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# LETTER FROM THE EDITOR

*Irene Chirmanova*

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*FROM THE EDITOR-IN-CHIEF*

It is my pleasure to announce the publication of Volume 2 and Volume 3 of the Anthropology Undergraduate Journal (AUJ). Since the first volume was in the works, the aim of the AUJ was to create a platform for undergraduate students at University of Toronto to showcase their academic achievements from all of the sub-fields of anthropology and further encourage scholastic dialogue in the community. It is our goal for the future of the AUJ that this platform may grow and that it may create opportunity for a larger peer group to showcase their work.

I hope that these Volumes of the AUJ will garner attention from the student body, as well as the faculty for it delivers a spectacular corpus of academic works in the fields of anthropology. On behalf of the Anthropology Students Association and the AUJ editorial board I would like to extend a sincere congratulations to all the authors for the work that they have contributed to their respective sub-fields in anthropology. I would also like to extend a hearty thank you to all who have worked or have influenced these two volumes: my editors Dan Gelinas and Klara Komza, Brittany Gerow and her spectacular work as creative director, to the Anthropology Students Association for allowing me to work on this publication and many others who have given words of advice or encouragement. It has been an absolute pleasure working alongside my peers and I look forward to reading the future volumes of AUJ.

Sincerely,
Irene Chirmanova
*Anthropology Undergraduate Journal Editor-in-Chief*

# LETTER FROM THE PRESIDENTS

*Catherine Maw & William (Liam) Wadsworth*

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*FROM THE 2015-2016 CO-PRESIDENTS OF THE ANTHROPOLOGY STUDENTS'*
*ASSOCIATION (ASA)*

The Anthropology Undergraduate Journal holds a prominent place within the anthropology community at the University of Toronto and has served a crucial role in inspiring undergraduate research and connecting undergraduates to the greater scientific community. Exceptional work is chosen from the fields of Archaeology, Biological Anthropology, Linguistics, Social-Cultural Anthropology, and Interdisciplinary Anthropology by the Editor in Chief of the AUJ who is democratically elected and is a part of the executive council of the ASA. . Each and every article is voluntarily submitted by UofT undergraduate and the AUJ team assigns recommendations to the articles before they are formatted by our graphic designer. The AUJ will be distributed to the public free of charge in both hardcopy and online. for the promotion of anthropological scientific research and discussion.

We, as Co-Presidents, would like to express our gratitude to all contributors of this year's journal and of course we would love to thank Irene for all her hard work. We would also like to extend our gratitude to, Ms. Brittany Gerow, who is credited with journal design and appearance, and has surpassed all expectations with her diligence and professional character.

We, the ASA, are very proud of the undergraduates that we represent especially the authors that contributed to this journal and hope that the AUJ will continue to thrive in future. It is in our interest that the AUJ grow as a peer reviewed academic undergraduate journal and continues to promote, as well as, inspire undergraduates at the University of Toronto-St. George.On our behalf of the Anthropology Students' Association we would like to congratulate each talented contributor and hope that they continue their in their academic endeavours. Knowing that the A.S.A will always be there to support and love them.

Godspeed Nerds,
Catherine Maw & William (Liam) Wadsworth
"*The Real Presidents, The Best Presidents.*"

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# MANUAL LATERALITY OBSERVED IN CAPTIVE SUMATRAN ORANGUTANS

*Alex Youngjin Jung*

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## ABSTRACT

Preferential use of one hand over the other, also known as manual laterality, is observed in humans at the species-level and is thought to be a function of motor specialization of the cerebral hemisphere, linked to language development. Handedness in non-human primates is generally thought to exist as well, but conclusions based on primate observations are disputed. Of particular interest to researchers are handedness in great apes, which should be an observable trait if manual laterality has a genetic component and did not arise *de novo* in human species as studies suggest. In this project, I studied a group of captive Sumatran Orangutans (*Pongo pygmaeus abelii) residing at the Toronto Zoo over the span of 9 days.* The main focus of this research was to look for the existence of handedness in orangutans at the individual-level, see whether forelimb preference correlated to hindlimb preference, and see if high-level complexity tasks resulted in greater forelimb bias than simple tasks. The focal sampling method was employed to gather data on the subjects, which consisted of 3 adult females, 1 juvenile male, and 1 juvenile female. The results showed that 1) asymmetrical forelimb bias, namely the preferential use of the right hand, was observed in all five individuals; 2) forelimb preference did not correspond to hindlimb preference; and 3) tasks that required greater manual dexterity did indeed lead to greater lateralization. These findings indicate that handedness in orangutans exist at the individual-, and perhaps even at population-level, and that unlike in humans, specialization of the contralateral hemispheres may not have been the driving factor in development of handedness in orangutans.

## INTRODUCTION

Manual laterality, or the preferential use of one hand over the other (ie. handedness), exists in humans, where 85% -90% of the population is thought to prefer the use of their right hand. In the past few decades, many studies investigated manual or paw preference in other mammals, including mice (Collins, 1975), cats (Warren, 1958), and non-human primates. The preference of one hand over the other in task-performance is an interesting phenomenon, especially considering its relation to the asymmetrical organization of the cerebral hemispheres. Right-handedness observed in humans is thought to be related to left-hemisphere dominance for language (Hopkins, 2006). It is unlikely that population level hand-bias is exclusive to just humans, and is likely to have a genetic component. Forrester *et al.* (2013) have suggested that handedness is an inherited evolutionary trait, and that it is context-specific, rather than species-specific,

deriving from behaviour that is common to humans and all great apes. If manual laterality did not emerge as a completely new trait in modern humans, then it is likely that a precursory form of handedness existed in early hominids, or even earlier in common ancestors of both humans and extant great apes. Indeed, fossil and archaeological records seem to support population-level right-hand bias in Neanderthals, and less convincing and patchy evidence of handedness in earlier hominids (Uomini, 2009; Lozano *et al.*, 2009). Thus it seems reasonable to assume that great ape species such as *Pan* (chimpanzees and bonobos), *Gorilla* (gorillas), and *Pongo* (orangutans) that are genetically closer to modern humans are more likely to show a similar pattern and level of manual laterality than other mammals more distantly related to humans.

Research that focus on handedness in these great ape species have increased over the years, but many of the studies have remained inconclusive, or in some cases, even contradictory. Various factors including small sample size and differences in methodology utilized across these studies may have attributed to these results. Given the limitations on the number of ape populations that can be studied, it may be difficult to obtain an accurate data sizeable enough to draw conclusions at a population-level. It also has been shown that there is a difference in symmetric/asymmetric hand bias dependent on the level of dexterity required by the manual activity (Fagot & Vauclair, 1991). Low-level tasks, such as simple reaching that are not indicative of the specialization of the contralateral hemisphere was more likely to lead to a symmetrical distribution of hand bias: that is, no statistical difference between left- or right-hand preference. On the other hand, asymmetrical distribution of hand bias was

more likely to be observed in high-level tasks that demanded greater manual dexterity. In addition, in humans a strong correlation exists between hand preference and foot preference; those that are right-handed are more likely to prefer their right foot, and those that are left-handed are more likely to prefer their left foot (Barut *et al.*, 2007). Such correlation has been seldom studied in non-human primates.

Previous studies on *Pongo* (orangutans) have shown that they exhibit hand preference at an individual level, but noted that at the population level, no bias (O'Malley & McGrew, 2006), or left-hand bias was observed (Hopkins *et al.,* 2003). In addition, hand preference in orangutans seems to be related to increasingly manipulative task (O'Malley & McGrew, 2006). It should be noted that the vast majority of the populations observed in these studies have been captive, and perhaps may have been subject to human influence.

In this study, I looked at a group of captive Sumatran orangutans (*Pongo pygmaeus abelii*) and aimed to answer the following questions: 1) Does manual laterality in orangutans exist?; 2) Does forelimb preference, if it exists, correspond to hindlimb preference of the same side?; and 3) Do orangutans show a higher level of hand preference for tasks that require a greater amount of manual dexterity compared to tasks that do not?

# METHODS

### Setting/Subjects:

This study was conducted from February 17th to February 25th of the year 2013. The population of orangutans observed in this study resided at the Toronto Zoo. The enclosure contained dirt ground, with artificial structures

consisting of wooden platforms and ropes to allow orangutans to play. It also included a small pond, and a glass wall separating the orangutans and the visitors. Although there was no direct contact with the visitors at the zoo, the orangutans were allowed to be close to the spectators, separated only by a glass wall. It was a small population, with only 6 individuals ever on display consisting of 3 adult females, 2 juvenile males, and 1 juvenile female. Since the captive orangutans at the zoo cannot be manipulated, or experimental variables introduced to them, the study was entirely observational. Five individuals out of the 6 were observed for 5 hours each on different days for a total of 25 hours: one of the juvenile males was excluded in this study. The details of the subject kinship are as follows: of the 3 adult females, (subject 2, 3, and 4), the juvenile male, subject 1, belonged to the oldest female, subject 3. The juvenile female, subject 5, was the daughter of subject 2, while the unobserved orangutan was subject 4's son.

### Sampling method:

Focal sampling was utilized in this study. Rather than scan sampling, a continuous method was used instead since the behavior I was looking for (use of limbs) may not be picked up using the scan sampling method. Each time the subject used its forelimb or hindlimb, the occurrence was recorded as an event.

### Data recorded:

Each event was recorded along with the time and duration that it occurred. The categories into which the event was placed were: 1. Hindlimb/forelimb; 2. Right/left, depending on which limb was used dominantly to interact with the object. Also, if the interaction involved both limbs equally,

it was categorized as both; and 3. Interaction with the object. There were five subcategories in "Interaction with the Object". The simple touch and grab, where the subject touched or grabbed the object but did not manipulate it or use it as a tool; eating, where the object (in this case, food) was ingested; locomotion and suspension, where the object, such as a branch, was used as a means of locomotion or suspended from; grooming and play, where the limbs were used to interact with another member of the population in a grooming or playful behaviour; and tool making or manipulation, where tools were made or used that involved coordinated and precise action of the digits, such as in the use of a fashioned tree branch to acquire food from a hole. Of these 5 subcategories, the last two (groom/play and tool use) have been designated as tasks that requires greater manual dexterity.

All three categories, hindlimb/forelimb, right/left, interaction with the object, were used to describe the event, but the subcategories were mutually exclusive to other subcategories within the same category. When the subject was interacting with the object with one limb but switched to another limb, it was recorded as a new and separate event. However, if the switch occurred back and forth too short in duration (<5 seconds), it was instead recorded as a two-handed interaction.

## RESULTS

The frequency of forelimb usage, calculated by the sum of the duration of all events in that object interaction category for each forelimb bias (right, left or both) divided by the total duration of all forelimb usage in that object interaction category, is detailed in Table 1. For example, it can be seen from this table that for touching and grabbing of

| | Subject | Touch/Grab | Eating | Loco/Sus | Groom/Play | Tool |
|---|---|---|---|---|---|---|
| **Forelimb Right** | **sub 1** | 0.2709 | 0.8919 | 0.0033 | 0 | 0.9429 |
| | **sub 2** | 0.2458 | 0.6581 | 0.0656 | 0.3759 | 0.7209 |
| | **sub 3** | 0.2051 | 0.3333 | 0.0204 | 0.8333 | 1 |
| | **sub 4** | 0.4222 | 0.1573 | 0.0364 | 0.107 | 0.9893 |
| | **sub 5** | 0.3376 | 0.3824 | 0 | 0.0856 | 0.8041 |
| **Forelimb Left** | **sub 1** | 0.2476 | 0.105 | 0.048 | 0.0192 | 0 |
| | **sub 2** | 0.27 | 0.2545 | 0.0765 | 0.0226 | 0.093 |
| | **sub 3** | 0.3643 | 0.0621 | 0 | 0.0556 | 0 |
| | **sub 4** | 0.1346 | 0.2016 | 0 | 0.0459 | 0.0107 |
| | **sub 5** | 0.3776 | 0.4901 | 0 | 0.0325 | 0.0309 |
| **Forelimb Both** | **sub 1** | 0.4815 | 0.0031 | 0.9487 | 0.9808 | 0.0571 |
| | **sub 2** | 0.4842 | 0.0874 | 0.8579 | 0.6015 | 0.186 |
| | **sub 3** | 0.4306 | 0.6045 | 0.9796 | 0.1111 | 0 |
| | **sub 4** | 0.4432 | 0.641 | 0.9636 | 0.8471 | 0 |
| | **sub 5** | 0.2848 | 0.1275 | 1 | 0.8839 | 0.1649 |

**Table 1. Frequency of forelimb (right/left/both) usage for different object interaction categories**

objects, subject 1 used his right hand 27.09% of the times, left hand 24.76%, and both hands 48.15% of the time. Variations across individuals exist, where some individuals were observed to prefer the use of one hand over the other for certain tasks, while others preferred the use of the other hand or showed no preference at all.

Table 2 outlines the relationship between forelimb usage to hindlimb usage. The percentages were obtained by totaling the duration of all forelimb usage events for each subject, then calculating how much of each forelimb usage (right, left or both) contributed to the total. The same procedures were repeated for the hindlimb of each subject. Because the calculations used the total duration of all events for each subject, the effects of object interaction categories are not reflected in

| | Forelimb | Hindlimb | Forelimb | Hindlimb | Forelimb | Hindlimb | Forelimb | Hindlimb | Forelimb | Hindlimb |
|---|---|---|---|---|---|---|---|---|---|---|
| **Right** | 32.92% | 3.57% | 39.99% | 25.41% | 38.98% | 36.54% | 38.78% | 10.30% | 17.53% | 2.53% |
| **Left** | 9.14% | 6.83% | 21.32% | 6.71% | 21.90% | 17.31% | 8.87% | 13.73% | 11.98% | 3.61% |
| **Both** | 57.94% | 89.60% | 38.68% | 67.89% | 39.12% | 46.15% | 52.55% | 75.97% | 70.50% | 93.86% |

**Table 2. Comparison of forelimb bias to hindlimb bias in each subject**

this table. Table 2 shows that there appears to be weak, or no correlation between forelimb bias and hindlimb bias. Overall, the pattern and percentage values of forelimb bias are poorly reflected in hindlimb bias, and in the cases of some individuals, even contradictory.

The following figures were obtained by averaging the frequencies of all 5 subjects for each object interaction category. Since it uses the average and not the individual frequency, it should be noted that the frequencies shown on a figure will not neatly add up to 1. By taking the average, the orangutans are able to be studied at the group-level, since individual variations towards one bias can be negated by another individual's bias. These graphs show that there is little group-level forelimb bias for touching and grabbing, and eating, where right hands, left hands, and both hands were all used frequently. However, strong group-level forelimb biases were observed in other object interaction categories: as can be expected, all subjects nearly always used both hands for locomotion and suspension; in grooming and playful behaviour, both hands were used most frequently, followed by the right hand, while the left hand alone was rarely used. In the use and manipulation of tools, all subjects used almost exclusively the right hand.
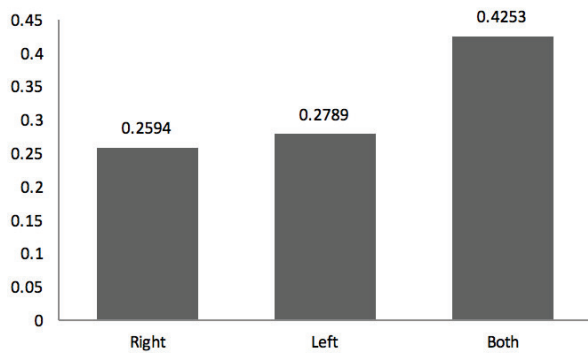


**Figure 1. Average frequency of forelimb (right/left/both) usage for object interaction category: Touching and grabbing**
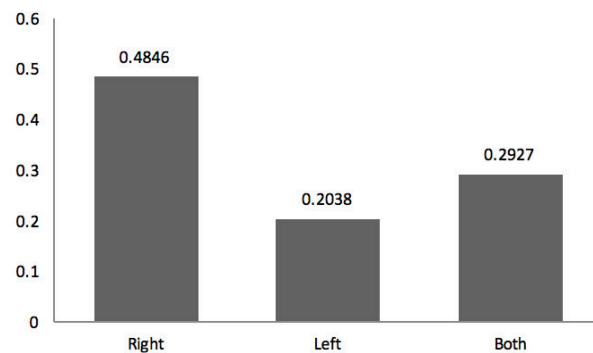


**Figure 2. Average frequency of forelimb (right/left/both) usage for object interaction category: Eating**
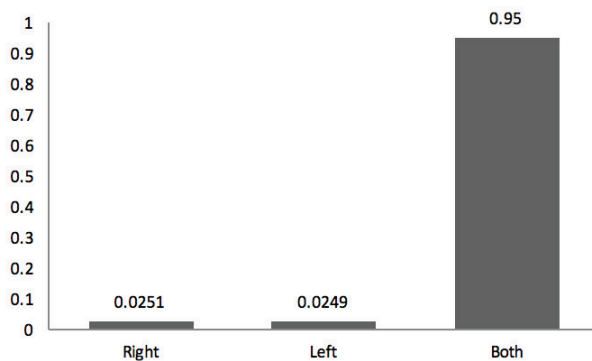


**Figure 3. Average frequency of forelimb (right/left/both) usage for object interaction category: Locomotion and suspension**
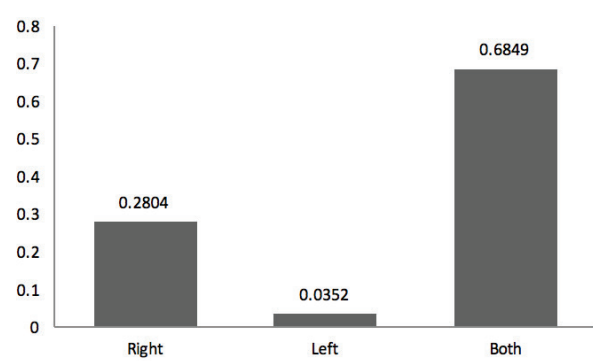


**Figure 4. Average frequency of forelimb (right/left/both) usage for object interaction category: Grooming and play**

## DISCUSSIONS

The main goal of this study was to reaffirm the existence of handedness in orangutans. The data in Table 2 show that in this population of captive Sumatran orangutans, all five subjects observed preferred the use of their right hand over their left hand to varying degrees. Observation of Table 1 shows that there is variability in limb preference also among the different types of tasks performed. These results seem to support that there is indeed manual laterality in this population of captive orangutans at least at the individual level, which is in accordance with other literatures that have looked at different populations of orangutans (O'Malley & McGrew, 2006; Hopkins *et al.,* 2003). However, it is also important to recognize that this orangutan population is captive, with nearly all members having been born and raised at the zoo under human supervision. Exposure to and interaction with humans are commonplace for these orangutans, who are visited by hundreds of spectators daily, in addition to the zookeepers that handle them. Although it has been reported that differential rearing has no influence and genetic factors play a more significant role on handedness (Forrester *et al.,* 2013; Hopkins *et al.*, 2006), it is perhaps too dogmatic to wholly discredit the influence exposure to humans may have had on these orangutans' handedness. It is not impossible to assume that this population of orangutans may have modelled their hand-bias after the humans they see, especially considering that left-hand bias was reported in another study (Hopkins, 2006) but all subjects in this populations showed right hand preference.

The second question I aimed to answer in this study, "does hand preference relate to foot preference in orangutans like it does in humans?" can be answered by the values shown in Table 2. Preferred use of the right limb over the left, which was observed in all subjects for forelimb, was only observed in 2 of the 5 orangutans for hindlimb. And even in those two cases, the patterns and values differed greatly between forelimb and hindlimb bias. Thus, bias in the forelimb seems to be a poor indicator of hindlimb bias in orangutans. This mismatch between forelimb-hindlimb preferences seems to suggest that unlike humans, whose population-level preference for using their right side (hand, foot, ear, etc.) is thought to be due to left-hemisphere motor specialization linked to language development, orangutans' limb bias is unrelated to its hemisphere specialization.

The third question asked whether greater lateralization would be observed with increasing complexity of tasks performed. As mentioned previously, grooming/play and tool use were designated as interactions that would require a coordinated action of the digits and require greater dexterity. Looking at Table 1 and comparing values between left and right hand usage frequencies for a given task for each individual indicates the following: while there is a degree of lateralization in simple tasks such as touch/grab and eating, it is not as great nor as consistent throughout the group as can be seen in more complex tasks like grooming/play and tool use. Locomotion/suspension, while it is not considered a complex task, shows that both hands are involved in movement as can be expected in a suspensory climbing/fist-walking species such as the orangutans. And while it is hard to draw conclusions at the population-level on such a small sample size, Figures 1 to 5 show that these patterns are supported at least consistently throughout the group. A vastly greater proportion of right hand usage over the left is shown in the two high-complexity tasks in contrast to the simple tasks which show some, but not great

difference when averaged out amongst the group. Again, these results provide further evidence for the well-supported notion that greater lateralization is directly related to the greater complexity of manual tasks (Fagot & Vauclair, 1991).

## CONCLUSIONS

Through an observation of the captive population of Sumatran Orangutans at the Toronto Zoo, I was able to determine that 1) orangutans exhibit handedness. All members of the group displayed a preference for the right hand over their left. 2) No correlation between forelimb and hindlimb bias was found. 3) Manual lateralization is more prominent in tasks that require greater manual dexterity, perhaps as a function of motor specialization of the cerebral hemisphere.

There were also several limitations that this study failed to address. As mentioned previously, given the small sample size of the study, it becomes difficult to construct a conclusive argument that accounts for all orangutans as a species. The effects of captivity on these orangutans also cannot be ignored. Another valid concern that may be raised against this study is that the categories into which the events were placed may have been too broad, which may have failed to accurately capture the spectrum of tasks performed by the orangutans without distinguishing the different levels of complexity that may have existed within each category.

There has been a trend of increasing academic interest in non-human primate handedness. Other current studies in this stream of research include sex and age effects on handedness, the relationship between the brain and lateralization of the body, and evolutionary work to uncover

the genetic basis of handedness. The next step for this particular study may seek to build on these findings while addressing the concerns raised above, by increasing the sample size, incorporating populations of wild orangutans into the study, and developing a more in-depth categorization method.

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# CLAY TOKENS AND THE EARLIEST PRECURSORS TO WRITING IN THE ANCIENT NEAR EAST

*Alice McDonald-Hawn*

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## INTRODUCTION

Clay is an abundant and ubiquitous substance in the Middle East, and the success of ancient societies in the area was dependant on it for everything from forming the first simple clay pots to eat and drink out of, to building the temples and palaces that are the hallmarks of their empires. Less well-known are a category of small objects older than even the earliest clay pots, used for counting, which remained enigmatic throughout the early years of archaeology. These objects represent one of the first times humans combined clay and fire to create a sort of false stone, a material that would last far longer and be much stronger than any other manmade material up to that point. Studied primarily by archaeologist Denise Schmandt-Besserat, these tiny objects have contributed to our knowledge of the development of complex societies in a way that is invaluable.

As small populations of people began to build permanent and semi-permanent settlements and move away from seasonal migration as a way of life, they also began to exploit the resources around them to suit their needs, which resulted in the first domestication of resources; this created surpluses of food, and with it, the need to keep track of goods in an organized way that could be communicated effectively and efficiently with the people around them. People began to recognize a need to indicate both amounts and types of goods in one system that others could understand, and so a method of representing goods with objects of various shapes and sizes was created. As societies became more complex, so did their accounting systems, leading them to evolve and change along with the users of these systems. This paper will explore the evidence that exists linking the evolution from a simple clay counting device used to measure commodities to the now iconic clay tablets that reflect the complexities of early bureaucratic governments.

## PREVIOUS SCHOLARSHIP ON THE TOPIC OF TOKENS

Denise Schmandt-Besserat of the University of Texas has undertaken the majority of the scholarship on this subject. However, there are several archaeologists and scholars who made significant contributions in the early study of accounting tokens. A. Leo Oppenheim and Pierre Amiet are two early scholars to further the study of these tokens and make the first contentions that they were related to accounting and early writing systems, providing the foundation for Schmandt-Besserat's research in later years.

A. Leo Oppenheim of the University of Chicago published an article in 1959 regarding a hollow clay tablet in found during the 1928/29 excavation season at the site of Nuzi in Iraq, which he dated to around 1500 BCE. The hollow "egg-

shaped tablet" (figure 1) (Oppenheim 1959:123) contained 48 tokens, which had been lost in the intervening years but noted by someone, presumably a member of the original excavation, on a slip of paper that was attached to the tablet. The tablet was found in the palace of the site in context with other administrative documents, and impressed on the outside in cuneiform was a list of 48 sheep and goats, leaving little doubt that the tokens originally contained inside were a one-to-one representation of each animal. Among the other tablets discovered in the palace at Nuzi was one particular solid tablet that recorded an almost identical list of animals, giving further credence to the theory that the hollow tablet was a type of device of parallel function used to record the exchange of animals, but at the same time raising more questions about the existence of another type of accounting system when writing was readily available for the recording of these transactions (Oppenheim 1959). Prior to Oppenheim's article being published there had been no in-depth study of the object or the tokens inside, and his conclusions that they related to accounting procedures is notable, as is his uncertainty as to the meaning of the two different accounting systems used for the same transaction, leading to future study of these objects.

Pierre Amiet was the next scholar to take on the subject of the tokens, agreeing with Oppenheim on their function but pushing their timeline back by almost two thousand years to 3100 BCE (Schmandt-Besserat 1980:22), studying the site of Susa in Iran. He took the theory of the tokens being simply an accounting device one step further and contended that they were the antecedent of the earliest Sumerian writing system, and that the impressions of the tokens onto the outside of the clay envelopes rendered the tokens unnecessary, resulting in the invention of writing (Sampson 1985:59-61). Amiet also made the assertion that each type of token represented a different type of good or service, and that different shapes and sizes of tokens represented abstract numbers, not restricting them to the one-to-one system Oppenheim had proposed. This was quite a bold statement at the time considering that the Susa tokens were two thousand years older than the tokens at Nuzi, pushing them into the pre-historic period before writing was invented. Amiet also gave a thorough description of the Susa tokens, which had been lacking in Oppenheim's paper.

Denise Schmandt-Besserat's research expanded upon both Oppenheim and Amiet's research, and since the late 1960s and early 1970s she has been the main researcher on the subject of the tokens in the ancient Near East and the first to propose a link between the appearance of tokens at the onset of farming and the end of dependence on hunting and gathering. She contends that the token system most likely originated in Syria at the time of the Neolithic Revolution, when people began to settle in villages and transition from hunter-gatherer lifestyles to farming and animal domestication (Schmandt-Besserat and Erard 2008:8). In a time before people were able to effectively record transactions of trade or how to divide seeds into those for consumption and those for planting, a system of tokens counting commodities one-to-one would have been extremely useful (Sampson 1985:58).

## THE ASSEMBLAGES

In this paper I will focus on the assemblages studied primarily by Schmandt-Besserat: the plain and complex tokens, the clay envelopes that held

them, and the early tablets that eliminated the need for the tokens themselves by impressing the tokens into the still wet clay.

The earliest tokens appear in the archaeological record between 8000 and 7500 B.C.E., at sites in Iran and Syria, and eventually spread to most parts of Mesopotamia and the Fertile Crescent (Schmandt-Besserat 1992a:36; Schmandt-Besserat 1992b:17, 24). The collections Schmandt-Besserat studied consist of eight thousand tokens excavated at sites in Iraq, Iran, Syria, Palestine, and Turkey. The number of tokens at each site varies wildly, from as few as one at sites such as Ubaid to greater than two thousand at Jarmo. This is often a reflection of the excavations, however, and not of the actual presence of tokens at any particular site. Given their small size they are easy to miss in excavations with less thorough collection methods, salvage excavations or excavations completed in a short amount of time, or simply because the excavators were unaware of their importance (often thinking they were gaming pieces) and so discarded them (Schmandt-Besserat 1992a:32, 34). Indeed, Schmandt-Besserat notes that in the excavation reports of several sites such as Jemdet Nasr and Hassuna tokens were found in great quantities but not saved, possibly due to their enigmatic nature (1992a:34).

The manufacture of the tokens was simple, and could be completed by almost anyone. The wet clay would be formed into simple shapes either entirely by hand or with the aid of a flat surface to produce the flat areas featured on some of the tokens such as rectangles or semi-spheres. The earliest tokens were not tempered with mineral material, and were generally made of very coarse clay, often with sand and small pebble inclusions.

Later tokens were often made of a much finer clay indicating that the knowledge of ceramics and pottery had become much greater and people now knew how to properly handle the clay, but also that the tokens were important in Near Eastern society; if objects are not important they will generally be made in a sloppy or careless manner without a great deal of regard for their manufacture (Schmandt-Besserat 1992a). Before the invention of kilns in about 6,000 B.C.E., the tokens were fired in open pits and would have eventually been fired in kilns when that technology was invented (although as Peter Moorey points out, it is difficult to gauge the progression from firing pits to true kilns as it is both hard to accurately determine what constitutes a kiln, and throughout the history of the Near East people have used both proper kilns and firing pits, so a linear timespan is almost impossible to construct) (Moorey 1994:151).

The sequence for the development of tokens proposed by Schmandt-Besserat is as follows:

Stage 1a: plain tokens appear around 8,000-7,500 B.C.E., the majority being about 1-3cm and the smaller subset of large tokens being between 3-5cm. Most were basic geometric shapes familiar to everyone such as spheres, rectangles, triangles, disks, and cylinders, as well as less common organic shapes like animals, vessels, and tools. These replaced a more basic system of using pebbles to count and record numbers of items such as animals or plants. The tokens reflected a need to be able to communicate to others not just amounts of goods but what type of goods were being recorded, coinciding with the onset of farming a variety of foods, especially cereals. These plain tokens were used exclusively for about 4,000 years (Schmandt-Besserat 1986:35-36), and the appearance of the

tokens coincided with the first real surplus of these foods, as well as the first instance of grain silos at the site of Mureybet (level III) (Schmandt-Besserat 1992a:33).

Stage 1b: complex tokens begin to be used beginning around 3,500 B.C.E., around the time that the first monumental architecture appears. Types expanded to include more varieties of geometric and organic shapes such as paraboloids, coils, rhomboids, vessels, and fruits (among others). All types of tokens began to have markings drawn on them with sharp instruments or fingernails, although plain tokens were still used in small quantities (Schmandt-Besserat 1992a:16-17; Schmandt-Besserat 1992b:24).

Stage 2: 3,700-3,500 B.C.E. tokens began to be encased in clay envelopes or be perforated to allow them to be hung on strings. Both methods involved seals, the envelopes having the seals impressed on the outside and the strings having small pieces of clay impressed with seals attaching the ends of the string together. Both systems prevented tampering with the amounts of tokens, though they were most likely used for different purposes: the envelopes were well suited to transfer of tokens from one place to another, while strings of tokens could be hung in store rooms for easy access by anyone doing an inventory of goods. Shortly after the invention of the envelopes, a small number (such as Oppenheim's tablet) are shown to have a number of markings impressed on the outside of the envelope which correspond directly to the number and shape of the tokens enclosed inside (figure 2), although this practice was not widespread and only appeared at a small number of sites. (Schmandt-Besserat 1992:39-40; 1983:35).

Stage 3: 3,500 B.C.E. impressed tablets begin to appear, at first used alongside tokens enclosed in envelopes and eventually replacing them entirely; both are often found in the same contexts, such as in Susa, Uruk, and Habuba Kabira. The tablets were either impressed with the tokens themselves or with an instrument emulating token shapes, or with a combination of the two systems (figure 3) (Schmandt-Besserat 1992a:57-58).

These small impressed tablets are the last stage in the evolution of the token system before pictographic signs emulating more complex objects begin to be used. Schmandt-Besserat (1992a:57) notes that in this last stage, generally plain tokens were impressed directly onto the tablets and complex tokens were incised with a marking instrument or stylus. Although many of the token shapes have been tentatively interpreted by Schmandt-Besserat and others studying early writing systems, it is beyond the scope of this paper to describe them.

## METHODOLOGY

Although Amiet's assertion that the pebbles found inside the egg-shaped tablet was a record-keeping device was revolutionary in that he was the first to suggest that it was an antecedent to writing, Schmandt-Besserat's research is fundamentally based on the idea that none of the developments from the early tokens to the tablets that would eventually lead to a writing system were revolutionary in themselves, but logical next-steps in a process towards one of the most important inventions in human history (Sampson 1985:61). She demonstrates this by identifying the possible steps in the process, which are described above.

Although the concept of creating a variety of shapes to represent different commodities was new and revolutionary for a community of people developing more and more varieties of products that needed recording, a system of recording numbers was probably not. Notched bones are found in Upper Palaeolithic and Mesolithic contexts in Israel, which (among other interpretations) have been suggested as early counting devices, perhaps recording the phases of the moon, numbers of days, or amounts of food hunted or gathered (Schmandt-Besserat 1992a:91-92).

If these "tally sticks" were indeed meant as counting devices rather than objects serving a ritual function, creating a new system of counting more complex figures would be a logical next step and would not have been an extraordinary cognitive leap on its own. The truly revolutionary step taken by the first makers of counting tokens is that they were entirely handmade by people with a specific function in mind, and not objects found in nature collected and used to fill a need (Schmandt-Besserat 1992a:93). The second important aspect to these objects is that they were among the first clay objects to be fired. Although Schmandt-Besserat believes they were the first instance of humans firing clay, Prudence Rice states that as some of the earliest objects to be interpreted as art were made of clay and intentionally placed in fires for ritual reasons (she cites the human-shaped clay figurines at Dolní Vestoniçi from the Upper Paleolithic), it would have been logical to early humans to put clay to other uses both decorative and functional such as beads, sling balls, etc. (Rice 1999:6)

Rice and Schmandt-Besserat both point out that a pre-ceramic Neolithic period did not exist, with small figurines, beads, spindle whorls, and tokens all being fired well before pottery vessels came into existence (Rice 1999:4, Schmandt-Besserat 1992a:30). As kilns were not developed in Mesopotamia until about 6,000 B.C.E., the tokens and other small objects were hardened in open fires (Moorey 1994:151). Thermal analysis of early tokens shows them to be low-fired (under 800° C) (Schmandt-Besserat 1992a:20; Schmandt-Besserat 1992b:30), which Rice quotes Pamela Vandiver as naming a "soft stone technology", encompassing not only clay but also early lime-based plasters, pigments, and other mixtures of ground materials and water which, mixed together, would make a variety of pastes which could be formed into various objects (Rice, 1999:6).

Schmandt-Besserat's research is thorough and complete and she has published the majority of the tokens she has studied, making her practical research very impressive. Just as interesting are the conclusions that she draws, in which she agrees with Amiet's assertion that the logical next step after making the tokens redundant would be to begin to create an increasingly large repertoire of signs and symbols to represent items and ideas, eventually resulting in a pictographic writing system. She emphasizes that the tokens would have been sufficient for early farmers who needed to record small amounts of commodities, but would have outlived their usefulness when societies became more complex and larger quantities of goods began to be recorded, due in large part simply to their bulkiness. Her second major conclusion is that by eliminating the token system, people were able to begin to comprehend abstract numbers, resulting in the creation of numerals (Schmandt-Besserat 1992a:98).

Although no one doubts the existence of a

calculation system utilizing the tokens, Schmandt-Besserat's detractors do not all accept the direct link between the tokens and early writing. Their main criticisms are that the equation of the tokens to the signs on early tablets entirely based on similarity of shape is tenuous at best, because given that there are a limited number of geometric shapes, overlap is bound to happen and similarities are inevitable (Sampson 1985:60). Stephen Lieberman, her most vocal opponent, writes in his article "Of Clay Pebbles, Hollow Clay Balls, and Writing: A Sumerian View" (1980) that he sees inconsistencies in Schmandt-Besserat's work and that she often connects two token shapes to one Sumerian cuneiform sign, or two signs to one token shape.

Both Lieberman and Malati Shendge also contend that the variety of contexts in which the tokens have been found (such as funerary) point to a variety of uses, and that no single site has yielded a complete sequence from plain tokens to tokens encased in inscribed envelopes. They also believe (somewhat dogmatically) that given the vast amount of time that humans have been living together in communities that a previous writing system would have to have existed before the token system, but that it does not exist in the archaeological record because it likely utilized a readily perishable material. (Lieberman 1980; Shendge 1983). For all of their criticisms of Schmandt-Besserat's methodology, however, they can produce no strong evidence for these ideas other than their assertion that the time span of human existence would necessitate previous writing, resulting in a rather weak argument that seems to be conceived more out of dislike for Schmandt-Besserat's theories rather than an actual conviction to studying the history of human writing.

## CONCLUSIONS

Although Schmandt-Besserat's theories of the origins of writing are ambitious and far-reaching, it seems likely that they are getting very close to the truth, which is what every historian hopes to do. Her interpretation of the token system of the ancient Near East is convincing, and the majority of scholars more or less accept the chronology she has developed over the past several decades. The conclusions that Amiet reached and Schmandt-Besserat expanded on greatly are thus: that the token system led to the first instance of humans demonstrating that they understood abstract numbers, and that enclosing them in envelopes would naturally lead to recording the contents on the outside of the envelopes, which would then lead to the elimination of the physical tokens and an expansion of pictures and signs representing the goods being traded or transported, resulting in the first system of standardized symbolic representation in the Near East.

If their theories are correct, they show us just how important the abundant clay in the ancient Near East was to its early inhabitants. Although counting tokens could have been made out of a variety of materials, it is the accessibility of clay and it's ability to be easily worked into basic shapes by anyone at all that probably led to such a long and varied history of tokens and tablets. That the iconic clay tablets inscribed in cuneiform are Mesopotamia's lasting physical legacy is a tribute to clay's abundances, accessibility, and usefulness to the people living in the region.

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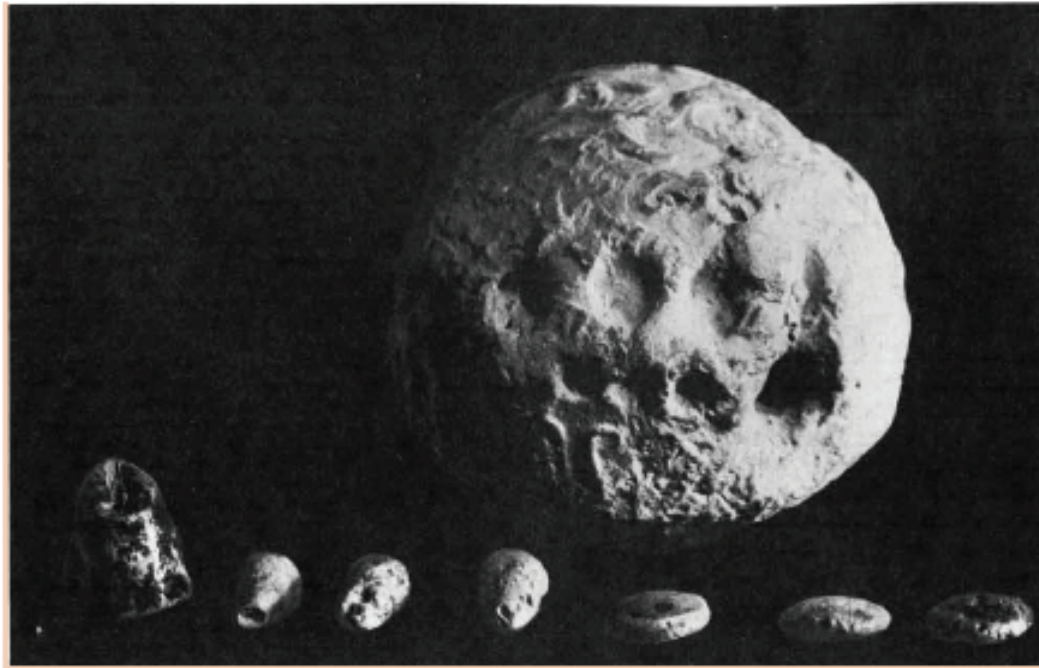
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**Figures**



**Figure 1: "Nuzi"**

**Figure 2: Plain tokens shown with their shapes clearly impressed on the outside of the clay envelope, Susa**



**Figure 3: Tablet from Uruk showing both impressed token shapes and shapes incises with a stylus**

# REDDY OR NOT: THE POLITICS OF REDD+ IN CENTRAL SULAWESI

*Benjamin Donato-Woodger*

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In order for the United Nations to successfully mitigate climate change, it must reduce deforestation and the 20% of anthropogenic $CO_2$ emissions deforestation makes up ("Logging" 2013). The UN Reducing Emissions from Deforestation and Forest Degradation (REDD+) programme aims to cost-effectively do this by paying people living around forests, in places like Central Sulawesi, Indonesia, to preserve them ("Logging" 2013). Following the Indonesian government's $1-billion REDD+ implementation agreement with Norway in 2011, Central Sulawesi's government is preparing Central Sulawesi's forestry agencies to monitor and manage REDD+ projects over the coming years ("Logging" 2013). The anthropologist Tania Li argues such development interventions consistently involve stages where the world is problematized and political challenges are presented as technical issues experts can manage (Li 2007:6-8). Problematically, the REDD+ 2012 plan reflects Li's critique because the REDD+ plan does not mention serious problems to REDD+'s successful implementation such as unclear land rights, land-related violence, and political corruption. I will make this argument by describing the reasons for REDD+'s creation by the UN, the state of deforestation in Central Sulawesi, and the relationship between deforestation, land rights disputes, and corrupt governance. I will then use Li's framework (Li 2007:6-8) to assess how this development project selectively problematizes deforestation in Central Sulawesi, and ignores the political challenges to reducing deforestation in Central Sulawesi.

REDD+ is being pushed for in Central Sulawesi because international initiatives to mitigate climate change are failing. Officially, UN member states have committed to prevent atmospheric $CO_2$ concentrations from exceeding 450 ppm (parts per million) ("Measure" 2013). UN member states fear atmospheric $CO_2$ concentrations reaching 450 ppm because that much $CO_2$ will warm the Earth by approximately 2°C ("Measure" 2013). 2°C of global warming is dangerous because the climate's homeostatic equilibrium will probably destabilize triggering massive irreversible global warming (Rockström 2009). To avoid a 2°C increase, countries must effectively eliminate global anthropogenic $CO_2$ emissions by 2075 ("Measure" 2013). This reduction seems unlikely in light of how atmospheric $CO_2$ concentrations exceeded 400 ppm this year and have been rising by larger amounts with each new year ("Measure" 2013). In light of failed cooperation between major emitters, especially the United States and China, UN member states agreed to fund REDD+ to reduce deforestation in 2009 because UN climate economic experts perceive reducing deforestation as politically and economically easier than making governments force their domestic industries to reduce their greenhouse gas emissions ("Touchwood" 2009).

The resulting 2012 REDD+ plan for Central Sulawesi intends to create institutions that can monitor REDD+ projects and pay people owning forests for preserving them. In economic theory, this is less costly than climate change exacerbated disasters, and should cost-effectively reduce some anthropogenic $CO_2$ emissions ("Touchwood" 2009). Currently, approximately 800,000 of Central Sulawesi's 2.6 million people live around Central Sulawesi's 4.4 million hectares of forests, which REDD+ projects can be done to (Forest Peoples Programme 2011:1). The approximately 65,000 hectares of annual deforestation in Central Sulawesi happens because of forest clearing for mining, crop production, infrastructure development, industrial logging, and palm oil production (Irawan 2012:14 and 20). This deforestation is overwhelmingly the result of how the governments of Indonesia and Central Sulawesi give land concessions to logging, palm-oil, and other agricultural companies (Brainard 2011:184-185).

The giving of land titles matters to REDD+ too because clear land rights will be essential to ensure the individuals or organizations owning a forested area can be rewarded for conserving it (Sunderlin and Atmadja 2012:51-53). However, less than 40% of Central Sulawesi's land is formally titled. The other 60% is used by rural people according to customary claims and have not been formally gazetted (Hansen 2012:10). Problematically, the governor of Central Sulawesi declared in 1992 that no indigenous lands exist in Central Sulawesi, despite how a most land in Central Sulawesi's lands is effectively held customarily or informally (2012:11). Furthermore, Human Rights Watch (HRW) finds that the few communities which try to formalize their land claims using the Indonesian government's

land-claim resolution process usually find it too complicated and expensive (Harwell and Blundell 2013:40).

Despite the claims of Central Sulawesi's governor, REDD+ is a UN programme and must obey the UN indigenous rights principle of Free, Prior, and Informed Consent (FPIC) to inform and ensure indigenous people freely give permission to non-indigenous people who want to use their customary lands (Hansen 2012:11). However, historically, the specific tracts of land rural people use has changed over the past few hundred years because of government and corporate policies that forcibly relocated the people living in Sulawesi's forests (Li 2007:32). These movements have made the meaning of the indigenous identity unclear and contested (2007:114-115). Furthermore, the anthropologist Sara Hansen argues that FPIC risks being violated in light of her ethnographic research that finds most people in Central Sulawesi have not heard about REDD+, that REDD+ was not discussed in the 2011 election for Central Sulawesi's governor, and that the REDD+ banners in Palu, Central Sulawesi's capital, were in English—a language most people do not speak (2012:6-7).

Resolving these land-ownership disputes matters because they cause widespread violence across Indonesia's forestry sector. The Indonesian president's office reported 8495 known land conflicts in 2012, and HRW documented how in many of these cases, land conflicts became violent and involved shootings, decapitations, and the burning of buildings in skirmishes between community groups, state police, and private security companies officers (Harwell and Blundell 2013:33-35). Violent conflicts imply the clear land ownership REDD+ requires does not exist (Sunderlin and Atmadja 2012:51-53). HRW argues this forestry-related

violence embodies how Indonesia's national and district-level governments give agricultural firms land use concessions without knowing if land is already customarily claimed (Harwell and Blundell 2013:28). Problematically, Indonesia's new economic masterplan (MP3EI) was released this year, and anticipates significant land concessions (2013:10). MP3EI plans for Indonesia's palm-oil production to increase from 7 million to 11 million hectares, and industrial pulp from 5 million to 10 million hectares by 2015 (2013:10). To support MP3EI, the Indonesian government passed a social conflict law this year that allows district heads and mayors to declare states of emergency and summon military forces to "resolve" conflicts between communities and natural resource companies without presidential or parliamentary approval (2013:37). In short, the Indonesian government is trying to position itself as legitimate site for REDD+ projects ostensibly preparing for REDD+ projects, while passing laws that contradict REDD+'s conservationist ideals and could enable FPIC violations.

In addition to violence, REDD+ must resolve widespread corruption in Indonesia's forestry sector. Corruption challenges REDD+ because REDD+ will be inequitable unless the human rights, REDD+ payment and forest governance laws that keep forests ethically protected are enforced. Unfortunately, corruption is so severe in Indonesia that HRW reports that Indonesia's forestry companies only paid $0.4 billion of $2 billion in taxes that they should paid in 2011 (Harwell and Blundell 2013:8). HRW argues this is connected to structural inequalities considering how Indonesia's national health budget could be doubled if the forestry sector were properly taxed (2013:19).

Having shown the context REDD+ is being implemented in, I will now evaluate Central Sulawesi's 2012 REDD+ plan against the realities of deforestation in Central Sulawesi by using the anthropologist Tania Li's critique of development interventions. Li argues development interventions first, problematize—socially construct the perception that there is a problem; and second, render technical—obscure controversial political realities by arguing for a technical intervention that is based on expert knowledge (Li 2007:6-8). This analysis will show how this framework makes the contradictions in Central Sulawesi's REDD+ plan so far clear.

According to Li's framework, the problematization phase in Central Sulawesi is how Central Sulawesi's forests are being represented as an intelligible object which REDD+ can beneficially act upon (Li 2007:6-8). The 2012 REDD+ Plan constructs this field by giving facts about deforestation—while omitting the extent of Central Sulawesi's government's own responsibility for deforestation—but envisioning that new REDD+ institutions and funding will stop deforestation (Irawan 2012:8-9). Central Sulawesi's government discursively legitimizes REDD+ by emphasizing how globally similar REDD+ programs could quickly reduce 20% of anthropogenic $CO_2$ emissions (UN-REDD 2011:2-3). The plan also contrasts unplanned deforestation with legitimate forms of deforestation Central Sulawesi's has approved, such as permits issued for mining, and crop, palm-oil, and timber plantations (Irawan 2012:25).

To address deforestation, the government of Central Sulawesi is creating new agencies to implement and enforce REDD+ policies. These agencies include new "Forestry Management Units" (FMUs) and the "empowering of local stakeholders" (Irawan 2012:21-22). FMUs are a new

standard forest managing institution the Indonesian government is creating to implement the Indonesian government's forestry objectives, one of which will be REDD+, but also MP3EI (2012:48) (Harwell and Blundell 2013:9-10). Implementing REDD+ will involve planning how crop plantations and industrial timber plantations will be relocated to non-forested areas, make forest law enforcement effective, and create community conservation programs (Irawan 2012:8). Central Sulawesi already has one FMU, Dampelas Tinombo, and two more are planned to be established by 2016 (2012:37). FMUs in Central Sulawesi are being established through the cooperation of Indonesia's Ministry of Forestry and Provincial Forestry office (2012:38). Corruption and violence are not discussed as issues FMUs must address. The empowered "local stakeholders" refers to a working group of 76 representatives from government agencies, forestry companies, universities, and NGOs (Irawan 2012:13). However, only 4 of these representatives represent rural communities. While Central Sulawesi's government is carrying out its REDD+ plan by building offices and producing informational material for the people of Central Sulawesi (UN-REDD and Ministry of Forest Planning 2010:2), Hansen finds these efforts are too limited to reach most rural people in Central Sulawesi (Hansen 2012:8).

Hansen's ethnographic research into how REDD+ is actually being implemented also shows that this plan's implementation faces problems the REDD+ 2012 plan does not anticipate. First, Hansen notes most villagers in rural Central Sulawesi cannot understand REDD+'s scientific language (2012:66). Hansen shows this by quoting rural people in the town of Rerang after a workshop about REDD+, where villagers mistakenly thought that REDD+ is intended to plant trees to stop

landslides, or plant trees because distant countries lack carbon (2012:68). Second, NGOs conducting workshops informing villages about REDD+ do not fully understand REDD+ themselves, or how it necessitates changing rural villagers' land-rights in order to monetize Central Sulawesi's forests (2012:70-71). Third, NGO activists are mostly male, and struggle to communicate with the women in rural villages (2012:70-71). Fourth, the social elites in villages of Central Sulawesi are better connected to NGOs and thus informed first and most (2012:81). In short, Hansen finds the social distance between the people implementing REDD+ and rural people in Central Sulawesi is so severe that REDD+ is unlikely to be understood by people in Central Sulawesi, or honour FPIC (2012:80-81). REDD+'s difficulties communicating with villagers should be contrasted with palm-oil and logging firms that are already able to extract land concessions from district officials (Wright 2011:126-127).

One contradiction Li identifies as being inherent to rendering technical is that the trustee's contribute to the problem they are intended to prevent. Here, the trustees–government officials–in Central Sulawesi implementing REDD+ simultaneously are the people whose behaviour must change to stop deforestation (Li 2007:6-8). By saying this, I mean most deforestation is caused by government officials who approve logging and deforestation projects, and the business and local elites who receive land rights papers (Brainard 2011:184-186). The fact they hold valid papers means they can potentially profit from REDD+ cash transfers because they can claim forest land through REDD+ (Wright 2011:126). Thus, REDD+ plans assert that over a few years the officials whose corruption has enabled deforestation for over the last 30 year will begin preventing it–despite how

REDD+ plans never mention corruption as a serious problem (Brainard 2011:174-176).

Another characteristic of the rendering technical process Li identifies is James Ferguson's concept of anti-politics—how the politics of unequal power relations are not discussed (Li 2007:6-8). Anti-politics matters to REDD+ because REDD+ is fuelling the expansion of agencies that historically use land rights documents to displace rural people in Central Sulawesi (Wright 2011:126-128). REDD+ plans show this by not mentioning that few people in Central Sulawesi have the documents or legal capacity to benefit from REDD+ (2011:126-128). Therefore, unless a majority of Central Sulawesi's 800,000 rural citizens come to understand what REDD+ is and resolve land claim conflicts from before Suharto's New Order Regime (Li 2007:79-80) in the few years REDD+ is being established, REDD+ risks taking away poor peoples' land with the implicit threat of violence under the governments new social conflict law. REDD+ thus practices anti-politics by re-articulating intensely political land-rights–which thousands of people lack–as something REDD+'s technical conservation management will resolve.

The irony underlying REDD+ in Central Sulawesi is that not only is it unlikely to be equitably implemented, but the politicians and scientists pursuing its implementation are trying to save human life by preventing runaway climate change. Unfortunately REDD+ will be inadequate if the world's largest $CO_2$ emitting countries fail to reduce their $CO_2$ emissions (McGregor 2010:21-23). Similar to rising sea levels, droughts, and natural disasters, Central Sulawesi is but another example of how climate change is having the worst consequences for people with little income and virtually no responsibility for historical greenhouse gas emissions (2010:21-23). This essay thus illustrates the patterns of structural violence in climate change by showing how governments protect their capital-owning classes' interests, tolerate violence and corruption to achieve investment objectives, and mask political and economic inequalities with fake proclamations of environmental integrity.

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# AUDITING FAT BODIES: THE CREATION OF ETHICAL AND UNETHICAL PERSONHOODS

*Cassandra Dang Nguyen*

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## INTRODUCTION

In waging the "War on Obesity", the United States frames their campaign in term of 'accountable citizenship' (Herndon 2005), 'improving quality of life' (Evans 2009), and 'empowered self actualization' (Becker 1995. Despite the seemingly emancipatory character of this campaign, I argue that these framings come out of a neoliberal disciplinarian "audit culture" (Shore & Wright 1999).  As I reveal this "audit culture," the biopolitics of the "War on Obesity" become apparent as notions of ethical and unethical (bodily based) personhoods — produced by a society hit by an economic recession — begin to manifest.

I open this paper by speaking to how America's neoliberal culture and current economic climate produces the notion of an accountable citizenship. This accountable citizenship informs notions of the ethical or unethical (bodily based) personhood. Second, I speak to how these cultural notions of bodily based ethical and unethical personhoods are legitimized by biomedical knowledge that reads the 'ethical' as the 'healthy' body and the 'unethical' as the 'sick' body. Third, I show how narratives of empowerment have fat people willingly enacting technologies of the self (Foucault 1977) to achieve the thin body: associated with the accountable citizen, ethical personhood, and 'healthy' body.

## PRODUCING ACCOUNTABLE PERSONHOODS

In revealing the financial origins of the "audit culture" and its associated technologies, Shore and Wright (1999) note that the process of auditing has always included "a statement of account [and] balanc[ing the] sheet", an "official examination or verification", a judicial element or "Day or Judgement" (558). As will be revealed, the "War on Obesity"  incorporates these "audit culture" elements and is an example of how neoliberal economic rationality invades every field of modern working life (Shore & Wright 1999:558). This first section will address the element of accountability and how citizens envision that their compatriots can 'balance the sheet' in an era of economic recession.

Fiscal fitness for the United States, as it is for several nations, is important to the maintenance of state stability. However, the exorbitant military spending that the United States has fronted as a result of their many forays into the Middle East—exacerbated after 2001 —has endangered the country's fiscal fitness. The economic recession of 2007, precipitated by the failure of the housing market and its attendant consequences, compounded this fiscal precarity. During economic panic, the state calls on citizens to 'do their bit' by enacting a citizenship that is accountable to their

fellow compatriots (Herndon 2005:128). Since economic decline results in a shortage of state resources, a 'balance the sheet' model is enacted in which citizens 'get out of the system' what they 'put in'. In other words, the degree of accountability that a citizen enacts justifies their access or conversely lack of access to these scarce resources (Herndon 2005:127).

According to James O. Hill, an obesity studies scholar from the University of Colorado, it is a common belief that fat people disproportionately use up the nation's health resources, take resources away from other citizens, and cause health care costs to rise (Critser 2003: 148). Indeed, Surgeon General Everett Koop played off this sentiment to justify the 1994 Shape Up! America campaign: "as the nation looks toward controlling healthcare costs, no workable agenda can ignore the pressing issue of combatting obesity" (Surgeon General of the United States 2003: para.1). Despite these popular sentiments, the evidence supporting the claim that obesity is the major killer and, by extension, the evidence supporting the claim that fat people disproportionately access health resources, is contentious. A 2004 report for the Journal of the American Medical Association (JAMA) by researchers at the Centers for Disease Control and Prevention (CDC) report that obesity kills 400,000 Americans a year (Mokdad, Stroup & Gerberding 2004). Yet, a 2005 study published in the JAMA by researchers from the CDC, assert that obesity kills fewer than 26,000 Americans a year; the researchers contend that overestimates occur because weight is assigned as the primary cause for death though it is often only the proxy for other factors like diet, exercise, and family medical history (Flegal, Graubard, Williamson & Gail 2005).

Condemnations of fat people have historically intensified during times of economic hardship wherein the physical fitness of a citizen is often connected to the fiscal fitness of a nation (Herndon 2005:131). While a capitalist nation depends on worker productivity, fat bodies are understood to be 'abnormal' and non-conducive to several work environments in which the 'skills of the body' are employed (walking, fitting into certain spaces, endurance) (Kirkland 2008:402). Consequently, fat people are understood to be unproductive members of capitalist society, making more work for other productive members who have to pick up the slack (Kirkland 2008:402). Size becomes a marker for which citizens observe and police their fellow compatriots. Through the surface of the body, citizens make judgements on whether people are enacting or not enacting accountable citizenship and while fatness becomes metaphor for unproductivity, greed, and unaccountability, thinness is metaphor for productivity, thrift, and accountability (Herndon 2005:131). In this view, fat people do not 'balance the sheet' because they are perceived to be taking out more from the system than they are putting in - fat people do not economically contribute to the nation but take away valuable state resources from worthy contributing citizens; here, we see how economic rationale comes to define the accountable (neoliberal) citizen.

From here, I argue that the accountable elides with the ethical (the morally responsible) when taking into account the Comaroff's conceptions of morally ambiguous personhoods (Itira) or morally sound personhoods (Itirela) (1999:277) as studied among the Tswana people of South Africa. In their seminal study, the Comaroff's identified an Itirela (a morally sound and ethical) personhood as one that can only be achieved when a person 'makes oneself' in a positive, socially accountable manner (Comaroff

& Comaroff 1999:277). That is, a person 'builds up' their personhood in relation to others whereby the accumulation of goods and rank serves to sustain "a strong, centralised polity" (Comaroff & Comaroff 1999:274). In contrast, the morally ambiguous and unethical Itira personhood comes about when a person 'contrives oneself' by engaging in a self serving, "antisocial, egocentric self-enhancement" (Comaroff & Comaroff 1999:274).

Since accountable citizenship is associated with thinness and thin bodies, perceived as playing the part in sustaining "a strong, centralised polity" (Comaroff & Comaroff 1999:274), this citizenship is also imbued with moral righteousness or an Itirela personhood. Contrastingly, because fatness is perceived to be a depleting force, decreasing economic productivity and sucking dry the national health care system, it is associated with an unaccountable citizenship and thus, moral degradation or an Itira personhood.
Indeed, in promoting the 2001 "War Against Obesity" campaign, Surgeon General David Satcher argues that it the moral and patriotic duty of "All Americans...to lose 10 pounds" (Doherty 2001:1). Here, a corporeal standard informs what is and what is not an accountable and ethical personhood. What becomes clear, is that Satcher's war on obesity carries political and moral implications beyond the claim that it is merely a campaign to promote better national health (Herndon 2005:131).
Guarding the Quality of Health

Despite being framed in the seemingly "neutral language of [medical] science" (Shore & Wright 1999:559), the war on obesity is a campaign heavily maneuvered by political notions of neoliberal accountability which in turn, inform notions of ethical and unethical personhoods. To explain this disjuncture, Shore and Wright note

that "audit technologies" are political technologies that work by "removing [a political problem] from the realm of political discourse and recasting it in "the ostensibly detached language of science, reason, normality and common sense" (Shore & Wright 1999:559). This political detachment is necessary for the (objective) scientific legitimization and normalization of the social and cultural discrimination of fatness and fat people (Evans 2009:1060). Here, we see how the war on obesity incorporates another element of the 'audit culture" - the "official examination [and] verification" (Shore & Wright 1999:558). As will be revealed, the Body Mass Index (BMI) scale, the primary audit technology of the war on obesity, serves as the "official examination" when it is used to observe, measure, and regulate subjects for the expressed purpose of guarding the quality of individual and population health; thus, serving as the "verification" for the threat of obesity.

The BMI scale is a tool that classifies bodily fatness numerically by "situating all bodies on a continuum between underweight and morbidly obese" (Evans 2009:1051). However, the efficacy of the BMI is highly contested, the World Health Organization has called it a "crude measure" with significant limitat- ions because it measures height and weight to come up with body mass not fatness; body mass can only count as a proxy for fatness not as the indication of fatness (Evans 2009:1057). Moreover, critical obesity scholarship has highlighted the arbitrariness of BMI classificatory cut-off points which indicate distinctions between 'underweight', 'normal', 'overweight' and 'obese'; for instance, while the cut off point for 'overweight' was 29 points before 1999, after 1999 the number was lowered to 25 which made "millions of people who were previously 'normal' weight instantly

overweight" (Evans 2009:1058). This arbitrariness ultimately calls the link between BMI measurements and health into question. Despite these contentions, the BMI remains the most prominent measure used for diagnosing overweight and obesity thus, acting as the foundation for policies of the "War on Obesity" campaign (Evans 2009:1058).

Since the BMI is incapable of accomplishing its expressed goal of guarding the quality of health of individuals and populations due to its inability to measure fatness and thus, health, what purpose does the BMI serve? Indeed, the BMI does serve as a 'verification' for the threat of obesity, but this occurs because the BMI measurement omits the individual experiential body from its equation and opts for a classificatory model that "reduces [measurements] to crude, quantifiable, and inspectable templates" (Shore & Wright 1999:557). By expelling the individual experiential body and using a standardized classificatory table of body mass, the BMI negates the potential for the individual body to refute the authority of the BMI table (and the perceived threat of obesity) by "revealing as healthy those bodies which have been classified as diseased (or vice versa)" (Evans 2009:1064). The omission of bodily idiosyncrasy and the emphasis of a universalized body mass classification system, allows for the easy observation and measurement of normativity and deviance - the mathematical calculation and confirmation of the threat of obesity (Evans 2009:1066). By failing to take into account information that could disrupt the perceived threat of obesity, the BMI is "not a mechanism used to reveal [the] unknown...but a mechanism used to confirm and establish once and for all that which is already known" (Evans 2009:1068).

Michel Foucault asserts that because health and medicine has become central to the 'normal' person - society is medicalised' and doctors, perceived to be the givers and preservers of life, are conferred 'ultimate authority' while their knowledge relegated to the level of 'expert knowledge' (Lupton 1997:99). This hegemony of biomedicine gives medical professionals the power to reproduce normative discourse - whereby, discourses of health and sickness can be mobilized to "control of the abnormal rather than control... illness" (Evans 2009:160). Despite evidence debunking this so called epidemic of fat, this sweeping categorization of bodies into the category of 'overweight' or 'obese' and thus, 'sick' fuels the biopolitics of the of the 'good healthy' (thin) and 'bad sickly' (fat) body, whereby 'bad bodies' are believed to "retard the general welfare [and health] of [the] population [or species]" (Guthman 2009:194). This prompts regulations to "prevent, contain, or eliminate" (Guthman 2009:194) these 'bad' bodies. These biopolitical tendencies are framed as an attempt to guard the quality of health of the individual and population and add another layer of 'truth' to social and cultural notions of accountable citizenship and ethical personhood that was discussed earlier. Only now, fat discrimination has been removed from the political realm and inserted into the 'neutral' medical realm which allows for and justifies regulatory effects. For instance, Kelly Brownell, a Yale professor and expert on food and nutrition policy, proposed a tax on junk food meant to generate revenue for the healthcare of overweight and obese people (Herndon 2005:133). Interestingly, the tax is often called the 'sin tax' (Herndon 2005:133) which is of course, telling of the elision of medical and moral conceptions of obesity as argued above.

## EMPOWERED SELF-ACTUALIZATION

In speaking to power, Michel Foucault (1982) argues that though we generally think of power as repressive and punitive, power works primarily in productive ways by producing people as certain kinds of subjects (1982). As has been extensively argued above, the politics of neoliberal capitalism and biomedicine has produced desirable and undesirable corporeal subjects; while the thin body is understood to be the healthy, accountable, and morally sound subject, the fat body is understood to be the sick, unaccountable, and an unethical subject.

Moreover, though we have noted that biopolitics encourages regulatory power and effects, it must be noted that biopolitics also produces disciplinary effects whereby citizens internalize expert knowledge and enact technologies of the self. Shore and Wright describe technologies of the self thusly: "when individuals [are] active agents, come to regulate their own conduct and themselves contribute (albeit not necessarily consciously) to the government's model of social order" (1999:560). Fat people are cognizant of their constructed social position and of the judgement that is placed onto them as a result. Thus, it would not be far fetched to presume that some fat people may willingly enact these technologies of the self to achieve the more socially accepted corporeal identity of the thin body. Indeed, losing weight is framed in empowered terms in Western neoliberal societies where the cultivation of the body is viewed as the 'self' exercising agentive power over the 'body' (Becker 1995:35).

Indeed, Foucault argues that the 'self' and the 'body' is separated in Western society because it serves "the larger societal institutions that seek to discipline and control bodies en masse" (1979:136). By advocating the 'self' as the agentive force over the 'body', subjects consent to the "manipulat[ion], shap[ing], train[ing]" (Foucault 1979:136) of their bodies in the pursuit for agency, empowerment, and self-actualization. Finally, Foucault assets that the cultivation of the body is founded in the "formulation of oneself as the ethical [moral] subject of one's actions" (Foucault 1988:84). Again, we see how the move- ment from the abject to the desirable body is imbued with a moral righteousness. In Becker (1995), Bryan Turner extends Foucault's argument by asserting that this "detailed, disciplined control of the body" was part and parcel of a neoliberal capitalistic society that depended on a rational and disciplined life style (35).

Finally, in her seminal ethnography Body, Self and Society: The View from Fiji (1995), Becker corroborates these arguments by speaking to how the separation of the self and body and the subsequent promotion of the self over the body, frames losing weight as an empowering act which encourages fat people to exercise technologies of the self. Becker argues that fat people in the West experience an alienation from 'thin society' because of the moral degradation that is attached to fatness (as has been argued previously) (1995:33). Though the 'self' of the fat person may be moral, the external body's incongruence with this morality results in an alienation. Becker notes that obese persons often cite that they are living a "double life" in which the exterior is a false self inconsistent with the true, hidden, inner self (1995:32). In order to achieve self-actualization (the integration of the self and body), fat people enact agency by summoning up the strength of the self to overcome the trails of the body; self-actualization is thus understood to be the shedding of weight, be it through dieting,

exercise, or surgery. Thus, the discourse around the war on obesity employs another element of "audit culture", the narrative of empowered self-actualization that encourages people to willingly discipline themselves, to take on the technologies of the self, to achieve personhoods socially constructed as healthy, as accountable, and as moral.

## CONCLUSION

By contextualizing the "War on Obesity" in neoliberal America, a society currently embroiled in an era of economic downturn, the biopolitical character of this 'war' becomes clear. In order to solidify ethical and unethical bodily based personhoods, the state employs disciplinarian "audit technologies" to combat the 'epidemic of fat.' Though these technologies are coated in the seemingly beneficial language of accountability, quality, and empowerment, citizens internalize disciplined.  Citizens willingly attempt to embody ethical, accountable, and 'healthy' personhoods through the enactment of the technologies of the self -  citizens consent to state power and the success of a governmentality is complete.

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# THE GIFT: DRUG TRIALS AS SOCIAL INTERVENTIONS

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International drug trials have exploded in the Global Health scene over the past twenty years (Petryna, 2005). Coupled with the increase in activity is an increased awareness in the ethical problems surrounding the use of populations in countries representing a huge discrepancy in wealth inequality. Drug trials are presented as a purely medicalized activity but in practical application, become an innately social activity. The selection of participants, ongoing interaction throughout the trials, and the notion of reciprocity are all influenced by social interaction, and embedded with social consequences. Increasing attention has been paid to the socializing effect of drug trials in developing countries, but these effects can also been seen in fully industrialized countries (Nguyen 2005, Kalofonos 2010, Saethre 2013, McGough et. al. 2005). The similarity is surprising, but becomes obvious when considering unequal distributions of wealth and the scarcity of new medical interventions.

Scarcity and poverty can be framed in economic terms, but are demonstrated in the practice of social life. Benetar and Singer detail how "The United States spends 50% of annual global expenditure on health care on 5% of the world's population." (2000). In addition, most of the funds are directed towards vertical programs, privileging only 10% of global diseases (Benatar & Singer, 2000). In addition, many of the vertical programs include some element of experimentation. Adriana

Petryna critiqued this practice heavily in 2005, drawing attention to the political and economic instability of host countries. "Drug companies' apparent ease of accessibility to such areas raises questions about the unequal social contexts in which research is being performed and about how conditions of inequality are at present facilitating a global proliferation of pharmaceutical drug trials" (Petryna, 2005). Petryna draws focus to the ethical questions surrounding the global use of human subjects found in poor political and economic situations, and the ease that pharmaceutical companies have demonstrated in gaining access to these vulnerable populations. By doing so, she also implants the practice of drug trials into a social context. However, Petryna also draws attention to the social complexity in which drug trials take place, and critiques a purely ethical approach.

The health system in the United States is also a system of unequal distribution. Because the health system is privatized, access to health care can only be granted through limited public insurance (Medicaid) or enhanced private insurance coverage (Galen & Dohan, 2012). The difference between the two is striking when considering how Drug Trials are enacted in the United States (McGough, Reynolds, Quinn, & Zinelman, 2005). In a dual site study that contrasted the selection of participants in drug trials offered for those with private insurance and those on Medicaid or uninsured, the results

were striking.  Lack of resources at the publically funded hospital created challenges for the doctors or researchers as they were often poorly prepared to speak about the trials.  In addition, many potential participants were marginalized members of society, with lack of education or language skills as the factor obstructing fully understanding the trials. In contrast, many of the doctors in the privatized hospital were the researchers, able to discuss their studies in nuanced detail with participants who were highly educated, and had conducted their own research with the support of many research aids on site.  In the environment of scarcity, the opportunity to participate in a drug trial became a "gift" as participants often felt indebted for the free care. (Galen & Dohan, 2012).

Selection for inclusion in a drug trial is tangled by the multiple competing priorities from each stakeholder in the process.  By "stakeholder", I imply the participant and their immediate and extended kin network, the drug company, monitoring physician or researcher, and also the political body in international situations along with the corresponding web of NGO and other sponsors. Given the volume of potential "cooks in the kitchen", the act of participant selection is fraught with political, social and economic considerations. Early clinical trials in the US struggled to select patients for participation, as the diseases they addressed were critical and the resources allocated to the trial were scarce.  For example, in an early study for hemodialysis addressing renal failure, a committee was formed that initially evaluated the "social worth" of participants, analyzing wealth, employment, number of children, and community involvement (McGough, Reynolds, Quinn, & Zinelman, 2005).   In a US study evaluating participant selection for a clinical trial focusing on

addiction, patients were influenced because the drug trial would provide the "best source of care", as many of them lacked decent insurance coverage (Galen & Dohan, 2012).  As a result, the study excluded women and children in preference for "heads of families" and the poor.  "The committee's decision-making process reflected the values and biases of white, middle-class Protestant American society," and by doing so, excluded many individuals who were naturally selected against for social reasons.  Because drug trials have limited resources, the selection of participants is crucial to ensure that the population will be dedicated to the rigorous nature of the research.  Selection has since moved away from overt evaluation of "social worth", but now focuses on "psychological suitability", which also includes an assessment of kin networks (McGough, Reynolds, Quinn, & Zinelman, 2005). Despite the shift, participant selection in the US remains firmly rooted in social criteria. For this reason, individuals who are marginalized are often excluded from drug trials because they are perceived as being unreliable (Galen & Dohan, 2012).

Inclusion into international drug trials occurs on a global platform, where pharmaceuticals request access to populations that would most benefit from a health intervention (Petryna, 2005). In return for participation, countries negotiate ongoing support and post-trial access to the drug. Merrit and Grady state, "In return for participants' contributions to the social good that ART trials produce, it seems fitting for their country to offer them priority for post-trial access to ART" (2006). here, the language of negotiation for medicalized treatments is embedded with ideas about social good.  In locations where scarcity and wealth inequality provide an opening for pharmaceutical research, participant adherence can be hard to

predict, as seen in the US example (Merritt & Grady, 2006). Merrit and Grady go on to state that the cause of treatment interruption is often financial difficulty. Many developing countries have recently adopted a neo-liberal approach to health care, similar to the one in the United States, which leads to the same access issues for the poor (Janes & Chuluundorj, 2004). While Janes and Chuluundorg analyze issues surrounding the neoliberal approach and its effects on motherhood, it is important to note that a neoliberal approach to health care fundamentally restricts access to basic health care for the poor. As a consequence, the selection process for the scarce resources in drug trials can be inherently problematic in countries lacking basic health care, because often, the drug trial provides the only health care opportunity. The selection process for ARTs, for example, was critiqued because it disproportionately increases the burdens on others through the very act of exclusion (Merritt & Grady, 2006).

Much of the selection process rests on the analysis of kin relations and the ability to create bonds encouraging adherence to the trial. Despite the rational, medical environment of research, this aspect of encouraging social bonds should not be ignored. Therapeutic citizenship was coined by Nguyen in a study evaluating the social ramifications of globalism and ART (2005). This term was later challenged by Mattes in 2011 as ART was expanded and participation increased. Kin or social bonds took too long to establish to be used as a tool for adherence, and disciplinary measures took their place (Mattes, 2011). The presence, or lack of social and kinship networks is often a strong factor in the selection process for drug trials in the US and globally. Social bonds produce adherence, which in turn, influences the outcome of the study. Saethre

and Sadler also argue that "that trial participants and community members transform medical research into a meaningful tool that alternately affirms, debates, and challenges contemporary social relations." (2013). In Soweto, Africa, the relationship between participant and researcher was reciprocal. Participants conceptualized the blood they gave to researchers as part of the study as an exchange for cash, but this exchange was an act reinforcing social relations of the community as a whole (Saethre & Stadler, 2013). Saethre and Stadler linked giving blood to "lobola", or bridewealth. Similar to bridewealth, the blood forged a social bond (2013).

Similar concepts can be seen in American trials, where subjects display varying opinions regarding their researchers, often post-trail (Sofaer, et al., 2009). Individuals suffering from chronic conditions yearned for the continuation of the relationship, expressing feelings of loss after the trials ended. Some expressed concern about follow-up in the event of long-term harmful effects, especially if here was no recourse to help. While some of these sentiments can be linked to the economic status of the individuals, and their access to insured health care, Sofaer reported that those who were uninsured accepted the start and end dates of the drug trials easily, and the transient nature of the study (2009). Ideas about reciprocity were most frequently reproduced, however, as those in low income situations were grateful for the "free" care that drug trials provided (McGough, Reynolds, Quinn, & Zinelman, 2005).

Language about reciprocity and altruism are frequently prevalent surrounding drug trials. Because the outcome of the trial is unknown, they are often difficult to encourage participation, particularly in situations where

standard therapies exist (Galen & Dohan, 2012). Instead, pharmaceuticals and researchers rely on language surrounding "gifts" or "donations" for the greater good of the community. Often, this language reproduces itself in developing countries, in the form of the "virtuous volunteer" (Saethre & Stadler, 2013). Again, the financial or economic environment in which the drug trial takes place effects the perception by the participant. Where a patient is terminal with no legitimized medical recourse, participation in a drug trial becomes an "opportunity" (Galen & Dohan, 2012). Where patients do not have access to health care because of financial restrictions, clinical trials provide payment for the "debt" of free care. "The "gift" of participation is essentially a "return gift" made in exchange for the "free" care the patient has received from the state " (Galen & Dohan, 2012). As Galen and Dohan point out, both situations highlight and are reliant on social and structural inequality in health care. These scenarios also closely echo Mauss' theory of gift economies, enforcing social cohesion in often tense and problematic relationships featuring inequalities in power (Mauss, 1922).

In developing countries participating in drug trials, the notion of exchange and reciprocity played out in multiple ways. In Soweto, giving blood could be perceived as a donation for the good of the community, but was also linked to the immoral act of receiving money for flesh (Saethre & Stadler, 2013). These conflicting narratives surrounding the act of giving blood for research indicate the complexity of interpretations surrounding drug trials in a social context. Soweto participants conceptualized blood as a finite resource, and the amount that was drawn for research was excessive, hastening death. Thus, the

money received for blood would, "buy your coffin," (Saethre & Stadler, 2013). In each environment, the narratives surrounding drug trials indicate the level of trust between researcher and participant. If reciprocation was equal, then the level of trust was high, and the sense of participation as an altruistic act was more prevalent. If trust was low, then conceptualizing the act of participating in a drug trial was commoditized, and the participant demonized as a result (Saethre & Stadler, 2013).

Drug trial are innately social interventions, from the moment of selection through the rigours of participation, and resulting bonds that are formed, and the loss felt once the trials are over. Distinctions are made between an altruistic act and a purely financial one, and often the act of participation is framed as a gift. Among Soweto participants in ART, the act of participation was expressed as one of personal safety (Saethre & Stadler, 2013). Petryna challenges this practice by stating that often, a state's capacity to protect and support the health of its citizens is masked by the availability of state-sponsored interventions such as drug trials. The ethical questions surrounding human research are "justified under the rubric of humanitarianism" (Petryna, 2005). Others have noted the problematic ethics of drug trials that take place in widely discrepant social and political environments. "Resources that benefit only one group or one subset of patients have the potential to disrupt community relations, promote conflict, and undermine public health programs" (McGough, Reynolds, Quinn, & Zinelman, 2005). Drug trials, in this way, are entangled in the society where they take place. They are affected by the participants through the rigours of selection, but also effect their social environment through their exclusionary practices and the bonds they forge with participants.

As a way to counteract the disruptive nature of these trials, Benatar and others released a paper detailing the strategy for blanket equality in pre and post trial care, in order to ensure that all participants received equal care despite their socio-economic environment (Benatar & Singer, 2000).  While international pharmaceuticals actively communicate and conduct research in a way that is "bare life", or devoid of social implication, the opposite is often true.

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# HARAPPAN IDEOLOGY: A COMPARISON WITH THE INCA AND AZTEC

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Without colonial records or a deciphered writing system - contrasting other states like the Aztec and Inka - little is known about Harappan religious and political ideology. Ideology can be seen as a thought system that supports the upper class and hides that reality from the lower (Hicks 1996), and religion as a manipulative tool wielded by the elite, but to see it this simply is a reductionist view (Mosher 2013). Comparing Harappan urban planning, the degree of standardization of its material goods, leadership and wealth differences with the Aztec and Inka can help to illuminate what was - or perhaps more precisely what was not - behind the material record, by observing the differences. There is still something to be gained by comparing states even if they are vastly different, and such comparison can pose new research questions. By comparing them, it becomes clear that the religious ideology and how elites functioned and displayed themselves in society was very different in the Harappan vs. the Aztec and Inca civilizations, and this ideology may in fact have empowered commoners.

## THE AZTEC

The city of Tenochtitlan, which later became the seat of the Aztec Triple Alliance Empire, was founded by the northern Mexica people, who saw the Toltec as their ancestors, and venerated Teotihuacan (Mosher 2013). The fundamental beliefs of the Aztec worldview were that there was a constant conflict between order and chaos, human fate was in the hands of the gods, everything was pre-ordained, everyone must work to earn what they receive, everyone has a duty, and that hard work and suffering are normal components of life (Hicks 1996). One of the most fundamental shared tenants of the Mesoamerican worldview was that of reciprocity between the gods and humans; that in return for political success, fertility, and the continuation of the universe, humans sacrificed themselves and offered blood to the gods (Mosher 2013). In their myths, the Aztec gods had sacrificed themselves so that humans could live and the sun could keep rising, creating a human obligation to repay that sacrifice that was seen as a reciprocal relationship (Smith 2011). "Simply put, priests practiced sacrifice, and people put up with sacrifice, because they believed that it was necessary for the continued existence of the universe" (Smith 2011:224). Elites were sacrificed in addition to commoners: in fact, they made more powerful sacrifices (Mosher 2013).

The Aztec were divided into two distinct classes, with the vast majority (about 95%) being commoners (Smith 2011). Male commoners could gain prestige by being successful warriors and capturing many enemies (for sacrifice), which caused increased stratification of the social order (Brumfiel 2001). Though commoners could move up through

commerce, priesthood or the military, the social mobility was limited, and even a high ranking warrior, though he no longer had to pay tribute and could join in the war councils of the nobility, was still a commoner (Tuerenhout 2005). There was set clothing and jewellery that each certain rank of person could wear (there were more than twenty outfits for the nobility), and the emperor alone had his own (Tuerenhout 2005); status items included jade and obsidian earrings and lip plugs, feather art, and gold and silver ornaments (Smith 2011). If a merchant (commoner) became wealthy, he would have to hide his wealth because he was a commoner (Smith 2011). Elites went to different schools, were judged in different court systems, and did not have to pay tribute, among other benefits (Tuerenhout 2005). The *tlatoani*, or Aztec kings, were chosen by a high council both for supposedly being descended from Toltec rulers and for having been chosen by a god, though they were not divine themselves (Mosher 2013). *Tlatoani* lived in luxury, functioning as military leaders, tax collectors, and supreme judges (Smith 2011; Tuerenhout 2005); when their city-states was conquered, they continued to run them much as they had before as 'client-kings', but taxes were collected by tax collectors from the conquering state (Smith 2011). City-states (*altepetl)*, the culturally and administratively distinct units which characterized Mesoamerican politics, each had their own king and laws (Hodge 1998; Smith 2011). City-states with larger populations were generally higher on the political hierarchy (Hodge 2005). Within a city-state would be one large town or city and a number of small hamlets; each Aztec city had an organized central zone with a palace, temple and plaza, outside of which there was little urban planning (Hodge 2005; Smith 2011). Tenochtitlan was an exception: as the capital and

the founding city of the Mexica people, it alone was redesigned with a grid pattern to differentiate it from other cities and to awe visitors (Hodge 1998; Smith 2011); it was divided into four quarters, and again into eighty *calpulli* administrative wards, which each had their own patron deity, temple and school, and followed the same trade (Tuerenhout 2005).

## THE INKA

A fundamental tenant of the prehistoric Andean - and Inca - worldview, was that of dualism; the universe was seen to comprise of "opposing but complementary male and female energies" (182) brought together in ritual, and expressed in the moiety system of social organization (Swenson 2012). The Inca empire was united by worship of the sun, oracles and pilgrimage, (the Inca's) ritual calendar, and the organization of space (Swenson 2013: November 27th). Corn was their most important crop, and the ploughing and planting of corn was likened to warfare and the conquering of land (Bauer 1996). The Inca had a labour-in-exchange-for-goods reward system, and gave feasts to the labourers who helped with public projects (Morris 1998; Swenson 2013: November 27th). They justified their conquest by naming it a sacred mission to bring religious order and unity to the Andes, and were flexible in their strategies of conquest and consolidation (Jennings 2003; Morris 1998).

Similar to the Aztec belief of the reciprocal exchange of sacrifice for sacrifice with the gods, the Inca believed the gods needed to be fed in exchange for the gods feeding humans through fertility and good harvests: "human regeneration, agricultural fertility, and socio-cosmic order necessitated sacrifice" (Swenson 2003: 258). Though there is

little evidence for warfare or standing armies until the end of the empire, the Inka engaged in ritual conflict (Morris 1998).

Like the Aztec, the small percentage of Inka elite possessed most of the wealth, and though much of the gold and the status items have been looted from cities and burials, Spanish accounts are rich with the luxuries of Cuzco, the city of elites at the heart of the empire (D'Altroy 2012). Some status items, like *qompi* cloth garments, were restricted to elite use, and a sort of standardized language of material wealth was developed which helped with communication in an empire made of people who spoke different languages and had no shared writing system (D'Altroy 2012). Each Inka ruler had their own private estate(s) (as Pachakuti had Machu Picchu) (D'Altroy 2012). When people died, though they were mourned, they were not seen as dead in the Western sense: they still owned their properties, could give council, and needed to be cared for and fed (D'Altroy 2012). The Sapa Inca, or king, was divine (Mosher 2013), and was the first person to begin the ploughing each year, associating him with powers of reproduction (Bauer 1996).

The Inca paid careful attention to the organization of and connection to space. Andean people had their own gods or *huacas* - objects or landscape features with supernatural powers that were the protectors and progenitors of their people - and they were strongly connected to their homelands (Swenson 2013: September 25th). The Inka exploited this fact to reshape the identities of the people they conquered: one third of those people were moved to a different location in the empire (Swenson 2013: November 27th). Most of these cultures were small and not centralized; the Inka built administrative centres, like that of Huanuco Pampa, to create centralization and

hierarchy and to bring different groups together (Morris 1998). The capital of Cuzco itself, a city of elite, had a unique organization: as a "spatial metaphor for Inca society and their world," (D'Altroy 2012:113) it was built metaphorically or literally in the shape of a puma, with straight roads arranged irregularly to fit the topography of the landscape, and with a central area of religious compounds and royal palaces (D'Altroy 2012). For both the Inca and Aztec, and more broadly the cultures of the Andes and Mesoamerica: "the most prominent monuments…such as pyramid temples and ballcourts, were elite arenas of ritual violence" (Swenson 2003:257), a characteristic which is not shared with the Harappan civilization.

## THE INDUS

Knowledge of the Indus Civilization is limited by the lack of decipherable written records, and thus information on its religious and political ideology can only be gleaned from the archaeological record. A defining characteristic of the Harappan civilization, which alludes to its underlying ideology, is its relative uniformity of material culture and settlement design, despite the size and geographic variation of its extent (Coningham and Manuel 2009). With the rise of the civilization, there was "a fusion of elements from [previous] regional traditions, resulting in a much more homogeneous material culture, so that sites can be recognized with little difficulty as Harappan" (Miller 1985:40). This uniformity can be seen in regulated brick sizes, the common and yet un-deciphered script, and the consistency of shapes of metal and stone tools, stone beads, ceramics, painted decorations and weights (Coningham & Manuel 2009); standardized stone

cube weights are found at every major Harappan site, and they have a very low standard error for each weight category, reflecting some sort of tight control (Kenoyer 1991). These materials are not wholly uniform across the civilization: there is regional variation, particularly in pottery shapes and painted designs. Indus settlements are also remarkably similar to each other, and smaller settlements look like smaller versions of larger ones rather than showing differences in complexity and organization: "the Harappan civilization has no "villages" in morphological terms" (Miller 1985:47). The regularity of city layouts for Harappan centres can be exaggerated, but the sites, across the half-century of the civilization, generally consist of a raised public area and a lower domestic mud-brick town that either sits to the east of it or encircles it (Coningham and Manuel 2009; Kenoyer 1991). Baked brick walls encircle the larger sites, and may have been for protection from flooding or the separation of areas for administrative purposes, rather than defense (Kenoyer 1991).

Differences in burial wealth are not very extreme, and that is in part because there is not much of value found in the graves period: ceramic pots are the most numerous offerings (Rissman 1988). Rissman (1988) notes that while burials and offerings are public displays of wealth, hoards are not, and in comparing burials and offerings with hoards at Mohenjo-Daro and Harappa and finding that wealth differences are much more pronounced in hoards, he concludes that "the discrepancy… suggests that Harappans may have been doing one thing and saying another" (Rissman 1988:219). Rather than the uniformity and simplicity of Harappan architecture and burial wealth reflecting an egalitarian society, Rissman suggests there could just be a custom that wealth is not flaunted to make everyone *appear* equal. Kenoyer (1991) interprets the lack of status items in burials as reflecting the act of passing down valuable items rather than taking them to the grave. He notes that the number of buried bodies found in the Indus is very small proportionally to the civilization, and may in fact represent only a certain class of people (Kenoyer 1991). Though much of the material wealth as well as the architecture of the Indus is simple and there are few purely artistic or ritual objects (Coningham and Manuel 2009; Miller 1985), and there may be "standardization of and around the mundane" (Miller 1985:59), there were restricted status items like copper and bronze objects, carnelian beads, seals and stone bangles (Kenoyer 1991). Beads, bangles and other ornaments were made in similar ways out of materials of different values (Kenoyer 1991). This similarity of form, combined with Coningham and Manuel's (2009) finding that seals and other signs of power were found in the same lower town as the commoners, and that only one of Rissman's (1988) hoards was found at the raised 'citadel' area, suggests that the elite of the Indus lived among the commoners, and in outward form at least, may not have seemed very different from them. Supporting this view is the absence of royal tombs, monumental palaces and statues (Kenoyer 1991). Miller (1985) argues that the lack of extreme wealth and display in the Indus civilization is because power was held by ascetic monk-like people who had power because they gave up material wealth, who rather than being conspicuous in their consumption of resources, were "conspicuous through asceticism" (61). The existence of hoards and the limited distribution of certain items suggests that there *were* wealth differences however, whether or not they were flaunted, and similarities between burials may have been because - as Kenoyer

(1991) argued - status items were kept by the living relatives, or because people were seen as possessing the same wealth in death even though they did not in life, perhaps reflecting a unifying religious belief. Since the architecture, ornaments and burials are all similar in form, but the ornaments and hoards are of different values, the elite of Harappa may have blended in with the commoners in form, and the matter of their wealth was either known but not acknowledged, or otherwise downplayed.

## COMPARISON

The very differences of these three cultures makes contrasting them a useful starting point for learning about the Indus civilization. For the Inca, the leader of the empire was divine; for the Aztec he was chosen by the divine. If Harappan rulers had divine connotations, the lack of signs of worship and wealth so prevalent among the Inca and Aztec would suggest that the role was immaterial, and that as Miller (1985) argues, it was more of an ascetic kingship. When Aztec city-states conquered each other they did not try to impose their order or customs, but the Inca did: they reorganized places and demanded worship of the Sun (Mosher 2013). Despite this, the Inca empire was arguably less homogenous, because it included so many ethnicities and cultures to start with, whereas the Aztec people were all organized in roughly the same way. The Harappan homogeneity could be similar to that of the Aztec's then: that because of shared worldviews and politics they were similar, rather than because of a particularly controlling ruler.

The Inca had to perform sacrifices to feed their gods and the Aztec to give them blood, both in order to fulfill their side of a reciprocal relationship that kept their civilizations going. The lack of sacrifice among the Harappans could suggest the lack of a reciprocal human-god relationship, or it could suggest that the gods demanded something else in return for what they gave, like service and prayer. Blood sacrifice can be seen as an act of mastery over life and death (Swenson 2012): perhaps the Harappans saw that mastery as belonging to the gods alone.

When an Inca died they were still, in a sense, alive, and they still owned their material wealth (D'Altroy 2012). Aztec people were buried with their treasures, and their burials reflect their varied statuses (Smith 2011). That Harappan burials did not show the status differences of the other two, as argued before, could suggest a belief in a fundamental equality of people that presented itself at the time of death, or a more practical view that status items could be reused, or bestowed on the dead's kin.

For both the Aztec and Inca, there were two distinct classes of society with very different access to luxury goods; for the Inca empire the small percentage with most of the wealth were the Inca people, ethnically different from those they had conquered (D'Altroy 2012). For the Aztec, those few were determined by lineage, by belonging to one of the powerful families fabled to descend from the Toltec (Mosher 2013). Among the Harappans, there were only small differences in wealth (very small in comparison), which could suggest that elite status was not based on ethnicity or lineage, or that elites had largely immaterial privileges. Perhaps it is for the same reason that an Aztec merchant had to hide his wealth - because he was not an elite - that a Harappan elite did not flaunt theirs: perhaps even the Harappan elite were seen as commoners: perhaps the gods were the elite.

The Inca capital of Cuzco was a small

city of elite, unique from all others. Inca cities and regions were centred around ritual and public architecture, and there was a fair bit of variation across the empire in city layout and style. For the Aztec, their capital was also an exception; all their cities had a planned ritual and public city core (akin to the Inca), but their capital was organized on a grid. The Inca capital and the Aztec capital were both the foundational cities for their respective empires (D'Altroy 2012; Smith 2011). The Indus civilization, by contrast, has no clear capital, perhaps because it did not have one city where it all started as the other two did. There is also little variation between settlements, all the settlements show planning, and there are no obvious elite areas within them. This homogeneity and organization may represent an ordering or unifying principal of their religious system not present in the Inca or Aztec cases

## CONCLUSION

By placing the Indus civilization side by side with the Aztec and Inca empires, one can see certain characteristics more clearly because the of the contrast; evidently, from the differences in wealth distribution and city planning, there was something fundamentally different about Harappan religious and/or political ideology. Though ideology is often a word used to describe a set of beliefs that empower an elite (Jennings 2003), in the Indus the worldview and political-religious system may actually have empowered the populace; if an ideology must perpetuate wealth differences, and if we cannot say a civilization does not have an ideology, it shows a fundamental assumption in our thinking which may not be true.

The value of comparing things in general is two-fold. One: by placing them side by side their unique characteristics can be illuminated through contrast, and two: their similarities can be used to form groups (by shared characteristics) or to otherwise find connections between them. The main problem with comparison is that the act can cause one to see something that is not there, and once an idea is out there, people can build on it until it seems the only possibility. This is particularly problematic when unearthing new traditions or cultural ideas in the record. When done cognisant of the fact that comparison is a generalizing tool and two things that seem similar may in fact be very different, this can be a useful analytical venture. The value of comparison when applied to early states lies in grouping them (based on time period, geographic area, historical tradition, economic strategy etc) and/or finding links between them (because they trade with each other or are born of the same tradition, or because of some grander truth about human nature), and, in a method akin to a literary character foil, in seeing them more clearly because they are placed side by side. Sometimes knowing what the answer is *not* can be a very worthwhile piece of knowledge. When compared to the Aztec and Inca, the political and religious system of the Indus stands in contrast, particularly in how settlements were organized and how elites were presented in society.

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# SWEETNESS, SLAVERY AND SEX: WOMEN ON LOUISIANA SUGAR PLANTATIONS

*Leah Henrickson*

—

## INTRODUCTION

Gender conventions direct people into fulfilling socially acceptable and useful roles that serve the needs of the individual as well as society. They are among society's most influential and binding elements because, in telling individuals how to be men or how to be women, they tell them how they are to relate to society (Fox-Genovese 1988:194). The social system of slavery on Louisiana sugar plantations influenced the nature of the entire society and, in turn, shaped the experience of all women involved by enforcing and encouraging patriarchal hegemony in America. From her birth, a slave girl's dual membership in the plantation household and the slave community shaped her identity. Unlike in a white world, where master and father were the same person – as were mistress and mother – for the slave, these four were all different people. These women were black in a white country, women in a patriarchal society, and slaves in a land of the free. Following a brief description of historical context, this paper will address the similarities and differences of both slave and slaveholding women and the roles they fulfilled.

## CONTEXT

The desire for sweet tasting food has been prevalent throughout history. A cave painting near the city of Valencia that is thought to be at least twenty thousand years old illustrates a person stealing honey from a hive while provoked bees swarm them (Mintz 1999:85). By the eighteenth century, the general British lifestyle had come to include drinking heavily-sweetened tea and coffee, and feasting on heavily-sweetened foods including chocolate, biscuits, marmalade and pastries (Mintz 1999: 94). To satisfy the increasing global demand for sweetness, Louisiana began commercially producing sugar as early as the late 1750s (Conrad 1995:3) and the Louisianan people were given the opportunity to experience semi-aristocratic lifestyles similar to those of the British. The state's semi-tropical climate and its fertile, mineral-rich soil made it ideally suited for growing sugarcane. The sugar plantations were large, and not only did they require a great number of labourers, but the work was routine, meticulous and physically demanding (Conrad 1995:29,15). Due to Louisiana's recently established sense of aristocracy, finding willing workers would have been difficult, as physically demanding and meticulous work contradicts the conceptions of refinement and elegance associated with aristocracy. Therefore, excess African slaves working on indigo and cotton plantations across America were sold to sugar plantations, and more slaves were gathered from Africa, as it was considered to be a less-developed and subservient nation (Conrad 1995:10). The Louisiana census of

1860 calculated there to be 326,726 slaves in the state alone (Moody 1976:18). Furthermore, Sidney Mintz (1999:89) suggests that, as many slaves were dealt illegally, no fewer than ten million Africans were slaves on American plantations over four centuries. Thus, although sugarcane brought the sweetness of wealth to a few white people, it brought poverty to many black people (Dillman 1988:183).

One could justify slavery as a necessary evil in the financial establishment of Louisiana and the rest of America following the Declaration of Independence in 1776. Creating and maintaining strong international relations through trade was, and continues to be, necessary in establishing a nation as a world power. By supplying Britain with a product for which there was such high demand and being able to charge less for the product due to inexpensive slave labour, America began its ascent into international trading superpower status. It must be questioned as to whether this devaluing of human life and denial of human freedom is what one would wish to be the foundation of a nation. The practice of slavery was one that was perpetrated by the colonial powers to enrich the homeland. Thus, although America is said to be 'the land of the free', the practice of slavery and the overall subordination of women upon which the country was founded illustrates otherwise.

## THE ROLE OF SLAVE WOMEN ON THE PLANTATION

Slave women performed nearly every task required on the plantation, but they were generally assigned the bulk of productive work which included activities such as making candles and soaps, slaughtering animals, mending and cooking. Depending on seasonal demands, age and health,

female slaves as young as six years old who exhibited proper and obedient performance were taught small household tasks with the intention of fostering them to become domestic servants in the master's household (McMillen 1992:103,102). Frequently, a young slave girl would be instructed on the proper means of minding younger children (Fox-Genovese 1988:147). Although some whites preferred light-skinned slaves as domestics due to the belief that these slaves held more social status, others preferred dark-skinned servants to ensure that slaves knew their place (McMilllen 1992:102).

## THE ROLE OF SLAVEHOLDING WOMEN ON THE PLANTATION

The white woman's identity depended on someone else's doing her work for her - it is what made her superior in racial and class terms. However, although the plantation mistress was indeed considered to be socially superior to the slave woman, she, like the slave, was subject to the will of her husband. She was dependent on him (Dillman 1988:129) and her submissiveness towards her husband encouraged the white male's hegemony. Furthermore, the rural arrangement of the southern states resulted in the majority of white women living on farms or plantations, spending their lives in relative isolation due to the inexistence of social networks and bonds (McMillen 1992:6). While the plantation owner was responsible for the overall administration and management of the plantation, his wife would often be left to oversee the work of the slaves and instruct them on how to fulfill their duties. She would also work alongside the slaves by participating in tasks that included caring for the fields, as well as sewing and mending clothing. Thus, the plantation mistress essentially acted as a

mother-to-all, with the slaves acting as her 'children' who became dependent on her care (Foster 2007:305). There is a nursery rhyme that proclaims girls as being compounded of 'sugar and spice and everything nice'. In this context, sugar symbolizes the personality trait of sweetness – for someone to be sweet is for them to be gentle, kind and, ultimately, nice. Women were, and still are, expected to be 'sweet', as sweetness is a term frequently used in accordance with femininity; it alludes to delicacy and fragility. Although delicacy was considered an ideal feminine feature in the eighteenth century, the reality of women's lives proved contradictory to the concept of such. Despite how doggedly these women worked, they, like the slaves, received no public recognition (McMillen 1992:108). The plantation mistress' victimization thus closely resembled the slave woman's due to the double burden of patriarchy and slavery.

## CONCLUSION

Assigning people to different kinds of work is a way of marking difference. Slavery as a social system impacted the relations, roles and identities of both slave and slaveholding women. There is a bondage associated with slavery – in owning slaves, one becomes one. This is especially true for women. While slaves relieved slaveholding women of domestic labour tasks, it forced plantation mistresses to adopt the responsibilities of slave managers. Being a slave or slaveholder deprived a woman of control over her own life and her personal relations – both were governed by the plantation owner and both experienced relative isolation from life outside of the plantation. As illustrated by previous passages, all women experienced the imposition of male dominance, but the experience of dominance varied according to race and class. The plantation

mistress was as much a slave to her husband as the slave women was – she too worked hard with no recognition – but she was recognized as socially superior. Thus, although plantation mistresses and slave women were united by being of the same gender, there are various other factors that divided them into different communities. We must recognize and challenge race and class as central to a woman's identity and her personal sense of femininity. Our metaphorical use of sweetness to describe femininity further defines a woman's identity by telling her how she is to act and how she is to relate to society. Thus, we must also recognize how a simple commodity such a sugar can have such strong implications on social systems.

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# ARCHAEOLOGICALLY REINSCRIBING THE LIVED LANDSCAPE:

*Archaeologists and their central role in cultural heritage landscape managment in Ontario*

*Michal Laszczuk*

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In archaeology, the landscape structures the archaeological record as a multivalent historical fabric with both continuities and disjunctures that together constitute a cultural heritage landscape. Since the landscape is regarded as a developing palimpsest of different historical imprints, it cannot be conceptualized as one prioritized cultural-temporal totality that can stand to represent regional patterns in landscape reformulation. Thus, archaeologists, working to preserve the character of cultural heritage landscapes, referred to as CHL, must be cognizant of the landscape, not as one frozen imprint of cultural historical spatial practices, but as a continually developing entity that is an inherently lived landscape subject to continual historical changes that mediate the past with present trends in development. Within Ontario, the cultural heritage landscape concept has been a more recent emerging paradigm and it is critical that archaeologists there take on a role in integrating development practices responsibly with elements of the historical palimpsest of landscape features, not simply prioritizing the record of one historical landscape in a particular timeframe. Within this role, archaeologists should recognize all manners in community input and integration in landscape management in order to respect development within a lived landscape that is imbued with the multifaceted archaeological record. Thus, within the expanding field of cultural heritage landscape

management in Ontario, archaeologists are actually situated in a privileged position in informing other disciplines about responsible development strategies that prioritize the historical landscape as a foundational base for all matters of everyday life and development practices. When archaeologists take such an integrative standpoint, prioritizing community input and providing guidance for different fields, CHL management in Ontario can effectively balance development needs and historical preservation in an integrative standpoint built upon the conception of the landscape as a historical palimpsest imbued within the lives of all people.

Before engaging in the examination of archaeologists in landscape development as an inherently integrative guiding force, rather than a solely preservationist authority, the definition and development of the cultural heritage landscape concept, on a global and national scale, must be explored. On a global scale, the CHL as a developing concept gained precedence under the 1972 Unesco World Heritage Convention (Cleere 1995:63). However, the 1972 World Heritage Convention merely implied the notion of a cultural landscape as "works of man or the combined works of nature and man…of outstanding value" (Unesco 1972) without explicitly defining it and it was not until 1987 when the concept of a cultural landscape was officially inscribed in world heritage records

emphasizing the "long and intimate relationships between peoples and the natural environment" (WHC 2004). Within these frameworks, the cultural landscape was largely defined by the integrative significance of both cultural and natural heritage in relation to geographical built forms (WHC 1995). With the drafting of the *Operational Guidelines for the Implementation of the World Heritage Convention* in 1992 and 1995, the cultural landscape was classified into three categories including intentionally designed landscapes, organically evolved landscapes, further subdivided into relict and continually developing landscapes, and associative landscapes, which are formulated by intangible associations that give them meaning (WHC 1992; WHC 1995). Such an integrative framework was formulated as a means for cultural heritage landscapes to embrace a "diversity of manifestations of the interaction between humankind and its natural environment" (WHC 1992; WHC 1995) and this framework has been implemented in assessing the significance of patterned geographic manifestations in order to be inscribed onto the World Heritage List.

The World Heritage Committee's guidelines for defining CHL certainly have not been restricted to the designation of world heritage landscapes, but rather, have been implemented by national and provincial bodies, such as the Province of Ontario, in varying ways. In Canada, on a national scale, the conservation and management of national heritage landscapes is primarily assigned to Parks Canada (Nelson and Preston 2005:16). In Ontario, CHL are not universally acknowledged by all relevant ministerial bodies; the 1975 *Ontario Heritage* Act, and its replacement under Bill 60, do not utilize the term landscapes or recognize the CHL concept and the term "cultural heritage landscape" is rather utilized

in the Provincial Policy Statement of 2005 in the *Ontario Planning Act*, defining it as a "significant type of heritage form" (Nelson and Preston 2005:16-17). Ultimately, CHL are rather primarily defined and recognized by individual municipalities, which choose to integrate the concept within their official planning strategies and thus, such a concept does not receive universal recognition and implementation provincially (Nelson and Preston 2005:17).

Since Ontario, on a provincial scale, lacks a standardized mode of governance pertaining to the management of CHL, archaeologists must assume a principal role in integrating development needs with the responsible management of cultural heritage resources. By examining this integrative role, and its relationship to community input and interdisciplinary applications, it is prevalent that archaeologists should not simply consider, but ought to act as principal mediators in shaping historically attuned landscape development.

To begin, in order for archaeologists to be able to guide responsible practices in the management of CHL, they must re-asses their treatment of archaeological heritage from a temporally bounded and static mindset into an integrative focus, treating the archaeological landscape as a palimpsest, socially and materially constructed in the present. Turner and Fairclough (2007) present a framework for this archaeological mindset based upon the notion of Historic Landscape Characterization, referred to as HLC. HLC frames the CHL as common culture, heritage perceived and reconfigured by all individuals in a lived landscape, that is integrated with multiple sets of distinct historical, material and social imprints (Turner and Fairclough 2007:123). When taken

within an Annales based theoretical framework, emphasizing patterns of historical change, HLC traces the embedded nature of a historical and archaeological site as a continually evolving product, that is inherently lived and reconfigured by daily human practices (Fairclough 2006). Thus, an archaeological site cannot be studied and managed as a particular static temporal manifestation for its embedded identity transcends a particular time frame and is made significant through the recognition of its historicity in the present (Fairclough 2006). Thus, a CHL is essentially lived, and cannot be removed from embedded daily practices in a sole preservationist archaeological standpoint for its true identity is manifested through its responsible integration into present socio-cultural schemes of life (Fairclough 2006).

As witnessed in several planning policies in Ontario, archaeological sites and historic landscapes are given a pronounced social and cultural role in different communities through their integration into development strategies. Archaeological Services Incorporated (ASI), based in Toronto, has significantly guided several planning policies that have not only integrated, but have also emphasized the role of CHL. The City of Vaughan contracted ASI in drafting portions of the City of Vaughan Official Plan of 2010, with a focus on archaeological management in relation to CHL. Through this integrative planning framework, the city fostered the identification and development of the Skandatut Cultural Heritage landscape, which comprises an Early Contact village site situated within a culturally and ecologically reconfigured physiographic landscape (Archaeological Services Inc. 2010a). Skandatut, as a CHL, is not only recognized for its 16th -17th century village complex, but the situation

of the site, bounded by valley slopes, distribution of regenerative forest, and situation of agricultural tableland, are recognized as a multivalent cultural landscape reflecting defensive village organization and the agricultural management of the landscape from the pre-contact period and the 19th and early 20th centuries (Archaeological Services Inc. 2010a:34). ASI frames this as an associative CHL representing an intertwined collection of several cultural and geographic processes, with its integrity framed into the principal development strategy implemented into a wider Cultural Heritage Landscape Typology developed by the city (Archaeological Services Inc. 2010a:7).

Apart from identifying typological facets of the CHL, ASI has implemented heritage feature impact assessments, as seen with the City of Hamilton Transportation Master plan, where ASI was contracted to identify particular Built Heritage Features (BHF) and CHL along highway 8 leading to the historical centre of the Dundas, which was to have a two way left –turn lane improvement and the addition of paved road shoulders (Archaeological Services Inc. 2010b:1). ASI was able to formulate a typology pinpointing which BHF and CHL would be effected through such road work, and thus, rather than hindering road infrastructure work for the sake of preserving the exact present landscape imprint, this heritage impact assessment structured road infrastructure practices that integrate historical built forms in the landscape (Archaeological Services Inc. 2010b:48).

Thus, as seen with the consulting work undertaken by ASI in these municipal planning strategies, archaeologists have an important role to play in balancing the needs of municipal development projects and historical preservation.

Such an integrative archaeological perspective recognizes a CHL as a lived domain, subject to reconfiguration, that can be managed in a contextually and historically attuned framework.

Moving on, when archaeologists recognize their critical position in guiding landscape development policies, they must realize that community engagement is at the crux of ensuring responsible CHL management, treating historic landscapes as lived localities. Matthews (2006) explores the importance in locality as a conceptual force that ties particular communities to CHL. Heritage in a local sphere is understood as something that belongs in the present, and archaeological sites thus take on their character through everyday forces in praxis as a contemporary archaeological reality (Matthews 2006:77-78). Appadurai (1996) conceives locality as a fragile social achievement, and thus, the management of CHL cannot divorce a particular community from a locale for the sake of preservation since a community's identity is embedded within a sense of place. Furthermore, the only way to guarantee the social and material integrity of a CHL in development is through working together with communities to shape particular management strategies that foster continued engagement between people and lived landscapes.

Models of successful community integration in development proposals should be used as a base for archaeologists in fostering a community oriented definition of CHL. Shipley and Feick (2009) conducted a case study integrating the community as a central force in defining the town of West Montrose as a CHL. West Montrose, located in the Region of Waterloo, is a small rural community known for its Covered Bridge over the Grand River, dating to 1880 and one of the few remaining examples in Ontario which still includes its original wooden superstructure (Shipley and Feick 2009:456). The study was set on defining West Montrose, centered upon the wooden bridge, as a CHL in line with its official designation under the Ontario Planning Act (Shipley and Feick 2009). The challenge in this project lay in trying to foster community wide- consensus in defining West Montrose as a coherent CHL that will satisfy most members in the community while also maintaining its multivalent character (Scazzosi 2004). In order to foster a coherent definition, Shipley and Feck (2009) developed an internet-based survey, paired with an online mapping exercise that asked community participants to delineate their perceived boundaries of the West Montrose as a CHL. All coherent boundaries were transferred into a raster-based dataset on a Geographic Information System (GIS), visualized as concentric polygons with borders shaped by different degrees in agreement in delineating CHL boundaries (Shipley and Feck 2009:465). Thus, such a methodology garnered a generally consensual definition of West Montrose as a lived CHL, which can be used as a strong community-oriented model in establishing rigorous controls over development practices. Paine and Taylor (1997) integrated a comparable methodology in their assessment of the Beaver Valley, bounded by the Niagara escarpment in Grey County Ontario, as a CHL. Paine and Taylor (1997:24) principally engaged with the local community in guiding the definition of the region as a CHL through a methodology which formulates a historic matrix of the Beaver Valley with previously defined landscape types, including archaeological sites, set into a temporal framework emphasizing material correlates of change. Such a methodology centres

community definitions of the Beaver Valley CHL into a set framework serving as a model which archaeologists could adapt in prioritizing local conceptions of landscape change in guiding future development practices.

Thus, these two case studies in planning policy should be used as models by archaeologists in fostering a community centred approach towards defining archaeological landscapes as CHL. The present lived perception of an archaeological site's multivalent historic fabric is central to its community-based identity, and historical management procedures cannot isolate community members when fostering development policies. Rather, they should situate the community in guiding how archaeological resources can be integrated into planning schemes.

Bringing together their role in integrating archaeological sites responsibly with development practices and engaging with the community as a central force in defining CHL, archaeologists should assume a central role in informing other disciplines, such as landscape architecture and planning, regarding the most responsible methods of historic landscape development. Archaeologists must be situated in all manners of landscape development for if one regards a CHL as a total record of all past human reconfigurations of the landscape, then a "threshold of legibility", defined by Bradley et. al (2004), ought to be lowered in what is considered built archaeological heritage (Turner and Fairclough 2007:137). It is apparent how some figures in landscape disciplines, such as landscape architecture and planning, treat the historic landscape as something temporally distant, thus inhibiting more recent built heritage features as something archaeological in a conceptual sense (Turner and

Fairclough 2007:137). Work on CHL must, as a result, foster a re-definition of what specifically is archaeological, for though built heritage features may not be regarded as archaeological sites by some scholars and professionals alike, they would be best managed through an archaeological perspective in planning, which is inherently attuned to all material traces of historical change.

This restriction in the definition of CHL as archaeological entities has particular implications for the management of CHL in Ontario. Apart from Native Canadian sacred landscapes, such as the Skandatut site, CHL work is largely engaged with historical urban forms developed over the 19th and early 20th century. The Heritage Conservation District (HCD) is a unique case in the development of heritage management in Ontario for the Ministry of Culture, Tourism and Sports, under the Ontario Heritage Act, is charged with the designation of such districts overarching municipal control (Shipley et al. 2011). The HCD is certainly a step up from a singular architectural mindset in heritage planning since spatial relationships between built forms within holistic districts are prioritized (Shipley et al. 2011:619). However, this municipal planning strategy still lacks a fully integrative approach towards CHL management since although such districts are designed to preserve a particular historical dimension, the material correlates of historical change, as stressed by Turner and Fairclough (2007) before, are essentially ignored in an attempt to freeze a particular district in an isolated temporal setting. Archaeologists are privileged in principally studying such material correlates of historical change and should actively inform planners regarding such issues as critical players in reformulating HCD, not as strict

temporal realms, but as culturally representative landscapes. Furthermore, within Shipley et al.'s (2011) framework, HCD are too heavily focused on a visible aesthetic principle, thus inhibiting the prevalence of "hidden" archaeological facets of the landscape that could function as guides in inscribing different temporal dimensions onto the landscape.

Just how these archaeological dimensions could be inscribed onto the interdisciplinary field of CHL management is through the use of archaeological site potential models. Williamson (2010), examines the critical role that pre-Contact site potential models and historical site potential models have in rural and urban landscapes, not only establishing guidelines for responsible development practices, but re-inscribing archaeological forms onto the present lived landscape. By setting out parameters and combining buffer zones of archaeological potential onto a present landscape using an integrative GIS mapping framework, as witnessed with the Toronto Archaeological Master Plan, an archaeological perspective is set as a base in shaping interdisciplinary approaches in planning (Williamson 2010:27).

Thus, archaeologists' core engagement with studying the material processes of historical change requires them to situate themselves as critical mediators in informing other disciplines in the importance in recognizing the material imprints of historical change and integrating them with new development procedures in an attuned fashion which recognizes the CHL as a lived landscape that is subject to continual reconfiguration by all community members.

With the rise in the Cultural Heritage Landscape concept in Ontario, archaeologists must realize that these trends in integrative planning frameworks require them to serve as principal mediators that guide landscape development in a historically attuned fashion recognizing the material correlates of historical change. This requires archaeologists to reconfigure their temporally preservationist mindset in historical management approaches into an integrative framework, and ASI serves as a model in adopting archaeological recourses as a foundation in municipal planning policies as seen in the cities of Vaughan and Hamilton (Archaeological Services Inc. 2010a; Archaeological Services Inc. 2010b). Furthermore, in order for archaeologists to recognize the foundational nature of social conceptions that shape the identity of archaeological sites in order to responsibly manage them in landscape development, the community must be situated as the crux in functioning as a critical informing force. Within this position, multivalent community viewpoints can be given a principal voice in defining the characteristics of CHL, recognizing the complex material imprints of historical change. Shipley and Feick (2009) and Shipley et al. (2011) present effective methodological frameworks that serve as models which archaeologists should follow in fostering a community based conception of CHL, also shaped by professional guidelines and perspectives. However, though these methodologies serve as effective models, they lack the full implementation of an archaeological perspective, which would prove to benefit all professions engaged in landscape development. If archaeological prediction models could be integrated within all manners of landscape management, this would allow for the inscription of an archaeological dimension upon all lived landscapes, thus guiding development in the most historically attuned framework. Through

this inter-disciplinary dimension, building off integration and community input, archaeology can realize its full potential in CHL management in Ontario, recognizing the landscape as a continually developing archaeological entity that shapes all matters of present meaningful social and spatial practices that are yet another inscription onto a complex material record of historical change.

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# THE BANALITY OF THE ILLICIT: GENOCIDE VERSUS GENOCIDE

*Nursel Ozturk*

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The Armenian massacres of 1915 may come to question the ethnicity, historicity, religious beliefs, Orientalist motives, moral or ethical nature, political viewpoints and "gut feelings" of those involved or interested in the matter. The intention here is not to get embroiled in any one of these debates but to focus on the legal grounds to attempt to settle on a definition and use of Genocide, her used purposely with a capital G, and whether or not the actions of 1915, either balanced or assymetrical depending on one's one views, between the Armenians and Turks can be called, to reiterate Saunders, the "G" word. This paper aims to first distinguish between Genocide (with a capital G) and genocide ( with a lowercase g). Second, by not immersing in the commonly cited details of death, killers, rape, mutilation, starvation and revenge, I will remove the "G" word from its links to emotional, moral or ethical side-effects. My definition and thus, recognition of the term Genocide, with a capital G, rests on the unfeeling remoteness of the law. As such Genocide is a crime proven with the full intent and the formal institutionalisation of mass slaughters, whereas genocide, with a lowercase g, will be the term commonly attributed to those atrocities, where mass slaughter has again been accomplished, but that falls out of the former category and is usually supported by factors, such as feelings and ethics, that lie outside the law. As such genocide is a loosely defined common term used on a daily basis that simply implies mass murder has been committed by any one group or individual without interest to prove an intent to kill.

Unlike other massacres formally recognized as Genocides, the Turkish and Armenian tragedies involve no issues of colonialism. The Ottoman Empire, it could be argued, was never officially recognized as a colonizer. Oppression, as understood with its negative connotations, did not exist since many of the ethnic groups had voluntarily migrated to Turkey out of fear and oppression of other states. Such as the Jews who were expelled from England, France, Spain, and Portugal starting in 1390 and a "variety of heterodox Christians including Protestants, Unitarians, and Russian Molokans [who] received refuge in the Ottoman Empire (Poultan 1997:49)." There was no monopoly of a ruling ethnic group versus another. Turkey had always possessed a mixture of diverse ethnic groups despite its Muslim majority. No systematic dehumanizing of another group took place, if we are to assume the continuation of traditions of Ottoman Sultans like Suleiman and how he denounced in 1553 blood libels against Jews, created the Code of Raya's and supported Protestantism in Europe. Institutionalized discrimination was not an incidence nor were there overlords intent-fully administrating an "obvious hatred" between an entire people's versus another (Igwara 1995:15).

Turkey was experiencing an internal conflict, deemed also as such by its English, American and Israeli allies between radical group leaders, mostly of the Union and Development Party, where innocent people, both Christian and Muslim, became the target. As such the "bloodshed was rendered two-sided, inevitable, not-[G]enocidal, and possible intervention as bringing perverse consequences to the victims or jeopardizing their [Western nations'] moral or strategic interests (Powers 2002:XVIII)." Moreover, this was a time when the conception of genocide-pre-Raphael Lemkin and 1944, as a term or crime, did not yet exist. However, Turkey's crimes against humanity were yet to be tried.

The definition of Genocide according to the international laws of the 1948 Geneva Convention state... "[G]enocide means any of the following acts committed *with intent* to destroy, in whole or in part, a national, ethnical, racial or religious group, as such: (a) Killing members of the group; (b) Causing serious bodily or mental harm to members of the group; (c) Deliberately inflicting on the group conditions of life calculated to bring about its physical destruction in whole or in part; (d) Imposing measures intended to prevent births within the group; [and] (e) Forcibly transferring children of the group to another group (Article 2, italics added)." The intent requirement of the convention is also reaffirmed in Article 30 of the Rome Statute of the International Criminal Court adopted in 1998 (Lewy 2007:663). Walliman and Dobkowski, two Genocide scholars, argue the emphasis on intentionality is almost anachronistic and has "the tendency to gloss over structural violence which through various mechanisms can be equally as destructive of human life as many an intentional and planned program of annihilation (Lewy 2007: 664)."

To withhold the "G" word here is dependant on the presence of intention. The revolutionary Union and Development Party, also known as the Young Turks, following their own mandates, had taken over the state while the Ottoman Empire was in decline. This takeover resulted in the deaths of Armenians, Muslims and other ethnic groups. In Istanbul and Izmir, cities with the largest Armenian populations, inaction in the revolts saved these Armenians from coerced migrations. In other words, the Armenians of Western Anatolia were not involved with the guerrilla warfare of their ethnic counterparts. As such, if intention or "objective was to get rid of all Armenians" one could assume no Armenian would have been spared (Atmaca 2008:A3). Similarly, and puzzling, the small number of the non-Muslim population in Tukey today is related to the establishment of the Republic between 1926-1980 with the systematic discrimintion against non-Muslim groups. For example, today, to-be citizens of Turkey, such as newborn children born in or out of the country, are without question subjected to Muslim status (therefore automatically increasing the demographics of the "Muslim" population) when it comes to filling in the religion category on their Turkish birth certificate. Thus, the large scale violence was perceived as the Ottomans taking action against, defending themselves, from those who participated in guerrilla warfare. But, with specific intent, the US discriminated against the Japanese during WW2 and the Nazi's committed Genocide against the Jews, yet in both cases no guerilla warfare was initiated against the state. On these grounds evidence would be insufficient to prove Turkish intent.

It is also difficult to entirely commit to the "G" word in regards to the effects of the law. The criminal law in many developed nations have accepted, as of 1948, a retroactive law, or "*Ex post facto*", that is expressly forbidden by the United States Constitution in Article 1, Section 9, Clause 3. In Canada, ex post facto criminal laws are constitutionally prohibited by section 11(g) of the Charter of Rights and Freedoms: Any person charged with an offence has the right… (g) not to be found guilty on account of any act or omission unless, at the time of the act or omission, it constituted an offence under Canadian or international law or was criminal according to the general principles of law recognized by the community of nations; and (i) if found guilty of the offence and if the punishment for the offence has been varied between the time of commission and the time of sentencing, to the benefit of the lesser punishment. This prohibition only applicable in criminal law can be overridden by Parliament invoking article 33 (the notwithstanding clause) but this has never been attempted.

A crime deemed by the law as unpunishable cannot at a later time be convicted as a criminal offence. Or the events that took place in 1915 against the Armenians falls outside this criminating jurisdiction. This does not dismiss the reality of troubles between the Armenians and Turks that took place but it gives space for a legal argument rooted in criminal law. If these killings were not criminally convicted as Genocide, they cannot today be deemed an internationally illegal crime with the same name. When Raphael Lemkin, a budding lawyer, defined the term genocide, clearly with Armenians in mind, his definition was lacking on the notion of intent, though difficult to prove, is

nonetheless possible.

The Ottoman government that later replaced the Union Party had tried those who were involved with the killings and sentenced those guilty to death, an unheard of action by any state thus far. The government prosecuted first those of the Turkish military then civilians but not the Ministers who were directly influential. Tevfik Rustu Aras, Sukru Kaya, Ali Sabis, leaders in the former Union and Development Party or Ministers of the 1915 government and Topal Osman (known to "clean up dirty work") later served in the Ataturk administration. The English had also established a court on the island of Malta called Constantinople where they had arrested and tried Ottomans they believed had committed crimes against the Armenians. After two years of trials the English were unable to convict perpetrators and thus had to set them free.

Common with other violations against humanity the Armenian case, like others, stands disparate in its official demographics. The census office in question, that had generally been lead by an Armenian, in its "*Tahrir Defteris*" (tax register documents) around the middle of the 16th century recorded 40 percent of the population was non-Muslim (Ozbilgen 2007:414). The Ottoman State had taken up five statistical counts of the general population, counting done in the modern sense in terms of provisioning of municipal funds; in 1831, 1881/82, 1893, 1906/7 and 1914. According to the 1831 census the non-Muslim population was 29.67 percent in the Ottoman lands. In 1881/82 this rate was 26.61 percent. In 1906/7 it was 25.74 percent. Lastly, in 1914 it was 18.88 percent (Guler 1997:128). Population numbers of minorities were retreived from religious leaders such

as the Greek, Jewish and Armenian clerics who tended to exaggerate the number of followers in order to recieve increased benefits from the state. Making assessment of exact numbers difficult if not impossible. According to the 1914 general census the total population of Armenians living in Ottoman lands was around one million not one and a half million. The number of deaths claimed by the defenders of the violations is one and a half million. If this estimate is correct then what is to be said of the Latin American, Syrian, Lebanese, European and American Armenians today that immigrated from Turkey in the past?

"[P]ressing for an atonement and full apology to Armenians" may help them heal but will Turkey then use the "G" word, would this not be hypocritical if not against the law (Saunders 2013:F2)? What will the effects of either situation instigate? "You could make a strong case, but not a completely water-proof one: Crimes against humanity, even awful ones, are not all genocidal (Saunders 2013:F2)." In some countries "it may [be] better to avoid a generation-long fight over the "G" word, and instead to speak officially of "crimes against humanity that some consider genocidal....a compromise that is needed (Saunders 2013:F2)." Despite all the efforts made by the Canadian government towards past mistreatment of natives, one could ask: will Canada go to trial and be convicted of Genocide? Or can and should we call it genocide? Will labeling what Canada has done to its native citizens as such change the past? Or, if this is the intention, will any ethnic group that survived such human rights violations ever be able to forgive and forget with or without the "G" word?

The Convention on the Prevention and Punishment of the Crime of Genocide of 1948 was created for nations to be aware and uphold these articles so that future human rights violations are hindered. Yet, Genocides of great magnitude- the Holocaust, Rwanda, Cambodia, Sudan, China, and Srebrenica, have been committed. If intent and (il)legality, and not other claims are to be heard in order to call massacres Genocide then one must examine more closely "[G]enocide as a rational act" and "[G]enocidal nation-building" ("systematic planning and the approval of the state") with intent as a fundamental component (Igwara 1995:15). Thus, for some, "the disregard of intentionality will create an incomplete or distorted picture and lead to false conclusions" which to the "victims it makes no difference whether they died because of a deadly epidemic or as a result of a planned programme of destruction" but it "does make a difference for the assignment of responsibility and guilt and, more importantly, for historical truth (Lewy 2007: 671-672)."

This paper has attempted to not equate the actions of the Turks to perpetrators of the Holocaust, nor has it considered the centuries old hostility between Christian and Muslim or West versus East, the pre-Enlightenment notions of the hated and feared Turks, the pre-1915 massacres or the Armenian Revolutionary parties (the Hunchaks and the Dashnaks) deliberate actions of violence to arouse European intervention for the creation of an Armenian state. Nor has Arnold Toynbee's epic Blue Book, the Bryce Report pre-1915 Russian interests in Eastern Anatolia, WW1, present and past hostility between Armenians and Turks that mainly revolves around the events of 1915 and how Turkey lacks official recognition of such massacres as "G" been explored. Turkey's informal denial policy, the application of Article 301-on the protection of "Turkishness", "unnamed sources", mistaken geographies and death tolls

and even the views of Taner Akcam (the main proponent of the Armenian troubles as genocide) have become arrested as he admits that "[i]n any debate over whether or not the events on 1915 should be considered [G]enocide, the question requiring an answer is whether there was an intent to exterminate (McCarthy 2010:114)(Akcam 2007: 119).

The term Genocide (capital G), in my opinion has come to replace without serious thought the more banal term of genocide (small g). The term genocide is being improperly used to define an illicit crime with obvious and undeniable intent to wipe out a people. This term has and continued to be more commonly out of place in daily language, for example, to exclaim any and all sorts of large scale "human rights" violations. As such, the infringements of human rights are becoming increasingly paralysing for anthropologists to face. The dilemma: our "obligation to 'support human rights' unconditionally" as being "misguided moralism (Cowan 2006:7)." But "[e]verything depends on who uses them, how, for which purposes, for and against whom, in which contexts"…"rights are simultaneously enabling and constraining; moreover, their pursuit and implementation frequently entails unforeseen and unintended consequences (Cowan 2006:7)." Within the realm of Genocide this obligation becomes that much more sensitive and dangerous.

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# VOL.
# 3

# WHEN LINES BLUR: INCISED OSTRICH EGGSHELLS WITHIN THE HOWIESONS POORT LEVELS OF THE WESTERN CAPE OF SOUTH AFRICA

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The fragments of intentionally incised ostrich eggshells have been found within the southern African Middle Stone Age sites of Diepkloof Rock Shelter and Klipdrift Shelter in the Western Cape subregion. The discovery of these eggshells, which have been found specifically within the Howiesons Poort (HP) levels of these sites, has fueled a debate of their significance vis-a-vis the emergence of modern human behavior. Part of the fuel for the debate is the ethnographic data that surrounds the modern utilization of these objects. Specifically, the modern Kalahari hunter-gathers have been observed using incised ostrich eggshells as water containers (Texier et al. 2010: 6183; Kandel 2004: 386). The debate pertaining to the incised ostrich eggshells found within the Howiesons Poort levels is multilayered. Because the shells are incised with a "restricted set of geometric engraving patterns" (Texier et al. 2013: 3412), dominated by variations of cross hatching band motifs (Anderson 2012: 184), or "sub-parallel to converging lines" (Texier et al. 2013: 3412), questions have arisen about the decorations greater significance.

In order to preface this debate, one must first answer the implicit question of how secure the dating is for the sites mentioned above? The dating at Diepkloof Rock Shelter is very secure. The strata located immediately below and above the stratum containing the incised ostrich eggshell was dated using both Thermoluminescence and Optically Stimulated Luminescence dating methods. Both methods produced dates within the same range of 55 and 65 ka for the stratum (Texier et al. 2010: 6182). Moreover, the same confidence can be held about the dating of the Klipdrift Shelter, due to the dating method that used single grain Optically Stimulated Luminescence. Due to the accurate method, and concentration of the standardized estimate of the data (Figure 1), the eggshells from the HP levels of Klipdrift can confidently be estimated to be between 65.5 ± 4.8 ka and 59.4 ± 4.6 ka (Henshilwood et al. 2014: 284, 287, 290).

One debate surrounds whether the engraved ostrich eggshell found at the sites above indicate a continuity in the practice of decoration of material culture in the Western Cape as evidenced by a similar material culture from Blombos Cave. Within the Still Bay and pre-Still Bay levels at Blombos, engraved ochre pieces dating 75,000 years ago were found (Henshilwood et al. 2009: 35) with somewhat similar patterns to the incised shells from the Diepkloof Rock Shelter and Klipdrift Shelter (Henshilwood et al. 2009: 44) (Figure 2).

The first argument against the position that this material culture represents a continuity in earlier material culture is that the physical material that these engravings are on is different.
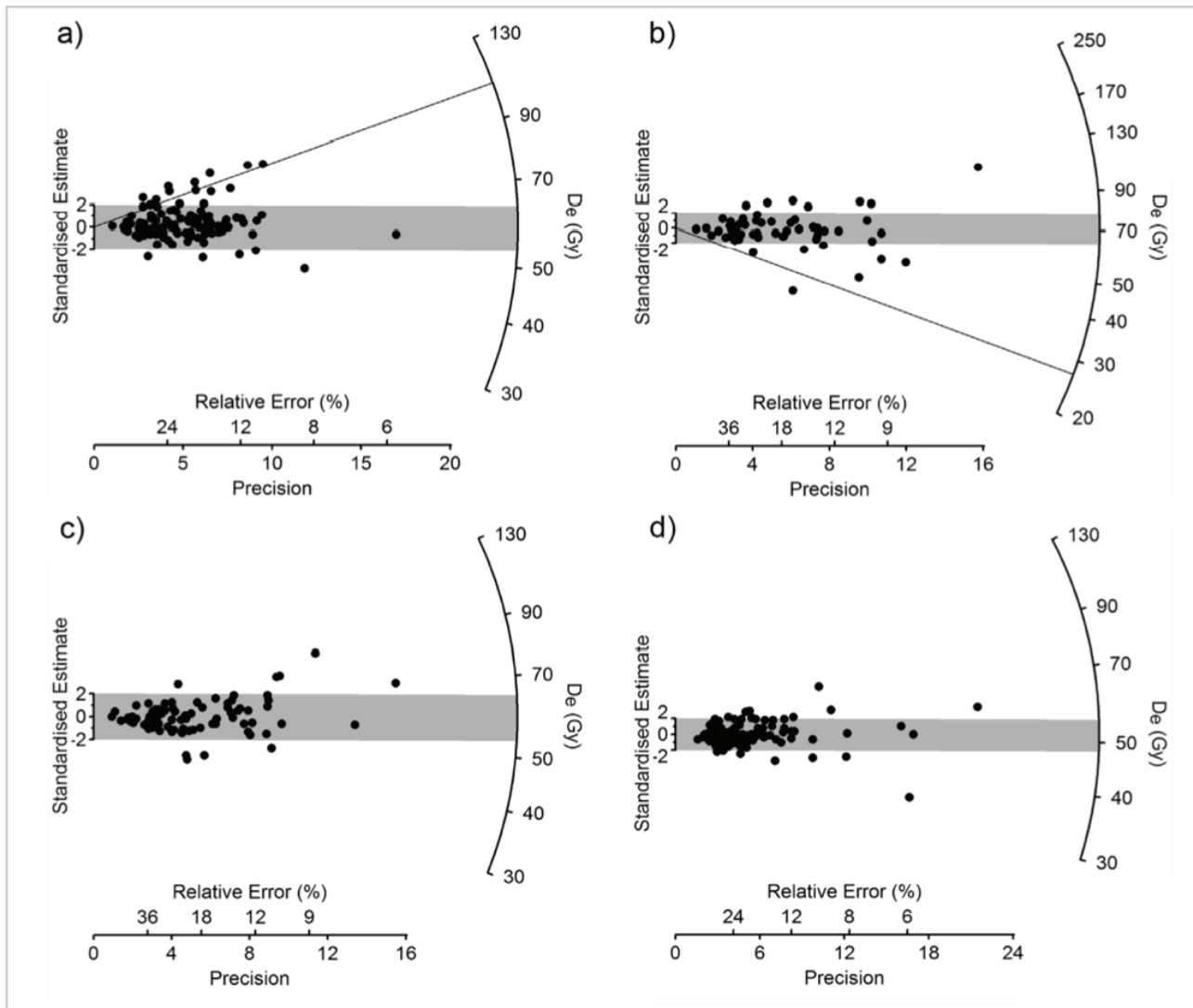
**Figure 1: Showing Concentration of Dates for single grain OSL dating methods of Klipdrift Complex (Henshilwood et al. 2014: 290).**

Because the fragments of incised ostrich eggshell have only been found at the upper level of HP of both the Diepkloof Rock Shelter and Klipdrift Shelter, and not later at Blombos Cave, it is likely that what is being seen is a cultural phenomenon, not a continuation of material culture. Moreover, when one compares the actual etchings on the incised ochre from Blombos to the later incised ostrich eggshell from the southern Cape HP levels, it is apparent that there is not the same consistency in markings between Blombos and the two sites (Henshilwood et al. 2009: 44; Texier et al. 2013: 2427; Henshilwood et al. 2014: 296). But there is a clear-shared esthetic between the patterns seen at the Diepkloof Rock Shelter and Klipdrift Shelter (Figure 3 and 4).
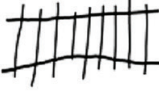
The next debate emerges over whether the HP incised ostrich eggshells are proof

of a complex system of visual and symbolic communication. There are two main stances on this debate. The first is that the expression of pattern, particularly crosshatch pattern (Figure 6) is a response to the grid-like patterns formed by natural weathering processes in the exterior cortex of a dolerite stone that are common within the sub-regions of all the sites (Anderson 2012: 197) (Figure 5).
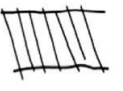
This is plausible but cannot be tested further, outside ethnographic contexts. The second is that the decorations on the shells represent a symbolically mediated behavior that stemmed from an increased cognitive development amongst Anatomically Modern Humans (Henshilwood et al. 2009: 28). In both cases, Henshilwood's argument, originally made pertaining to the incised ochre at Blombos, is still correct (2009: 41). The ability to create these designs, whether abstract, or inspired
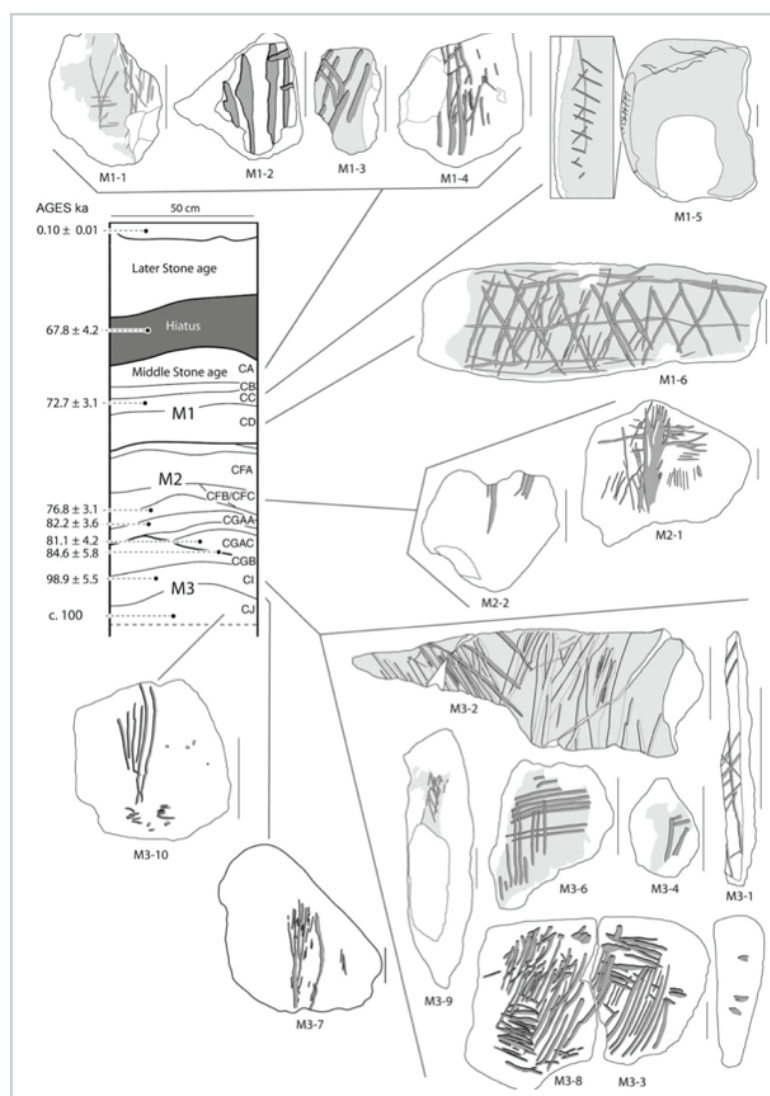


**Figure 2: Tracings of engraved ochres from the MSA layers of Blombos Cave and their stratigraphic provenance  (Henshilwood et al. 2009: 44)**

| Phases | Motifs | | | | | | | | Total (N = 249) |
|---|---|---|---|---|---|---|---|---|---|
| | Hatched band (orthogonal) | Hatched band (oblique) | Crosshatched grid motif | Sub-parallel intersecting lines | Curved and sub-parallel lines | Reversed curvature | Sub-parallel rectilinear or curved lines | Isolated or irregular striations | |
| Late HP *Eric* | 3.9% | 2.6% | 6.6% | 35.5% | 0% | 0% | 21.0% | 30.3% | 100% (N = 76) |
| Late HP *Frans* | 25.0% | 19.4% | 8.3% | 16.7% | 0% | 0% | 16.7% | 13.9% | 100% (N = 36) |
| Intermediate HP *Fiona* | 55.8% | 21.7% | 0.8% | 4.7% | 2.3% | 1.6% | 10.0% | 3.1% | 100% (N = 129) |
| Intermediate HP *Jeff* | 0% | 0.0% | 0% | 0% | 0% | 0% | 0% | 0% | 0 |
| MSA *Jack* | 0% | 0% | 0% | 50.0% | 0% | 0% | 25.0% | 25.0% | 100% (N = 4) |
| Early HP | 0% | 0% | 0% | 50.0% | 0% | 0% | 25.0% | 25.0% | 100% (N = 4) |

Distribution of the EOES motifs throughout the main technological phases (diachronic variability) recognized at Diepkloof rock shelter (squares M5–9, N6–9; n = 249).

| Phases | Motifs | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Hatched band (orthogonal) | Hatched band (oblique) | Crosshatched motif | Sub-parallel intersecting lines | Curved and sub-parallel lines | Reversed curvature | Sub-parallel rectilinear or curved lines | Isolated or irregular striations |
| Late HP *Eric* | 3.6%% | 5.4% | 55.6% | 62.8% | 0% | 0% | 43.2% | 67.6% |
| Late HP *Frans* | 10.7% | 18.9% | 33.3% | 13.9% | 0% | 0% | 16.2% | 14.7% |
| Intermediate HP *Fiona* | 85.7% | 75.7% | 11.1% | 13.9% | 100.0% | 100.0% | 35.1% | 11.8% |
| Intermediate HP *Jeff* | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| MSA *Jack* | 0% | 0% | 0% | 4.7% | 0% | 0% | 2.7% | 2.9% |
| Early HP | 0% | 0% | 0% | 4.7% | 0% | 0% | 2.7% | 2.9% |
| Total (N = 249) | 100% (N = 84) | 100% (N = 37) | 100% (N = 9) | 100% (N = 43) | 100% (N = 3) | 100% (N = 2) | 100% (N = 37) | 100% (N = 34) |

**Figure 3: Distribution of the incised motifs of the decorated eggshells at Diepkloof rock shelter ( (Texier et al. 2013: 2427)**



**Figure 4: Image showing the most common motifs found at Klipdrift Complex (Henshilwood et al. 2014: 296)**

**Figure 5: grid-like patterns formed by natural weathering processes in the exterior cortex of a dolerite stone that are common within the sub-regions of all the sites (Anderson 2012: 197)**
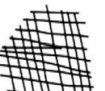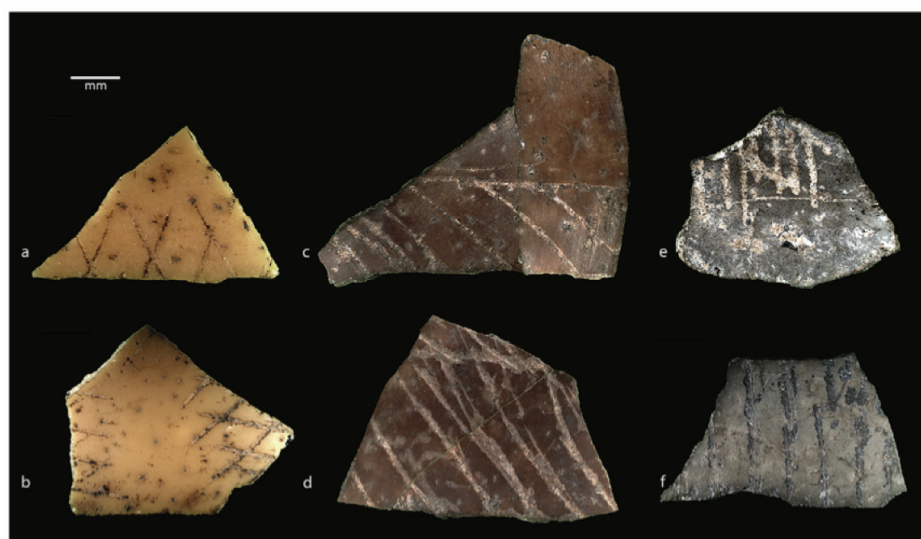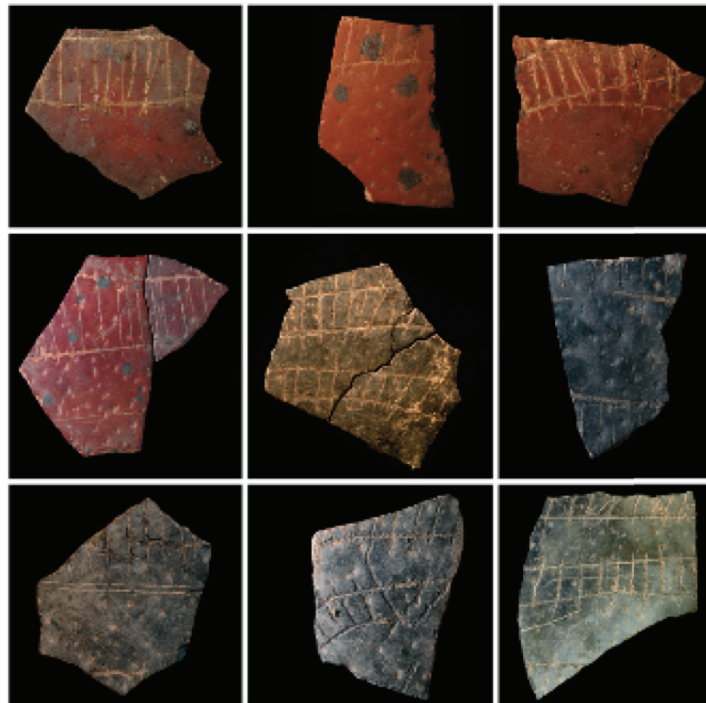


**Figure 6: Fragments of engraved ostrich eggshells from the Howiesons Poort of Diepkloof Rock Shelter, showing crosshatch pattern that resembles grid-like patterns formed by natural weathering processes in the exterior cortex of a dolerite stone (Anderson, 2012: 193)**

by environmental surroundings indicates a complex cognitive focus on producing a pattern (Henshilwood et al. 2009: 42).

The standardization of pattern brings about the debate over whether the repetition in a pattern in which identity and community are clearly communicated in a way akin to modern hunter and gatherer practice. It has been previously argued that Howiesons Poort tradition of engraving ostrich eggshell containers is indicative of a complex understanding and identification of community (Texier et al. 2010: 6180). This has the implication of suggesting that the action of engraving of ostrich egg shells proves that these hunter and gathers had a notion of social network amongst a limited spatial region. For this to be accurate though, there would need to be a clear distinction between the eggshells produced at Diepkloof Rock Shelter and the Klipdrift Complex. But if anything, the motifs are outstandingly alike with very little variation (Figure 4 and Figure 6). The presence of surface color and alteration through heating processes or ochre coloring have been argued as evidence that the incised eggshells served as a form of symbolic communication (Anderson 2012: 193). But, scanning electron microscopy chemical analysis, coupled with X-ray diffractometry (XRD), has shown clear evidence that the coloring substantially postdates the actual creation of the markings (Texier et al. 2013: 3418), and thus scholars are wrong to assume these alterations in color as evidence for symbolic communication.

It is a more productive debate to address the question, to what extent do the incised ostrich eggshells provide made with HP technology, provide evidence that anatomically modern humans were widely dispersed in Southern Africa between 66-59kya? One must first note that although the Klipdrift Complex and the Dieplkloof Rock Shelter are both in the same sub-region, they are more than 400km away from each other (Henshilwood 2014: 285). Moreover, extending out of the sub-region of the Western Cape, engraved ostrich eggshells have been excavated from the HP layers of the Namibian site, Apollo 11 (Vogelsang et al. 2010). These are dated to $63.2 \pm 1.9$ ka (Jacobs et al. 2008: 732). The difference between the ostrich egg shells found at the Western Cape sites and Apollo 11 is that the Namibian pieces are dominated by the sub-parallel intersecting line motif, which is most akin to the pattern that dominated during the Late HP at Diepkloof (Texier 2013: 3429). That said, the recent dating completed at the Apollo 11 Rockshelter in Nambia was done using single grain OSL (Vogelsang et al. 2010: 207), and the estimates obtained from individual grains of quartz from each of the Apollo 11 samples were highly concentrated and definitively within the HP levels (Figure 7) (Vogelsang et al. 2010: 207).

On the same note, it is undeniable that there is compelling evidence for a cultural tradition of engraving and for symbolic communication through a restricted set of motifs, but what is too frequently ignored is that the frequency with which certain motifs are employed changes. For instance, at Diepkloof Rock Shelter, there is disappearance of the hatched band motif from the latest HP sequence but the continuation of the sub-parallel lines motif (Texier et al. 2009: 6184), while at Klipdrift Shelter, the sub-parallel lines motif is not found (Henshilwood et al. 2014: 295). What is likely, then, is that these decorated shells may be indicative of the expression of an
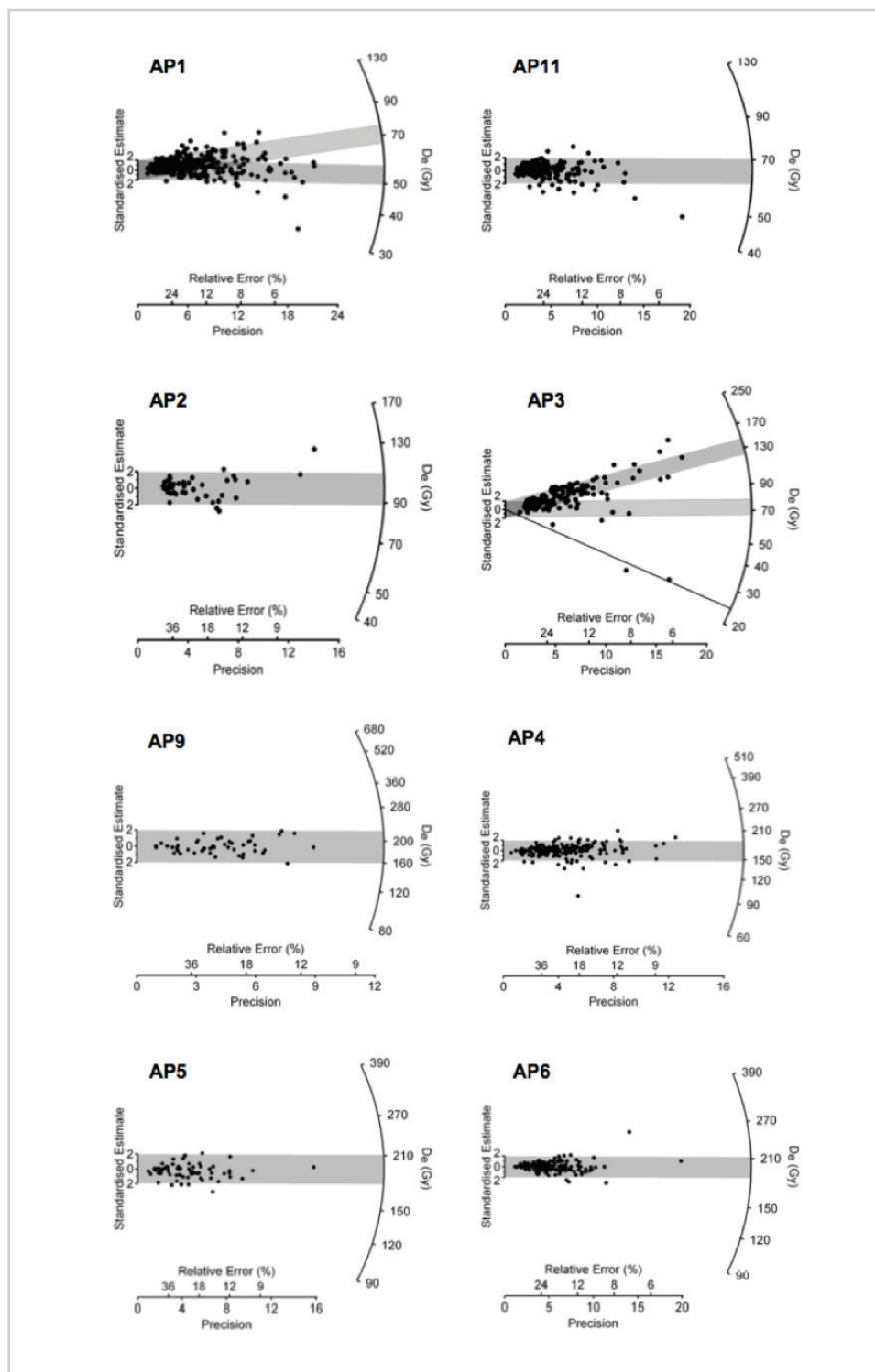
**Figure 7: estimates obtained from individual grains of quartz from each of the Apollo 11 samples (Vogelsang et al. 2010: 207).**

intra-group phenomenon (Texier et al. 2013: 3430) and, therefore, likely point to a cultural consitency between Apollo 11 and the Western Cape sites motifs, which is spatially dependent.

What is crucial to this debate is that the engravings disappear from both Western Cape sites at the same time as the Howiesons Poort technology (Texier et al. 2013: 3412, 3413). Thus, if these incised ostrich eggshells do, in fact, represent a definitive ability to create, manipulate and communicate with symbols, it would mean that both the southern African Middle Stone Age sites of Diepkloof Rock Shelter and Klipdrift Complex demonstrate a clear movement toward modern behavior. But, if the engravings are disappearing, it would suggest that there might not be a cognitive switch that acted as a catalyst for this emergence of the material culture, but instead was fuelled by a technological shift. Thus, begging the question, what technological shift is contemporaneous with this shift in material culture? In this case, one would look to the micro bladelettes that emerged as part of the lithic industry at Klipdrift Shelter (Henshilwood 2014: 292) (Figure 8).

Moreover, a very similar HP micro bladelettes industry has been excavated at Apollo 11 (Vogelsang et al. 2010: 196) (Figure 9), furthering this idea that this was the technological shift that could have facilitated the decoration of the ostrich shell.

Instead of siding with Anderson that there was a change in neuron connections (Anderson 2012: 197-198), could it be that the smaller tools enabled the HP hunter and gatherers to incise the eggshells more easily? This would reconcile why there are still ostrich eggs in the layers proceeding the HP levels in the Western Cape sites, but they are not incised (Texier et al. 2013: 3430).

To conclude this discussion, one can only speculate about the correlation between engraved ostrich eggshells and HP lithics. From the evidence available, it seems more likely that this technological and social development is more likely to be a cultural phenomenon than a direct expression of cognitive capacity. It is premature to definitively conclude what these symbolic patters indicate, but they are most definitely representative of abstract thought, and pluralism in AMH's memory. What makes the case study of EOS so fascinating is that the lines depicted blur our own conceptions vis-à-vis the nature of cognitive capacity and cultural phenomenon.

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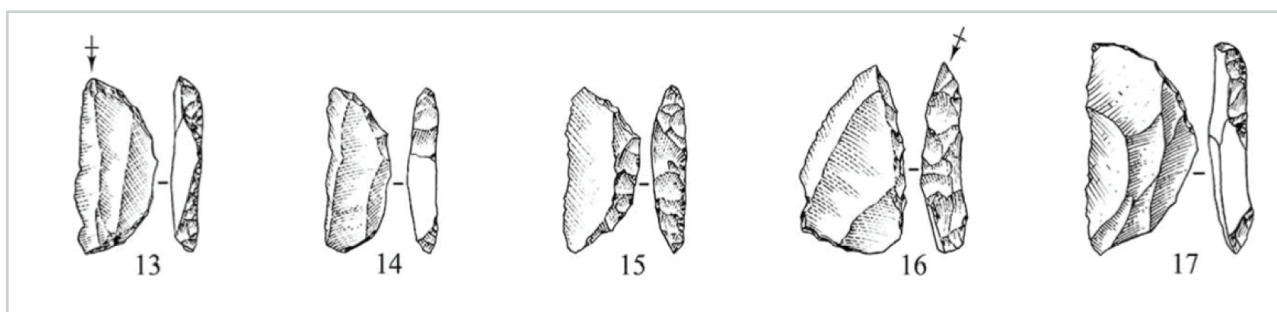
**Figure 8: Micro bladelettes from the HP levels of the Klipdrift Shelter (Henshilwood et al. 2014: 292)**
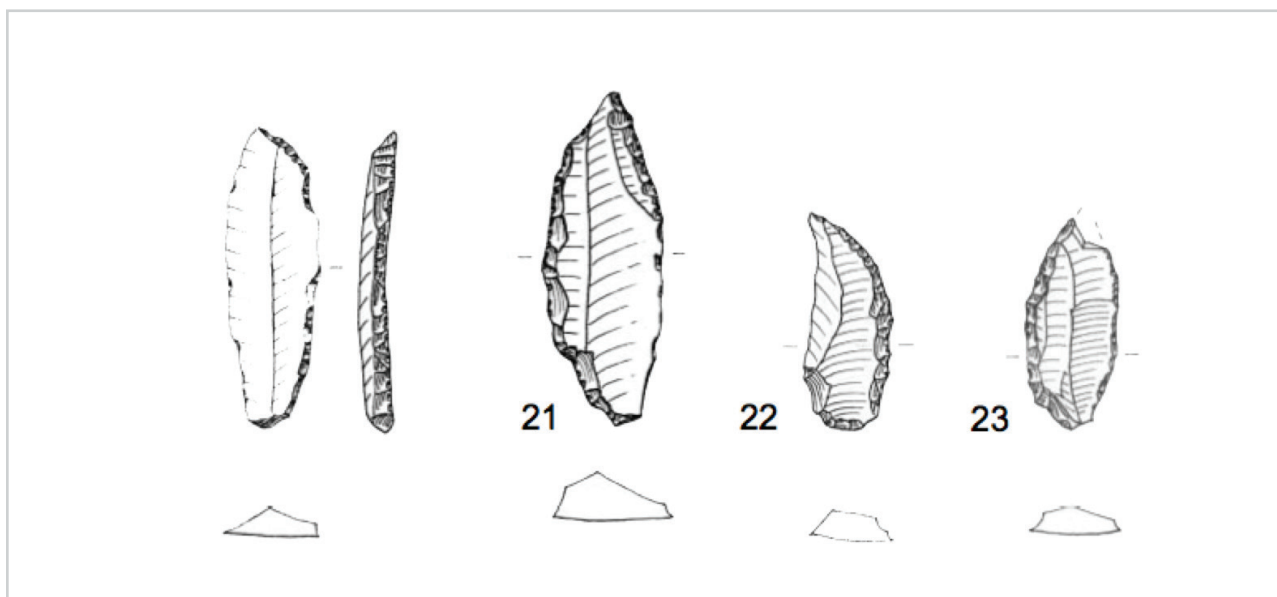


**Figure 9: Micro bladelette industry has been excavated at Apollo 11 (Vogelsang et al. 2010: 196)**

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# ENBRIDGE'S NORTHERN GATEWAY PIPELINE

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## ABSTRACT

In 2004, Enbridge proposed the Northern Gateway project (ENGP) that involves building two pipelines, one for bitumen and the other for condensate, to travel from Bruderheim, Alberta to the northwest port of Kitimat, British Columbia. Transporting Albertan oil to markets in East Asia has been justified as a pursuit of national interest in diversifying export markets for Tar Sands oil (Veltmeyer 2014:15, Bowles and Veltmeyer 2014:9). This project has evoked concern among First Nations groups from both Alberta and B.C., as the project is planned to be built on unceded Indigenous land without Indigenous consent. In response to the rights of First Nations being overlooked, a coalition of 160 First Nations have said 'no' to the project including 31 municipal governments, two regional districts, the Union of B.C. Municipalities and six unions have passed resolutions against the project (Bowles and Veltmeyer 2014:9). In response to the opposition regarding the project, ENGP has teamed up with the RCMP and surveillance teams, to protect the corporation's project proposal and monitor First Nations resistance, and mobilization against the pipeline (Preston 2013:43,53 ).

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## CONTESTING WORLDVIEWS

Enbridge's Northern Gateway pipeline project is an example of the contestation of two opposing worldviews, which David Suzuki explains as a battle between two mindsets: the Indigenous mindset versus the dominant worldview. The mindset of the people who have lived in a place for thousands of years and understand what it means to have respect for the land that allows them their livelihoods is challenged by the dominant mindset that does not see the land as a sacred territory but as opportunity and resource potential for extraction and profit. Ultimately, Enbridge's Northern Gateway Project ENGP will be examined as an intruding corporation that disrespects First Nation's concerns and rights to unceded land through ongoing colonialist functions enacted by the state and Canada's security forces.

This paper will focus primarily on movements created by the Carrier Sekani Tribal Council (CSTC) and the Yinka Dene Alliance (YDA). This paper will begin by briefly exploring the proposed pipeline project, its extraction methods, environmental and health impacts, and "benefits" involved for First Nations as pipeline stakeholders. It will examine how the state enacts the project through an established anti-terrorism unit and its contemporary enactment of colonial

power over First Nations by ignoring their concerns and failing to consult all the involved Aboriginal groups represented under CSTC and YDA. Lastly, Indigenous mobilization and resistance will be examined through various rallies, movements, and voices of contestation.

## ENBRIDGE PROPOSAL

To date, the ENGP has been approved, but is delayed due to pending conditions, to construct its pipeline from the Alberta tar sands to the port of Kitimat, B.C. The ENGP plan includes the construction of two 1172km pipelines: the first would deliver approximately 525,000 barrels of diluted bitumen per day to the port of Kitimat, which would then be exported to Asia-Pacific markets by supertankers (Veltmeyer 2014:10). The second pipeline would import an average of 193,000 barrels each day, of imported condensate to thin oil-like bitumen (Veltmeyer 2014:10, Preston 2013:45, McKenzie 2010:65). Preston (2013:43) maintains the project is intended to diversify the market for 'Canada's Oil,' 99 per cent of which is currently exported to the US.

## EXTRACTION METHODS, ENVIRONMENTAL ISSUES, AND HEALTH IMPACTS

There are two methods used for oil extraction, both of which are environmentally degrading. Open surface strip mining of sand-derived oil requires clear cutting vast areas of forest, while in situ (fracking) techniques require the injection of steam, solvents, and/or hot air into the sands to melt the bitumen out of the soil to flow into the wells (Preston 2013:43,45). These methods require three barrels of water per one barrel of oil

that then produce 'tailing-ponds' where over 480 million gallons of contaminated toxic wastewater are dumped each day (45). Consequently, much of the clean water that is accessed by Indigenous communities is being used in extraction processes and thus polluted. However, it does not stop at pollution; since 2011, Alberta has had a history of oil spills ranging from small to large, thereafter, neighboring populations were getting exposed to dangerous toxins. These toxins, among others, include carcinogens, gene mutagens, and endocrine disruptors, all of which have been poorly negated by governments who have even belittled scientific research (54).

Moreover, recent research has shown that a family of cancer-causing compounds -polycyclic aromatic hydrocarbons, or PAHs - have been found at dangerously high levels in waterways near sites of oil and gas excavation and production (Preston 2013:54). Some oil sands areas emit these compounds while some PAHs and other chemicals may be leaking into downstream bodies of water (54). Another environmental risk that Karyn Sharp, who works for the CSTC in Prince George, B.C. touches on, is the risk to the Skeena and CSTC area, which has some of the last wild salmon coming up the Fraser which could be greatly impacted if anything were to happen (Bowles and Veltmeyer 2014:18).

## #IDLENOMORE MOVEMENT IN RESPONSE

In response to these detrimental consequences of oil mining, in December 2012 four women from Saskatchewan (Jessica Gordon, Sheelah McLean, Sylvia McAdams, and Nina Wilsonfeld) coined the term #IdleNoMore

(INM), which also became an online movement, to resist Bill C-45. The implementation of Bill C-45 reduced environmental protection measures and made over 60 amendments to the Indian Act legislation (Preston 2013:54). INM seeks to repeal these revisions made to Bill C-45 that do not honor adequate protection of the land and waters. Attawapiskat First Nation Chief Teresa Spence and others took up the #IdleNoMore movement and demanded a meeting between Indigenous leaders, the Governor General and the Prime Minister, which was never granted (54). The INM movement largely seeks to, "assert Indigenous inherent rights to sovereignty and reinstitute traditional laws and Nation to Nation Treaties by protecting the lands and water from corporate destruction" (IdleNoMore 2014 ). In addition, INM seeks to deepen democracy in Canada through, "proportional representation and consultation on all legislation concerning collective rights and environmental protection. Legislations include addressing these concerns and restricts corporate interests," and recognize and affirm Aboriginal Title and Rights as is established in section 35 of Canada's constitution (IdleNoMore 2014). Essentially, INM is a response to Indigenous rights not being honoured and the land not being protected by legislation, especially when economic prosperity from commodification is favoured over human rights. Bowles and Veltmeyer argue that the Enbridge pipeline will never be built because the people of northern British Columbia and their supporters elsewhere will not let it happen (2014:7). Through resistance, mobilization and protesting, Indigenous peoples show their power to reshape and challenge their participation in political decisions.

## PROPOSED PROJECT BENEFITS FOR FIRST NATIONS

The Enbridge Corporation is attempting to gain approval from First Nations groups, in my paper particularly from the CSTC and YDA, to build the Northern Gateway pipeline by offering them stakeholdership in the project. The First Nations and Métis communities have been offered a 10 per cent ownership in the project as equity partners with the Enbridge Corporation. A further estimated $300 million in employment and contract opportunities would be available, adding up to $1 billion in the total long-term benefits that Aboriginal communities would have access to (Gateway facts 2014). First Nations communities are not entirely against development. Many have been supportive of extracting projects like forestry and mining on their own territories. They sign an Impact Benefit Agreement for such extraction projects to take place and they further create their own corporations to be directly involved and participate in the processes that articulate with capitalist practices (Veltmeyer 2014:14). However, they do have a strong voice against a project that can affect their livelihoods and heritage built over thousands of years, especially when the project would not involve them or their terms and conditions. Karyn Sharp (Bowles and Veltmeyer 2014:15) puts it this way: "it is a matter of when the pipeline breaks, not if." An oil spill will pollute watersheds, contaminate the land, and ultimately force communities off their territories. An economic incentive and shareholder title will never be enough to protect Indigenous peoples' unceded lands. The battle of the worldviews continues to ensue between capitalist processes of economic growth versus ecological responsibility

and protection of land rights.

## CARRIER SEKANI RELATIONSHIP TO THE LAND

Indigenous peoples understand and relate to their land in various ways that contrast capitalist resource exploitation and extraction methods. The CTSC (some of which include the Nadleh Whute'en, Nak'azdli Band, Stellat'en First Nation, and Wet'suwet'en First Nation) study defines Carrier Sekani origins, "in terms of the mythological values imbued in the natural surroundings" and explains that, "ancient traditions of the Carrier Sekani link the people with the land through kinship, both with one another and with the animals that inhabit the land" (McCreary 2014:119). Thus various Aboriginal communities contest the pipeline across Alberta and British Columbia because they do not view their land as a commodity and instead are in liaison with nature. Their interaction with nature would be affected by pipeline 'corridors', which would divide traditional hunting and fishing territories and consequently threaten wildlife movement and migration (Veltmeyer 2014:15). This poses a direct threat to Indigenous ways of life for thousands of years. Karyn Sharp explains that northern communities, whose diets still heavily depend on the salmon runs, the coastal waterways, and traditional foods, are at great risk if this pipeline is approved and built (Bowles and Veltmeyer 2014:16). Jasmine Thomas explains that our role is to be, "stewards of the water, doing what we can to make sure that the veins…of our Mother Earth are healthy, so that we can continue to be healthy…and continue to like how we have always lived" (2014:13-14).

## RESISTING COMMODIFICATION OF LAND AND CAPITALISM

The Carrier Sekani report on the Enbridge pipeline explains that they have a landscape to which, "Dakelh people hold both rights and responsibilities to ensure territorial integrity and ongoing stewardship and use" (McCreary 2014:119). First Nations traditionally manage their ecosystems sustainably, they never deplete what cannot be renewed and maintain a protective relationship over their lands, which is very different from the goals of Enbridge. Thus far, Aboriginal communities have resisted both the commodification of nature and the processes of proletarianization (Veltmeyer 2014:14-15). As a result, the access that the First Nations have to land, hunting and fishing, is their basis for subsistence, survival, and meeting material needs outside a capitalist market. When the cultural practice of potlatch, which was based on the redistribution of surplus, was banned and made illegal by the colonizing Canadian state in 1951, it was because the cultural practice was not commoditized and thus, not valued nor appreciated. (McCreary 2014:123, Veltmeyer 2014:14-15). Although potlatch has been permitted again under new recognition of First Nations' culture , this example serves to show the extreme value placed on the commodification of all practices and dependence on market exchange. First Nations resistance movements are created to resist capital and market demands above the needs and interests of people.

When Enbridge hired Aboriginal people to conduct a study of Aboriginal Traditional Knowledge (ATK) in the early 2000s, that research

was merely used to complete the project proposal guidelines that were submitted to the Joint Review Panel (JRP) and National Energy Board (NEB), and to identify "baseline conditions, potential impacts, and mitigation strategies" (McCreary 2014:121). The ATK, which is broadly defined as a "body of knowledge built up by a group of people through generations of living in close contact with nature" was not used as a document for the corporation to understand that Aboriginal land is not a commodity, and thus would not be ceded for constructing the Northern Gateway pipeline (116).

## GREENWASHING CAMPAIGNS TO ACCESS ABORIGINAL LANDS

Ignoring ATK, Indigenous peoples concerns, and failing to acknowledge their worldview and relation to their land underlies a bigger concern regarding ongoing state and private sector colonial efforts to gain access to unceded Aboriginal land. Contemporary colonial efforts to take over unceded land are masked by offering Aboriginals the apparent benefits of stakeholders in the pipeline production, luring them to the economic benefits that would come from the new pipeline. Preston identifies these equity partnerships with First Nations as 'greenwashing' campaigns that promote ATK and social responsibility, which are not acknowledged or used to amend the project proposal. However, at the same time, the Enbridge Corporation is combining forces with the military and a surveillance unit to criminalize any forms of resistance to the development of the pipeline (Preston 2013:53). Such tensions between the state and original inhabitants of the land ensue as a result of disavowed promises to engage Indigenous groups

that would be affected by the pipeline construction, and disrespecting First Nations' relation and claim to the land.

The two opposing motivations of the state and Indigenous peoples is reiterated, where economic prosperity and international trade is placed above and before human rights and ecological wellbeing. Not only is the Enbridge corporation adopting a strategy of primitive accumulation to take over unceded land, which is protected under Treaty 8 and international law, it is also working with the state to accumulate such wealth by seeking to displace the original inhabitants to secure more control over land (Preston 2013:47). In the case of an oil spill, displacement would be immediate. State encroachment on unceded land places both the state and corporation in control of the land where the pipeline travels through, and acts as an implicit precursor for the state to reclaim rights over Aboriginal land. The battle of the two worldviews shows how colonialism is an ongoing form of power that Indigenous peoples continue to resist. David Suzuki explains that , "if the land and world around us is looked at only in terms of dollars and cents, then we will destroy the very things that make the land so precious, and the very things that keep people alive and healthy" (CTV 2014).

## IGNORING INDIGENOUS CONCERNS

In the early stages of formulating the Northern Gateway pipeline proposal, various forms of discrimination against Indigenous concerns were apparent. The Carrier Sekani communities have voiced their opposition to the Northern Gateway pipeline since the start of Enbridge's initial project proposal (CSTC website). Under the National

Energy Board (NEB), a Filing Manual requires that project planners incorporate traditional land and resource use in their development application. The Canadian Environmental Assessment Agency (CEAA) provides specific guidance on how to include Aboriginal Traditional Knowledge (ATK), which defines Indigenous knowledge of their surroundings and nature (McCreary 2014:116). Despite incorporating ATK as part of the application process, the problem is that the Carrier Sekani's claim to regulatory authority and demands for a role in the project decision-making process, are not recognized (McCreary 2014:117). While Enbridge has submitted the required research on ATK and the projects potential cultural, social, and economic effects (McKenzie 2010:66), they fail to engage and allow Indigenous groups to participate in the ongoing decision process, framing the 'engagement of Indigenous' by simply documenting ATK.

Karyn Sharp explains that the standard decision model around a project involves how to get from point A to point B in the most economical way, and subsequently consulting First Nations to see what the impacts could possibly entail (Bowles and Veltmeyer 2014:20). Whereas what Indigenous communities hope for is to be engaged right from the beginning when a corporation says where they would like to implement something new. Sharp argues that they are always brought in after the initiation process, which often leads to tensions as one worldview is imposed on the other (Bowles and Veltmeyer 2014:20). But because consultation is only a mandate, it happens as something part of a project timeline; otherwise, First Nations groups would not be consulted at all. In addition, the communities are forced to provide their feedback on the implications a project would have by a certain date. Consequently, when such short notice is given, they oppose the project; but the proposal still goes through at the government level on the basis that it has attempted to consult affected groups and the opposing party has little say. An approval or opposition to the project does not change anything, and thus Aboriginals struggle to validate their voices. These various examples of excluding Indigenous communities show how they are continuously exposed to the oppressive capitalist functions of society.

In 2005, the CSTC was approached and funded by Enbridge to conduct a study of the impacts of the Northern Gateway. Tribal Chief Harry Pierre requested that the review process consult all of the CSTC, but upon the NEB initiative to create a Joint Review Panel (JRP) without addressing his request to allow for full CSTC involvement, Pierre filed a complaint that the Crown had failed to consult the Council (McCreary 2014:118). The Enbridge Corporation aborted the case, and thus delayed the project. Enbridge set off on wrong terms with the CSTC and failed to form a trustworthy relationship for the future. Thus, in 2008 when the JRP recommenced, the CSTC did not agree to sign a communication protocol agreement with the company (McCreary 2014:118). While two CSTC communities did sign to join the regulatory process with Enbridge, another five communities created the YDA (including six First Nations: Nadleh Whut'en, Nak'azdli, Takla Lake, Saik'uz, Wet'suwet'en, and Tl'azte'en First Nations in northern B.C.) to engage on a broader scale with other First Nations, environmentalists, and the wider public to create what Chief Jackie Thomas calls, 'the wall that Enbridge cannot

break through" (McCreary 2014:118, YDA website). However, when Indigenous peoples refuse to be stakeholders in the project and oppose the development, ENGP and the state enact further white settler colonial rule over the resistance group by devising an anti-terrorism unit to protect the project and monitor Indigenous peoples' resistance.

## ANTI-TERRORISM UNIT DEVISED TO MONITOR FIRST NATION RESISTANCE

In response to Indigenous opposition of the Northern Gateway project, the Canadian government established a new Royal Canadian Mounted Police (RCMP)-led anti-terrorism unit in June 2012 known as the K Division Integrated National Security Enforcement Team (INSET) (Preston 2013:43). The K Division is meant to protect and prevent attacks on the energy industry from 'extremists', as the Assistant Commissioner Gilles Michaud of National Security Criminal Investigations puts it (43). The 'extremists' label is directed at Indigenous movements and protests against the pipeline and the K Division enables the government to reinforce policing, control, and settler colonialist values on the threatened indigenous communities. Treaty 8, signed in 1899, was meant to protect Indigenous ways of life from white settlers (47), but today it proves to be full of empty promises that fail to protect Indigenous land rights from the state and Enbridge Corporation. As treaties are ignored and bills are proposed without Indigenous consultation, Tom Flanagan maintains his view of Indigenous peoples as 'savage warriors' who pose a threat to development, and whose resistance should be closely monitored (51). While effort is being made at creating an equitable partnership between

Enbridge and Aboriginals to gain approval for the pipeline project, there is also a mission to condemn the communities for potential radical resistance and overruling treaty laws. However, First Nations are not treated as equitable partners, rather they are treated as imposing peoples on economic and oil development, whose concerns can be overridden by the federal government.

Ongoing white settler colonialism instilled in policy and decisions continues to risk the autonomy and rights Indigenous communities in Canada struggle to maintain in a capitalist society. Bills passed may protect the Indigenous, but in the end the Harper government and the National Energy Board (NEB) will be the main team to approve the pipeline construction regardless of contestation, and thus reasserting colonial power over Canada's Indigenous. Tom Flanagan most clearly defines colonial power by suggesting that the "'disused 'declaratory power' in the British North America (BNA) Act could be used to permit the federal government to simply override B.C. objections by declaring Northern Gateway a work in the national interest'" (Whitaker 2013:9). Resorting to the declaratory power of the BNA Act and asserting supreme white colonial power over pipeline-opposing Indigenous groups could sever any future communication and potential working partnerships with First Nation groups. It would serve to ignore historical functions of colonialism and tragedy of the Indigenous Residential School (IRS), and instill a severe present day colonial attack on First Nations. Flanagan's radical statement and colonial connotations attached to it is still embedded in Canadian policies, private corporate powers, and proposed projects, including the Northern Gateway. However, the First Nations of Alberta and B.C. have

not been without voice or resistance. The CSTC continues to broaden their scope of international awareness, working with the U.N. and using the U.N. Declaration of the Rights of Indigenous Peoples Policy (Bowles and Veltmeyer 2014:18). Along these lines, the last section of this paper will discuss the various ways in which Aboriginal communities have come together, mobilized and unified to contest the Northern Gateway pipeline.

## FIRST NATIONS MOBILIZATION AND RESISTANCE

Due to many of these injustices enacted by the state, NEB, and JRP many of the Aboriginal communities have mobilized and resisted against giving up their land and risking their environment to potential damage and contamination for the pipeline construction. On 8 September 2010, a protest of 500+ people led by the Carrier Sekani, marched through downtown Prince George, B.C., to protest the building of the pipeline. Furthermore, the Save the Fraser Declaration has been issued by the YDA in response to protecting their land as well as their land rights that are at risk (McCreary 2014:118). Chief Jackie Thomas says that they will not allow any tar sands projects to cross their lands, territories and watersheds, or the ocean migration routes of Fraser River salmon (118). Consequently, Chief Jackie's declaration received 130 signatories in addition to 61 First Nations who have co-signed the document. While the JRP and NEB have shown a lack of First Nations participation in the proposed pipeline, the YDA has been able to mobilize, resist, and delay the Northern Gateway construction. The Alliance is ready to defend their decision against the pipeline by all means necessary (118). Indigenous

communities are committed to continue creating strong mobilization movements to protect their rights to their land.

First Nations reaching out globally and reterritorializing geographies

Other forms of mobilization and resistance have also brought attention on the First Nations opposition to the pipeline. In May 2011, the YDA dressed in their traditional regalia that signifies their connections to their territories and traveled to Enbridge's annual general meeting in Calgary (McCreary 2014:119). Representing themselves in their traditional clothing was a strategic expression of identity, which also came to represent their responsibilities to their lands, and issued competing power claims to the state. Later in 2012, the YDA initiated a new campaign that reached out to international partners to bring awareness to the Yinka Dene's concerns. The YDA reached out to Chinese media, bringing their stories to them of the Northern Gateway's intended markets (119). Such global movements used to spread awareness lends to the reterritorialization of geographies of resource development and environmental governance. Moreover, spreading awareness through travel is representative of the meaning of Dakelh: "people who travel upon the water" (McCreary 2014:119). Dakelh peoples' identity is constantly in motion across territories to create more awareness; their movement across territory is central to being Dakelh (119). Such travels have the power to reshape and transform ongoing colonial values and the destruction of capitalism on indigenous communities. Thus, enacting Dakelh (or Carrier) law is a vehicle for change.

Jasmine Thomas, a young Dene woman

living in Saik'uz says that they will oppose the project using any means necessary and not only through Canadian law, but through their Indigenous laws too, and have made connections with other communities to ban the Enbridge pipeline project (Bowles and Veltmeyer 2014:27). The Indigenous law is based on ethics to the earth, which often clash with capitalist tendencies such as "resource commodification and primitive accumulation" (Veltmeyer 2014:14). To protect the interests of Alberta and B.C.s Aboriginals, the Yinka Dene has allied with the BC Teachers' Federation, the BC Wilderness Tourism Association, and the David Suzuki Foundation (Veltmeyer 2014:13). Thomas says the YDA has also met with the U.N. Special Rapporteur on the Rights of Indigenous Peoples, James Anaya, as well as the European Union (Bowles and Veltmeyer 2014:29). These groups have teamed up with doctors and legal professionals who have helped to release information of escalating cancers and other negative impacts this project will have on communities. Through these examples, Indigeneity should not be understood as traditional and timeless as it is often conceived, but rather recognizing that Indigeneity means acknowledging the global capacities of Indigenous territorial movements and resistance within a continually developing world.

## CONCLUSION

As of 4 September 2014, the president of the Northern Gateway pipeline, John Carruthers, has stated that the project is unlikely to begin in 2018. He has expressed that a process of re-engagement with First Nations will take time and that he is more focused on gaining the support he needs from all the people of Canada, including First Nations communities, to be able to go ahead with the project (CBC 2014). While Northern Gateway

has been in the works for six years, with a regulatory approval in June, the company says it is not in a rush to begin work (CBC 2014). It is important that the re-engagement with First Nations is on the basis of mutual agreement and consultation.

The physical land contestation is ultimately a contestation of worldviews. The ENGP is a direct example of present day colonial efforts to use land that is unceded for an economically focused project. Producing an internationally important resource, versus protecting Aboriginal peoples livelihoods , is the dominant mindset of improvement and progress entrenched in capitalism. The IdleNoMore community explains, "Each day that Indigenous rights are not being honored, inequality between Indigenous peoples and the settler society grows" (IdleNoMore website). This growing gap between the two contesting worldviews has been echoed throughout this paper, which shows how international law and protected Aboriginal land rights are being ignored.

David Suzuki maintains that Aboriginal land is not only unceded land, but society has much to learn from the original people who have cared for this land for thousands of years (CTV 2014). As Veltmeyer concisely explains, Canada has taken the form of extractive imperialism to support international interests of mining companies, while domestically, such ties lead to internal colonialism as rights of First Nations are overlooked to pursue national interests (2014:15). Indigenous peoples' response has been strong in defending their worldview, resisting capitalism, and reminding people that the Earth needs responsible and sustainable development. The three important objectives First Nations are ultimately aiming for, as Karyn Sharp notes are: respect, minimal

environmental damage, and meaningful consultation between all parties (Bowles and Veltmeyer 2014:19). This paper has proven how Enbridge lacked in all three of those areas, consequently, communities represented under the CSTC and YDA have opposed the Northern Gateway project and are resisting capitalist and colonial encroachment on unceded land enacted by the state and Enbridge Corporation. The Indigenous communities of Alberta British Columbia are #IdleNoMore and will continue to strongly fight to have their voices and concerns heard, and will protect their for their rights to their land.

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# #SHIRTGATE: A RETROSPECTIVE ANALYSIS ONLINE APPLICATIONS OF ACTOR-NETWORK THEORY

*Henry Lee Heinonen*

*The shirt I wore this week… I made a big mistake, and I've offended many people. And I'm very sorry about this.*

*- Matt Taylor, 2014*

The year is 2014 and you are browsing Twitter, looking at trending tweets. You see several images of a bearded man doing an interview. He's wearing a colourful bowling shirt, covered in images of cartoon women in tight leather corsets. The bearded man, apparently an astrophysicist, is smiling, but the tweets you're reading about him are negative. Exploring further, you find yourself in a massive debate about feminists, women in STEM (Science, Technology, Engineering, and Math), SJWs ("Social Justice Warriors"), and political correctness. In a few days' time, this controversy will be christened #shirtgate. This paper is an account of the online #shirtgate phenomenon, written from an Actor-Network Theory (ANT) perspective. Bruno Latour, a founder and chief proponent of ANT, states that "groups are not silent things, but rather the provisional product of a constant uproar made by the millions of contradictory voices about what is a group and who pertains to what" (2005:31). He argues that we should thus follow controversy instead of taking a group's existence at face value – "no group, only group formation" (Latour 2005:27). I follow this perspective in order to trace the group formation processes which occurred in actor-networks during #shirtgate. I will also draw on elements of Callon's (1999) sociology of translation in my analysis. Finally, I argue that Actor-Network

Theory is an appropriate perspective for the study of online conflicts.

## SOME PRELIMINARY "WORLDING"

Anna Tsing argues that ANT removes context in its analysis of social phenomena (2010:47). There is a risk, through ANT analysis, of depoliticizing and decontextualizing the actor-network through isolation. Tsing claims that this was perhaps the biggest flaw in Michel Callon's famous study of scallops in St. Brieuc bay (ibid:48). Callon created a network which included French scientists conducting a study, the scallops the studied, and fisherman. But, Tsing remarks, he excluded the Japanese researchers who developed a model that is integral to the study – a strange omission. This process of partial decontextualization could be especially true considering the online nature of #shirtgate. The internet, for all its wealth of information, has the effect of removing context in discussions. Twitter is perhaps the best example of anti-context and omission in action – users will respond to a 140-character sentence without knowing who wrote it, or why. It is a sea of soundbites. Following Tsing, I would like to provide some explicit and much-needed "worlding" – the "attribution of world-

like characteristics to scenes of social encounter" (ibid:47-48), to better situate my object(s) of analysis, and remove gaps that would otherwise narrow our perception.

## WOMEN IN STEM

According to the current literature, STEM educational settings and workplaces in general tend to be overwhelmingly male spaces. Women are underrepresented in engineering programs in universities , and engineering careers (Fouad and Romila 2011; Szelenyi and Kurotsuchi Inkelas 2011). Evidence suggests that women face gender-specific discrimination in STEM positions, based on the false notion that they are inferior to men in these realms of knowledge  (Fouad and Romila 2011). Discrimination against women of colour is especially significant – Black, Latina, and Asian women in STEM jobs are often mistaken for administrative or janitorial staff at their workplaces (Schulte 2015). These issues have become popularized in the media, and "women in STEM" is a now a fairly common phrase in common media discourse.

The underrepresentation of women in STEM is now being recognized as an issue by governments and schools in both Canada and the United States. The White House Council on Women and Girls, created in 2009 by the Obama administration, works on various campaigns to help girls become interested in STEM from an early age. Links to reports about women in STEM are provided on the webpage for the White House's Office of Science and Technology Policy.Universities are taking a similar stance, trying to increase equity in STEM through gender-specific programming and campaigns. The University of Toronto, for instance, has recently created special classes for young girls to learn about electricity (Casey 2015).

This widespread institutional support for equity is indicative of the perceived value of STEM. Governments want their industries and armies to have an edge over the competition, universities want more revenue from students, and STEM is the answer. Having more women in STEM is good for the institution. United States  President Barrack Obama stated that, "We've got half the population that is way underrepresented in [STEM] fields and that means that we've got a whole bunch of talent…not being encouraged the way they need to" (whitehouse.gov 2013).  The move towards greater equity blends seamlessly into nationalist rhetoric about "out-innovating, out-educating, and out-building the rest of the world" (ibid). The high perceived value of STEM is true for the general public, too, as these fields are lucrative and those with degrees in them are relatively hireable in a tough job market (Abel et al. 2014).

## FEMINISM ONLINE

The internet has proven to be both a blessing and a curse for modern feminism. Feminist websites champion themselves as safe online havens for women and the LGBT community. Popular ones include xoJane, Jezebel, Tumblr, and Feministing, all of which provide social commentary and pop culture criticism with a feminist perspective. These websites are mostly article-based (though some, like Tumblr, provide user-generated content), and include comments sections wherein users can discuss the published material. Some of these comments sections are moderated (as is the case with Jezebel), in order to prevent outsiders from posting disturbing content.

This moderation is indeed necessary. Outside of the aforementioned websites, feminism does not enjoy popular support. Less moderated and less insular websites – Twitter, Reddit, and Youtube, in particular – are, in general, not pro-feminism (based on my extensive, informal "research" on these sites). The term "feminism" itself is volatile in these spaces, and usually used in a derogatory manner. Reddit features popular sub-sections (called subreddits) devoted to mocking feminist "social justice warriors" (or SJWs) online, such as reddit.com/r/tumblrinaction which has approximately 190,000 subscribers. Youtube is home to many popular Men's Rights Activists (MRAs), and anti-feminist discourse. To sum, the internet is a contested space for feminist ideologies.

## NETWORK 1 – FEMINIST #SHIRTGATE

Let us return to our object of analysis. Matt Taylor helped develop Philae, a probe which was landed on a comet – an unprecedented achievement in astrophysics. While the landing was a news item in itself, the fallout from the shirt he wore at a press conference generated a controversy which overshadowed the original story. A few tweets in particular went viral during the initial uproar. One was made by Rose Eveleth, a science writer at The Atlantic. Posted on November 12, 2014, the sarcastic tweet reads: "No no women are toooootally [sic] welcome in our community, just ask the dude in this shirt". Another significant tweet was made by Katie Mack, an astrophysicist herself who goes by the handle @AstroKatie. It reads, "I don't care what scientists wear. But a shirt featuring women in lingerie isn't appropriate for a broadcast if you care about women in STEM". Here we might be

able to envision our first actor-network .

The tweets inspired a series of articles which criticized Matt Taylor's shirt and continued to link it to the issue of women in STEM. The article "A Philae Researcher Wore An Unbelievably Sexist Shirt On A Livefeed and Women in STEM Are Pissed", written by s.e. smith and published on xoJane on November 12, 2014, is representative of this narrative. Smith writes that "when a researcher wears a shirt covered with naked women on a live broadcast, you can see why there's a shortage of women in STEM." This article and others were part of a process in which individual actors were aligned as allies with shared goals and opinions. As virtually all the popular articles about The Shirt were editorials rather than "neutral" summaries of the event, they played a pivotal role in mobilizing and aggravating thousands of readers.

The creators of this network raised the following questions:

– Is the shirt contributing to sexism in STEM?

– Is the shirt indicative of sexism in STEM?

– Is the shirt a form of oppression?

This is what Callon would term problematization, the process through which actors are "rendered indispensable in the network" (1999:68-69). This problematization, and the subsequent interdefinition of actors, is analogous to the process of group formation and delineation described by Latour (2005:31).

## INTERDEFINITION IN NETWORK 1

The actors in this network are as follows (from the

perspective of the feminist actors of the network):

*1.* The Shirt (and Matt Taylor): Matt Taylor is depicted as a harbinger of casual sexism. The Shirt is considered inappropriate, to the online feminists, as it promotes sexism in STEM and creates an inhospitable work environment.

*2.* STEM: These are extremely important and interesting fields of work and study. Women are excluded from these fields, a fact which is attributed to sexism.

*3.* Online Feminists: The primary entity driving this actor-network. These individuals and groups are on a self-proclaimed mission to promote equality in all facets of life. Here, they turn to STEM, which is plagued by sexism, and a scientist who seems to both represent and promote this sexism. Surely, the public must know about this injustice, and this key gender issue must be brought into the media spotlight.

*4.* Women in STEM. The fact that one of the original viral tweets was written by a woman already in STEM was significant. This legitimized the anti-Shirt movement, and aided greatly in making this a news story. Some women in STEM are also online feminists.

*5.* The online public: Readers of blogs, members of social media sites. Not necessarily feminists (usually not), but integral to the goals of online feminist activists. The average online reader already understands the importance of STEM. Our feminist actor-network believes that the public should become more aware of the issue of women in STEM and sexism in STEM, and this is ultimately the goal of the network.

## INTERESSEMENT AND ENROLMENT IN NETWORK 1

In the process of translation, "entrepreneurs gradually enlist participants... from a range of locations, reinterpret their concerns to fit their own programmatic goals, and then establish themselves as gatekeepers" (Star and Griesemer 1999:506). The entrepreneurs in this case are the online feminists. To reach their goals, they had to first problematize and (inter)define their actors.    The next step was interessement, defined by Callon as "the group of actions by which an entity… attempts to impose and stabilize the other actors it defines through its problematization" (1999:71). The online feminists are able to harness The Shirt and make it a symbol of oppression. In this process, the shirt is removed from its original context (a gift from a friend of Matt Taylor's), just as the scallops of St. Brieuc were removed from theirs (ibid:73). Female scientists who opposed the shirt were listed and quoted in feminist articles, making them feminist allies for the duration of #shirtgate. Media sources and the online public started to pick up on the noise, and soon #shirtgate became a major news item. As the online feminists intended, Matt Taylor was criticized heavily, and this shaming eventually led him to make an apology, solidifying his place as a temporary ally within the network. Subsequently, the Shirt as a legitimate issue for women in STEM received widespread attention for weeks after the initial tweets. The process of translation in this actor-network was successful, as the goals of the entrepreneurs were met.

## OPTING OUT

Part of why it is so important to heed the words of Latour about groups vs group formation, is that groups are so plastic. Online feminists were not unanimously anti-Shirt, and some refused to enrol in the feminist #shirtgate actor-network. In Youtube videos, self-proclaimed feminists were hesitant to decry the shirt as sexism. And some seemed skeptical about The Shirt as a supposed barrier to women entering STEM. Ana Kasparian (2014), a popular online personality, made a video blog arguing that #shirtgate was not a legitimate gender issue. This video seems to have been met with overwhelming support (based on its comments section, ratio of video likes to dislikes, and favourable mentions on Twitter). Hirsi Ali, a high profile women's rights activist, took a similar position, stating: "...I condemn whole-heartedly the trivial bullshit it is to go after a man who makes a scientific breakthrough and all that we as women — organized women — do is to fret about his shirt?" (Schow 2014). #shirtgate was polarizing for feminists, and was perhaps a time of group deformation as well as formation.

## NETWORK 2 - ANTI-FEMINIST #SHIRTGATE

Matt Taylor cried briefly after making the apology, and a colleague placed a hand on Taylor's shoulder to comfort him. This was a key moment for another actor-network, opposed to the feminist #shirtgate. Anti-feminists painted a picture of a man who had been bullied into tears by "social justice warriors" in the context of political correctness run amok. This stance can be seen in articles like "It's Time to Push Back Against Feminist Bullies", written

by Mollie Hemmingway and published by The Federalist on November 17, 2014. The argument was made by several writers that cartoon women on a shirt are a non-issue, and are unlikely to deter women from STEM jobs. Many twitter users shared these sentiments, and some responded directly to Katie Mack and Rose Eveleth.

We can view anti-feminists as the central entity of our second network. They problematized online feminists in the following ways:

– Is Matt Taylor's shirt a true feminist issue, or a total non-issue? (As argued on twitter)

– Is criticism of the shirt a form of oppression? (As argued in the Hemmingway article)

Note that the problematizer in Network 1 becomes the problematized in Network 2.

## INTERDEFINITION IN NETWORK 2

Here are the actors of Network 2, written from the general perspective of the anti-feminist entity:

*1*. Online Feminists: In this network they are known as social justice warriors. These are (mostly) women who are depicted as irrational individuals fighting the status quo with propaganda. They are seen as seriously misguided in their attempts to promote equity.

*2*. Anti-Feminists: Whoever is opposed to the growing feminist movement online. These individuals believe that many gender issues are exaggerated or even non-existent.

*3*. Shirt Skeptics: The people who are not

strongly aligned against feminism, and may even identify as feminists themselves. They believe that The Shirt is not a true gender issue, and that the initial outrage is misguided. This would include Ana Kasparian (2014), Hirsi Ali (Schow 2014), and others (Young 2014).

4. STEM: These are extremely important and interesting fields of work and study. In this network, all people should be free to join STEM, and no one should be receiving special treatment.

5. The Shirt: Seen as just a piece of clothing with some mildly erotic images on it. In this network, the shirt was a gift given to Matt Taylor by a female friend, and is not some mystical barrier keeping women from joining science jobs.

6. Matt Taylor: In this network, he is defined as a brilliant scientist with a quirky fashion sense. According to the anti-feminists, he is being bullied by feminists in what should be his finest hour, but is instead his nightmare.

The anti-feminists formed their group identity based on an anti-group. Latour states that "for every group to be defined, a list of anti-groups is set up as well" (2005:32). Indeed, the anti-feminists of the internet are sustained by controversies such as #shirtgate. Their interdefinition and problematization are one in the same. The actor which must always be present in every reactionary group is the thing being reacted against. Hence, my terminology: "anti-feminist".

Note the difference in the way STEM is framed between the two networks. In Network 1,

there is an equity stance, whereas Network 2 is based around equality of opportunity. The first network is focused more on eliminating structural inequality whereas the second is focused on maintaining a supposedly neutral playing field.

## INTERESSEMENT AND ENROLMENT IN NETWORK 2

The anti-feminists worked to reroute the popular #shirtgate narrative to focus on feminists, rather than The Shirt. In this new narrative, The Shirt becomes a simple shirt again, the cartoon women are simply cartoons, and the people who saw them as anything more than that were being petty. In a sense, this network seeks to place The Shirt back into its original context (a non-political gift) to lessen its power.  The anti-feminists were also able to use Matt Taylor's apology to further their narrative (as I mentioned in the beginning of this section), stirring up sentiments of animosity towards the online feminist community. Finally, the anti-feminists were bolstered by moderates, who I termed "shirt skeptics". They wrote articles and made videos criticizing the initial outrage, and were thus made temporary allies in this network. By opting out of Network 1, they were making themselves available for enrolment into Network 2. #shirtgate became a stain on the online image of feminism, and remains a popular example of supposed feminist overreaction. From my personal observations, almost all Twitter mentions of #shirtgate and #shirtstorm (an alternate name) in the first few months of 2015 were anti-feminist. In this way, the anti-feminist actor-network was successful.

## INTERDEFINITION BETWEEN NETWORKS

When the second network came into existence, anti-feminists became part of the feminists' network. The backlash was in turn met with backlash, and popular feminist site Jezebel.com released an article titled "Woman Gets Death Threats for Tweeting About Disliking A Dude's Shirt" decrying the crueler tweets levelled against Rose Eveleth in retaliation for her initial comment. For writer Phil Plait, the backlash speaks to a pervasive societal misogyny. In a popular article from November 17, 2014, and published on Slate.com, titled "Shirtstorm", he attacks the notion that #shirtgate is an empty controversy. Thus, the feminists in the first network became further interdefined by this new actor, the anti-feminists, in their own network. The anti-group works to define the group.

Both networks could be viewed as successful in completing their goals. The first network was successful in bringing attention to The Shirt and connecting it to gender issues in STEM. The second network was successful in garnering sympathy for Matt Taylor, and ultimately twisting #shirtgate into an ongoing narrative of feminist overreaction. Both networks defined themselves against one another, and, while some borders in the feminist network were transgressed by feminists who did not find The Shirt significant, overall the border between the two groups was strengthened by #shirtgate.

## CONCLUDING REMARKS

I believe ANT to be a suitable framework for the analysis of online conflicts like #shirtgate for a few reasons. Firstly, although it is classically used to analyze cooperation between allies, it can be easily modified to accommodate the analysis of conflict between opponents. Certainly, there are conflicts between the allies of an actor-network – the scallops, researchers and fishermen of Callon's case study are not perfectly aligned. However, they share some common goals, and work together. In the case of #shirtgate, we face a social phenomenon in which there are sets of actors with directly conflicting goals. My solution, as shown above, is to simply create two sets of allies within two competing actor-networks. The networks are intersecting and in a state of interdefinition. The process of group delineation and definition occurs both within and between the networks.

Secondly, traces left by controversies, which Latour claims are a key in ANT analysis of group formation, are vivid in the online realm. During my research for this paper, I was able to find the exact exchanges made by thousands of people – tweets, comments, replies, articles, and memes are (mostly) publicly available. This overcomes a central sociological dilemma raised by Latour. He says that the social, when "taken as a solid… loses its ability to associate; when it's taken as a fluid, [it] again disappears because it flashes only briefly, just at the fleeting moment when new associations are sticking the collective together" (2005:159). When the social is online, these "fleeting moments of association" are recorded and preserved, with timestamps. With enough time and effort, the careful researcher would be able to trace any online social process down to the smallest detail.

An issue in ANT analysis of large events like #shirtgate is the definition of actors. In Callon's article, he can at least identify his "entrepreneurs" – the three scientists – without much controversy. In

my analysis, I have defined potentially problematic entrepreneurs – the online feminists, and the anti-feminists. While I can trace narratives to key actors, it becomes difficult to determine who is linked, and what constitutes a group, or entity. I have tried to focus on the groups' plasticity, but I am still forced to draw boundaries which might be inaccurate or arbitrary. Nonetheless, we can conceive of large-scale or interlocking networks, describe and explain the process through which groups are formed online, and be careful to situate and contextualize networks where appropriate – while working in an ANT framework.

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# WORLDS OF ECOLOGY: INDIGENOUS PRIMATE PERCEPTIONS.

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## ABSTRACT

The Western human-primate interface is known for a tradition of anthropocentric dominance over the non-human primate. These traits are absent from many Indigenous communities that promote and protect primate and wildlife bio-diversity. Moreover, many cultures in close contact with the primates exhibit spiritual or relational connectedness towards them. This paper reviews documented human populations living near or in non-human primate habitats to characterize those resulting in positive/ neutral ecological interactions.

Sacred Buddhist and Hindu monkey shrines/temples are seen to portray surviving preservationist relations in countries heavily pressured by ecologically impactful economic processes. After this, economic realities are taken into consideration, as farmers that regularly interact with primates retain levels of tolerance despite economic losses. Lastly, government efforts are seen fortifying spiritual beliefs in primate conservation from a legal standpoint. However, this is not always the case as national religions sometimes misalign with those of native populations.

Conclusions will indicate that traditional, spiritual, and religious customs in local communities have salient powers in forming sustainable relations in the human-primate interface. Despite ongoing degradation of the land, developing societies realize the interconnectivity between ecology and economy, stabilizing these social mores through folk-lore, legend, and myth. From this holistic, non-Western perception of sympatry, a simplistic labeling of the crop raider as an economic 'pest' is rejected. Because Indigenous perceptions are often integrally formed by socioreligious norms over economic ones, it is argued that conservation efforts should nourish these social systems to promote sustainable mutual ecologies.

## 1. INTRODUCTION

Western cultures and many others around the world expound mythologies and stories about the primate order. In the 20th century, human to non-human primate interactions reached ecological and ethical lows due to increasing levels of poaching and captivity in small-scale societies alongside medicinal and military testing in developed countries. Despite this, towards the end of the century Western animal rights organizations and primatologists (among others) began formulating the ethical space shared between humans and other primate species. In appreciation of the nearly ubiquitous imposition of the human as a co-participant and moulder of this social and ethical space, many anthropological studies have noticed the overwhelming pattern of manipulation and

extirpation characterized by our species (Fuentes, 2012).

The purpose of this paper is to turn the focus from negative and artificial environments of captivity and experimentation towards the natural habitats of non-human primates, where humans interact with them on a daily basis and have incorporated them into their societal outlook. Specifically, this discussion aims to answer the question of whether there are areas in the human-primate interface where the relationship is positive, and/or ecologically sustainable for the non-human primate, and to identify the salient characteristics of these relationships.

To generalize, and in no particular order, the tenets of this investigation are economic, ecological, spiritual, and conservational in nature. Many of the examples originate from rural (if not forested) communities where their surrounding wildlife acts as the backbone to their survival. The environment provides for the traditional life-ways and subsistence, as well as opening venues for eco-tourism and primary resource production in the global economic market. In these societies, ecological and economic factors go hand-in-hand, and so sustainability is the logical option towards population health and growth.

Coinciding with the realities of net accumulation and market economy are ancient religious and spiritual relationships which shape Indigenous perceptions of the land. In human-inhabited tropical and sub-tropical regions, legends, myths, and folklore concerning non-human primates have survived and developed into the modern day (Gumert, 2011). In these societies, taboos and social norms guide how one should perceive and treat the non-human primate on a regular basis. In many nations, the world's dominant religions have become

politically incorporated, sometimes attempting to override Indigenous folklore/myths/traditions/legends.

This fact, coupled with the accelerating rate of economic development in tropical and sub-tropical regions, has catalyzed a great amount of change upon the perceptions of primates in the affected societies. From this standpoint it might be argued that the drive for economic development may, in turn, sacrifice the ecological integrity (and in so doing the primate diversity) of a region, and indeed this may be the case for some.

However, the following documentation will argue that there are still remaining and newly flourishing areas of the world which nourish, preserve, and protect non-human primates from habitat encroachment and economic development. These societies do so on sustainable, economic, and spiritual grounds, and their proximity to the natural habitat provide valuable insight to the human-primate interface in the most literal of senses. Surveying various tropical regions, examples will portray how Indigenous appreciation for sustainability and conservation in their economic and ecologic worlds is often associated or predicated on spiritual or folkloric traditions that protect the primates and/or wildlife native to the area. As emphasized by Fuentes (2012), the primates in these societies present potent forms of symbolic meaning corresponding to medical, ecological, and economic relationships among others. In a final discussion, conclusions will be made to characterize and analyze such instances where human-primate interactions become fruitful and/or sustainable for the non-human.

## 2.1 SHRINES

The influence of certain religions, such as Hinduism, Buddhism, or Islam, on conservation in tropical regions cannot be underestimated, neither should they be dismissed in light of their sometimes declining authority over protected sites and land governance.

In Thailand, Macaques and other native primates have been protected under a conservation act since 1960, which prohibits killing within religious grounds. These protected shrines and temples, found in both urban centres and areas of human isolation, are dedicated to non-human primate deities. Macaques residing near Buddhist temples often have the benefit of small forest sanctuaries, where all trees are said to exude spiritual qualities and are therefore sacred and protected (Page, 1999).

In a study on the national distribution of Macaque and Langur species in Vietnam, Nantiya Aggimarangsee (1992) and a team of researchers tallied populations at multiple sites, interviewing community members about their relationships with the primates along the way. Their conclusions were bleak for the native ecology, as agricultural expansion had ceased to accelerate, and despite the relatively low occurrence rate of primate aggression, the frequency had increased because of shrinking habitat space. Despite all this, the authors remarked that the remaining temple grounds and shrines provided valuable refugia for the thousands of Macaques and Langurs still living in Thailand. Due to deforestation and habitat loss, the Buddhist sanctuaries (although restricted in size) were deemed necessary nutritional provisioners for primates that normally need much wider expanses of territory to feed and live comfortably. At these 36 sites, 34

populations were deemed nutritionally healthy, with one undernourished and another obese.

This is not the best example of a positive relationship in the human primate interface. Oftentimes, provisioning becomes unhealthy for primates, resulting in carbohydrate-rich diets with low nutritional content (Fa, 1992). Furthermore, the people interviewed by Aggimarangsee mainly considered their non-human taxonomic neighbours as pests due to crop raiding, and would hunt them for bushmeat. Yet, out of the 36 sites interviewed across Thailand, all but one registered as indifferent or tolerant to the primates encountered in the area. The authors noted that these attitudes were likely the residual of traditional socioreligious customs.

This example introduces an uncertain dichotomy of the Thai daily perception of primates as a pest (through an economic view) vs. a tolerable presence (from socioreligious norms). Despite this controversy, the end products are sacred and respected spaces of conservation structured by a societal system of tolerance, rather than total extermination.

In a central eastern province of Thailand, the religion of Hinduism prevails over societal perceptions of the non-human primate. Locals in Lopburi believe that monkeys native to the area are descendants of Hanuman, a mythical monkey hero connected to the Hindu pantheon (Gumert & Jones-Engel, 2011). The myths promote relationships of respect and tolerance, which is indubitably needed to confront the hundreds of Crab-Eating Macaques inhibiting the city-centre on a daily basis. Despite the inconveniences of local food theft and aggression towards tourists (who travel to see the monkeys), the relationship is actively and positively managed through community procedures that control the economic and spiritual trade-offs

of commensalism with the primate population. Attempting to manipulate the ecosystem responsibly, the Monkey Foundation of Lopburi includes local vets, infrastructure associates, local representatives, and NGO's that partake in regulating the macaque population (Gumert & Jones-Engel, 2011).

Health checks, medical treatment, and castration align with the ecological, economic, and spiritual ends of the Lopburi people. To maintain a positive and healthy environment of community with the Macaques, the total population must be controlled for daily human life to go on. If this did not happen, districts would be dissolved by Macaque society completely, and the human-primate interface would disappear.

To depart from this discourse on Thailand, observations on religion and its correspondence with the management of human and non-human ecosystems can be made. Despite the intrusive method of population adjustment, the Lopburi people have not formed systems of absolute control over the Macaques. The monkeys take what food they want, and although damaging property, often go wherever they please. From these population-wide attitudes of tolerance, respect for autonomy, and responsible management occurring on a daily basis, it could be argued that religious customs and societal norms can have a substantial, if not integral, role in the treatment of non-human primates.

India is rife with preservationist efforts at a community level, working towards a strong and ecologically sustainable economy. More than one-hundred thousand sacred forests associated with myths and taboos towards the non-human inhabitants protect at-risk species such as the Lion-Tailed Macaque, Golden Langur, and the Hoolock Gibbon. In a multi-faceted review on the impact of the Indian conservation method, Ormsby and

Bhagwat (2010) describe community frameworks of forest management in biodiversity hot-spots promoting ecological renewal by incorporating ecosystem services such as erosion control and the maintenance of water quality. Although these attributes could be recognized on a purely economic level, as the maintenance programs are said to have originated with the dawn of agriculture, the authors are adamant to recognize the community faith and consistency needed to maintain such ethical mores of wildlife protection and management. Despite the obvious economic growth of India as a nation, community traditions of renewal and respect have been retained through religious and ceremonial rationale to keep the land unmolested (Ormsby & Bhagwat, 2010).

The aforementioned sacred areas in Thai and Indian territory display how spiritual respect and responsibility for wildlife can result in relationships of commensalism, if not tolerance. Countries outline these areas and enforce legal authority, yet it is important to remember the level of investment within a community necessary for these structures to thrive and survive. High investment within a community results in ethical spirituality and a compassionate human-primate interface, rather than a view restricted solely to economic profit and gain.

## 2.2 THE ECONOMY

There is growing conflict in small and quickly developing tropical communities where humans, searching for subsistence or resource surplus, unilaterally and irrevocably encroach upon the local biodiversity.

Sulawesi, Indonesia, is another biodiversity hot-spot with many endemic species, including the

endangered Crested Black Macaque. Despite its richness in biodiversity, the land and its inhabitants are facing ongoing economic pressures of agriculture (mainly cacao) and logging. Farmers work shifts to guard their fields from crop raiding Macaques that collect cacao, maize, and sweet potato. Riley and Priston (2010) surveyed the workers' attitudes towards the primate crop raiders in the southeast region. The results showed that few were able to perceive levels of crop raiding accurately (oftentimes underestimating it), also that some farmers appreciated the crop-raiding, as they helped harvest other crops such as the cashew.

Despite the clear economic loss through crop raiding, Riley and Priston (2010) found attitudes towards the monkeys unfazed or undefined by socioeconomic factors. This is shown by the non-lethal and non-controlling interface shared by the primates and humans in the crop fields, not to mention the mutualistic relationships described by some farmers.

As indicated by the authors, the almost ubiquitous attitude of tolerance and seeming economic compromise was more strongly explained by adherence and respect to folkloric tales of their ancestors who were once turned to monkeys. It was made clear that some citizens hated the Macaques, but did not want to kill them because of their Muslim teachings. Through this, it is seen how religious and economic factors coincide in the human-primate interface forming relatively positive relationships of tolerance and respect.

In other areas, the development of ecology as a commodity is strong enough to bend structures of economy and cultural practice. Two communities of Tikuna in the Amazon Basin have been affected by a hunting ban on the Brown Wooly Monkey, a primate traditionally hunted for subsistence and used for ceremonial purposes. This ban was a result of the rapid decline in large mammals in the Amazonian rain-forests. Pariathan and Maldonado (2010) studied the communities, which differed in distance from a visitor centre in a nearby national park. Both communities had committed to the ban, however investigations found that primate biomass extractions were higher for the community farther from the visitor centre. It was concluded that, despite the overall low rates of primate consumption, the economic benefit of ecotourism had allowed the closer community to invest more time in sustainable food practices such as fishing.

The farther community, however, faced an upward struggle of economic and cultural change. Interviews from the distant town indicated how economic and ecological factors had brought the comprehension of sustainability to the community. Knowing the need for bushmeat (which, if killed for sustenance, is still legal), and its importance in local ceremony, the community realized and committed to aspects of conservation and ecosystem management not only for economic gain, but for their livelihoods as well.

The Tikuna communities show how human-primate interfaces can attain sustainability in conjunction with economic, spiritual, and ecological values. Even though their spirituality did not originally promote primate conservation, nutritional value and ceremonial respect towards the animals ultimately helped to convey the economic and ecological necessity of hunting restrictions and alternative uses of the land.

## 2.3 UNITY

There are other scenarios that show the strengthening force of folkloric beliefs leading

to conserved sites of eco-tourism. The Boabeng Monkey Sanctuary in Ghana contains around 700 monkeys including the Black and White Colobus, Cambell's Mona, and many others (Fargey, 1992). Despite being a predominantly Christian nation, the sacred treatment stems from traditional Indigenous folklore. These beliefs were confronted when Christian religious leaders began to support monkey hunting for bushmeat. Bolstered by a successful track record of eco-tourism, the community was given government backing to successfully implement a hunting ban in the area (Ormsby, 2010).

The Boabeng Monkey Sanctuary is unfenced, and so the monkeys choose to live there, just as the humans have knowingly chosen to care for them instead of exploiting them for bushmeat. The legal actions, although undoubtedly sustained through the economic validity of eco-tourism revenue, prove how traditional beliefs and life-ways can directly interject with bio-destructive processes in the human-primate interface.

The Old World Sclater's guenon population is unprotected by conservation programs and has been declining in population due to deforestation. They find refuge in and between the communities of Igboland, Nigeria, where locals associate them with deities of an ancient religion (Baker et al., 2009). Comparing population counts to previous data, researchers found that, either by way of the lands carrying capacity or the community respect and taboos against harming monkeys, certain areas had protected stable populations of guenons for decades.

This is another example of traditional folklore successfully enforcing conservationist social practices on a community level despite the nationalized dominance of another religion. The attitudes in these communities protect the primates and conduct inter-community sanctions of respect and goodwill towards them. The areas are refuges from the economic and religious expansion in Nigeria, as agriculture constantly grows and Christian associations demolish shrines dedicated to monkey deities (Baker et al., 2009). And so, despite growing economic forces and changing religious powers, the spiritual beliefs of Igboland provide for a sustained population of primates in a respectful and positive interface between and within nearby communities.

While some communities transform or galvanize their ethical and spiritual beliefs in light of incongruent or unsustainable economic and religious realities, there are some that have united them all, seemingly seamlessly. The Island of Bali is a prime example where humans and primates co-exist in a model catered towards economy, ecology, and religion. As described by Fuentes and Wolfe (2002), the forest islands of Bali are connected and inhibited by Crab-Eating Macaques and the Java Langur while bordering the Balinese riparian agricultural rice fields. The forest islands benefit the Macaques by aiding male dispersal (and thereby gene-flow) from the matrilineally-controlled home areas (Fuentes and Wolfe, 2002).

The origin of this relationship, as narrated by Wheatley (1999), comes from a legend of Hindu derivation in which a monkey god (Bali) sacrifices himself for his brother to help destroy a demon. The people in Bali (and some from Java, also) believe that the sacrifice represents commitment to the restoration and renewal of harmony in the world. To summarize, on this island spirituality overcomes the temptation of unsustainable economic expansion, helping, not hurting, the ecological richness and integrity of the land.

The preceding three examples display the strength of religious/spiritual forces in the face of

economic and social changes around them. This is not to imply that Bali's Hindu beliefs could be deterred by opposing religious forces, but it should be mentioned that the island is situated within one of the worlds most pervasively Islamic countries, 90% of the Indonesian population being Muslim (Wheatley, 1999). This characteristic of individuated religious authority within Indonesia presents a compelling argument for national ecological sustainability driven by spiritual means. Coupled with the struggles seen by monkey sanctuaries in Nigeria and Ghana, these instances show how spiritual beliefs and value systems directed towards primates and the land can individually yet unanimously form a positive, consistent, and sustainable human-primate interface.

## 3. DISCUSSION/CONCLUSION

This review of research in the human-primate interface was designed to locate and characterize regions where interactions were positive, and if not, sustainable for the non-human primates. In the preliminary discussion, great weight was attributed to the relationship between economy and ecology in small societies within tropical and sub-tropical regions. By describing contemporary relations in the world, it was shown that religion and spirituality can be the most exemplary of forces contributing to local and national conservation of primates and their habitats.

The first subsegment introduced the importance of shrines and temples and their worth as refugia where surrounding primate habitats are being destroyed. Moreover, as is the case in India, sacred forests and shrines were seen protecting overall biodiversity for economic and ecological purposes alike. Although the forests of Thailand and India face highly differing realities of ecological and economic pressure, the populations had comparable attitudes of spiritually derived respect and tolerance towards the monkeys.

The economic realities of conservation were observed through the communities of Sulawesi and Tikuna. In Sulawesi, tolerant and sometimes grateful perspectives were afforded to the monkeys that raided valuable cacao crops on a regular basis. In Tikuna, value systems were re-organized for a new tourist economy and sustainable subsistence practices, recognizing the necessity of a healthy ecology for community survival. The defining similarity between the two communities was that both ecologic and economic value systems were inseparable from their traditional, spiritual life-ways, resulting in developed societal attitudes towards sustainability.

The final component described regions where primate conservation takes the forefront: where legal and political battles are fought to balance the needs of humans and non-human primates together. Furthermore, it showed how governments are able to validate a spiritual ethic of preservation by supporting traditional community values and customs. However, as demonstrated in Nigeria, conversionary efforts from competing religions can have detrimental affects on these consecrated spaces and their non-human inhabitants.

The intent of this discussion was never to promote certain religions over others, nor was it to be exclusionary in which religions were presented as 'positively active' in the human-primate interface. As it so happened, Hindu, Buddhist, and Muslim (amongst the smorgasbord of localized deities) were the most frequent religions to be found in positive correspondence; Christianity, in comparison,

was not so readily encountered. Alternatively, as has been mentioned, reports found Christianity to be a detriment to the preservationist exploits of Indigenous communities. There are scholars that would argue how the conversionary efforts of Christian authorities have obstructed the ways in which Indigenous communities observe taboos and rituals that would normally protect native wildlife (Baker, 2013). These ideas are outside the realm of positive regions in the human-primate interface, however demand future attention and research due to the apparently destructive, or at least unhelpful, quality of an organized Christian presence in the human-primate interface.

In small, isolated, tropical and sub-tropical forest human communities, where Western oppositions of religion/myth and economy/science engage (Reed et al., 2004), concepts of conservation are traded for the mutual sustainability of humans and non-humans alike. Rather than simply categorizing the primate as an economic nuisance or a 'pest', crop raiders are perceived with tolerance, understanding, and even appreciation on a socioreligious level. These communities have realized and reacted in cognizance of the limitations of their ecological environment, the impact of economic development, and the effects of contemporary change on their traditional value systems. From this, it could be suggested that the Western conservationist translation of Indigenous world-view is in need of fine-tuning, as the categorization of 'pest' seems to inaccurately depict their world view, one that involves deeply potent socioreligious symbolism attributed to the non-human primates.

These world-views of toleration, respect, responsibility, and even kinship (Gumert and Jones-Engel et al., 2006; Riley and Priston, 2010), must be preserved and promoted, as they undeniably help protect primates and help humans form sustainable environments for them. Enduring ongoing religious and economic pressure, some traditionalist communities retain levels of preservation to the point of a fully managed and mutual ecology.

It has been argued that such resilient spiritual relationships have formed due to the inseparability of ecology and economy in the life-ways of communities that make their living off the land. This holistic understanding of spirituality in conservation is ancient in origin, and it is population specific. Despite how foreign or uneconomic they may seem, the folklore and religion of these communities occupy the planet's most harmonious regions in the human-primate interface.

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