gave us a better understanding and appreciation of the beauty of the surrounding landscape and culture.

These trips included:

- Ngorongoro Conservation Area
- Serengeti Conservation Area
- Shifting Sands/Naibor Soit
- Maasai Boma

After the project and excavations had finished, I continued my trip and travelled around Tanzania for a week. This additional adventure was an incredible time in which I was able to see just a small part of a large and varied country and to continue spending time with the new friends I had made in Oldupai Gorge. This trip and the day trips taken from camp will be discussed further in the body of the report.

Itinerary

July 8th: Arrive in Arusha

July 10th: Arrive at the Olduvai Camp

July 11th- August 10th: Daily work at the camp

August 11th- 14th Pack up of the lab

August 14th- Leave camp, return to Arusha

August 16th- Travel to Dar es Salaam

August 17th- Travel to Zanzibar

August 21st- Return to London

Figure 2. Myself and the other conservation students, Anna and Jan, on our way to the camp from Arusha. The trip took us through the Ngorongoro Conservation Area and there were many animals to see along the way. This photograph captures our emotion when we saw our first giraffe in the wild. Photograph by R. Peters

II.II Budget

The funding for this trip was largely provided for by the Zibby Garnett Travel Fellowship and by the Olduvai Geochronology and Archaeology Project. Additional money was raised through my own efforts to create and promote a crowd fundraising page with the organization Hubbub. In this type of fundraising, a website is created through an online platform in which friends and family can donate money to your cause. This required a lot of work to create the page and to organize a promotion scheme. It was highly successful and Anna, Jan and I were able to raise over £500. My family additionally helped me by purchasing a majority of the large equipment (tent, hiking boots, etc.) that I required. They also donated air-miles to pay for half of my flight. This left my personal contribution at an attainable amount.

Travel:

London to Arusha	£467.46
Zanzibar to London	Air-miles, courtesy of Julie Duckor

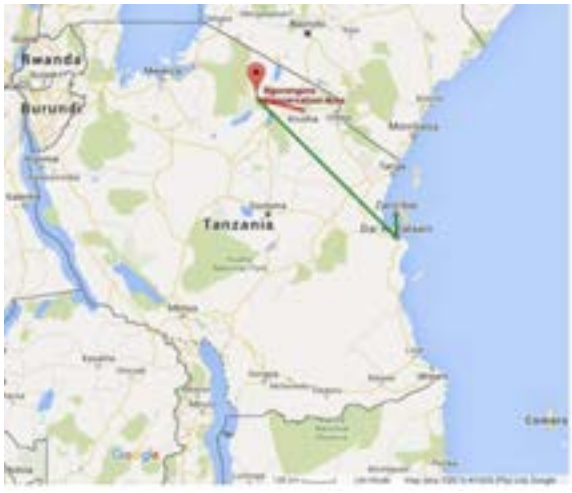
Accommodation:	£433.00
Essential Medication:	£137.93
Materials/ Equipment:	£204.74
Essential Documentation:	£398.00

Total:	£1,641.13
ZGTF Grant Awarded:	£1,000.00

III. Report

III.I Site

Tanzania is located on the East African coast. The Olduvai Geochronology and Archaeology Project takes place in the northern part of Tanzania, in Oldupai Gorge (figures 3 and 4).



Figures 3 and 4. Our initial trip is outlined in red. We flew to Arusha via Istanbul, as show in figure 3. From Arusha, we drove to Olduvai Gorge, a 7 hour drive. Once the excavation had finished, I explored just a small part of Tanzania by traveling to Dar es Saalam and Zanzibar, outlined in green. Image courtesy of Google Maps.

Figure 5. Olduvai Gorge is located in Ngorongoro Conservation Area, pinpointed on this map. We took additional day trips to nearby Serengeti Park and Ngorongoro Crater. Image courtesy of Google Maps.

Tanzania is a beautiful country with very welcoming and diverse people. The country has a population of over 47.4 million people with a wide range of ethnic and linguistic groups. There are over 100 different languages spoken in Tanzania. Many tribes have a separate language, in addition to speaking Swahili. Swahili is the official language of Tanzania, along with English.

The Ngorongoro Conservation Area is located in the northern part of Tanzania along the border of Kenya and the Serengeti Plains (figure 5). It is listed as a World Heritage Site because of its diverse and threatened wildlife, its ecosystems that are important for animal migrations and for the ground breaking archaeological finds in Oldupai Gorge. The conservation area is home to the Maasai, semi-nomadic pastoralists who live and raise their livestock in Kenya and Northern Tanzania.

Oldupai Gorge is part of this unique landscape. The gorge has distinct sediment layers that can be seen from the top to the bottom of the gorge walls (figure 6). These distinct layers have allowed archaeologists to date finds from up to 2 million years ago.

Figure 6. An iconic view of Oldupai Gorge that shows the Castle, a natural rock formation. The Castle clearly shows the different sediment layers that form the gorge. Photograph by A. Duckor.

Oldupai Gorge became well known for the archaeological finds that Mary and Louis Leaky discovered in this area from 1935- 81. It took them almost 30 years to make their first significant discovery, the *Zinjanthropus boisei* skull. Mary Leaky paved the way for the excavation and research of stone tools and bones of the Olduwan period. Her presence and influence is still a major part of the camp. Many of the buildings, including two windmills and the original camp walls, remain from when the Leakey's originally built the Oldupai camp. Our excavation sites this year were based on Mary's meticulous notes of where she had previously excavated.

The conservation lab is located in the Laetoli Lab. In addition to working as the conservation lab, this building also is where the original casts of the Laetoli footprints are stored and is where the bone reference collection is kept. Resources were limited in this lab as there was no running water and a generator powered the limited electricity. The windows had holes, the floor was always dusty, and the roof was home to a bat, but we were just happy to have space to work!

Figure 7. The Laetoli lab- our conservation lab for the season. Space was limited in this building as it was also shared by other researchers. Photograph by A. Duckor

III.II Daily Life

As mentioned before, life at the camp was not rich in luxuries. It was, however, rich in good people, beautiful surroundings and great food. These attributes made for a very fulfilling experience.

Approximately 40 people lived at the camp. This included the researchers, the field school students (from the United States and from Tanzania), Tanzanian excavators, and the staff who helped run the camp (cleaners, cooks, caretakers). Additionally, every day Maasai would walk to the camp to work on the excavations or to sell their bead-work. Maasai are well known for walking far distances- some would walk 3 hours to the camp every day!

The few buildings on site were used as the labs, dining hall, and “kitchen” (figures 8 and 9). This left everyone sleeping in tents and showering outdoors (see figure 10).

Figure 8. The dining hall, former house of Mary and Louise Leakey. Photograph by E. Orlikoff

Figure 9.The “kitchen” is the small hut on the left side of the photograph. In the foreground is a Dik-dik- a kind of small antelope that was often seen around camp. Photograph by E. Orlikoff

Figure 10. Conservation tent city. This is where myself and the other conservation students set up our tents. On the right side of the picture is the enclosure in which we would take our showers. Photograph by J. Cutajar.

Since the electricity was limited, we could only work during daylight hours. We would wake early every day to watch the sunrise over the gorge at 6:30am. After a delicious breakfast of homemade bread we would be in the lab working by 7:45am. Work continued in the lab until 1pm, when we would have lunch and a 2-hour break during the heat of the day. From 3pm we would work until 6:30 pm. Sometimes, we would finish in time to make our way to the gorge edge to watch the equally beautiful sunset and to look for grazing giraffes.

III.III Lab Life

Before excavations even started, there were objects that needed conservation from the last excavation season in the lab (figure 11). Every day the lab would receive and additional 10-30 objects. With this many objects coming in everyday, we needed to be very organized and efficient. Upon arrival, objects would be recorded on a log. We would each be working on 3- 5 objects at a time, treating them to be stable for storage, research and transportation. As the summer went on, we developed more ways to be efficient. One technique was to divide the artefacts into different treatment needs upon arrival. This allowed us to do batch treatments of objects needing similar treatment.

Figure 11. Inside the Laetoli Lab. Any available surface was used to complete treatments. Photograph by A. Duckor

III.IV Fieldwork

When we were not in the lab, we were in the field (figure 12). We were required to go into the field if there were particularly fragile, abundant, or large objects that needed stabilising. In the past, there have been many artefacts that required specialised lifting. We were expecting to do lifting this season, but the crumbly soil made such lifting unnecessary and impossible. Instead, in the field we would micro-

excavate the finds with bamboo skewers and brushes in order for them to be then lifted by the excavators.

Figure 12. The Anna and I work on the main excavation site micro-excavating an area with multiple finds. Photograph by J. Cutajar.

With particularly fragile finds, we would use the substance cyclododecane to temporarily stabilize the object so that it could be safely brought back to the lab where finer conservation work could be done.

Cyclododecane (CDD) is a saturated cyclic alkane $(CH_2)_{12}$ and has a waxy, white appearance in solid form. Cyclododecane sublimes at room temperature. This makes it ideal for temporary consolidation in conservation treatments as there are no residues left behind once the material sublimates. In the field, CDD was useful as it could be applied to a fragile find by the conservators and it would then hold the fragments together during excavation. Once back in the lab, the CDD would sublimate allowing further conservation treatment to continue (figure 13).

Figure 13. A find back in the lab after it had CDD applied in the field. The CDD was able to keep most of the bone intact, making its subsequent conservation treatment much easier. Photograph by A. Duckor

The application of CDD requires it to be in liquid form, which meant the waxy crystals had to be melted over a heat source. Once melted, the CDD was applied to the object with a brush. In the field it was particularly windy making it difficult to have a steady heat source to melt the CDD (figures 14 and 15). We developed different strategies to keep our heat source, a spirit burner, lit. The wind also made application of the CDD tricky as often the CDD would solidify before we were able to get the brush to the artefact! Working around these problems required creative solutions.

Figure 14. Our first attempt was to create a high-walled fire pit. The CDD was heated in a water bath on a transportable spirit burner. Photograph by A. Duckor.

Figure 15. Out second attempt was to use an old excavation pit to block the burner from the wind. This was more successful but could only be done in locations near the old pit. Photograph by A Duckor.

CDD was not a perfect conservation solution. In addition to being tricky to apply, it was not always successful in preventing fractures, as seen in figure 14. In the field we had to be careful the CDD would not sublime before it got back to the lab, since it was so windy and hot

outside. Once back in the lab, the CDD sublimed very slowly. Depending on the thickness off the CDD, sometimes this meant we could not work on the object for weeks!

III.V Object Work

The majority of the artefacts we worked on were fossilized bones and stone tools, as these were the type of objects found during excavation. Although the material type was often repetitive, each object needed unique conservation treatment. Since the conservation lab was treating a large number of artefacts in a short period of time, we focused on the following conservation goals in order for the objects to be used for research:

1. Reveal the artefact surface
2. Stabilise the object so that it is safe for transport and handling

Photographs of the object before and after treatment would be filed on our laptop along with simple documentation of the treatment record on a spreadsheet.

The first step in conservation treatment was often revealing the surface, as this was the most important for research of cut marks and tool making. Sometimes this would be a fairly easy removal of the sandy excavation dirt. Other times, the surface would be covered in what soon became known as the dreaded *concreation*.

Concretion is essentially compacted dirt that has adhered to the object surface during burial. Removing concretion was extremely tricky since, similar to concrete, the concretion was very hard. Removing it required the use of a drill, which put the object at risk for receiving extraneous cut marks. Even with a drill it was often impossible to remove the concretion from thin or fragile areas or if the concretion was particularly thick. The conservation team often deflected to the skilled hands of Dan and Ngonyani, who are experts at the drill.

III.V.I Stones

The stones excavated were of basalt or quartzite type. The basalt stones tended to be highly fragile, despite their sturdy appearance. Basalt, a type of igneous rock, is very porous. The surfaces of these rocks were usually delaminating and consolidation was required (figure 16). The surface tended to be encrusted with dirt or concretion.

Figure 16. A delaminating basalt stone that was consolidated with Paraloid B44 in xylene. Photograph by A. Duckor.

Quartzite, a non-foliated metamorphic rock, has a crystalline structure. This makes the stone weak along these formations. The result was that many quartzite artefacts would be fragmented when received in the lab. They would require re-joining and fills created with Paraloid B44 and fumed silica (figures 17, 18 and 19).

Figure 17. A quartzite stone before treatment. Photograph by N. Paul.

Figure 18. The same stone, after it was cleaned and joined by the student Naishoki Paul. Photograph by N. Paul.

Figure 19. The quartzite stone with a fumed silica and Paraloid B44 fill complete. It was very difficult to have the fill match the transparency and texture of the quartzite stone but after many attempts a good result was achieved. Photograph by A. Duckor

Through all of the conservation treatments done at Olduvai we generally used Paraloid B44 when an adhesive was required. This was due to the reversibility of Paraloids, its ability to be mixed with various solvents and its workability. Paraloid B44 was used instead of the more commonly used Paraloid B72 due to the higher glass transition temperature of B44. With the high air temperatures often reached in this climate, it was important to have an adhesive that would not change in high temperatures.

III.V.II Bones

The excavations at Olduvai Gorge were incredibly rich. One level on a site would contain hundreds of bones. As soon as the bones were exposed, they would become very vulnerable to deterioration. Often fragile, and already in fragments before they left the ground, it was inevitable that they would need further stabilisation.

Following the removal of any surface dirt, the first step would often be consolidation of the porous bone membranes. The fragments could then be re-adhered. If needed for structural support, micro-balloon fills would be added. These were left white to allow researchers to locate the original surface (figures 20-22).

Figure 20. One of the bone objects I was assigned. It came to the lab in three large bundles, wrapped in toilet paper. Photograph by A. Duckor.

Figure 21. The same artefact in the middle of reconstruction. Photograph by A. Duckor.

Figure 22. The artefact after treatment. There were many fragments associated with this find, not all of which belong to the same skeletal structure. Time constraints meant that the fragments were cleaned, consolidated and joined where possible only. Photograph by A. Duckor.

III.V.IV Packaging

Another important part of our work was packing the artefacts in metal trunks so they could be brought back to London for research. The artefacts generally are researched in Tanzania, but they are allowed to be researched off site if they are returned within the year.

The cost of bringing a trunk back to the UK meant that many objects had to fit into one trunk, while still be under the weight limit. Following these restrictions, while guaranteeing that no object wass broken was a tricky task. After a few failed attempts, we were able to develop a technique using cardboard recycled from the supplies brought into the camp and with old mattress foam (figure 23).

Figure 23. Anna and I can only laugh at having to re-pack the trunks for the third time in order to fit more artefacts. Photograph by A. Wallach.

III.V.V Teaching

A large part of our work in Olduvai consisted of teaching conservation practice. Our hope was that by training Tanzanians in conservation practice, they would be able to take over from us in completing the conservation done on-site. We needed as much help as

we could get and by training the students and workers we were able to build an army of helpers.

In the lab we cleared off as much table space as we could, and gathered as many stools as we could find in the camp in order to fill our bench-tops with conservators-in-training (see figures 24 and 25).

Figure 24. One of the Tanzanian students, Rukia, works on a difficult object in the lab. Photograph by A. Duckor.

Teaching in the lab usually began by giving the student a smaller object with a one-step treatment, such as, cleaning the surface or adhering one join. Once the student completed this, including the photography and documentation, they were able to move onto the next object that would have a more complex treatment, such as, consolidation or multiple joins. If the student enjoyed their time they were able to come back either to finish their previous treatment or to continue working with complex objects. For some students, the conservation lab was a great environment and they were able to contribute more to the project then they had been in other areas.

Figure 25. I work with one of the Tanzanian students, Naishoki Paul, on her documentation. Students were required to complete all steps of the treatment including photographs and treatment documentation. Photograph by J. Cutajar.

In the evenings at the camp, the researcher often gave lectures about their field of study. The conservation team led two of these lectures. The first lecture was a general overview of conservation and its role in the excavation. The second was an overview of the treatments done so far this field season. Both lectures aided in informing the camp of the importance of having conservation as in an integral part of the excavation. During these lectures we discussed the best techniques for consolidating in the field and why we use particular adhesives and solvents. By informing everyone of the reasoning behind our conservation decisions, everyone felt involved as part of the process and was encouraged to help in the conservation efforts.

IV. Getting to Know Tanzania

An important part of our trip was getting to know the local people and their heritage. As a group, the Olduvai Geochronology and Archaeology Project was aware of how lucky it was to be able to research and work in this location. It was important to be appreciative and

respectful of the surrounding area and its people. We took multiple trips as a group to learn more about the natural and social landscape.

Arusha

The first city we visited and where we got our first introduction to Tanzania was Arusha. Arusha is a bustling place with many people walking around selling goods.

Figure 26. One of the main streets in Arusha. A common and cheap form of transportation was a taxi ride on one of the motorbikes seen here. Photograph by A. Duckor.

Figure 27. This was the chemistry supply store where we got our conservation supplies such as acetone, xylene, and glass beakers. Many of the store fronts in Arusha looked like this, with paintings of their goods and with a counter in front from which you could ask for your purchase. Photograph by A. Duckor.

Figure 28. In Arusha we visited the Maasai Market. Each stall was full of colour and handcrafted pieces. Photograph by A. Duckor

Figure 29. At the back of the market, ebony carvers worked. Here one of the carvers explains the process to Jan Cutajar. Photograph by A. Duckor.

Naibor Soit and Shifting Sands

Nearby the camp is the mountain Naibor Soit and the Shifting Sand formation. Naibor Soit is thought to be the original location of the quartzite which used to make the stone tools that we now find in the excavation. Shifting Sands is a black dune that is made from volcanic ash from Oldonyo Lengal. It has magnetic properties, which makes it attract to itself. It is slowly being blown across the Ngorongoro Conservation area.

Figure 30. View from the Nabior Soit peak. Photograph by A. Duckor.

Figure 31. The group takes a big leap into the Shifting Sand dune. Photograph by A. Duckor

Ngorongoro Crater

The Ngorongoro Crater is the result of a massive volcano explosion three million years ago. During the dry season it is the main source of water for many animals in the area. We were lucky enough to go on a safari through the crater on one of our days off. It was incredible to see elephants, lions, zebras, cape buffalos and hippos- all just metres away from each other!

Figure 32. Anna, myself, Jan and Renata at the top of the crater.

Figure 33. Hippos bask in the crater sun. Photograph by A. Duckor

Serengeti Park

Serengeti Park is located right next to Ngorogongo Conservation Area. We were also lucky enough to go on a safari through this area. Here the animals were spread out and we had to look carefully to see cheetahs, leopards and monkeys.

Figure 34. We took this safari car through Serengeti Park. The cars are designed to have an open roof so you can look through the top as you drive around. Photograph by E. Orlikoff.

Zinj Day

Every year the day that Mary found the *Zinjanthropus boisei* skull (also known as *Paranthropus boisei)* is celebrated. We were lucky enough to be part of the celebrations this year. Throughout the night everyone expressed their thankfulness for the collaboration that has taken place between the local Maasai and the visiting researchers.

Figure 35. The day was celebrated with Maasai dancing which involves ceremonial jumping up and down with their walking sticks. This is accompanied with throat singing-a mix of low and high pitches that harmonize in an eerie and beautiful way. Photograph by A. Duckor

Figure 36. Jan and I with our Maasai friends, Niroshi and Laangakwa during the Zinj day celebrations. We are wearing traditional shokas (cloth cloak) and beaded necklaces.

Maasai Boma

The friendly Maasai extended an invitation to us to visit one of their bomas. A boma is a group of houses surrounded by a thorn fence. Each house in a boma is for a different wife to the patriarch of the family. It is also where the Maasai stable their goatherd at night (in order to protect the herd from predator attacks).

Figure 37. One of the Maasai homes. The houses are built by the women with sticks and mud. The whole family sleeps in the one room home on goat hide beds. Photograph by J. Cutajar

Dar es Saalam

At the end of our time required by the project, Jan and I took an additional week to travelling to Dar es Salaam and Zanzibar. This was a highly enjoyable time in which I was able to get to know the country more. It was made unforgettable by the friendly Tanzanian people and the surrounding natural beauty.

Figure 38. It was a 10 hour bus ride to Dar es Salaam from Arusha, but it was well worth it. The city was bustling with activity and bright colours. Here is the always busy Kariako market. Photograph by J. Cutajar.

Zanzibar

We took the ferry from Dar es Salaam to Zanzibar and landed in Stone Town. Zanzibar is dominantly Muslim and there is a strong presence of Islamic influence. This could be seen in the enchanting architecture, winding alleyways and the peoples more modest customs.

Figure 39. The view from the hostel roof garden in Stone Town Port. Every morning we would see the fishermen beating octopus on the rocks in order to tenderize them for cooking. Photograph by A. Duckor.

Figures 40 and 41. Jan eating ugali- a paste made with maize or millet flour that is the main starch in Tanzanian food. While I blend into the never-ending markets where you can buy anything imaginable. Photographs by A. Duckor and J. Cutajar.

Figure 42. On our last two days on Zanzibar Jan and I travelled to the other side of the island, which was much more secluded and peaceful. A local captain took us out on this Dhow for snorkelling along the reefs. Photograph by J. Cutajar.

V. Conclusion

V.I Summary

Getting to know Tanzania and being part of the Olduvai project was what can only be described as an unforgettable experience. On an educational level, I was able to work on five times as many objects in six weeks as I did in the first year of my MSc. This gave me more experience with hand-skills and prioritizing treatments. On a personal level, I felt like I was part of a unique moment in time and place. I met inspiring people whom I hope to remain in contact with. Even with the less than ideal living conditions, I did get very used to our daily life. I found it hard to leave this special place which is like no other in the world.

V.II Achievement of Goals

Most of my goals were met to a certain extent, if not more than expected. Working on a large number of objects meant I now know how to deal with a wide range of problems that occur in fossilized bones and stone tools. Everyday involved a certain amount of teaching, which has given me more confidence in my teaching skills. We were able to do a small amount of field conservation, which included valuable practice using cyclododecane. The type of soil on site prevented us from being able to learn lifting techniques. This is perhaps the only goal not achieved, although it was out of our control to change.

V.III Being prepared for the future

The project management skills, team working skills and even budgeting skills gained in trying to fund this trip are all valuable for a future career. For the future job that I hope to have as a conservator in a museum or institution, all of these skills will be needed. It feels great to be prepared to apply to jobs even before I graduate since I have this experience behind me. More importantly, through this trip I gained the confidence to know that I can be successful as an independent conservator. For most of the project I was supervised by Renata Peters, but as part of our obligations to OGAP, Jan and I were required to stay a week longer than Renata in order to help pack up the lab. Without

Renata, Jan and I were working for the first time without supervision since our conservation training began. Everything went very smoothly and efficiently. Even when there was the surprise discovery of an enormous rhino bone on the last day of excavation, Jan and I felt comfortable implementing our own conservation treatment plan even when there was only a day left to finish treatment work.

V. IV Advice to future scholars

To future scholars in similar placements, my best advice would be to go into the trip with a positive attitude. Being enthusiastic and enjoying the experience went a long way in getting other people excited about conservation and wanting to participate.

It was also important to be flexible and to make compromises. It was also very important to stick up for what was best for the conservation team. When there are limited supplies, limited man-power and limited space these things disappear right from under your noses. There was a balance between helping others and also helping yourself. It was difficult for me at times to maintain this balance. I wanted to be helpful and accommodating to everyone, however, the cost of doing that would have meant losing vital conservation supplies that could not be replaced. As a team we developed a tactic in which we would rotate who had to be “mean” and speak up for what was needed. This way, we shared the force of this together, making it not such an arduous task.

In relation to this advice, if I was able to go back to Oldupai, I would be slightly tougher in my approach as a conservator. I would be more demanding from the beginning on what the conservation team needed and clearer on what we should be expected to do. There is definitely value in being accommodating and working with others. However, if one said “yes” to everything, there would be no time to complete what we actually came there to do. Coming to this conclusion is a skill in itself and one I think could be applied to a future career in conservation.

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