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ABOUT THE LAMBDA ALPHA JOURNAL

The *Lambda Alpha Journal* is a yearly publication of student papers by members of the Lambda Alpha National Honor Society and is published at Wichita State University, Department of Anthropology, 1845 Fairmount, Box 52, Wichita, KS 67260-0052. Professional, avocational, student manuscripts, and book reviews of recent publications are welcome. The journal is made possible through the efforts of the Journal editorial staff residing at the founding chapter, Alpha of Kansas. Funding for the Journal is obtained through subscriptions and continuing sponsorship by the Student Government Association of Wichita State University.

LETTER FROM THE EDITOR

I am pleased to announce the completion of the thirty sixth volume of the Lambda Alpha Journal, a publication of the National Anthropology Honors Society. This year's volume presents nine papers with topics in biological, archaeological, and cultural anthropology. We have also included three book reviews.

In the first paper, Joanna Salicki discusses the limitations of the specialization of historical archaeology. The second paper by Jason Cowan discusses tarsiers within taxonomical context. The third paper by Allison Harnish and the fifth paper by Stephanie Jolly, relates subsistence patterns to diet. The forth paper by Audrey Ricke presents a case study of Brazilian-Japanese. Another cultural paper follows with Troy Belford's examination of problems inherent in studying ritual in film. The seventh paper discusses China's One-Child Policy. Going in another direction, Mead-Moehring and Dr. Moore-Jansen contribute to our study and understanding of primates. In the final paper, Rachel Roberts analyzes Salamanca, Spain's history, roles of space and time and collective memory.

This years journal concludes with an updated list of chapters and advisors, followed by a recognition of past award recipients of the National Graduate Research Grants winners, National Scholarship Award winners, and the National Dean's List Scholarship winners. The Journal staff welcomes all of the recent chapters and all new members to the society. We also want to congratulate this year's award winners and wish them success in their future endeavors.

As a chapter sponsor and Journal Editor-In-Chief, I wish to extend my appreciation to all of the advisors and officers of the Lambda Alpha chapters across the nation. I would also like thank the student authors for their contributions, and I offer a very special thank you to Ms. Sandi Harvey, student-editor, who has worked diligently with me to complete this volume.

Sincerely,

Peer H. Moore-Jansen
Editor-In-Chief

GLOBAL HISTORICAL ARCHAEOLOGY: A SCOTTISH EXAMPLE[1]

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In summer 2005, I participated in a National Science Foundation project administered through the Pennsylvania State University Department of Anthropology that sought to develop an ethnoarchaeological history of a remote Scottish Island. My involvement in the project fundamentally challenged my previous understanding of historical archaeology and my academic training in anthropology. This paper is a result of my attempt to reconcile my fieldwork experience with the current disciplinary and theoretical trends within the field of archaeology. Through an analysis of the history and development of American historical archaeology, this paper critically considers the limitations of the emergent specialization to projects such as the North Orkney Population History Project (NOPHP). I argue that the NOPHP is a compelling example of the current trend in historical archaeology and that it represents the specialization's inevitable global orientation. Because the project pushes the boundaries of the narrow definition and geographical limitations of American historical archaeology, it can be utilized as an example of the specialization's relevance and application in increasingly global context.

As a specialization within archaeology, historical archaeology is a relatively recent development that took place in the Americas and can be traced to a specific event, the formation of the Society for Historical Archaeology. Prior to the ,formation of the Society for Historical Archaeology in1967, historical archaeology was subsumed under the umbrella of general American archaeology (Cotter 1993). Cotter emphasizes the fact that "historical archaeology in North America may have said to have come of age at Jamestown with the planned and funded investigation of the whole community of the first permanent English settlement on Jamestown Island, 1607, in James River, Virginia" (Cotter 1993). These hallmark excavations at Jamestown in 1934-1941 and 1954-1957 brought historical archaeology to the forefront of a major debate which led to the foundation of the Society for Historical Archaeology. This organization sought to provide a venue and a forum for discussion on topics pertaining to historical archaeology.

At the root of historical archaeology was a concentration on the particular geographic region of North America. All previous rudimentary efforts at historical archaeology occurred in places such as the American Northeast, Northwest,

Southeast, Southwest, Mid-Atlantic and Canada (Cotter 1993). Historical archaeology has continued to evolve and progress in these regions, but until recently has not expanded as widely or readily in other areas of the world.

There is, however, a great deal of discussion focused on what can be classified as historical archaeology. In a general sense, "historical archaeology is the study of the material remains of past societies that also left behind some other form of historical evidence" (http://www.sha.org/About/sha_what.htm 2005). Certain professional organizations go even further and place historical archaeology into a particular geographical and historical context. This practice is partially observable with the Society for Historical Archaeology, whose members seem to focus their research concentration on the period after European colonization, with an even more narrow emphasis on the New World (http://www.sha.org/About/sha_what.htm 2005). Relevant excavations that fall into either a different time frame or are conducted in regions outside of the New World are referred to in terms other than historical archaeology. What is referred to as historical archaeology in the United States is called post-medieval archaeology in Europe (Gilchrist 2005). This distinction is based only on location, rather than the time period from which the information originates from. In a positive light, a unifying phenomena is now taking place. The term "global historical archaeology" or "international historical archaeology" is being used to define all of these topics as a whole (Gilchrist 2005).

As noted above, there is currently a trend to globalize historical archaeology. By implementing a more general definition of historical archaeology the wealth of information that could be contributed to the field is significant. A shift in this direction is evident in a journal series by Charles E. Orser Jr. and the compilation of works edited by Lisa Falk. These two individuals focus their efforts on a "global historical archaeology" (Falk 1991; Orser 1996) with Orser's work stressing the fact that "historical archaeologists are now conducting research across the globe, in Latin America, Asia, the Pacific, Africa and Europe" (http://www.springer.com/sgw/cda/frontpage/0.11855.4-40109-69-33108205-0,00.html 2005). In her edited book Historical Archaeology in Global Perspective, Falk (1991) brings together papers that were presented at the "After Columbus" meetings in honor of the 500th anniversary of Columbus' landing and the resulting events that were set in motion. She stresses that the "main points brought forth by these papers is the global nature of our world - today and historically" (Falk 1991).

I believe that even though historical archaeology was first created with a focus on the New World, the field can complement its literature base with information collected from other areas of the world. Access to archaeological data and historical documents unites a wide array of geographically different locations. This

geographic eclecticism should not limit historical archaeology, but instead strengthen it as a whole. In this paper, I will review literature in the field of historical archaeology and note the impact that overall theoretical trends in the broad discipline of archaeology have had on historical archaeology. The North Orkney Population History Project will be presented as an example of the current global and interdisciplinary direction of historical archaeology today.

The North Orkney Population History Project

The North Orkney Population History Project is an on-going collaborative effort directed by Pennsylvania State University researchers[2] and funded by the National Science Foundation's Research Experience for Undergraduates[3] Grant (http://146.186. 95.23/noph/NOPH/Information.htm 2005). In the summer of2005, a total of eight undergraduate students[4] and four faculty members collaborated on collecting research data. The main goal of the project is to "reconstruct changes in population, settlement, and landscape use of the past c. 300 years on the islands of West ray, Papa Westray, Sanday, North Ronaldsay, Eday, and Pharay[5], the northernmost of the Orkney Islands, located off the northern tip of Scotland" (http://146.186.95.23/noph/NOPH/Information. htm 2005). Principal investigators Patricia Johnson, James Wood, Timothy Murtha, and Corey Sparks sought to create a research environment that enabled students to "study the "total" demographic anthropology of a well-defined island community" (anthro.psu.edu/noph/ Information.htm). After a thorough selection process that included interviews, I was chosen to participate on the 2005 North Orkney Population History Project that spanned the months of June and July. My research task was to input census data for analysis, survey, and map abandoned buildings for digitization, and conduct and transcribe interviews of island inhabitants for review. All three of these aspects were combined to form a picture of the islands for the past 300 years. I participated in all of the three research activities, but the greater part of my time mapping crofts and digitizing drawings that were created in the field.

The Orkney Islands are an isolated group of islands that can be reached by plane or ferry from the mainland of Scotland. The islands have a long history that can be traced to the Picts, who inhabited the area over a thousand years ago (Thomson 1987). Following the abrupt end of Pictish occupation, the Norse took up residence on the islands and now make up the ancestral population of the current Orcadian inhabitants. It is this cultural continuity that is the focus of the North Orkney Population History Project. Thomson (1987) stresses the fact that a "remarkable continuity does exist in the way of life and in the human response to the environment." Traditional Scottish farmsteads that are referred to as crofts are located in close proximity to Viking settlements. This demonstrates that ancient settlement locations were adopted by later generations. It is this unique situation

of transcending prehistoric archaeology into historical archaeology that gives the project its unique aspect.
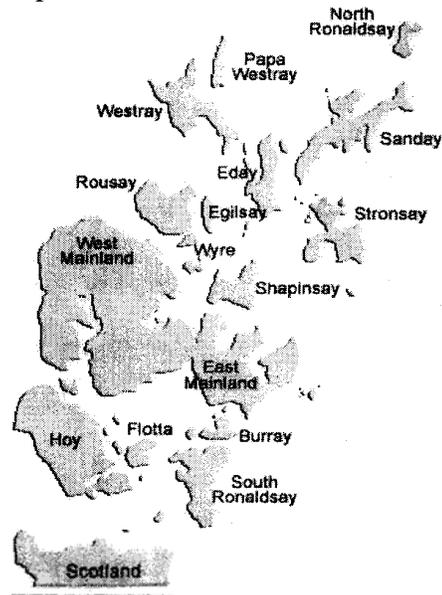
The data available from the historic period of the project focus consists of censuses, vital registers, cemetery headstones, deteriorating croft complexes, and oral accounts from the living inhabitants. All of these elements come together to form a picture of a community that has gone through extensive changes over the past 300 years. The focus of the project is on the currently uninhabited island of Farray, just southeast of Westray.

I discuss how this project can serve as an example of global historical archaeology that illustrates and expands the data and theoretical base for this developing specialization within the field of archaeology. The majority of the historical archaeology research base is composed of information from sites in North America (Schuyler 1993). Synopses by Cleland (1993), Deagan (1993), Cotter (1993), Hardesty (1999), Adams (1993) and Schuyler (1993) of the Society for Historical Archaeology, a major institution in 'the study of historical archaeology, emphasize research in areas focused on North America. Recent articles in a theme issue of World Archaeology (2005) stress the importance to "create global historical archaeology to address the grand historical narratives of the period" (Gilchrist 2005). The North Orkney Population History Project is just such an example of this recent shift in a more global orientation.

Literature Review

"Should the historical archaeologist be an historian with a shovel or an anthropologist with a history book" (Dollar 1968).

As a separate specialization, historical archaeology is a relatively new field that grew out of an American tradition. The broad explanation of what historical archaeology is can be summed up as archaeology that "incorporates textual sources into their research but work in other time periods" (Wilkie 2005), but the literature and research database is not as wide as the definition. Most of the literature on historical archaeology is focused on two aspects, North American archaeology and the Colonial period.

In a review of historical archaeology prior to 1967 Cotter (1993) notes key excavations that led to the formation of historical archaeology as a subdiscipline in America. There were a few serious attempts at conducting what we would view as historical archaeology in the 1700s and the 1800s. Deliberate excavation did not occur until the late 18th and mid 19th century in locations such as St. Croix Island, Maine and Duxbur, Massachussettes (Cotter 1993). The first large scale excavations occurred at Jamestown, Virginia in 1934 and 1954 (Cotter 1993). These excavations set the stage for a historical archaeology with deep roots in North American archaeology.

Other important influences on the subdiscipline of historical archaeology were theoretical methods that were being embraced by American archaeologists. Their ideas and discourses trickled down to historical archaeology and shaped what was being studied and how it was being approached. The major forum for all information that was historic in nature was the Society for Historical Archaeology and the influence of processualism was visible in the foundation of that organization. In the 1960s when the Society for Historical Archaeology was coming into fruition, processualism was the leading topic of interest in American Archaeology. Processualism sought to "put an end to distinctive regional schools and lead to the creation of a unified world archaeology" (Trigger 1986). Processualism also supported the use of standards with scientific approaches and methodologies. All supporters felt that there is a "high degree of regularity in human behavior" which enables the formation of general laws about human behavior (Trigger 1986).

Prior to the Society for Historical Archaeology, there were few practicing historical archaeologists. Most were "trained in history and the humanities and were knowledgeable about the historic context of sites and the artifacts they contained" (Cleland 1993). After the Society for Historical Archaeology was recognized, "the field was instantly overwhelmed with archaeologists trained in prehis-

tory who for the most part knew precious little about documentary research or the artifacts which resulted from industrial processes" (Cleland 1993). Most of these prehistoric archaeologists were advocates of processualism. A conflicting element of processualist archaeology that created a distinct disadvantage to historical archaeologists was that they "deemphasized specific historical context and artifacts" (Cleland 1993). The use of historic text was an important element of historical archaeology and it was seen as trivial by processualists. This viewpoint was contradictory to the central aims of historical archaeology and the nature of the data available to researchers. Even though historical archaeology and processualism disagreed on this point, their influence was felt in the published works by Stanley South.

After the founding of the Society of Historical Archaeology in 1967, the focus on North America's colonial period flourished. In his book, Method and Theory in Historical Archaeology, South introduces the volume as "the first systematic comparative study of archaeological data relative to the historic period in North America" (South
1977 :xi). He uses a specific site in North Carolina as the context to describe the methods and theories that can be implemented in the field study of sites in historical archaeology.

As an influential figure in historical archaeology, South advocated the scientific elements of processualism and how they could be used to benefit historical archaeology (Adams 1993). He was a major proponent of pattern recognition and felt that "the key to understanding culture process lies in pattern recognition" (South 1997). In South's Carolina artifact pattern, he excavated five sites in North and South Carolina and calculated the average number of artifacts related to architecture, kitchen, furniture, arms, clothing, personal items, tobacco pipes and activities (South 1997). The mean percentage of artifacts that fell into these specific categories constituted the Carolina artifact pattern. Even though this methodology has since become antiquated, South's pattern recognition serves as a perfect example of processualism in historical archaeology.

Ivor Noel Hume describes the need for the study and documentation of Colonial American sites in his seminal book Historical Archaeology (1969). Hume has directed excavations at historic sites in both the United States and England, but he focuses on the importance of the American sites. He also discusses a conflict of terminology surrounding "historical archaeology," He defines the term "historical archaeology" as stemming from a decision by the Society for Historical Archaeology to combine the terms "colonial archaeology" and "historic sites archaeology" (Hume 1968).

In this seminal publication, Hume draws a distinction between sites in Great Britain that encompass the same period as those in North America. The growth of interest in archaeology pertaining to sites from the sixteenth and seventeenth century was occurring in both England and the United States in the 1960s. In the United States, individuals who founded the Society for Historical Archaeology sought a "term that would satisfactorily embrace all cultures of any period other than those of the Indian" (Hume 1968), but a similar problem did not exist for England. The Society for Post-Medieval Archaeology was formed in 1967 and simply subsumed the time period where the Society for Medieval Archaeology ended in England.

More recently, individuals have chosen to delve into a broader research arena for historical archaeology. A recent edited volume by Lisa Falk entitled, <u>Historical Archaeology in a Global Perspective,</u> combines works by several historical archaeologists. The title "comes from James Deetz's appeal to historians and archaeologists to look globally when trying to understand the remains of the human past" (Falk 1991). For example, an article by Carmel Schrire (1988) tracks the colonial influences in South Africa. Expansion into areas that have evidence of historical archaeology is the focus of this edited volume.

Recent volumes, such as those by Falk and Orser, have been heavily influenced by a major theoretical shift in "mainstream" archaeology - the development of what was termed "postprocessual archaeology" in the 1980s. Postprocessual archaeology is also termed post-modern archaeology, and is an orientation in which theorists wanted to change the emphasis in the field from a "scientific" orientation to a more complex humanist and literary critical focus. Falk and Orser embody the influence of a drastically different theoretical method from processualism. The contentious debate between historical archaeologists and processualists was that processualists "stressed studies that were evolutionary rather than historical in character" (Binford 1983). Post-processualism argued against major theories that the processualists embraced. In the processualist search to infer laws and regularities that they felt were essential aspects of human behavior visible in archaeological sites, they failed to view each culture as distinct. Post-processualists sought to distinguish themselves completely from processualists. Post-processualists found a research base in historical archaeology and "the post-processual critique of processual archaeology found fertile ground in historical archaeology, and the vast majority of early post-processual work was on historic sites" (Ellis 2000). In 1984, Mark Paul Leone's excavations at Annapolis, Maryland "pioneered post-processual research" (Ellis 2000).

James Deetz defines historical archaeology as "the archaeology of the spread of European societies worldwide, beginning in the fifteenth century, and

their subsequent development and impact on native peoples in all parts of the world" (Deetz 1991). This definition unifies articles by various authors that are present in Falk's edited volume.

The difficulty in deciphering a complete and all encompassing definition for historical archaeology from the literature serves as a hindrance in categorizing sites. What one individual or society defines as historical archaeology can vary greatly from researcher to researcher. This ambiguity will be explored in this paper through a discussion of the North Orkney Population History Project.

METHODS

The basis of this paper stems from a combination of two distinct research methods, including extensive library research at Bloomsburg University[6] and information collected from North Orkney Population History Project. This dual approach proved to be quite productive in that the review of the literature created the theoretical base that embeds the fieldwork within larger disciplinary issues at the same time, the fieldwork· gave real meaning to the theoretical debates.

Summer Field Program

The summer field program took place on the Orkney Islands off the northern coast of Scotland. The research was conducted from May19-July 25,2005 and included a regular workday from 8:00am-4:00pm, Monday through Friday. There were three basic tasks that individuals performed and participants were rotated weekly among these different responsibilities. Field workers participated in census inputting, interview recording and transcribing, and croft mapping and digitizing. All individuals conducted research at least once in each of these areas and once each person had experience in these areas, the professors would place them in a particular activity according to skill level and interest.

Census Data and Analysis

Although the project included all of the Orkney Islands, the census data was collected from the northern islands in Orkney. Most individuals interviewed during the project were either from Westray or the town of Kirk wall. The majority of the croft mapping was done on Westray and Faray.

Once researchers had become familiar with the techniques of data collection, they were given the opportunity to conduct research on the small and uninhabited island called Faray. The researchers were divided into teams to gather information in the same manner that had been utilized for the larger islands. Census

data was obtained from the local registrar and the Orkney Library and Archive in Kirkwall. The census information was copied and then re-entered into an Excel document so that information and tables could be created from it (Table 1).

Table 1

Example of Excel Layout and Labeling

House Nai	House Nu	ED	HID	Geocode	Surname	Name F	Name M	Position	Condition Sex		Age	YOB	Occupatior	Land Held Birth}l
Windywall	6	55·6		76	Drever	Ann	w	m	f		47	1854		Pharay
Windywall	6	55·6		76	Drever	Barbara	d	u	f		3	1898		Pharay
Windywall	6	55·6		76	Drever	David	s	u	m		20	1881		Pharay
Windywall	6	55·6		76	Drever	Jessie	d	u	f		11	1890	scholar	Pharay
Windywall	6	55·6		76	Drever	John	h	m	m		57	1844	farmer	Pharay

Information was gathered for 479 individuals from Faray, with census dates spanning the time from 1841 through 1901. The project directors created a specific Excel format so that the same data could be collected in a consistent manner. Such information included house name, house number, enumeration district, house identification number, geocode, surname, first name, middle name, position in household, marriage condition, sex, age, year of birth, occupation, land held, and birth place.

Croft Mapping and Digitizing

Individuals who had the task of croft mapping and digitizing were sent to the island of Faray. A tape measurer, ruler, compass, graph paper, and pencil were used to measure and sketch croft complexes and all measurements were recorded with metric information. Below are two examples of croft complexes in different states of deterioration (Figure 1 and 2). A GPS (Global Positioning System) point was taken from a specific location and indicated in each of the drawings. A total of ten croft complexes were surveyed including Quoy, Cot, Doggerboat, Hammer, Windywalls, Holland, Ness, Lakequoy, Roadside, and The Hill.   **Figure 1**   **Figure 2**
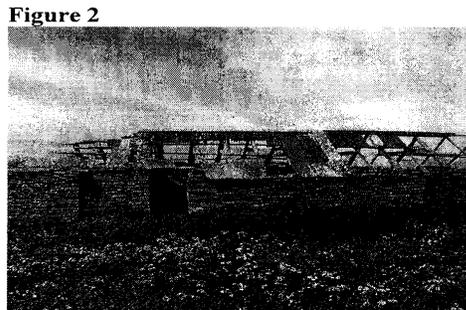
Figure 2

Most of the structures on the islands, like those on Faray, have been abandoned and are in various states of deterioration. One example, called Doggerboat (see Figure 2) has a final census recording indicating a last date of occupation in 1901. The walls are uneven and a majority of the roof has collapsed. However, one building on the island, called Schoolhouse, has been repaired and is currently being used during the sheep shearing season (see Figure 1). Once the drawings were completed, they were scanned into the computer and ultimately imported into AutoCAD, a digitization system.

Interviewing and Transcribing

A third group of researchers were in charge of formulating questions and conducting interviews with individuals who had some connection with the island. Three interviews were conducted, tape recorded,· and eventually transcribed into written form. The program Ethnograph was used to elicit certain useful information from the interviews by pulling up any key words that were requested by the transcriber. Finally, census data, croft drawings, and interviews were brought together to create a picture of the island at various times.

Library Research

All library research during the Fall 2005 semester was conducted through the Harvey A. Andrus Library and its accompanying website and included journal and book searches. Searches were conducted based on a selection of key words, including historical archaeology, global historical archaeology, ethnoarchaeology, and ethnohistory. These four keywords were searched through the journal sources Academic Search Premier, EBSCOhost EJS, JSTOR, and Pro Quest for the years that encompassed 2005-1990. The frequency of hits for each key word were listed according to the appropriate journal search engine (see Chart 1). The majority of hits were in JSTOR, while the lowest turnout was in EBSCOhost EJS. Based on both my personal field experience and a thorough review of the literature, I can now place the North Orkney Population History Project in a larger theoretical perspective within the subdiscipline of historical archaeology.

Chart 1 Key Word Frequency by Database
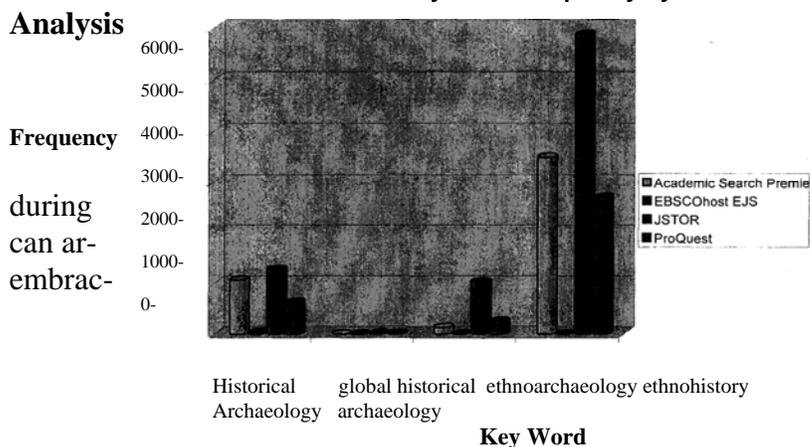
Analysis and **Discussion**

As discussed in the Literature Review, the 1960s American archaeologists were embracing processualism.

Frequency during can ar-

Historical Archaeology   global historical archaeology   ethnoarchaeology   ethnohistory

Key Word

Along with an emphasis on a scientific perspective, another major component of processualist theory was the emphasis on "studies that were evolutionary rather than historical in character" (Binford 1983). It was this theoretical landscape that formed the basis for the new subdiscipline of historical archaeology. From its infancy, historical archaeology has been greatly influenced by processualism (Wilkie 2005), even though at first glance the historical nature of historical archaeology conflicted with the ideas of processualists. In the 1960s and 1970s, historical archaeology was grappling with whether to embrace the scientific aspect of processualism wholeheartedly or branch out into the emerging humanistic approaches adopted by postprocessualism.

The NOPHP defies easy classification in the specialization of historical archaeology and in particular does not conform readily to a processualist approach. For example, Fontana (1965:61) attempts to fit historical sites into the framework of processualist ideas and defines "historic sites archaeology" as "archaeology carried out in sites which contain material evidence of non-Indian culture or concerning which there is contemporary non-Indian documentary evidence." This attempt to present historical archaeology in a way that is acceptable by processualists decreases the importance of written documents and limits the topics that can fall into this category. Defining historical archaeology in such a narrow way restricts its application to other areas and time frames. One specific statement in Fontana's introduction that I found especially problematic was his view on international historical archaeology: "Although the notion of historic sites archaeology may have validity for other parts of the world, its major utility is in the Americas and not elsewhere." He asserts that historical archaeology is only useful in the Americas. Clearly such a definition negates the expansion of historical archaeology to global sites such as the Orkney Islands.

In response to the processualist methods and theories, articles by "postprocessualists" such as Hodder, Bradley, Miller and Tilley flooded the journals in the 1980s. The authors argued that sociocultural phenomena was much more complex than at first thought by processualists. While processualists attempted to study cultures in isolation from other cultures, post-processualists sought to "analyze each feature of a culture in a relationship to the total configuration of that culture" (Trigger 1986).

Another important focus for post-processualists that was central to the development of historical archaeology was the exploration of "gender, sexuality and personhood" (Wilkie 2005). This was in opposition to the main thrust of processualism. Processualists sought to develop laws and rules for cultures where the emphasis was on the whole and not on individuals (Wilkie 2005). The North Orkney Project reflects both processualist and post-processualist concerns, focusing on both cul-

 ture writ large and on the individuals with that culture.

Currently, a new trend is taking place in historical archaeology with the latest research designated as "documentary" or "global" archaeology (Wilkie 2005). The research focus is on sites that have texts and documents, but lack the limiting restrictions that were present before in historical archaeology. Architecture, material culture and oral traditions are also being used to analyze archaeological sites (Wilkie 2005). The geographic limitations of earlier historical archaeology have also been removed allowing for a more global approach to historical archaeology.

Conclusion

"Historical archaeology has much to gain in the long run from encouraging a spirit of concerted, interdisciplinary, international cooperation; it stands to lose much if partisan competition for franchise rights to the field becomes overly biased and aggressive. Let us, then, welcome colleagues from all the scholarly disciplines to participate in, and contribute to, the new and exciting field in historical archaeology" (Jelks 1968).

This new global approach in historical archaeology is occurring worldwide. The focus is so recent that *World Archaeology* published a special theme issue based solely on historical archaeology. The North Orkney Population History project is a compelling example of the new direction in the field. The North Orkney Population History project combines census data with archaeological survey and mapping to create a story of the individuals who lived in small croft houses on remote islands. It incorporates contextual approaches to gain information about farmers and fishermen and the lives that they led. Information gathered from croft mapping is using to supplement the census records, which in turn is used to verify or refute information from interviews. Maps and drawings of croft complexes alone only allow a researcher to state the basic elements 'Of a structure. However, this information can be cross referenced with other sites that have the same characteristics. Historical records and interviews can "flesh out" the simple statistics produced from mapping and survey exercises. Interviewing individuals who occupied croft complexes or had any association with them can lead to an understanding of the particular artifacts or architectural elements that are found with these abandoned buildings. As a result, a very thorough and complex picture of the people and their lives unfolds from all the sources of information available to the researcher, affiliated with the North Orkney Project.

A simple attempt to classify a research project that I participated on led me into theoretical investigation of the subdiscipline of historical archaeology. By some definitions and standards, the North Orkney Population History Project

does embody the characteristics of historical archaeology. Other limiting definitions, such as those that focus on Colonialism excludes the research done in the Northern Orkney Islands as historical archaeology. An investigation into the various titles and names given to a subdiscipline that incorporates text into archaeological research led me to view historical archaeology as a byproduct of its theoretical surrounding. Whether processualism or post-processualism, the predominate theoretical approach influenced the development and application of historical archaeology.

The NOPHP is presented as a compelling example of the current trend in historical archaeology and the new direction in which this specialization is headed. Because the project expands the narrow definition and geographical limitations of American historical archaeology, it can be utilized as an example of the specialization's relevance and application in a global context. As a result, it is anticipated that "global historical archaeology" will eventually subsume and redefine American historical archaeology, thus allowing this specialization to expand its current geographical restrictions, research foci, and methodological repertoire.

Endnotes

1. Acknowledgment to Dr. DeeAnne Wymer for helping me to dissect my interests into a feasible research paper topic and her continuous proofreading and comments.
2. I would like to thank the Dr. Patricia Johnson, Dr. James Wood, Dr. Timothy Murtha, Dr. Corey Sparks for selecting me to participate in the North Orkney Population History Project. Their guidance and mentoring provided me with valuable experience in a fieldwork and research environment.
3. The National Science Foundation's Research Experience for Undergraduates program provides a grant for "travel, lodging, food allowance and a stipend" (http://146.186.95.23/nophINOPH/Information.htm 2005).
4. The seven other students that were part ofthe North Orkney Population History Project were Yvonne Benney, Robert Boyer, Amanda Gannaway, Kirsten Olsen, Steven Preston, Sarah Sorcher, and Lindsay Watkins.
5. Two forms exist for the spelling of this island. Pharay and Faray are seen in both maps and records. They refer to the same island.
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ARE TARSIERS REALLY A TAXONOMIC ENIGMA?

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Why are tarsiers indeed such a taxonomic enigma? Over the past century there has been no real agreement among physical anthropologists and primatologists alike towards tarsier phylogeny. Based on numerous shared ancestral traits, some experts say they are more related to prosimians. Others say they are more related to anthropoids. And then there are some that say they are not linked to either of the aforementioned sub-orders and that they should belong exclusively to their own sub-order. Thus, I will attempt my own phylogenetic analysis towards solving this huge taxonomic nightmare. I will compare a series of genetic, behavioral, and morphological traits among the genus Tarsius along with two prosimian genera: Galago and Microcebus; and one nocturnal anthropoid genus: Aotus. Each specimen evaluated will serve as a comparable representation of the sub-orders: Prosimii and Anthropoidea. Upon these comparisons, I aim to find out a closer phylogenetic tie towards one of these particular sub-orders or perhaps even neither.

According to Sharon Gursky (1999) in her essay titled "The Tarsiidae: Taxonomy, Behavior, and Conservation Status" within the anthology The Nonhuman Primates, there are two major opponents on the issue of tarsier phylogeny. The first one, which is essentially centered on the pioneering research of W.K. Gregory (1915), aligns tarsiers with numerous prosimian species based upon the presence of various ancestral traits. However in 1918, R. Pocock debated the issue on the already mentioned course towards tarsier phylogeny and argued that tarsiers are indeed anthropoids based upon the fact that tarsiers exhibit numerous morphological synapomorphies or shared derived traits. Thus, with the classification under anthropoids, Pocock is essentially establishing a classification scheme based upon allocating tarsiers into the sub-order Haplorrhini versus Strepsirrhini (Gursky, 1999: 140; Yoder, 2003: 161-162). I therefore have constructed a table that simplifies the two arguments based upon the morphological traits that are present and shared among the sub-orders. Please note that the sub-orders of Anthropoidea and Prosimii can be substituted for the orders Haplorhini and Strepsirrhini to accommodate Polock's argument. My results are as follows:

Tarsius: Dry Rhinarium

     Haemochorial Placentation

     Fovea Centralis

     Reduced Olfactory Bulbs

     Promontory Artery

     Flexible Upper Lip

     Small Body Size

     Unfused Mandibular Symphysis

     Grooming Claws

     Multiple Mammae

     Biocornuate Uterus

Anthropoidea: Dry Rhinarium	**Prosimii:** Small Body Size
Haemochorial Placentation	Unfused Mandibular Symphysis
Fovea Centralis	Grooming Claws
Reduced Olfactory Bulbs	Multiple Mammae
Promontory Artery	Biocornuate Uterus
Flexible Upper Lip	

*Data from Gursky, "The Tarsiidae: Taxonomy, Behavior, and Conservation Status," in Dolbinow and Fuentes', *The Nonhuman Primates,* **Mayfield, 1999; 140-141.**

Upon drawing conclusions from this table, it may be more evident that there is a strong anthropoid link. In other words, I would have to agree with Polock when considering this table as being quite obvious that tarsiers do contain more traits that are in common with anthropoids. For example, the fact that tarsiers have noticeable haplorrhine traits such as a dry rhinarium, reduced olfactory bulbs, fovea centralis, and a flexible upper lip would almost guarantee a slam-dunk case in a strong correlation with anthropoids. However, some experts agree that some of these traits, as well as the other aforementioned traits, are highly debatable as being purely anthropoidean.

Jeffrey H. Schwartz utilizes other individuals' previous research and comparative analysis in his own article within the anthology *Tarsiers: Past, Present, and Future* to test these so-called unquestionable similarities between both suborders. For one, there is no real agreement on whether the development of a fovea centralis in *Tarsius* is shared completely with anthropoids. He adds that galagids have even been noticed to have a minute presence of a fovea. In addition, he goes onto to state that the nocturnal New World anthropoid genus, *Aotus,* is also very unique in its development of a fovea centralis in that it is the only primate species

to have a fovea with an extremely high rod to cone ratio. This characteristic makes it more than well adapted for night vision (Schwartz, 2003: 55). Yet Colin Groves asserts in his chapter on primates in the *Encyclopedia of Mammals,* that both *Tarsius* and *Aotus* are quite different from all primate species in that they are the only ones that have an exceedingly large fovea with retinas completely saturated with rods (133). Regardless, this particular trait is not something that is seen to be widespread throughout the realm of primates.

As for the dry rhinarium and the unattached upper lip, there is no question that these characteristics are indeed shared in common with anthropoids. However, the overall structure of the nasal section may be more similar morphologically to prosimians. Hofer, in his 1980's research upon this particular matter, noted that the laterally wrinkled nasal structure observed in tarsiers matched more closely to several pro simian species (Hofer 1980). Yet, because tarsiers do indeed have a dry rhinarium along with a flexible upper lip, it cannot be denied that this is more of an anthropoid trait.

Elwyn Simons adds further to the anthropoidlprosimian debate by employing a quote from Starck's 1955 research also in the anthology Tarsiers: Past, Present, and Future on tarsier haemochorial placental development. According to Starcks this anthropoidean characteristic is something that is only noticed once tarsiers fully mature. Prior to this point, the development of the placenta resembles more closely to that of pro simians (Simons, 2003: 11). Therefore tarsiers could be displaying a stage between both anthropoid and prosimian placental development by showing the retention of a primitive trait and then later on developing the more derived form.

Furthermore, according to J.R. and R.H. Napier in their book, The Natural History of Primates (1985), tarsiers are seen to exhibit a grooming claw on the second phalange of the foot, which is similar to prosimians who have a grooming claw on either the second or third phalange (32; Dolhinowand Fuentes, 1999: 121). However, what is interesting is that tarsiers also exhibit a grooming claw on the third phalange as well. This unique display of having two grooming claws is not shared in common with prosimians, or any other primate for that matter (Napier & Napier, 1985: 17). However, grooming claws are indeed predominantly a pro simian trait.

In terms of confirming body and weight similarities to prosimians, I aimed at conducting a table of various body sizes and weight measurements of *Tarsius, Microcebus murinus, Galago sengalensis,* and *Aotus* obtained from the book *Walker's Primates of the World* written by Ronald M. Nowak (1999). (Table 1):

Table 1: Body Size and Weight

	Head/Body Length	Tail Length:	Adult Weight:
Tarsius:	85-160mm	135-275mm	80-165gm
Galagosenegalensis:	88-210mm	180-303mm	95-300gm
Microcebus murinus:	125-150mm	125-150mm	39-98gm
Aotus:	240-370mm	316-400mm	.6-1kg

Based on the measurements obtained, tarsiers do indeed share more similarities in length and weight with the above-mentioned prosimian specimens, particularly Galago senegalensis. On the other hand, Aotus shows a clear deviation from these particular pro simian small-bodied species. However to be somewhat fair, I decided to further compare the body, tail, and weight measurements of Cebuella pygmaea to see if Tarsius was still comparable to this small bodied New World anthropoid (Table 2):

Table 2: Tarsier and Cebuella Data

	Head/Body Length:	Tail Length:	Adult Weight:
Cebuella pygmaea:	117-152mm	172-229mm	85-140mm

Based on these particular results, the body length and weight of the pygmy marmoset is comparable. In fact, both *Cebuella pygmaea* and *Microcebus murinus* are the only ones that fit within the measurable ranges of *Tarsius.* However, anthropoids for the most part are large-bodied. And prosimians on the other hand, are commonly represented by a large number of small-bodied species. Consequently, a larger weight of evidence obtained from body, tail, and weight measurements does support a strong pro simian relation. Yet, this small body size may not be due to the retention of traits from a primitive ancestor, but rather could be homoplasy.

But those aforementioned traits alone gathered to support Gregory's and Pocock's classification schemes are not at all satisfying. As a mater of fact, there are other morphological traits that exist beyond these highly generalized comparisons between tarsiers and other primates. For instance in relation to body size, I also constructed a table (Table 3)consisting of data from E. Christopher Kirk's (2004) research on comparing average measurements of the diameter of the eye and cornea among 147 primate specimens to see if there was a match in data among the species compared: *Tarsius syrichta, Microcebus murinus, Galago senegalensis,* and *Aotus.* Furthermore, ratios are shown in order to get a relative measurement of cornea to eye diameter. In addition to this table, I created another table displaying the average body size along with the average

cornea and eye diameter obtained from the first table in order to see which primate considered, shared similar eye and cornea proportions in relation to body size that mayor may not point to a more antbropoidean or prosimian connection. Table 3 and 4 are as followed:

Table 3

Mean Transverse Diameter:	Cornea:	Eye:	CD/ED Ratio:
Tarsius syrichta:	14.1mm	17.9mm	.79
Microcebus murinus:	8mm	9.4mm	.85
Galago senegalensis:	8.8mm	9.6mm	.92
Aotus:	13.4mm	19.2mm	.70

Table 4

Mean Transverse Diameter:	Cornea:	Eye:	Body Length:	Cornea/ Body/Eye/ Body:
Tarsius syrichta:	14.1mm	17.9mm	122.5mm	.16/.15mm
Microcebus murinus:	8mm	9.4mm	137.5mm	.06/.07mm
Galago senegalensis:	8.8mm	9.6mm	149mm	.06/.06mm
Aotus:	13.4mm	19.2mm	305mm	.04/.06mm

To sum up these two tables, it is quite clear that *Aotus* shares similar diametrical averages in eye and cornea length to *Tarsius syrichta.* However, when considering the relative proportion of cornea to eye diameters, it is quite evident that *Microcebus murinus* comes the closest. Moreover, *Microcebus murinus* also closely resembles *Tarsius syrichta* in overall eye diameter in relation to average body length. Nevertheless, *Tarsius syrichta* evidently stands out the most among all four specimens. Therefore, *Tarsius syrichta* may be displaying a unique adaptation and requirement for extremely large eyes that are useful for nocturnal habitation and possibly ambush hunting behaviors. However, *Microcebus* may be exhibiting an evolutionary trend towards developing the same traits due to its partial dietary reliance on insect prey (Nowak, 1999: 66).

Aotus has the smallest relative size of cornea to eye diameter, and relative cornea/eye diameter to body size. This could possibly be attributed to the com-

plete saturation of rods within the fovea centralis that aids *Aotus* in seeing nocturnally without a requirement for extremely large eyes or tapetum lucidum. Not only that, but very little of this particular primate's diet consists of insects or small bodied fauna. Therefore, there is little need for excessively large eyes to aid them in the visual detection of moving prey (Nowak, 1999: 112). But again, tarsiers and night monkeys are both unique in that they fail to exhibit any cones within the retinas of their massive eyes. In addition, they both have been noticed to display a macula region commonly seen in diurnal anthropoids. This highly suggests that they both share a relationship with a diurnal ancestor (Groves, 2003: 133). However in regards to the tables stated above, there may be more of a closer link between tarsiers and small~bodied prosimians.

To further compare morphological similarities, the hind limb morphology of tarsiers does indeed draw attention. When comparing particular galagids, mouse lemurs, and night monkeys, it does become evident that tarsiers may be exhibiting an ancestral form of hind limb morphology. For instance, A.B. Howell (1944) in his research noticed that all galago and mouse lemur species are seen to have a lengthened calcaneus with a minute cuboid. Furthermore, tarsiers, galagos, and mouse lemurs are unique in that they not only display lengthened tarsal bones, but also display a longer foot length in comparison to the femora or tarsal bones. As a matter of fact, galagos and tarsiers share very similar intermembral indexes that are both extremely low. Also, galagos, mouse lemurs, and tarsiers exhibit noticeable bone fusion among the tarsal and femoral bones (Schwartz, 2003: 67~68). This elongation and fusion of the hind limbs among these three specimens could possibly be due to displayed similarities in their forms of arboreal locomotion, known as vertical leaping (Nowak, 1999: 61, 66, 95). *Aotus,* however, is more of an arboreal quadruped that shows very little leaping (Norwak, 1999: 112).

Table 5: Comparison of Teeth

	Dental Formula:	Total Number of Teeth:
Tarsius:	2/1-1/1-3/3-3/3	34
Microcebus:	2/2-1/1-3/3-3/3	36
Galago:	2/2-1/1-3/3-3/3	36
Aotus:	2/2-1/1-3/3-3/3	36

Other morphological aspects that could be further analyzed are the dental formula and morpholology of tarsiers to see if they show an ancestral or derived state. Table five compares the dental formula and number of teeth among *Tarsius,Galago, Microcebus,* and *Aotus* (Napier and Napier, 1985: 40 and 106).

It is evident that tarsiers stand out the most from these particular specimens in that they generally lack a second lower incisor. Yet, the ways in which the teeth of tarsiers are arranged along with the independent morphology of the teeth are noticeably primitive. In fact, due to Musser and Dagosto's research (1987) on anterior tooth morphology in *Tarsius pumilus,* it can be concluded that the anterior teeth of this particular specimen resembles very closely to the dental comb arrangement in lorises and lemurs. Furthermore, the bottom set of molars, canines, and premolars among *Tarsius* show a derived morphology from the ancestral condition seen in galagos and not in anthropoids. These include such traits as premolariform canines and sharp, tall cusps on the molars (Schwartz, 2003: 66.67).

More morphological similarities that can be mentioned are what Patricia Wright (2003) noted in the introduction to the journal anthology *Tarsiers* with information from her 1986 written journal article titled "Reproductive cycles in *Tarsius bancanus"* that Horsfield tarsier females show swollen genitalia during estrous, which indeed is an anthropoid trait (1). Elwyn Simons (2003) in her article "The Fossil Record of Tarsier Evolution" in the same anthology further claims that tarsiers have been seen to exhibit other anthropoid traits such as a thin mandibular ramus with a poorly developed mandibular process and an anterior positioning of the foramen magnum. However, these characteristics are again highly questionable as being homoplasy rather than shared derived traits among anthropoids (10). Also, there is a tubular ear bone extension that is noticed in tarsiers that very much resembles the lengthened ear canal seen in Old World anthropoids, including humans (Napier and Napier, 1985: 106).

In terms of behaviors, it has been stated that tarsiers do indeed show a number of primitive behaviors that have been debated among primatologists over the past several years (Gursky, 1999: 140). For one, the nocturnal habitation exhibited by tarsiers is commonly associated with almost all pro simians. In contrast, nocturnality in anthropoids is something that is only seen among owl monkeys (Napier and Napier, 1985: 17,18, 115). Even Simon Bearder (1987) in his essay "Lorises, Bushbabies,- and Tarsiers: Diverse Societies in Solitary Foragers" in the anthology *Primate Societies* clearly asserts that anthropoids have been primarily diurnal throughout their entire phylogenetic history (11). However, the fact that tarsiers show the morphology that also coincides with diurnal anthropoids should not be overlooked as purely a primitive trait. In fact, Bearder further argues that it is quite possible that tarsiers may be exhibiting a new phase in nocturnal adaptation (11).

Another ancestral behavior noticed is the way in which mothers among most species of tarsiers often practice "parking" their infants when hunting and carrying their infants orally when moving (Gursky, 1999: 140). Similarly, dwarf

galagos engage in these same mother-infant behaviors as well (Norwak, 1999: 65). Yet to say this behavior is something that is purely shared with pro simians may be misleading in that this may be a distinctive, successful adaptation in occupying a tropical niche with a small number of potential predators rather than an ancestral phenotypic expression.

I constructed a table delineating the particular diets as being exhibited among tarsiers, dwarf galagos, and mouse lemurs (Bearder, 1987; Napier and Napier, 1985; and Harste and Wright, 1997).

Table 6: Diet Percentage

Diet %:	Insects:	Fauna:	Fruit:	Other:	Source:
Tarsier:	90	10	0	0	Bearder, 1987
Dwarf Galago:	70	0	20	10	Napier & Napier, 1985
Mouse Lemur:	70	0	30	0	Harste & Wright, 1997

Based upon this table, it is clear that tarsiers exhibit a closer relationship to pro simians due to the overwhelming amount of invertebrate and vertebrate prey that is consumed. On the other hand other galagids, such as *Galago senegalensis,* display a greater preference for fruits (Napier & Napier, 1985: 99). Yet for the most part, the diets among both pro simians and tarsiers are very different from the primary frugivorous dietary compositions that are seen in anthropoids, including *Ao/us* (Napier & Napier, 1985: 115). However, complete sustenance on a diet of insects and fauna in itself is very exclusive to tarsiers in respect to all other primates that fail to show full subsistence on living prey.

In addition to the diets of these particular specimens, the hunting behaviors can also be compared among them. Galagos and tarsiers are the only ones that exhibit an ambush style of obtaining prey. Also, they are the only ones that show distinct similarities in the ways in which they grasp and consume insects, which is usually head first (Bearder, 1987; Napier & Napier, 1985: 99).

Furthermore, the social behaviors exhibited by tarsiers can be further analyzed to draw a potential phylogenetic connection. Tarsiers tend to not live in large collective groups, but are rather independent in their social behaviors. They are often documented as either living solitary or within monogamous pairs with

offspring. Unfortunately however, the social composition of tarsiers is something is still highly debated as being universally monogamous or solitary (Wright, Pochron, Haring, Simons, 2003: 260).

In fact, both *Tarsius bancanus* and *Tarsius spectrum* show a considerable amount of variation in their social organization and behaviors. Both species have been observed ranging in mix-sexed groups. They also rely mainly on olfactory communication via scent markings and urine washing in addition to the audio forms used to correspond between members. This is also commonly seen among pro simians (Barrett & Dunbar, 2000:63). In *T. bancanus,* very little audio communication and physical contact exists among males and females. Whereas *T. spectrum,* shows a considerable amount of auditory communication and close affiliative behaviors such as grooming, tail twinning, and other forms of close physical contact among members. In general, the social organization exhibited by tarsiers is not found to be similar in *Microcebus* or among most galagids. In reality the ranging pattern as seen by *Microcebus* is divided according to sex. But, the social forms displayed by tarsiers do show a greater correlation with *Aotus trivirgatus* where individual males, females, and offspring cooperate together as a group for resources and territorial defense within their habitat (Bearder, 1987:11,21-22; Napier & Napier, 1985: 84, 116).

Lastly, molecular phylogenetic evidence can further be applied in an attempt to put this debate to rest. A table consisting of the various tests done in genetics and immunological comparative analysis among tarsiers to prosimians and anthropoids are listed along with their outcome (Morales, Disotell and Melnick, 1999: 19-20 and Yoder, 2003: 167-168).

Table 7: Tests Done in Genetics and Immunological Comparative Analysis

Test:	Relation of Tarsiers: Anthropoid, Prosimian, or Neither
Immunological:	Neither
Protein Sequencing:	Anthropoid
Chromosomal Analyses:	Neither
DNA Hybridization:	Anthropoids
Nuclear Gene Sequencing:	Neither (Yet 3/5 supports anthropoid link)
IRBP Nucleotide Sequencing:	Prosimians
aA-Crystallin Locus:	Prosimians
Mitochondrial Genome Sequencing:	Neither (Yet shows a close Prosimian link)
***Alu Repeat Sequencing:**	Anthropoid
***Alu RNA Sequencing:**	Anthropoid

In consideration of the evidence stated in the table above it is quite obvious that most of the tests conducted support a closer affiliation with anthropoids. Protein sequencing, DNA hybridization, Alu repeat, and Alu RNA sequencing all support a close tie with anthropoids. Even the nuclear gene-sequencing test confirms a greater haplorhine relationship. However, the table mainly supports the notion that tarsiers are separate sister-taxa to the aforementioned sub-orders (Morales, Disotell, & Melnick, 1999: 19-20).

Moreover, disputes very much center on these various tests due to discrepancies and flaws in methodologies. For example, previous immunological tests showed a clear link to anthropoids. However, until recently, new immunological data has supported a sub-order of their own that differentiates them from both pro simians and anthropoids.

In regards to methodologies, missing data from original tests in protein sequencing have been considered to be a major flaw. Therefore this data cannot be considered valid until it has been re-conducted properly (Morales, Disotell, and Melnick, 1999: 19-20). Furthermore, Yoder (2003) in her essay accuses researchers in the nuclear gene comparative analysis of overlooking other genetic characteristics in lieu of this potentially strong trend towards supporting a more proximate tarsier relationship to anthropoids. She adds that the ignorance of relevant data and sampling bias is also prevalent in the mitochondrial genome sequencing in attempt to draw a chain towards prosimians. She also points out that only 3 Alu markers among a group of 118 within the Alu RNA sequencing shows a closer affinity towards anthropoids (167-168). Thus, these cannot realistically, nor reliably, be used to draw any conclusive link to anthropoids or pro simians due to these mistakes.

Conclusion

In conclusion, tarsiers may not be such a taxonomic enigma after all if considering an individual sub-order for tarsiers in general. As exemplified by the presented data on morphology, behavior, and molecular studies, there is, undeniably no clear agreement as to placing tarsiers within each of the aforementioned sub-orders: Anthropoidea and Prosimii. And much of the reason as to why they remain such a taxonomic enigma lies in the presence of numerous ancestral and derived traits, as well as the subsequent attempts to accommodate all of these characteristics into one of those all inclusive sub-orders. Robin Dunbar and Louise Barrett (2000) argue in their book, *Cousins,* that the reason as to why tarsiers exhibit such a mix of traits is not purely because of the phylogenetic retention of these traits, but rather due to homoplasy as a result of occupying a nocturnal, tropical niche over long periods of time (57). Therefore by placing

tarsiers into their own sub-order, this unique accumulation of traits can appropriately be accommodated and the argument can finally be put to rest.

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ANALYSIS OF THE BUSHMEAT PHENOMENON WITHIN THE CRADLE OF CIVILIZATION

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Known commonly as the "cradle of civilization," Africa is home to the earliest known forms of human society. It has been cleverly noted "if there was a Garden of Eden where the first man and woman lived, the garden was in Africa" (Bradshaw and Wallace 1996, 59). And although human civilization has existed longer in Africa than on any other continent, the region is viewed, primarily by the Western world, as an insignificant, uncivilized realm, one entirely incapable of running itself. To developed nations, Africa is merely a land of famines, civil wars, coup d'etats, AIDS epidemics, ethnic divisions, and orphans. It is a land characterized by a mounting indebtedness and financial incompetence that plague its capacity to do business in the global economy, "…a land that has a pathetic infrastructure: dilapidated schools, health clinics, roads, and communication facilities" (Bradshaw and Wallace 1996, 59). A Westerner is likely to credit the immature state of the Dark Continent to poor organization, incompetence and laziness. To Africans, on the other hand, these fledgling institutions can be explained away by a shortage in resources, namely money (Bradshaw and Wallace 1996, 59). It is this inconsistency between cultural outlooks that leads to discrimination, unfairness, and misunderstanding when it comes to international relations. It is this inconsistency that has for over one hundred years kept Africans and Westerners at odds on the issue of bushmeat.

"Bushmeat" is the term used to refer to all non-domesticated, wild animals used for meat, including (but not limited to) endangered species such as elephants, gorillas, forest antelope, monitor lizards, and bush pigs (BCTF 2005, 1). Historically, bushmeat has been used by hunter-gatherer communities as part of their traditional, low impact, and conservation friendly customs. Humans have been hunting wildlife in the tropics for hundreds of thousands of years, yet consumption has only greatly increased in the past few decades (Milner-Gulland 2002, 1). Today, bushmeat has evolved from a low-level, sustainable source of protein to an oversized, illicit commercial operation. It no longer provides for the destitute farmer and his family; it distributes to urban and even international markets, posing a huge threat to wildlife populations across the African continent. The illegal bushmeat trade has in recent years surpassed habitat loss as the most significant hazard to fauna around the world. Bushmeat consumption is a

global problem that affects wildlife in Africa, Asia, and South/Central America but for the purpose of this paper, I chose to focus only on bushmeat use as it occurs in Africa.

After surviving numerous colonial sport hunting holidays, the original low impact bushmeat business, and the loss of habitat, it has become increasingly difficult for African wildlife to sustain itself, especially with the introduction of a new generation of dangers. These dangers include the mushrooming of African populations, the transformation of African societal values, and the growing feelings of hatred towards wildlife induced by discriminatory colonial game laws. The forceful imposition of Western ideals on the traditional African way of life has further intensified these newer dangers.

Before the influence of Western society, Africans were a more minimalist sort of people. They were happy receiving only what they needed to survive. But with colonialism came capitalist ideals, and the "American Dream" of success. Why now should the hunter kill only enough to provide for his family when he could easily plant a few more snares and make some extra money on the side? In the historical sense, legislation against hunting wild animals in Africa has been in place since 1869; still, hunting is more prevalent than ever. Perhaps this is because little distinction has been made between killing for meat and killing for protection or self-defense. Here the roots of this phenomenon come into view. Once European colonials began passing legislation against the killing of bushmeat and established the first African wildlife reserves in the early twentieth century, the previously reasonable relationship between Africans and wildlife was jolted in a new direction. This notion was wonderfully described by conservationist David Western: "If the marginalized bush farmer ever had any rights under the colonial government, wildlife preservation stripped them away" (1997, 37). African antipathy toward wildlife can be traced back to this period, to the colonial denial of their right to hunt.

The colonial-imposed game laws clearly favored whites and made life impossible for the African people. It was incredibly unfair for the government to allow European tourists and explorers to take safaris and participate in hunts yet forbid hunting for natives. At the time, however, the tourist market raked in money that allowed for the sustainability of the African national parks and game preserves. The tribesmen became confused and angry with the colonials. Rangers would respond more frequently to the slaughtering of an animal than they would to the mauling of a person. This led many Africans to believe that their government cared more about Africa's wildlife than they did its people. The colonial government justified its repression by claiming that Africans would eradicate the game if given free license to hunt (Western 1997, 49).

Even more unfair was the fact that Americans and Europeans had already exterminated the majority of wildlife on their own continents. The American Army, for instance, with the help of commercial hunters, had done such a good job of controlling the bison population that barely 5,000 of the original 60 million survived (Western 1997, 47-49). At the same time the African husbandman was forbidden to kill elephants and lions threatening his crops, stock and life, the British farmer was allowed to reject the reintroduction of the wolf and bear and the American rancher was permitted to gun down bison wandering onto his lands from Yellowstone National Park (Western 1997, 16-50). Over 70 percent of the original mammalian genera in North America, 80 percent in South America, and 90 percent in Australia have disappeared from their respective countries (Western 1997, 47-49). After seeing what the outsiders had done to their own animal populations and suffering the hardships associated with colonialism, what value had wildlife anymore other than to white hunters, white tourists, white preservationists, and African poachers? (Western 1997, 47-49).

This resentment of the African farmers towards the colonial legislation fueled the backlash against wildlife, which threatened its very survival in years to come. Perhaps Europe and the Americas are just prophetic images of the Africa that is in store. David Western graphically and eloquently described this image in **In the Dust of Kilimanjaro**: *Surely the bloated carp floating down the Thames among the spumes of detergent, oil slicks, and soggy condoms, were symptoms of development gone awry? Where among the paved-over streets, ploughed up fields, and polluted skies of Europe did there exist room for wildlife? Surely Africa, in modeling itself on Europe, damned itself to repeat the same mistake* (1997, 46-47).

With an overabundance of indifference across the globe and the recent efforts towards worldwide McDonaldization, what hope is there for the continued survival of any species other than our own? How can the rest of the world possibly expect the hunters, traders, truck drivers, market-resellers, restaurateurs, and consumers who are intrinsically tied to African bushmeat and depend on it in some form or fashion to just give it up when they've been held to such a double standard? What exactly are the consequences of bushmeat consumption? And, with this in mind, how are we to effectively solve the crisis? I will use the remainder of this essay to try to address these questions.

The effects of over-hunting are copious and severe. Species loss gives birth to consequences detrimental to both animals and humans. The illegal bushmeat trade is already responsible for the widespread extinction of local wildlife in Asia and West Africa. As much as one million metric tons of wildlife is killed for its meat each year in the forested regions of Central Africa (BCTF 2005, 1).

This threat to wildlife is a crisis because it is rapidly expanding to countries and species which were previously not at risk. This expansion is largely due to an increase in the commercial logging industry, which opens up previously isolated sectors of the forest through an infrastructure of roads and trucks. Per capita bushmeat consumption is highest in these logging concessions because the large numbers of company workers can afford to eat more meat than poorer unemployed families, they can afford to purchase guns and ammunition, and they have motorized access to the forest to hunt (BCTF 2000, 1). The bushmeat trade, with the help of international timber producers, is reported to traffic 71 different species of mammals in just seven countries of West and Central Africa alone. According to bushmeat analyst John Fa of the Durrell Wildlife Conservation Trust, hunters sampled in 36 towns and villages across Cameroon, Central African Republic, Congo, Democratic Republic of the Congo, Equatorial New Guinea, Gabon and Ghana were killing approximately 200 animals per hunter per year.   The pressure placed on wildlife by commercial hunting is substantial, especially on ape populations: It is widely regarded by experts to be the major driving force behind the decline of all species of African apes (Stein et al nge attitudes at all levels—from world leaders to the consumers of illegal bushmeat—there will be no viable populations of great apes in the wild within 50 years." (Bowan-Jones 1998, 7).

But bushmeat doesn't only pose dangers to wildlife; it is a human tragedy as well. The decline in the numbers of wild animals threatens the livelihoods of indigenous hunters and the lives of those in rural populations who depend on wildlife as a major component of their diet. Bushmeat is being eaten by consumers in rural and urban communities who, in many cases, are at the end of supply chains that are hundreds of kilometers long (Milner-Gulland 2003, 1). Tropical forests may appear lush in pictures, but they're really only one-tenth as productive as savannas are in terms of their ability to produce animal protein. According to Susan Milius, even if people got all their protein from local bushmeat, the tropical forests wouldn't be able to support more than one person per square kilometer over the term (2005, 2).

In addition to the economic effects and the issue of food shortages, the consumption of bushmeat is also associated with severe health consequences. According to the Bushmeat Crisis Task Force, human consumption of other primate species is scientifically associated with the spread of deadly zoonotic diseases, including AIDS and Ebola. Evidence of simian immunodeficiency virus (SIV) infection has been reported for 26 different species of African primates. Two of these viruses, SIVcpz from chimpanzees and SIVsm from sooty mangabeys, are known to be the initial cause of AIDS in humans (BCTF 2003, 1). Primate species known to harbor SIV, including colobus, sun-tailed and

DeBrazza monkeys as well as mandrills, drills, chimpanzees, and red-capped mangabeys, are regularly hunted and sold at west and central African bushmeat markets (BCTF 2003, 1). Despite the fact that apes and monkeys are the most likely vectors for the transmission of harmful diseases because of their genetic similarity to humans, all forms of bushmeat pose a disease risk to humans because it is not federally regulated and therefore is not thoroughly inspected before consumption. The genetic similarity between humans and apes, in turn, also makes the nonhuman primates vulnerable to infection from us, thus further threatening an already depleted animal population.

In spite of its consequences, bushmeat is a critical component for the livelihoods of many Africans, particularly the rural poor. The truth is most people eat bushmeat because it is typically the cheapest and most readily available source of meat around. Notwithstanding the fact that bushmeat is rarely included in national economic statistics or nutritional data, assessments of the national value of the trade suggest that it is often among the most economically significant trade sectors for the countries that use it. The bushmeat trade in Cote D'Ivoire, for instance, is worth more than 117 million U.S. dollars; the bushmeat trade in Liberia is claimed to be worth more than the country's extensive timber trade (Bowen-Jones et al 2003, 391).

Since bushmeat is a highly complex problem and a large contributor to the economies of west and central African countries, it is important that an interdisciplinary approach to intervention be taken, an approach that utilizes the biological, economic, and institutional perspectives on the issue (Bowen-Jones 2003, 390). An effective intervention policy will integrate several of the potential steps we might take to solve the problem, including reducing the demand for bushmeat by influencing consumers, protecting wildlife species through strict exclusion policies, raising the price of bushmeat and making legitimate forms of meat more affordable, reducing hunters' access to guns, consistently enforcing legislation against the trade by issuing fines to those possessing more vulnerable species, encouraging selective hunting or alternatives to livelihood activities, and replacing wild bushmeat with domesticated species or other protein sources (Bowen-Jones 2003, 393).

Solutions to the bushmeat crisis will also require international collaboration on policy reform, sustainable financing, long-term support for protected areas, development of protein and income alternatives, and education/awareness campaigns (BCTF 2005, 1). It is imperative that multiple steps toward intervention be taken in an integrated and simultaneous fashion. A solution will be ineffective if only one of the above mentioned disciplines is represented and not the others. It has been predicted that any efforts to constrain the supply of bushmeat

or enforce laws that prohibit the commercial trade will, in the short-term, decrease the amount of bushmeat available in markets. However, if demand for bushmeat is strong enough and substitutes do not exist, the prices for bushmeat will likely increase and provide additional incentives for people to enter the trade or find ways to evade the controls (BCTF 2000, 2).

Even if all the above policies are put into action concurrently, I wonder if such intervention will be enough to stop this crisis. Surely Westerners cannot ask the African people to make such a change to their own lifestyles until we modify our own. As we are perhaps in part responsible for the bushmeat crisis, it falls on us (Western society) to initiate a transformation. Perhaps we should make an effort to stop polluting our skies and groundwater, to stop depleting our resources, to stop being so wasteful before we shake our finger at Africa. Knowing full well how impoverished some of these African countries are, maybe we should present them with something more than just stricter regulations on wildlife consumption. It won't do either to merely air drop a few thousand heads of cattle into an indigent region. This is an endeavor which must be taken on wholeheartedly. With the expansion of modern technology, the boundaries between continents and countries have blurred, creating one big global community. This community cannot possibly prosper in the presence of apathy and hypocrisy. If a bright future for the planet's people and it's wildlife is in fact on the horizon, then citizens worldwide must wake up and take action

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CONCEIVING OF SELF: A CASE STUDY OF THE BRAZILIAN-JAPANESE

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How the individual relates to society has been a central focus in cultural and personality studies within anthropology. The Brazilian-Japanese migration to Japan constitutes a unique situation in which to study societal influences on individuals. Before leaving Brazil, the Brazilian-Japanese predominately consider themselves to be Japanese, but once in Japan the culture in which the Brazilian-Japanese claim to share heritage with refuses to fully accept the Brazilian-Japanese's concept of self. By attempting to understand the way in which the Brazilian-Japanese cope with this challenge, the application of George Herbert Mead's theory of self which focuses on the interaction of individuals with the group in self formation, offers insights into how the Brazilian-Japanese "become" Brazilian.

Mead's Theory of Self

The self originates and is based in the social and can only be experienced indirectly rather than directly (Mead 1956: 215, 242). People indirectly encounter themselves through their interactions with others by being exposed to the orientation of the social group in which they are involved (Mead 1956: 215). The main prerequisite is that individuals must "first become objects to [them]selves just as other individuals are objects to [them] or in their experiences," and this is accomplished by adopting "the attitudes of other individuals toward [ego] within a social environment and behavior in which both [ego] and they are involved" (Mead 1956: 215). In other words, no one experiences the self in the "pure" present as it unfolds, and a better understanding of this concept is gained through Mead's "I" and "me" analysis. The "me" represents the structured set of attitudes gained from past contact with and present feedback from the other while the "I" constitutes the chosen response (Mead 1956: 242-243). Although the "I" remains unpredictable, Mead proposes that the "me" acts as a "censor [that] determines the sort of expression which can take place, sets the stage, and gives the cues" (Mead 1956: 244, 252). Thus, people continually accrue knowledge about how others reacted to past behaviors, and this serves as a reference for future decisions. "The 'I' of this moment is present in the 'me' of the next moment" (Mead 1956: 242). If people are only aware of the "I" as it appears in the "me" than they never completely realize who they are (Mead 1956: 242).

Therefore, a social background is needed in order to realize how a person has developed, and various backgrounds draw out different aspects of the self and limit the degree in which the self is present in communication (Mead 1956: 219). Communication makes it possible for people to become objects to themselves and involves not just language but the use of other symbols as well (Mead 1956: 215, 216). Likewise, the discourse influences both the other and the individual whereby *the [individuals] do respond to that which they address to another and where that response of their own becomes a part of their conduct, where they not only hear themselves but respond to themselves, talk and reply to themselves as truly as the other person replies to them; that [...] individuals become objects to themselves* (Mead 1956: 216).

In a more external and observable way, the behavior and reactions of the other influences what the individual will say while each previous scene is simultaneously cognized and cataloged for future use. However, Mead points out that often times the effect of the individuals' actions on the other differs from that of the individuals' reactions to the same initial stimuli (1956: 224). The explanation involves the fact that each participant has a different set of experiences in which to reference and the particular social situation further guides the responses (Mead 1956: 246).

For Mead, the process of self-development involves two stages. In the first stage, as previously mentioned, individuals construct their selves by organizing the attitudes of the other individuals (Mead 1956: 235). The second stage appears to be more abstract than the first. Not only are the others' orientations cognized, but these accumulated and structured experiences with the other individuals are used to form a more abstract perception of the attitudes of the groups to which both the individuals and the others belong. According to Mead, individuals obtain complete selves after stage two (Mead 1956: 232). Whether this complete self continues to change is unclear, but the view of a self that is constantly being modified seems appropriate since individuals will continue to encounter new situations, especially if they are introduced to new cultures. The modification mentioned implies that between the various segments of the self, new connections will be created; old ones will be broken; and others will be strengthened, such as will be proposed among the Brazilian-Japanese.

In addition, Mead points out that every self is unique and explains that certain common attitudes are needed in order for a community to exist (Mead 1956: 240). While culture is not mentioned, the implication appears to be that it could be substituted for attitudes. Furthermore, individuals bring their own particular histories to the situation (Mead 1956:247). Although they may be part of a group, their organized selves "reflect […] a different aspect or perspective of this whole social behavior pattern from that which is reflected in the organized structure of any other

individual self within that process" (Mead 1956: 248). Contrary to the Western concept of self, Mead states that there are no strict boundaries between selves because each is overlapping and contributing to other selves' formations (1956: 241).

Background of the Japanese in Brazil

The immigration of Japanese to Brazil began in 1908 (Smith 1979: 53). The Japanese government promoted the emigration in hopes that it would help alleviate the economic stress felt by such factors as increasing population and unemployment (Smith 1979: 54). While the Japanese culture held a negative view of long-term emigration, Brazilian culture typically approved of immigration (Tsuda 1998: 323,326). The climax of the immigration was reached between 1926 and 1935 when some seventy-percent of the approximately 190,000 Japanese immigrants from 1908-1942 arrived in Brazil (Smith 1979: 53,54). A desire for more personal freedom prompted some 60,000 Japanese to migrate to Brazil after WWII (Smith 1979: 54, 65). During the 1960s, other factors such as investment opportunities, technological testing, missionary work, and personal reasons influenced more Japanese to leave Japan for Brazil, but the rate of immigration had slowed considerably (Reichl 1995: 180). Today, the majority of Brazilian-Japanese reside in São Paulo. They currently comprise the largest group of *nikkeijin*, Japanese born and living outside Japan (Tsuda 1999: 146). As in the present case concerning the Brazilian-Japanese who immigrate to Japan, the Japanese originally planned to stay only temporarily in Brazil, but WWII forced them to accept a more permanent move (Smith 1979: 57).

The Côlonia, the Japanese community in Brazil, discouraged association with non-Japanese thereby reinforcing the Japanese identity. Since the Japanese filled the middle-class void that existed within the Brazilian social structure, marriage and other types of interactions between Brazilians and Japanese were further repressed since such activities required crossing class boundaries (Reichl 1995: 35, 45). In addition, the pre-WWII immigrants remained extremely loyal to the Japanese emperor and consequently fostered a deep sense of pride and connection with their homeland, which was propelled by Japan's international power as a major player in the Axis (Reichl 1995: 39).The concept that the Japanese become more Japanese as they become more isolated from Japan has been associated with the ideology of the Côlonia (Reichl 1995: 52). Initially this appears quite contradictory until a person realizes that a foreign background highlights the unique qualities of Japanese culture that otherwise would have blended in (Tsuda 1999: 152). Knowledge of these details enables the Brazilian-Japanese to resist acculturation since they have a better idea of what Japanese is to them, or rather what Japanese is to the Côlonia since it is with this group that they primarily interact. Thus, this appears to follow Mead's theory that the attitudes of the group influence the attitudes of the

individual.

Post WWII saw a lessening of the Côlonia's power, and Japan's success in the global market provided a renewed sense of pride and attachment to Japan (Reichl 1995: 36). Nevertheless, an important distinction among the Brazilian-Japanese developed between the old immigrants (pre WWII) and the new immigrants (post WWII). Linguistically, the old immigrants are referred to as *kyū-imin* while the new are called *shin-imin* (Smith 1979: 55). Within these two designations, specific terms also exist to differentiate generations. The immigrants themselves are *issei*; their children or the second generation are *nisei*; the third generation, *sansei*; and the fourth generation *yonsei* (Smith 1979: 55). The *kyū-imin* consider the *shin-imin* to be "unJapanese" in behavior, dress, ideology, and manner of speech, as is evident from the following statement by a teenage *nisei*: "Hakujin kusai kara… [because they smell of whites/because they are like white men]" (Smith 1979: 56). Thus, in terms of the "me", the *kyū-imin* and the *shin-imin* have contradicting perceptions of what constitutes Japaneseness. These conflicting positions combined with other factors like job competition may account for division between the *kyū-imin* and the *shin-imin*. Such clashes in perceptions of Japaneseness foreshadow the reception the Brazilian-Japanese will receive when they return to Japan.

Today, the Brazilian-Japanese are in various stages of acculturation. Some remain more isolated while others are quite assimilated and have adopted many of the attitudes of the Brazilian society in which they live. This is especially true of the younger generation. Although hundreds of Japanese language schools, *nichigo-gakkō,* were built in southern Brazil, most *nisei* and *sansei* only attend for a short time and are unable to speak fluent or, more often, any Japanese (Smith 1979: 66). *Nisei* clubs for teens and those in their early twenties have opened membership to Brazilians (Smith 1979: 67). After the Crown Prince and Princess of Japan visited a packed stadium of 60,000 Brazilian-Japanese in 1967, Robert Smith spoke with one family about their reactions (1979: 68). The grandfather was moved to tears, but his grandson whispered that he had "rather have gone to Holiday on Ice" (Smith 1979: 68). The acculturation process may be likened to Mead's second level in the development of self where "the social attitudes of the generalized other […] are included as elements in the structure or constitution of the self" (Mead 1956: 235).

A Brazilian-Japanese's sense of self, either Brazilian or Japanese, also fluctuates depending on the social situation. When Brazilian-Japanese apply for a job at a *nikkei* firm, they are likely to express their Japaneseness through proper Japanese behavior and use of the language when possible (Reichl 1995: 54). However, when applying to a Brazilian firm, the same Brazilian-Japanese would

be more inclined to speak Portuguese and exhibit other signs of nationalism (Reichl 1995: 54). Thus, by reflecting the attitudes, or in this case the ethnicity, of the other party in their communication, the Brazilian-Japanese are able to become objects to themselves. Furthermore, the Brazilian-Japanese will signify their association with Brazil by voting in elections and will demonstrate their connection to Japan by attending and donating to *nikkei* fundraisers (Reichl 1995: 54). Such alternations reinforce a concept of self as both Japanese and Brazilian.

The assumption is made that the Brazilian-Japanese attempt not only to strike a balance between their Japaneseness and Brazilianness but tend also to express more of their Japaneseness than their Brazilianness while in Brazil. The Brazilians, in turn, respect the Japanese and acknowledge their Japaneseness. Thus, combined with a heritage that emphasizes ties with Japan, the Brazilian-Japanese become more and more accustom to thinking of themselves as Japanese. This interpretation of self is almost considered a given even though many possess no proficiency in Japanese and associate more and more with Brazilians. As Mead illustrated, the self is constructed in a social setting, and this setting involves constant interaction with Brazilians. The fact that many of the Brazilian-Japanese (*nisei* and *sansei*) operate smoothly among the Brazilians implicitly demonstrates that they have adopted some of their host-country's ways. The realization of their Brazilian "I" in the "me" remains overshadowed until another social background challenges and redirects this view. By dining at Japanese restaurants, taking lessons in tradition Japanese arts, and attending the Japanese culture fairs at São Paulo, the Brazilians are validating the Brazilian-Japanese's concept of self and thereby reinforcing the Brazilian-Japanese's stronger connection with Japan (Reichl 1995: 45). Accordingly, such proceedings resemble the discourse loop laid out by Mead.

Brazilian-Japanese in Japan

The need of unskilled workers in Japan combined with Brazil's sudden economic downturn prompted many Brazilian-Japanese to immigrate to Japan in the 1980s (Tsuda 1999: 146). The unskilled labor sector in Japan offers the Brazilian-Japanese the opportunity to earn five to ten times more than they could earn working in middle-class jobs in Brazil (Tsuda 1999: 146).The Japanese refer to these immigrants as *dekasegi* (guest workers) (Tsuda 1998: 318). Although most planned to stay only long enough to earn extra savings, many have brought their families and have begun to resettle (Tsuda 1998: 319). Most *dekasegi* are *nisei* and *sansei* and speak only a little Japanese (Tsuda 1999: 146). While the *dekasegi* are accustom to being a minority, they occupied a higher social position in Brazil which, combined with the Brazilians' acceptance, promoted their con-

nection to Japan and presupposed them to the assumption that they would be accepted by their new host country (Tsuda 1999: 147, 149). However, the Japanese view the migrants as impoverished, uneducated failures who could neither survive in Japan nor in Brazil (Tsuda 1999: 159). In addition, the Japanese expected the Brazilian-Japanese to be more culturally similar to the Japanese and were disappointed by the contrast (Tsuda 1999: 160).

The Japanese conceive of Japanese ethnicity based largely on descend but also in terms of culture thereby creating a close connection between the two (Tsuda 1998: 322, 331). In addition, Japanese education and socialization stereotype undeveloped countries as filthy and inadvanced, and such views transfer over to the *dekasegi* (Tsuda 1998: 344). Consequently, Japanese society refuses to accept the Brazilian-Japanese as truly Japanese and sees them as threatening the homogeneity of Japanese heritage despite the fact that the Brazilian-Japanese are true descendents (Tsuda 1998: 342, 344). According to one Japanese, 'We feel culturally superior to the nikkeijin because we have real Japanese culture while they have only contaminated Japanese culture' (Tsuda 1998: 342). Furthermore, the Japanese maintain a higher opinion of Japanese-Americans than they do of Brazilian-Japanese since Brazil is viewed more as an undeveloped country (Tsuda 1998: 345). Conversely, non-Japanese spouses and their children feel less pressure to conform since the Japanese are more understanding and accepting of them because they do not appear Japanese (Smith 1979: 66; Tsuda 2000: 60). However, the Japanese inhabitants of Oizumi-town and other cities with a large concentration of Brazilian-Japanese migrants have developed increased tolerance for the Brazilian-Japanese's cultural differences (Tsuda 2000: 59).

The Japanese consider interaction and loyalty as necessities for socialization (Merry 1988: 106; Tsuda 1995: 335). Through this process, the new participants learn what is expected along with the importance of uniformity, especially within the work setting (White 1998: 111). This occurrence is strikingly similar to Mead's concept of self being shaped from the give and take of the social exchange. Yet, the *dekasegi* tend to transfer from factory to factory depending on which one is offering the best pay (Tsuda 1998: 335). As a result, the Japanese consider them to be "individualist" and "selfish" (Tsuda 1998: 334). The following is a quote of one Japanese woman's opinion on the place of self-giving: *Nihanjin wa ne jibun otaisetsu ni shinai no, ne. (The Japanese do not treat themselves as important, they spend time doing things for the sake of maintaining good social relationships, regardless of their inner feelings)* (Kondo 1986: 81).

Individualism, per se, is not inherently wrong, but lack of participation is not socially acceptable (White 1998: 107). Rather than a clash between concepts of self, Takeyuki Tsuda implies that the Japanese misunderstand the root of the

Brazilian-Japanese behavior (1998: 334). In addition, assimilation into the Japanese society requires that the potential members involved purge themselves of all that is foreign (White 1988: 106). To reject something, a person must first have some knowledge of what it is in order to proceed in discarding it.

Combined with homesickness, the Brazilian-Japanese realize, when confronted with this process, just how much they are Brazilian. Furthermore, the homology of the Japanese society in comparison with the Brazilian provides a background better suited for the awareness of variations (Reichl 1995: 53). In such a situation, the Brazilian-Japanese attempt at first to display their Japaneseness, but unknowingly their Brazilianness shines through to varying degrees and is immediately perceived by the Japanese as completely counter to the notion of what defines Japanese. In turn, the signals given by the Japanese's reactions reflect to the Brazilian-Japanese the degree of their Brazilianness, which had formerly remained unapparent. Dorinne Kondo, a third generation Japanese-American who did fieldwork in Japan, vividly describes an experience which is probably not too uncommon for many Brazilian-Japanese*: someone somewhere would greet one of my linguistic mistakes with an astonished 'Eh?' I became all too familiar with the series of expressions flickering over these faces: bewilderment, incredulity, embarrassment, even anger, at having to deal with this odd person who looked Japanese, therefore, human, but who must be retarded, deranged, or God forbid-Chinese or Korean* (1986: 76).

The Brazilian-Japanese have two responses to chose from, either resolve to continue in their struggles for Japanese recognition or embrace their newly realized Brazilianness. While the Japanese provide much opposition to the Brazilian-Japanese's claim of Japaneseness, the Japanese may also, as Kondo pointed out, try to deconstruct the Brazilian self and build a Japanese self through coaching in proper Japanese ways and rewarding such actions with phrases like: "You're more Japanese than the Japanese" (Kondo 1986: 79). However, Konda's situation differs from most Brazilian-Japanese's in that she was from an industrialized country and received aid from informants. Furthermore, Dr. Nakagawa, a psychiatrist, stated in references to the Brazilian-Japanese that "those in Japan who say, 'I am different, I am not Japanese' tend not to have psychological difficulties" (Tsuda 2000: 60). Thus, many Brazilian-Japanese follow the path of the second choice. As one Brazilian-Japanese migrant stated, 'We came to Japan in search of money but found our Brazilianness instead' (Tsuda 2000: 56).

The social interaction of the Brazilian-Japanese with the Japanese not only highlights the Brazilianness of these *dekasegi* but also demonstrates that the views the Brazilian-Japanese formed of the Japanese people reflect in general the Brazilian's perceptions and stereotypes of the Japanese. Therefore, the following

statements illustrate, as was noted by Mead, that expectations are based on the "me" of the past experiences which are influenced by the society the person interacts with. One informant stated that the Japanese are "cold and don't have human warmth" while others point out that the Japanese are work-alcoholics and lack creativity (Tsuda 1999: 153, 154). In addition, Japan's treatment of their elders did not meet the stereotyped expectations of the Brazilian-Japanese (Tsuda 1999: 154). Furthermore, most Brazilian-Japanese are disappointed that all of Japan is not as technologically developed as previously thought and readjust their views about the degree to which Brazil is advanced (Tsuda 1999: 156). Conception of a progressive Japan had contributed to the Brazilian-Japanese's pride in their Japanese heritage and, more importantly, was reason for the Brazil's acceptance and support of the Japaneseness in the Brazilian-Japanese (Tsuda 1999: 156). Thus, this also serves as evidence of assuming Brazilian attitudes.

By focussing on certain aspects of the Japanese culture, the Brazilian-Japanese developed an incomplete and inaccurate picture of the Japanese, and the realization of this resulted in a renewed awareness and appreciation of Brazil's influence on their self (Maeyama 1982 as cited in Tsuda 1999: 168). Since the Brazilian-Japanese are accustom to the Brazilian sense of self and do not interact enough with the Japanese to fully comprehend the Japanese sense of self, the Brazilian-Japanese criticisms of the Japanese possibly stem from a misunderstanding of the Japanese dual self. Briefly, the Japanese conceive of a self divided into *omote* or the "external self" with *tatemoe* (socially accepted actions), and *ura*, or the inner self with *honne* (personal views and feelings of the person) (Tsuda 1998: 350). While such divisions are stated by Tsuda to be cross-cultural, what is unique about the Japanese division is the strength of its partitioning (1998: 350, 351).

Communication

According to Mead, "in the conversation of gestures what we say calls out a certain response in another and that in turn changes our own actions, so that we shift from what we started to do because of the reply the other makes" (1956: 217, 218). This marks the start of communication (Mead 1956: 216). In the case of the Brazilian-Japanese, as have been previously stated, their "Japanese face" suggests to those Japanese, who are unaccustomed to dealing with Brazilian-Japanese, that these individuals should speak proper Japanese. Therefore, the Japanese are surprised to find that they speak Portuguese instead (Tsuda 1999: 148). Likewise, when Brazilian-Japanese adopt the practice of loudly speaking Portuguese every time they enter a store or public facility, they engage in conveying their Brazilianness to all present so that Japanese ways will not be expected from them (Tsuda 2000: 62, 63). They are also communicating with themselves

(Mead 1956: 216). By continually responding in this preemptive manner, the Brazilian-Japanese are reinforcing their own perception of themselves as Brazilians; thereby "following up [their] own address to other persons by an understanding of what [they] are saying, and using that understanding in the direction of [their] continued speech" (Mead 1956: 217). Other outward signs include openly embracing one another in public and dressing in distinct "Brazilian" fashion (Tsuda 2000: 61, 62). For Mead, the social situation specifies how much of the self is revealed in communication (1956: 219). Thus, the Brazilian-Japanese rarely, if ever, wear Bermuda pants and T-shirts with pictures of the Brazilian flag and other patriotic paraphernalia in Brazil, but they often wear this tourist-style garb in Japan for the expressed purpose of differentiating themselves from the Japanese (Tsuda 2000: 61,62). The Brazilian-Japanese also write their names in katakana, an alphabet reserved for foreign words (Tsuda 2000: 63). One Brazilian-Japanese man stated that he grew a goatee after he arrived in Japan because Japanese men are clean-shaven (Tsuda 2000: 63). In general, Tsuda reports that this "reversed nationalism" is not uncommon among immigrants (1999).

While in Brazil, the Brazilian-Japanese rarely participated in the samba, a Brazilian festival or parade, and some held a negative image of it, but in Japan, the Brazilian-Japanese fervently participate in the samba (Tsuda 1999: 151). It serves as yet another symbol for reinforcing the Brazilianness of the Brazilian-Japanese in Japan. Since the Brazilian-Japanese lack experience and knowledge on this topic, the samba is largely improvised and consists of flamboyant costumes and wild, chaotic dances (Tsuda 2000: 65, 66). The Japanese fascination with the samba supports the Brazilian-Japanese connection with their Brazilian self much like the Brazilians interests in Japanese practices strengthened the Brazilian-Japanese's concept of self as Japanese. One interesting question arises concerning why the Brazilian-Japanese do not simple research the samba before organizing and staging this event. Research precludes inadequate knowledge on the subject and challenges the Brazilian-Japanese's notions of their Brazilianness in the same manner that the Japanese context threatened the Japaneseness of the Brazilian-Japanese. Interestingly, the Japanese enthusiasm for the samba has lead them to thoroughly research this Brazilian practice; consequently, they perform much more culturally authentic sambas (Tsuda 2000: 67). Initial research of English sources found no reference to whether this occurrence was considered a challenge to the Brazilianness of the Brazilian-Japanese in Japan.

Conclusion

George Herbert Mead's concept of self contributes to a better understanding of the transition the Brazilian-Japanese experience in ethnicity. The Brazilian-Japanese have adopted to each culture based on their own perceptions. For some

Brazilian-Japanese, their conception of Japanese ways was distorted, and in Japan the same statement can be said about their ideas of Brazilianness. However, the Brazilian-Japanese will and have always been both Brazilian and Japanese. While their lifetime endeavors will continue to influence how they edit their future and past experiences, their particular social environment serves as a spotlight for the compatible aspect of self. Again, in the words of one Brazilian-Japanese migrant, "We came to Japan in search of money, but found our Brazilianness instead" (Tsuda 2000:56).

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AGRICULTURAL EXPORTS AND NUTRITIONAL STATUS IN COSTA RICA: IDENTIFYING THE KEY PLAYERS OF CAUSES AND SOLUTIONS TO INADEQUATE DIETARY CONSUMPTION

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Introduction

This paper will seek to examine the effects that shifting international exports and resulting trade policies will have on the nutritional status of Costa Ricans and will discuss the appropriateness of various nutritional interventions, such as food and production subsidies, which are being implemented. Few if any studies have been done on contemporary Costa Rican trade so the assessment of nutritional and health impacts of agricultural policy and food subsidies is difficult to conduct, as little local-level data on the common farmer exists, particularly with regards to nutrition status and food availability. There are, however, studies which exist in countries with similar agricultural environments, such as Guatemala, as well as countries which have also recently undergone similar trade reforms, such as Mexico, which can be used as benchmarks to predict the impact similar changes will have on rural Costa Ricans.

This preliminary assessment is useful to understand the historical and political context of Costa Rican agricultural which will set the foundation for a better understanding of the direct, and more importantly, the indirect consequences of food policies on nutritional status. In light of the recently implemented trade liberalization policies stemming from C.A.F.T.A (Central American Free-Trade Agreement) between the United States and Costa Rica, there is a high likelihood that the emphasis on traditional vs. non-traditional agricultural exports will continue to shift towards the latter as has been the case for the past two decades. Thus, it is more important than ever to understand the impact these regulations will have on the dietary health and wellbeing of the citizens, and how assistance programs either create solutions to or exacerbate the potential problems which may be facing the region in the coming years.

History of Costa Rican Nutrition Policy and Statistics

Costa Rica has managed and maintained fairly remarkable health statistics relative to comparable nations of geographic and economic similarity, such as Nicaragua, Honduras, and other developing Latin American countries, and has often been heralded as a 'developmental success' by international economists (Thrupp 1995; Buttari 1992; Morgan 1989). Current statistics provided by the United Nations Human Development Report for 2005 place Costa Rica as 47th among 177 countries using the HDI as the standard of ranking, and report a GDP per capita of $9606, $2202 greater than the regional average.

By the 1980's, the Costa Rican government had "embarked on an aggressive national campaign aimed at greatly reducing […] malnutrition in the country" and the incorporation of nutrition objectives, policies and programs were included in development plans and national programs (Buttari 1992; Austin 1981). The first rural primary health program was geared towards improving access to care and resulting in 218 rural health posts established in "underserved regions" of the country where the commencement of nutritional surveillance campaigns began (Morgan 1985).

Several methodologies can be used in order to acquire data useful to ascertaining nutritional status. Mortality rates, particularly neonatal rates, are used to project changes in nutritional status as it is assumed that improvements in maternal nutrition helps to reduce the rate of infant death (Austin 1981). Anthropometric measurements, such as birth weight, height for age (stunting) and weight for age (wasting) as well as arm circumference are commonly used to assess children and can be used to infer nutritional adequacy (Milman et al. 2005). Other assessments, such as clinical observation and laboratory analysis, can be used to identify specific vitamin or macronutrient deficiencies, such as the presence of goiter and iodine deficiencies, or edema and protein deficiency. While these measurements are generally quite accurate, only a small percentage of malnourished individuals will manifest clinical signs, and the use of laboratory tests requires the presence of an adequately equipped biomedical lab and trained personnel. Thus, most nutritional analyses are conducted using one or a combination of both mortality and anthropometric statistics.

In order to recognize the nutrition impacts of agricultural reform and subsidy interventions, it is first imperative to understand the accepted measurements and classifications of nutritional health—that is, what parameters are used to determine who is considered to be malnourished and what indicators are being used to make this pronouncement. Data from the internal assessments of nutritional health conducted by the Costa Rican Ministry of Health are either inaccessible or require

translation into English, therefore it is difficult to determine which health indicators were used by the countries own government to determine adequate nutritional health. Therefore, nutritional assessment will be analyzed using the mortality and anthropometric statistics made available through the UNDP in conjunction with supplementary data found in the few available anthropological evaluations published.

Data indicates that infant mortality for the years 1998-2003 has remained at 7 per 1000 live births with life expectancies for both males and females gradually increasing from 78.8 years in 2000 to 79.5 years of age in 2002. The data for 2003 indicates continued progress for females with an expected age at birth of 80 years, while the expectations for men have fallen sharply to 75 years. Children under 5 who are stunted for age constitute 6% of the population from 1995-2003 and those who are underweight represent 5% of the population for the same years. Looking at the overall population, those considered undernourished has decreased from 6% in 1990-92 to 4% in 2000-2002. The reported decrease in malnutrition is promising, but still requires more detailed analyses as to what is considered a malnourished state.

Agricultural Policy and Trade Reform

Beginning in the 1980's, policy reforms in response to declining economic capital led to the liberalization of Central American trade, particularly in the realm of agriculture. Historically, the export sector of the industry has been dominated by large agrarian plantations producing export crops such as bananas, coffee and sugarcane, crops which rely heavily on human labor for successful production and which work alongside small rural subsistence farmers producing for local markets and their families (Clark 1995; Thrupp 1995; Whiteford 1991; DeWalt 1983). However, following new trade agreements, such as acceptance into the GATT, Costa Rica shifted the emphasis from traditional tropical fruits and produce to the growth of non-traditional agricultural exports (NTAE), defined as those crops which had not previously been exported into the country, consisting largely of flowers, ornamental plants and foliage and a continuing emphasis on cattle—all crops which have been favorably welcomed into the market via strong export incentives and exchange-rate reforms (Clark 1995; Thrupp 1995; Buttari 1992). Though the integration of the new market strategies appeared gradually in Costa Rica, a factor which may have led to the alleged successes of the integration, other Central American countries established similar reforms under expedited conditions, and by the end of the 80's and into the early 90's a clear shift in growth trajectories had occurred between the traditional exports and the NTAE's. The amount of NTAE's nearly tripled between 1984 and 1989 and their value grew 348 percent (Thrupp 1995). In 1984 the growth rates of traditional vs. non-

traditional export crops was 13.5 and 14.7% respectively, whereby 1990 traditional exports had seen a steady decrease in growth by as much as 4.5% a year, whereas NTAE's continued to grow at a rate of 24.5% annually, constituting 35% of the annual GDP by 1990 (UNDP 2005; Buttari 1992). By 2003, export of goods generated 47% of the GDP (UNDP 2005).

The promotion of non-traditional exports in the form of tax relief, reduced tariffs and incentives has been largely responsible for the growth of the NTAE market. Beginning in 1983, with the passage of free zone policies, a 100% tax exemption was given to all mechanical and merchandising costs for NTAE export production, as well as on all profits after a period of 8 years (Clark 1995). Commodities which had the greatest tariff reductions, such as flowers, beef, ornamental plants and foliage, continued to grow and gradually came to dominate the market, replacing the production of more traditional subsistence based produce. While the growth of NTAE's themselves is not necessarily problematic, smaller NTAE producers and traditional agriculturalists became more vulnerable to economic risks as they, "lacked access to credit, technical services, and market information, compounding their difficulties in planning ahead and responding to changes in market demands" (Thrupp l995- quote; Immink & Alarcon 1993). The relatively narrow market allows for the capitalization of large foreign owned transnational companies, such as Del Monte and Chiquita, to dominate the marketplace, further removing the farmer from the land. Thus, while proponents of the NTAE's assume that export growth trickles down and causes the economy as a whole to prosper, it can just as easily be argued that the majority of the profits are being siphoned off and sent back to the country of origin for the cooperate conglomerates, not to the workers and citizens of Costa Rica. Though countries at times have shown both high GDP growth performance alongside poverty reduction, there is, "no concrete evidence showing a causal linkage specifically between NTAE growth and broad-based economic growth nationally", meaning that although there is profit being reaped, it is not necessarily trickling down and creating the economic benefits that, in theory, lead to nutritional benefits for the underserved populations (Thrupp 1995; DeWalt 1983).

With the official signing of C.A.F.T.A on Aug. 2, 2005, there may be cause for concern that this trade policy will further profit the cooperate conglomerations, which while increasing GDP and agricultural productivity, decreases access to both traditional farming practices and agriculturally generated income for the individual. The trade agreements eliminate tariffs on consumer and industrial products, liberalizes not only commodities but also the service sectors, and removes taxes and duties on US exports into the region. C.A.F.T.A is not currently in effect and the dates on which its policies will be effective have not been released, however the tariff restrictions and trade reforms are similar to those en-

acted in the past, and so it can be safely assumed that similar outcomes will occur. A preemptive examination of nutritional outcomes which are influenced by income and agricultural production fluctuations and the appropriateness of nutritional interventions used to counter food insecurities in the past are necessary now, as the lessons of history will be beneficial in addressing the current situation.

Implications of Agricultural Reforms and the Theories Behind Them

An analysis conducted in 2005, which used data from the World Bank World Development Report and UNICEF's State of the World's Children to look at the correlation of several factors and the health status of children, found that the rate of economy devoted to agriculture combined with income distribution accounted for 37.9% of the variance in health statistics between countries and were statistically significant factors in explaining the incidence of child stunting (Milman et al. 2005). Shifts in agricultural export policies can impact the dietary intake of a community through a variety of interactions between the local market, land ownership, government intervention, the economy and individual behaviors. Malnutrition can be caused when any of these key players function in such a way that they create an unavailability of food, lead to the creation of insufficient purchasing power, or lead to an unequal distribution or inappropriate use of food at the household level (Milman et al. 2005). Most nutritional studies which aim to understand the cause of malnutrition indicate positive associations of nutrition status and economic well-being, occasionally viewing nutritional health as a by-product of economic growth (Praveen 1994; Whiteford 1991; Franklin et al. 1987; DeWalt 1983; Lane 1980). This can be problematic because it fails to include environmental or social considerations, such as land ownership and wage labor, also affected by agricultural export, and which too play a vital role in the negotiation of consumption patterns and food security.

The most recognized pathway of dietary change is from income transfers between consumers and producers, which can have either positive or negative consequences depending on the specific scenario being discussed. Revenue from cash-cropping activities directly effects income variability of a household, while cash-cropping can indirectly affect income transfer through the creation of variable market prices via an influx of cash into the economy, a secondary effect of the export transaction. The traditional demand theory, the driving theory behind the correlation between increased income (whether directly or indirectly through lower market prices), assumes that households will maximize their budget as a function of utility in purchasing market goods (Franklin et al. 1987). That is, the extra income generated will allow the household to access to quantities of food previously unavailable due to economic restraints, leading to an increase in the

purchasing of staple food items which will supplement the current diet and increase caloric intake. This model is easily scrutinized as being oversimplified as it fails to account for the variability of food choice and purchasing behavior. Directly linking increased income via economic growth and gains in nutrition only work if the increased income is being used to purchase either more calories foods dense in nutrients which have previously been deficient in the diet (Whiteford 1991; De-Walt 1983; Pinstrup-Andersen 1976).

A useful analysis conducted in rural agricultural communities in Mexico during the early – mid 1980's help shed light on the food choice behaviors before and after income modifications (DeWalt 1983). As both rural Mexicans and rural Costa Rican farmers have diets which rely heavily on maize and beans, have similar access to market goods and are found in countries with similar agricultural policies, it will be assumed that the findings may also be applied to Costa Rican communities. The research indicated that extra income availability only yielded an increase in foods already being purchased—namely meat, eggs and dairy components—and that when taken into account with the decrease in purchases of vegetarian staples such as maize, beans and wild greens which accompanied the income transfers, any nutritional advantages resulting from the income transfers were less clearly defined than projected (DeWalt 1983). Similar findings have been found in Costa Rica following the introduction of cash-cropping into the rural village of Veintisiete de Abril, where an increase in the purchase of white bread, flours and imported processed snack food-stuffs accompanied a decrease in the consumption of locally grown staples (Whiteford 1991). This same study monitored the growth status of pre-school children following a shift to beef exportation and, along with an increased dependence on market goods, did not find the improvement of nutritional status that were projected despite the increased economic activity in the region (Whiteford 1991). What follows is the assertion that households are using their increased income towards "elite" food items previously unattainable due to economic conditions. This is facilitated by the influx of new and inordinately expensive imports such as white bread, commercially manufactured snacks and infant formula which can generally decrease the quality of the diet as they tend to be less nutritious than the previously consumed staple foods, but become increasingly available as communities shift to export-oriented agriculture, relying on market imports for the composition of their diet.

Income mediated through revenue is not the only source of change resulting from the new agricultural policies. Less investigated effects of reform are changes in land use and ownership as well as the social changes associated with wage labor which also introduce important factors to be considered. Michael B. Whiteford, professor of anthropology at Iowa State and author or numerous articles on the nutritional status and wellbeing of Latin American communities, writes

that "the single most important explanation for the changes […] in nutritional well-being of children in Veintisiete de Abril is the dramatic increase in lands converted to pasture" (Whiteford 1991). Changes in land usage can result from either transfer of ownership or variation in the type of crop being introduced to the area. Introduction of export-crops such as rice and beef require an alteration to the land which effects subsistence farmers in two ways—the first being that such commodities require fewer working days per year, decreasing available jobs and thus decreasing wage income opportunities, and second, they require a modification of the land that limits usage to only one purpose (flooding the land in the case of rice, and converting the land to pasture in the case of beef, neither of which can successfully be concurrently used for subsistence agriculture). A decrease in labor demands precedes a migration out of the rural agricultural regions often to urban areas or to areas with greater demand for wage laborers. This exodus of the workforce, commonly men, can also impact the nutritional status of the remaining women and children, as single-parent households are likely to have less adequate consumption of foodstuffs as those of a two-parent household (Whiteford 1991; Wolfe and Behrman 1983).

Nutrition Interventions – A Question of Subsidization

Based on previous literature, it is now not a question of whether agricultural export policies will impact nutrition, but rather a discussion on the multitude of pathways through which such impacts can occur. Clearly the changes associated with agricultural export policies have and will continue to effect individual income either directly or indirectly and will result in changes to nutritional health. Furthermore, the secondary effects of export production also must be considered when evaluating the processes which negotiate food availability and resource allocation. Instead, what must be addressed is what can be done to limit and counter the negative effects, without hindering the positive ones. There are at present, four major categories of aid which exist: general food subsidies, general agricultural subsidies, targeted food subsidies and targeted agricultural subsidies. Targeted strategies utilize "in-kind" subsidization of commodities (agricultural or nutritive) directly into communities, while general subsidies focus on creating income-generating transfers, either through government intervention in market prices, or by controlling and monitoring agricultural production (Praveen 1994, Rodgers et al. 1981). For the implementation of any subsidization program to be successful, its aims and objectives must be consistent with the needs of the targeted populations, though multiple studies have been published which conclude that dietary gains are seldom the explicit objective the government implemented subsidy programs, and those though they can and do affect the consumption patterns of citizens, the primary objectives are often to stabilize the prices of excess commodities into the marketplace creating even price competition throughout the

seasons (Clay 2003; Thrupp 1995; Praveen 1994; Buttari 1992; Rodgers et al. 1981).

In order for food aid to be successful, it first must reach those who are under- or malnourished before it can contribute to improving the nutritional status of an individual. Food subsidies are expected, and have been shown, to directly affect the welfare of recipients in the short term (Praveen 1994; Lane 1980; Pinstrup-Anderson 1976). However, there are several problems associated with the use of foreign donated surpluses in lieu of the use of locally produced items, which can decrease the economic wellbeing of both producers and consumers alike. Especially in markets which are price elastic, meaning that government intervention is not regulating or fixing market prices and there is open competition between all producers, as is found in free-trade or liberalized markets, a surplus of foreign donor commodities can replace commodities formerly provided by the local producers (Lane 1980). While lower prices spurred on by competition of a saturated market can assist the poor in the short term, the intervention is not sustainable and can have negative consequences on the producers of the competing commodities; in the Guatemalan highlands it was found that the "short term income-calorie intake relationship is weak", particularly among small farms which are most vulnerable to market fluctuations (Immink & Alarcon 1993). Furthermore, the nutritional validity of certain commodities can be called into question. Ideally, a program in Costa Rica would subsidize staple foods already incorporated into the diets of the nutritionally needy, not foods that are consumed by the middle and upper classes. When "elite" products are subsidized, such as sugar and wheat, lower prices either do not generate income among the target population or the commodity runs the risk of shifting consumer preference, making it less likely that additional income will be further put towards the purchase of less affluent staples such as cassava, maize or beans, but rather caloric intake may be diminished by the purchase of expensive imports (Austin 1981).

Consumption patterns in a rural agricultural community in Colombia indicate that while a total of 74% of calorie deficient individuals received caloric increased via the subsidization of maize, beans or cassava, only 12% of deficient individuals received any nutritional benefit from the subsidization of beef, eggs and milk (Pinsturp-Anderson 1976). It can be expected that similar consumption patterns will be found in Costa Rica, and therefore, the subsidization of meats, dairy products and certain other expensive commodities will likely not lead to any nutritional gains as they cannot be accessed by the malnourished subset of the population. Subsidies of this nature can be considered 'nutritional wastes' as increases in nutrient availability only make a positive impact if it can be accessed by a consumer who is deficient in the particular nutrients the commodity contains. One author suggests that programs which aim to subsidize scarce products,

such as oils and sugars, should "generally be viewed as political programs" rather than as nutritional interventions" and they might indeed benefit large-scale producers but fail to provide increased nutritional support for those in need (Austin 1981).

Agricultural production subsidies can improve the nutritional status of both consumers and producers through income transfers mediated through the elasticity of supply. Subsidization of either agricultural machinery or seed can lead to an increase in production (generating greater revenue for the producer) as well as lower prices in the market place, which benefit the consumer in a price elastic, or free, market. Profits of production subsidies are often internalized by rural communities and thus are more appropriate for improving the nutritional status of the rural poor, rather than the health of those in urban areas (Praveen 1994).

Not only is an appropriate structure of an intervention strategy necessary in order to be successful, but the specific commodities which are being subsidizes also are key components to nutritional benefits which might be gleaned from the program. While some regions undergoing rapid shifts from subsistence agriculture to export-oriented cash cropping might require short-term assistance to navigate the transition, displaced farmers and occupants of pasteurized land utilizing wage-labor may require interventions which are more sustainable. Thus, it is increasingly evident that due to the projected shifts in export policy facing Costa Rica, local context specific studies be undertaken which assess not only the specific nutritional needs of a particular population, but also the intervention strategy which will mediate the communities needs.

Discussion on the Future of Costa Rican Nutrition

As the agricultural market continues to globalize, it is important to address the specific nutritional impacts that these policies have at all levels of the population: the consumer, the producer, the laborer, and most importantly the small-scale rural farmers who are most vulnerable to market fluctuations. More broadly, the implications of dietary assessment do not stop at nutritional status, but are also important in the overall health status of a population. It can often be difficult to interpret nutritional adequacy based on statistics of infant mortality alone, as neonatal deaths can arise from a variety of non-nutritional factors such as endemic diseases, or be related to sewage containment and the availability of clean water (Schiff & Valdes 1999). Little local-level data is available on the dietary consumption patterns and nutritional sufficiency of Costa Rican farmers, nor have many studies been conducted which address the impacts, either successes or failures, of nutritional interventions after agricultural policy reforms, and the studies which have been conducted fail to account for behavioral purchasing changes

which arise from the introduction or subsidization of nutrient poor, inexpensive "elite" foods and imports.

Considering the dramatic liberalization of export markets which are soon to arrive in Costa Rica and other Central American countries with the creation of C.A.F.T.A it is more important than ever to fully understand the direct and indirect effects these policies will have on the nutrition and well-being of each citizen, accounting for the specific environments and influences present in individual communities. The prevailing theory that increasing economic productivity translates into increased nutrition status via the purchase of nutrient-dense staples is flawed, as increases in income do not always correlate with nutritional gains. Furthermore, generalized subsidy programs, or those that erringly target the wrong commodity, do not affect nutrient increases in the target populations which are most deficient. Only with the availability of research which adequately assesses the variety of food-intake pathways and the influence of consumer preference can successful intervention programs ever be obtained.

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RITUAL IN FILM

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The purpose of this paper is to explore the problems inherent in the visual construction of ritual activities on film. Ethnographic film is an area of considerable controversy in terms of method and theory. It is my intention to present the problems with ethnographic film as it constructs ritual performance. In addition I hope to present some of the considerations which those who watch ritual events in the course of ethnographic film need to take into consideration. This approach will problematize the cinematic experience of ritual activities and hopefully develop some insights which might be of value to those wishing to produce ethnographic films based on ritual activities as well as provide some consideration to those who consume these films.

The role of ritual in film

The role of ritual in ethnographic film has many different levels of incorporation. Ritual can form the main focus of the film, be a supporting element among other activities or exist as an illustrative periphery which is mentioned or shown in fleeting passing. All of these approaches to ritual construction in the process of the ethnographic film are based on what the film maker is attempting to communicate in the film that they produce for consumption by an audience. For the focus of this paper I will keep my analysis to the particular problems created when a single ritual is the subject of the entire film.

For the purposes of this investigation I shall use the ethnographic film *Les Maitres Fous* by Jean Rouch as my primary example of a film whose whole purpose is to document a specific and single performance of a ritual. It runs 35 minutes long and was produced in color. It was released in 1954. By the account of Rouch he was asked by the Hauka to make the film (Rouch 1974b:224).

The film begins with a role call of all the various jobs which individuals have in this particular African town of Accra in the (current) nation of Ghana. It presents various roles which rural migrants to the town fill in the urban community. The people who perform the ritual are a sect called the Hauka. It is a ritual which is based on spirit possession which has been traditionally practiced among the Songhay.

We follow a group of Hauka as they travel out of the city to a site where the ritual takes place. The ritual seeks to have individuals become possessed by the spirits of certain British colonial archetypes of administrative and military roles. As the spirits take control of the people Rouch narrates what is happening in each individual shot, connecting attention to specific material features of the ritual such as the various paraphernalia found in the Union Jack, old movie posters, simulated guns and other material pieces which are used as attributes of the colonial spirits. The visual features of this ritual are prioritized over other cognitive elements of the ritual. The presentation of the bodily aspects of spirit possessions also overpower the presentation with their images of the possessed foaming at the mouth. As Rouch describes the colonial administrators that are represented in the possessions he cuts to footage of how the real colonial administrators act and then cuts back to spend some time talking about how the possessed re-enact the colonial authorities. With exaggerated body movements they reproduce the rigid body postures of the military administrators.

As part of the ritual they sacrifice and eat a dog. Rouch explains that this is done expressly because it is taboo. The process can be understood as a ritualized criticism of the colonial government which is seen as uncivilized and unnatural by the culture which exists in relation to it. The film shows the possessed arguing, inspecting and generally behaving in stylized ways which they see in the behavior of the colonial administrators.

The film shows the participants of the ritual the next day, cutting between the ritual possession actions and the more reserved behavior of the individuals in their nonritual roles. This connects the possessed ritual actions of these individuals and their presentation in the nonritual environment of day to day work. This provides a very humanizing effect in connecting what is seen as "bizarre" (by untrained observers) with more normal activities. As such the participants are framed by their ritual performance, but the fact that there is a reality outside the frame is commented upon.

While this film deals with controversial matters by today's values it should be noted that the meaning of the ritual itself is created by the observer, with some influence by the film maker's editing and narration. A hermeneutic approach to film viewing is necessary in regards to ritual in film when the ritual is not a subservient part of the film but the total subject. While one observer of this film may witness a disturbing series of images of spirit possession and eccentric behavior I see a ritualized form of collective resistance to colonial hegemony which creates caricatures that are acted out in the ritual performance. Those participating in the ritual would necessarily have different interpretations of their own actions.

This is a necessary problem with the visual representation of ritual. The process of filming a ritual will have an impact on the rituals performance as well as how it is edited and presented. In an effort to better explore this I will enumerate some of the considerations that must be made in the process of viewing a ritual through the medium of film in the next section.

Theorizing the representation and reconstruction of ritual

An important aspect of an ethnographic film is the medium which it is tied to. When ethnographic films first began to be distributed the primary medium was the film projector. The most common forms of film were 8mm, 16mm and 35mm. Film projectors were limited by the length of film stock that could be held on one reel. On average an 8mm standard reel would hold about 12 to 18 minutes of footage. The previously mentioned film by Jean Rouch was 34 minutes because this would be 2 reels of 16mm film footage when projected at a standard rate. It is quite common for films of this period to be edited to a length which facilitates the length of the medium by being one or two reels of film long. A 16mm reel would hold more on average, and 35mm projectors are designed to play multiple reels without any break in the projection. The 8mm and 16mm projectors would require rewinding and reloading of the machine between multiple reels and would result in a loss of continuity of the performance.

The major change in the delivery of ethnographic films was the introduction of videocassettes in the 1980s. This changed the major method of playing footage. Instead of the large picture created by the film projector, the videocassette forces one to use a television as the playback viewing source, resulting in the size of the picture being the size of the television. The videocassette is more robust in that it can have more playbacks with less damage to the medium. The videocassette also allows for multiple playbacks of specific scenes as well as the manipulation of tape playbacks to allow freeze frame or slow motion. Videotapes also allow for the ability to immediately showing the film footage to informants with the aid of playback equipment, whereas celluloid film footage requires time to develop in addition to the necessary chemicals to develop the print (Asch and Asch 1974).

The next major innovation in video playback technology is the Digital Video Disc or DVD. This is a digitally based playback method which allows many of the same features as videocassettes, with the additional benefits of chapter selection and separate audio streams. The DVD is still tied to the television for the most part, though digital projectors have recently become affordable alternatives to television based playback.

One major innovation in video delivery systems is the internet. The increase in connection speeds has combined with better methods for video playback on computers to allow for the viewing of films over the internet. This is still in its early stages, though the trend towards using video in internet based presentations is already being explored. The main problem is that the video is tied to the computer screen, which is often much smaller than a regular television. There is the option of making the video file available for download and allowing individuals with enough technical skills to convert them to a DVD format. The direct input of a computer's video signal into a television is something that is still being perfected.

A main problem with ethnographic films is that they are expensive to distribute, therefore their availability is contingent on the resources available to a researcher or institution. They also present a singularity in that they are edited for a single viewing. There is necessarily only one way that they are viewed, which is in the way that they were designed by the film maker with the intended edits and narration which they provide. In addition they are often made with broadcast intentions in mind and as such will be certain lengths in order to facilitate that need: 30 minutes or 60 minutes for Public Broadcasting and television in many government subsidized channels without commercials and less for those markets which use commercials in their broadcasting.

All of these factors about medium length, playback method of viewing and length considerations have an impact on the final production which an ethnographic film maker produces. These considerations will be dealt with at some point in the production of the ethnographic film even if they are not part of the ethnographer's decision making process in the act of filming.

The main value of an internet based distribution of ethnographic film is that it removes the costs of production of the medium that is sold (DVD or VHS). This is costly since most ethnographic films are produced in small quantities. A film designed for internet consumption also allows for the creation of multiple versions with different editing, length, audio narration (different texts as well as different languages) and other variations in presentations.

All of these considerations of methods of playback represent the problems presented by the boundaries of the medium of ethnographic film. In all cases it is necessary to have access to the recording of the film and some way to play it back. Additional considerations are also necessary since there are specifics to each form of playback as well as the needs of broadcast transmission.

Another important problem to address in the discussion of ethnographic film is the problem which is created when a single event is recorded and edited into a film that may well be the only film on a particular culture or ritual that has ever been recorded. This creates a singularity which becomes the measure for all other interpretations of the event. For the most part an ethnographic film will analyze one ritual, bounded by its own beginning and end, and present this as either the whole of the film or as a scene within a greater production. If the ritual being presented is lengthy there is the generally accepted notion of "cutting down" the event so that only highlights are presented. By this a montage of ritual events is constructed with the intention of maintaining the more explicit and visible aspects of the ritual performance in order to make the ethnographic film shorter and more tolerable to the observer. Additionally, the editorial conventions of adding music and narration alter the observers position in seeing and hearing the ritual performance.

An additional consideration lies with the meaning of the ritual as it is observed in ethnographic film. If we follow Rappaport's concepts of ritual meaning (1999:70-74) then we are faced with the problem that ritual presents different levels of meaning. While the low order meanings of observational effects (such as the presentation of goods to one person or the deference given to a particular participant) can be transmitted through the aural and visual reconstruction of the ritual events the higher level meanings are not as readily represented. The construction of meaning that is not contained specifically in the ritual such as the qualitative matters of social position and ritual obligations which are developed outside and prior to the ritual through individual interactions with other participants of the ritual. These aspects require the use of narration conventions which can at best only mention these facts and their connection to the ritual as it is observed through the construction of ethnographic film.

Rappaport also presents an idea about ritual that complicates the ways in which ritual can be constructed in ethnographic film through his concept of self-referential messages (1999:52-54). This consideration of the effects of ritual events as an indicating important information to all those present at the ritual is well founded in the functionalist view that ritual contributes to the social epistemology by making information about individuals known through a public event. The problem is that a narrator can say what an event may mean, what the ritual activities represent or what transformations are carried out on the social order by the ritual but the narrator cannot with clarity fill in the interactive roles that each individual has in the ritual by the fact of their individual connections to other individuals in the ritual performance (Collins 2004:3-46). This is a level of analysis that is often overlooked in ethnographic film, as the focus is necessarily on performance and those participants who are in the process of witnessing the ritual

performance exist mainly as a crowd in the background of the ritual specialist though their attendance and acceptance is a necessary part of the ritual.

The privileging of the ritual specialist and performative aspects of ritual is a matter of pragmatic film convention, since the most interesting activities are contained in the most performative aspects. Editing conventions also privilege those parts of the ritual which are the most interesting or considered representative of the ritual activity according to the ethnographer. There is some variation in where this privilege lies since in some cases the camera operator is the ethnographer and in other cases (such as the Granada series produced by the British Broadcasting Corporation) the camera operator is trained in the construction of film and would have a different understanding of the events as they pertain to the process of filming. In addition different considerations will affect the editing process, with the anthropologist often acting more in an advisory position than being involved in the actual editing itself.

There are also the pragmatic aspects which much be appreciated. For long-term fieldwork constant filming is not possible. There are also considerations of remote locations, no ready supply of electricity, camera and equipment maintenance and other obstacles to the ethnographic prospect that it often becomes a project of a specific trip to the location and necessarily outside of the general ethnographic fieldwork (McCarty 1974, Rouch 1974a).

An additional consideration must be made about the fact that observing any event necessarily will have some alteration to that event itself. This is similar to the Heisenberg Uncertainty Principle in physics. The observation of any event, be it a quantum level event or a ritual performance, will have an impact on the results by the very nature of the observation (Heider 1976:53). Additional issues include a consciousness of the camera by the individuals being filmed which results in an exaggerated performance in order to "play up" to the camera (54). When this is coupled with the typical Western induced practice of "smiling for the camera" we end up with a contrived level of performance in which the observational role of the camera is incorporated into the ritual as well as the bodily presentations of the individuals which results in an alteration of the performance.

The level to which this alteration occurs would be related to the level of technological sophistication which the individuals have. Those who have some experience being filmed might react less than those whom find being filmed a novelty. Children tend to form a group which looks at the camera in almost all ethnographic films, and editors tend to incorporate them into their productions due to their humanizing value for what can often be difficult (for Western observers) constructions of activities that seem alien to many who consume ethnographic films

without any anthropological training. Without a necessary level of cultural relativism there is the danger of exoticizing and creating value-centered judgments of a culture through the process of consuming an ethnographic film. Such "humanizing" tropes like the group of children smiling and laughing for the camera is one such method which editors use to create a necessary illusion which creates a connection between the observer and the subject which is being filmed.

Another problem with the representation of ritual through the medium of film is that it can only present what is physically present. The role of ideology (as a construction of reality, form of socialization, structuring of the dissemination of culture) is left to the narrator to comment on (Bell 1992:188-193). No matter what theoretical consideration is used in the construction of the ideology behind a ritual it is a problem to present a significant statement about how the ritual contributes to ideological notions within the time which is allotted for narrative voice over to convey such information (Heider 1976:70-74). Information such as this is usually only superficially addressed or must be placed in text based supplemental materials.

To consider cinematic representation also requires the recognition that time as it is represented in film is not the same as real time in which an activity takes place. What may take hours will be edited down to a few minutes in the course of an ethnographic film. Except for very specialized film sources all ritual activities are cut down so that they are expressed in a fraction of the time which the whole event takes place. The use of montage and other expressive forms of editing can cloud some of the natural features of ritual action such as rhythmic qualities (Rappaport 1999:45-46) or the creation and release of "tension" (Collins 2004:102-140). Such experiential qualities of ritual activities necessitate that one witness the complete ritual performance to understand it in the same sense as those who are actually present in the physical sense.

In reference to the film by Jean Rouch mentioned at the beginning of this paper, there is an issue of misrepresentation of the process of ritual possession. In the ethnographic descriptions of other ritualized possession occurrences (Brown 1991, Metraux 1959, Obeyesekere 1981) it is not a simple switch which is activated by the performance of certain ritual actions rather than a long and continuous process whereby participants move into and out of possession over a long period of time. The cinematic reconstruction might make mention of this, but it does not receive explicit treatment.

We must also consider that those who watch cinematic versions of rituals are seeing activities that are usually not within their own cultural purview. Such a position of the observer leads to the disjointed comprehension of ritual movements

of the body since they have no frame of reference of non-ritual body movements with which to contrast their observations. The issue of what actions performed in a ritual have significance has been raised by some theorists (Humphrey and Laidlaw 1994) with the intention that meaning is tied to the significance of an action. The problem is that the cinematic presentation of a ritual frames all that is shown in the ritual as having significance and therefore meaning. A certain gesture or action may be an affectation which the individual adds to their ritual performance and as such will be translated through the process of constructing the representation of this ritual as a singularity (single event in time and space) into a reference that will be utilized in other research and carried beyond this single event into an existence as a representation that is repeated through subsequent views and added with meaning by way of the interpretations of other viewers. Catherine Bell has noted this tendency towards the "mystification" of ritual actions by way of adding meaning implications where they might not necessarily exist (1992:108).

The performance of a ritual is also only a part of the life of those who are involved in it. While this is evidenced at the closing of Rouch's film other films are not so contrite in making it know to the viewer that ritual might well only form a small part of an individual's day to day existence. This hypervaluation of ritual is problematic in that what we are being presented with is only a small piece of the cultural existence as it is for the individuals in the film. The hypervaluation of ritual also provides some false ideas based on the voyeuristic role of the outsider about what those in the rituals see themselves doing in the process of performing the ritual (Bell 1992:109).

Conclusion

Through the analysis of the various problems which are created by observing ritual through the medium of film I hope to have an effect on how cinematic viewing of rituals can better be understood by researchers. It has not been my intention to deconstruct the ethnographic film's subject of ritual to the point of negation, but to better facilitate what aspects of ritual performance need to be addressed by the film maker and audience in order to create a representation of ritual which can convey a better "sense" of what is actually occurring in the ritual. Sometimes this can be aided by more explicit notation of the events by way of narration. The problem is that aesthetic choices often find themselves being made at the cost of a more explicit representation of the ritual actions as they occur. A 30 minute representation of a ritual that takes 12 hours to perform will have some obvious omissions in its construction of the event.

Ethnographic film is best used as a heuristic method in the process of showing aspects of ritual performance and bodily presentation that are aided by

visual representations. Ethnographic film is also of great value in the presentation of anthropological subjects and inquiries to the general public which might not even read a book by an anthropologist, let alone any book (Pink 2006:17-19). Representations of different cultures and different peoples is an important role of anthropology and as the United States grows more aliterate it is up to anthropologists to look towards visual anthropology to fill the role of telling the story of human diversity to those who do not have access to the written texts and to introduce ethnographic films into the market for documentary cinema.

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INTERWOVEN FACTORS AFFECTING WOMEN'S REPRODUCTIVE ROLE UNDER CHINA'S ONE-CHILD ONLY POLICY

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Since the start of China's one-child only policy in 1979, women's bodies have been the site of a battleground between national motives, patriarchal family goals and/or traditions, and individual women's desires. The goal of controlling births by the state according to Greenhalgh is, "…to bring the production of human beings in line with the production of material goods" (Greenhalgh 1994:6). This ideal does not take into account the various reasons why families choose to have more than one child. The trend has been to adjust the rules of the policy to compromise with these beliefs.

This compromise is primarily seen in family farm-based rural areas that have a high demand for labor. In addition, adjustments are being made in regard to the issue of boys being preferred over girls. Being without a male heir in some areas of China is regarded as a valid reason, by both families and government agencies, for women to continue having children until a male child is born; this is tolerated by the government agencies because of strong patrilineal cultural traditions like unilateral patrilineal decent. The pressure on women to have children, especially male children, is enhanced do to the fact that the culture gives reproductive rights not to the woman but to the husband's family (Greenhalgh 1994:12). Overall, women in this culture are stuck between the government's goals to limit population growth and the cultural value placed on bearing male children or children in general.

The Chinese government employs various methods to maintain control over female reproduction. The focus in rural areas is on restricting female fertility through IUD insertion, sterilization, and abortion (Greenhalgh 1994:8). These methods, unlike oral contraceptives and barrier methods available in urban areas, take the control away from the family and place it with the government agencies (Greenhalgh 1994:7). By 1982, the use of IUDs was mandatory after a woman's first child was born and if she had a second, sterilization was required; consequently, 90 percent of the sterilizations were performed on women (Greenhalgh 1994:14, 18). In addition, if a woman happens to have more than two children and the pregnancy is detected, she is required to have an abortion. Of the rural women

Greenhalgh studied, one in four had received an abortion and one in eight had received an abortion during the second or third trimester (Greenhalgh 1994:8, 23). This indicates that the women in the rural areas where Greenhalgh conducted her study were frequently having more than two children.

In theory, the families adhering to the one-child only policy are given incentives to maintain their commitment to the policy or they are penalized for exceeding the one-child quota. However, these incentives and penalties vary between urban and rural areas. According to Wasserstrom, the incentives include a monetary bonus in urban areas of 40 yuan and 5 yuan in rural areas. In addition, the only child receives favored educational opportunities and preferential health care. The families also receive the better land and/or living space. It is believed that these incentives could account for up to 25 to 33 percent of a family's total income (Wasserstrom 1984:352). The consequences for exceeding the one-child quota include the possibility of the government withholding up to 10 percent of the family's income and subsequent children may loose their rations for certain items (Wasserstrom 1984:353).

These incentives explain why the program is more popular among the poorer urban families. As Kaufman et. al. pointed out, those with below average income were more likely to take the one child pledge; they account for roughly half of the pledge takers with the average income families and above average income families splitting the rest at roughly twenty-five percent each (Kaufman et. al. 1989:718). It is obvious that the one-child only policy has consequences for women's control over reproduction; however, the indication of the compliance being primarily by those with below average income indicates that the policy is less than desired by those with the means to oppose the policy.

The women who do not comply with the policy use a variety of methods to get around the seemingly fool-proof birth control methods enforced by the government. According to Greenhalgh, the 1987 official figures put contraceptive compliance at seventy-seven percent for all married women of reproductive age in China (Greenhalgh 1994:14). However, these figures may not be accurate because the people responsible for reporting findings are held accountable if the levels of compliance are low and women may not be checked after being given contraceptives to make sure they are still complying. An example of resistance that is used by the women is that often-times women remove their IUD shortly after its implantation. They also use various explanations as to why it was missing during physical exams such as it just fell out (Greenhalgh 1984:17, Wasserstrom 1984:356). Resistance through removal or avoidance of the birth control measures is seen in the fact that in the 1980s, eighty-five percent of women with one child were not using the IUD and seventy-five percent were not sterilized after

having two children (Greenhalgh 1994:19). These numbers are quite large despite the incentives offered, the possible penalties, and the state-regulated birth control measures like the IUD and sterilization campaigns.

One of the main reasons why people continue having children is the preference for male children. Women will continue having children until they get a son. According to Greenhalgh, those with at least one son were two times more likely to be following the rules than those with only daughters (Greenhalgh 1994:19). This is exemplified in this quote from a Chinese woman: "Because in our village, if a woman does not have a son, she suffers from discrimination and mistreatment which is even greater in its bitterness than the risk of our lives!" (Wasserstrom 1984:350). This preference for male children is rooted in the residence and decent pattern of the culture, the gender related economic contributions, the lack of government sponsored elder care, and the need for family labor in rural farms.

The Chinese practice patrilineal decent placing the focus on the male heir to carry on the family name. China has also recently seen a resurgence of ancestor worship making the families' connection between the ancestors and the continuation of the lineage a combined force for the preferential choice of sons (Wasserstrom 1984:349). Patrilocality customs of Chinese culture also places emphasis on male children because when daughters marry they join their husband's family and no longer contribute to the natal family. Sons, however, will stay with the natal family and bring to it the contributions of his wife and child or children, thus, making it economically important to have a son or sons rather than only a daughter or daughters.

In addition to sons bringing in wives and children, they are also the ones who become responsible for caring for their parents when they are no longer able to care for themselves (Wasserstrom 1984:350). This is a tremendous stress for a family without a son or sons because there is no program to ensure that parents will be cared for and their daughter's obligation after marriage is to her husband's family. Thus, those without sons are left vulnerable to extremely unpleasant circumstances in old age or if they are ever unable to care for themselves due to unforeseen events like disease or injury.

Another factor contributing to the preference for male children is that they provide the labor in the rural family farms (Kaufman et. all 1989:708). As Wasserstrom explains, "a family's economic position under the system depends on the size and strength of its labor force" (Wasserstrom 1984:369). This is seen in the more relaxed regulation of the policy in the rural areas compared to the urban areas (Kaufman et. all 1989:709). In the farm-based economic villages, it is also important to have the security of more than one child in case one child happens to

die (Greenhalgh 1994:11). The pursuit for at least one son is fueled by the combination of cultural factors discussed above and is one of the reasons for resistance to the one-child only policy.

Due to the desire for male children, and often times at the expense of female children, families have had to take alternative measures to ensure they will be able to have a male child. Methods to rid one's self from a female child include abortion, infanticide, and adoption. The only way to know if the fetus is female is through technological advances utilized by those who conduct the prenatal examinations; even though the health care practitioners are not supposed to inform the parents of the sex of the child, it is known that one can use bribes to get the information necessary to make the decision whether or not to abort the fetus (Handwerker 1998:183-184). Infanticide is an alternative method of riding one's self from a female child. According to Wasserstrom, "in a single Huaiyuan production brigade more than 40 instances of female infanticide reportedly occurred during 1980 and 1981…" (Wasserstrom 1984:358). Adoption is a possible solution; however, it is not supported by the one-child only policy (Greenhalgh 1994:15) and must be done in secret. There are surprising discrepancies in birth records which support this preference for male children at the expense of female children. For example, "in Longkang there were only 86 girls to 125 boys born according to a survey by the Anhui Women's Federation conducted April 7th, 1983" (Wasserstrom 1984:358).

In contrast to the women doing all they can to have a male child, some women, primarily upper socioeconomic urban women, are choosing not to have any children. According to Handwerker, of the people without one child, over 73 percent are intellectuals or cadres (Handwerker 1998:198). These childless people choose this life for a number of reasons. Ironically, China does not support this seemingly exuberant over conformity to the one-child only policy. As one woman put it, "the one child policy is really the 'you must have one-child policy'" (Handwerker 1998:183). Women who choose to remain childless face consequences such as lack of benefits that those with one child receive, including, better housing and monetary bonuses (Handwerker 1998:183).

Unsurprisingly, women who chose not to have children are stigmatized as being unnatural (Handwerker 1998:195). The Chinese medical doctors, even those who practice Western biomedicine, believe that women naturally want to have children and if they say that they do not, it is only because they cannot have children of their own (Handwerker 1998: 196-197). Female elites are encouraged to reproduce during a time of population control efforts because of the fear that if the only new Chinese are being born from the common class it would result in "the denigration of the Chinese state" (Handwerker 1998:199). As one man put it

while talking to a well off couple, "if you don't give birth you will bring a disadvantage to the development of a high quality population" (Handwerker 1998:199).

The encouragement for women to produce at least one child is also seen in the trouble infertile women go through. First of all, the infertile woman is under pressure to fulfill her female gender role as a mother. One woman explains, "I want a child because if you don't have a child you are different from everyone else – everyone else has a child" (Handwerker 1998:183). The pressure to have a child, primarily, a male child, also comes from the husband, the mother-in-law, and one's peers (Handwerker 1998:182). Infertility is viewed as a woman's issue even if it is her husband who happens to be infertile (Handwerker 1998:184, 189). Therefore, it is the woman who is stigmatized and seen as the source of the problem. Both medical fields, traditional and biomedical, view infertility as a consequence of female action. According to the biomedical field, infertility is a "disorder of civilization and modern living" (Handwerker 1998:192). Similarly, the more traditional Chinese medical practice views infertility as "a consequence of exhausted virtue…a punishment for moral and ritual transgressions" (Handwerker 1998:186). Through both of these explanations of childlessness, it is the woman who made herself that way. It is no wonder why infertile women are treated poorly by others, including beatings by their husbands and being subject to divorce (Handwerker 1998:192).

Overall, all women in China are affected by the one-child only policy. Regardless of women's desires to have or not to have children, their reproductive role is affected by ideology, patrilineal decent, patrilocality, economics, gender roles, and the medicalization of reproduction. Women, although trying to exert agency over the issue, are being pushed and pulled by a variety of intertwined factors. The original purpose of the one-child only policy was to restrict population growth in order to match the population more adequately with the material growth; however, as we have seen, it is not that simple. Unfortunately, it seems like the women are the ones who are ultimately paying the price for a political policy implemented with good intentions.

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THE ROLE OF COPULATORY BEHAVIOR WITHIN THE SOCIAL STRUCTURE IN BACHELOR GROUPS OF CAPTIVE WESTERN LOWLAND GORILLAS

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To date, there have been at least 450 species of animals, vertebrates and invertebrates, which have been acknowledged as exhibiting homosexual behaviors (MacFarlane and Markwell 2004). The most studied animal that exhibits these behaviors are the pygmy chimpanzees, or Bonobo's. These animals have a complex social structure and the sexual act has a purpose beyond reproduction (Kuroda 1980; Parish 1994). Chimpanzee and Gorilla sexual behaviors may give us insight into the sexual motivations of other animals.

Until the 1980's, the most pressing problem zoos encountered regarding the care of gorillas was the difficulty of breeding in captivity. Today, the number of captive gorilla births has greatly increased due to improved diets, enrichment activities and improved enclosures. Recently, there have been a greater number of male gorillas born in captivity than females. Zoos prefer to house single-male/multi-female family groups that include one silverback, many females and their sexually immature young. When young males move into sexual maturity, they become competition for the silverback and conflicts between males may arise (Symington 1993). For the protection of the young gorillas, they are removed from their natal groups and placed in a separate enclosure or sent to another facility.

It has been known for years that gorillas, in the wild, congregate into all-male groups and live in relative harmony. These males may live alone or in such groups for life (Harcourt 1979). Within the past decade, zoos have started to experiment with all-male groups because of the excess of sexually mature male gorillas. Zoos have had recent moderate success with producing cohesive all-male groups. However, an all-male group is more likely to live peacefully together if: 1) at least some of the males are from the same natal group, 2) there are no female gorillas within the vicinity, and 3) the gorillas are brought together between the adolescent ages of six and ten (Stoinski, Lukas et al. 2004). It is surmised that gorillas within this adolescent age group, when placed together, build stronger affinitive bonds than if they were introduced after the age of ten (Stoinski, Lukas et al. 2004).

The sexual behaviors of gorillas have been infrequently observed and documented, and are usually focused on female sexual behaviors. In heterosexual gorilla groupings, sexual encounters are typically initiated by females. The initiation of sexual activity has been linked to the female's reproductive cycle which greatly increases during the time of elevated fertility during a female's mid-cycle and visible tumescent condition (Nadler 1976; Fischer and Nadler 1978).

To date, there has been little data documenting male-male gorilla interactions in the wild (Stoinski, Lukas et al. 2004). Sexual behavior is often observed in captive, bachelor gorilla groups, but copulatory behaviors between males are rarely mentioned in scientific publications. The specifics about the activities are seldom discussed in detail; genital touching and investigation by others, masturbation, oral-genital contact and homosexual mounting occurs within these groups. In our political, moral and socially capricious society, it may be difficult for zoo staff to explain these sexual displays to the general public. Even in female-only gorilla groups, homosexual behaviors between dyads of females have been observed (Fischer and Nadler 1978). Since few other published studies have focused specifically on captive or wild male-male sexual interaction, this study addresses the role that copulatory behavior may play within bachelor gorilla group social dynamics.

Methods

Subjects and Housing

There are three separate all-male groups of gorillas housed within the Downing Gorilla Forest exhibit at the Sedgwick County Zoo in Wichita, Kansas. The Losako troop and the Mbote troop are each made up of two silverback males who range in age from thirteen to eighteen years. The focal group of this study, called the Melese troop, is made up of three seven-year-old adolescent males (Sampson, Jabir and Virgil), and a thirteen-year-old small black-back (Matt). All three seven-year-olds are from the same natal group at the Oklahoma City Zoo and are inter-related. Virgil was raised by the keepers at the Oklahoma City Zoo until fifteen months old because he was a twin with his sister Gracie. Matt, the oldest, was transferred to the Oklahoma City Zoo from Chicago at the age of two, and is unrelated to the other three. Matt has known the other three gorillas since they were born or introduced back into the family group at a young age.

There are two public display areas. Both are crescent-shaped areas with a wide bank of triple layered laminated safety glass which offers a panoramic view of the gorilla activities and allows the gorillas to be within inches of the public. The interior space is 2100 square feet with high platforms and hammocks for sleeping with fire hoses strung across for climbing. The outdoor space is almost an acre at 31,000 square feet. The outdoor area is not entirely accessible to the gorillas be-

cause of buffer zones of foliage to prevent the gorillas from escape. The area has natural landscaping with plants that the gorillas can eat. The ground is soft and covered with fescue grass and patches of dirt. There is a large clear water pond that is approximately two feet deep. The public may occasionally observe the gorillas playing in the water, at close proximity, from an outdoor balcony viewing area. There are two sets of natural scaffolding that have hammocks high up and provide shady areas underneath. The back of the outdoor enclosure has a small hill that the gorillas frequently visit. The hill offers extra opportunity for play and semi-privacy. There is a third group area off public display that is equivalent to the in-door public display room. There are also eight individual sleeping enclosures out of public view. The gorillas rotate two days on public view and one day off. This study was limited to the public display areas only.

Data Collection

Data was collected over fifteen non-consecutive days using five minute scan sampling with special consideration for affinitive behaviors. An Ethogram of fre-quently observed behaviors was constructed and facilitated note taking (addendum A). This observational study was focused on sexual behavior patterns. Special at-tention was given to interaction between individuals when they were approximately two meters apart or closer. Behaviors of interest included mounting, presenting, genital examination, genital touching, masturbation and displacement. Observa-tions were taken in three hour blocks which spanned the morning to early afternoon hours.

Results and Discussion

Displacements

Stoinski, Kuhar, et al. concluded in their study that linear dominance in an all-male group is statistically difficult to document because of the small group sizes involved. In only two of the nine groups observed in this 2004 study was an indi-vidual recognized as clearly dominant over his group. By comparing the frequency of displacements, these researchers estimated the apparent dominance relationships within a dyad (Stoinski, Kuhar et al. 2004). Displacement is a non-aggressive avoidance maneuver. It is the approach of one individual which causes another, less dominant individual, to move to another area.

In the current study, displacement frequencies were used as an indicator of dominance within the group and between dyads. Matt was the most frequent dis-placer, and displaced the other three gorillas a total of twenty-two times. Matt is at least six years older than the other three, and is the largest gorilla in the group. Us-ing displacement frequencies, age and size, Matt is the most dominant individual

within this focal study group. These observations are an indication only of his current rank within the group. It is unknown if his dominance will continue as the group matures.

The dominance of the three younger gorillas is more difficult to gage. Jabir and Virgil had few displacements, and Sampson had no displacements during the observational period. Due to the number of times Sampson was displaced by the others, and his reserved nature, Sampson appears to be the least dominant within the group of four.

Table 1. Displacements

Displacer ➜ Displaced	Total
Matt ➜ Jabir	8
Matt ➜ Virgil	3
Matt ➜ Sampson	11
Jabir ➜ Matt	2
Jabir ➜ Virgil	0
Jabir ➜ Sampson	3
Virgil ➜ Matt	0
Virgil ➜ Jabir	0
Virgil ➜ Sampson	2
Sampson ➜ Matt	0
Sampson ➜ Jabir	0
Sampson ➜ Virgil	0

Copulatory Behavior

Most instances of copulatory behavior were observed between Sampson and Jabir. These instances of mounting and thrusting were visually observed to be true copulation with full anal penetration. Not all episodes of mounting and thrusting were visually verified to have penetration, but assumed that most were successful copulations. All copulation events between Sampson and Jabir were observed with Sampson as the insertive partner and Jabir as the receptive partner. This dyad copulated, or mounted and thrusted in the attempt to copulate, a total of twenty-seven times throughout the study. Most of the copulations were dorsal-ventral, with Jabir presenting, and Sampson mounting. The following observation is a typical session of sexual activity between Sampson and Jabir where there are many mountings in a relatively short block of time.

> ***Observation 5a, 10:00 am, outdoor display:*** *Jabir approaches Sampson, bows, and places his head in Sampson's lap. Sampson*

touches his own genitals. Jabir turns to present for dorsal/ventral mounting; Sampson mounts and thrusts for approximately fifteen seconds then breaks away and sits down. Jabir sits up and is face-to-face with Sampson followed by a few seconds of open-mouth play (similar to kissing). After less than a minute, Sampson mounts Jabir again for approximately thirty seconds of thrusting. At 10:02 am, Jabir and Sampson buddy walk around the enclosure. At 10:06 am, Sampson and Jabir are back by the window. Sampson mounts Jabir then quickly breaks away. Jabir sits up, leans into Sampson, and receives a hug. Jabir touches Sampson's arm, bites it, and lies in a supine position on the ground. Sampson mounts Jabir in a ventral/ventral position. Penetration is not observed. Both get up and buddy-walk a few feet until Jabir pauses and presents. Sampson mounts in dorsal/ventral episode for approximately fifteen seconds. At 10:09 am, Sampson tries to mount Jabir again; Jabir sits down without presenting. Sampson pushes Jabir. Jabir then presents and Sampson mounts for approximately fifteen seconds; Jabir breaks contact and moves away to sit alone. Sampson does not follow.

During one observation period (*observation 7a, 9:32am*), Sampson and Jabir were in a ventral-ventral position with Sampson in the supine position lying on the ground and Jabir on top of Sampson. Jabir had mounted Sampson and was thrusting. It was first assumed that Jabir was the insertive partner and Sampson was the receptive partner. On further examination, it was discovered that Jabir was the receptive partner and controlling the copulation event by thrusting against Sampson who had an erection and lay motionless.

Virgil, the youngest of the four gorillas was observed as the receptive partner a total of five times; four times with Sampson and once with Jabir. Virgil was seen mounting and attempting copulation with Sampson and Jabir but was never successful during the observations. Both Sampson and Jabir broke contact when Virgil attempted to mount them. These attempts were not counted in the totals because the episodes were very brief and mounting with thrusting was not observed. Matt was never observed copulating with or attempting copulation with Virgil or vice versa. Matt was observed as the insertive partner when copulating with Jabir twice. No other combination was observed during this study.

Table 2. Copulation Events

Insertive ➔ Receptive	Total Copulation Events
Matt ➔ Jabir	2
Matt ➔ Virgil	0
Matt ➔ Sampson	0
Jabir ➔ Matt	0
Jabir ➔ Virgil	1
Jabir ➔ Sampson	0
Virgil ➔ Matt	0
Virgil ➔ Jabir	0
Virgil ➔ Sampson	0
Sampson ➔ Matt	0
Sampson ➔ Jabir	27
Sampson ➔ Virgil	4

Dyad Relationships and Personality Traits

Sampson and Jabir have a tendency to stay in close proximity to one another. This may be primarily due to the fact that they were born only a few days apart, and may have learned to comfort each other from an early age. They both appear to be more reserved than Matt, and especially Virgil. Sampson is aloof and frequently uninvolved in group activities. He is more inclined to sit back and watch group play before joining in. In the Sampson and Jabir dyad, higher group rank most certainly belongs to Jabir. Jabir has been observed displacing Sampson three times. During an observation (*observation 7a at 9:40 am*), Jabir was observed grabbing food from Sampson. Sampson did not act in retaliation. This did not appear to be a cooperative food-sharing incident. When food is placed into the enclosure, Sampson collects as much food as he can carry, and eats faster than any of the other three gorillas. He has been observed hording piles of vegetables and biscuits in secluded areas. Eating has been observed to be a more relaxed activity for Matt, Virgil and Jabir.

Virgil is six years younger than Matt and less than a year younger than Sampson and Jabir. As noted, Matt was not observed mounting Virgil. This dyad plays and sleeps together daily and exhibits nurturing behaviors towards each other. During the observations, it was apparent that Matt and Virgil have a strong affinitive relationship which includes food sharing. Virgil was observed pulling leaves off a branch that Matt was eating without reprisal (*observation 12a, 9:04 am*). Their relationship may be why Matt has never been observed copulating with or soliciting copulation with Virgil; although, it cannot be stated that it has never happened or never will happen in the future. Their affinitive bond may be due to a few possible factors.

In wild mountain gorillas, variation has been observed in the tolerance levels of dominant adult males toward younger males within family groups (Harcourt 1979). Wild adult male gorillas infrequently interact with infants because of the time spent foraging for food. Yet in captivity, adult male and infant interactions have been observed regularly. It has been hypothesized that silverback-and-infant play increases the social bond between the mother of the infant and the silverback, allowing the possibility for future breading opportunities (Tilford and Nadler 1978). Since there are no females in this group, Matt has little motivation in that regard. Even when the possible incentives are absent, bonding between adult and sub-adult gorillas is a normal and observed behavior.

Conclusion

Studies involving gorilla sexual activity have focused mainly on heterosexual mating, or female homosexual encounters, with emphasis on the female hormone cycle as the motivating factor for these activities (Nadler, 1976; Fischer and Nadler, 1978). From the observations of homosexual and heterosexual activities of Bonobo chimpanzees in the wild and in captivity, it is theorized that sexual activity is used as greetings, appeasement, play, to relieve group tensions and anxieties, and to facilitate food sharing (Kuroda 1980; Parish 1994). In a more recent study, male bonobo's were found to show submissive behaviors to large groups of females, leading to the hypothesis that Bonobo society is matriarchal (Parish 1994). This study concluded that the motivations behind heterosexual and homosexual encounters are related to the Bonobo hierarchical structure, the role of sex in keeping peaceful relations within Bonobo society, and the greater reproductive success of the species. The impetus for sexual behaviors within bachelor gorilla groups may be analogous to various sexual motivations within Bonobo society.

The routine occurrence of copulatory behaviors among the gorillas in this focal group leads to the conclusion that copulation is an important part of their socialization. Since sexual behavior in bachelor groups is not driven by females, the female reproductive cycle, or the need to reproduce, copulatory behavior within this group may be an important factor in the reduction of stress, for offering reassurance between individuals, and in the biological need for sexual release. The roles of insertive and receptive partners may not be exclusively based on dominance, but rather on the reassurance of one or both partners. At this time, it cannot be stated that presenting is necessarily a position of submission, but rather, may be a simple invitation and consent to the sexual act. The roles of insertive and receptive partners may have simply been chosen by individual preference. In the dyad between Sampson and Jabir, Jabir may be the more dominant of the two, yet Jabir was consistently observed in the role of the receiving partner. Acting as the receptive partner may allow him a higher rank within the group of four.

More research on wild and captive bachelor gorilla groups is needed to add to the body of knowledge necessary to understand the sexual behaviors of these beautiful and complex animals. Further investigations should be conducted with special attention given to the age of the individuals, group hierarchy, and the familial relationships of the male gorillas in the observed groups.

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Appendices
Addendum A - *Ethogram: Behavior categories and definitions

Behavior	Definition
Masturbation	Rhythmic rubbing of genitalia with any part of own body or object
Genital Touching/ Examination	One individual touching of genitalia or examining the genitalia of another individual
Sexual Mounting	Mounting and thrusting, dorsal/ventral or dorsal/dorsal (may be unknown if penetration has occurred)
Presenting	Presenting rear for mounting or genital investigation by partner
Affinitive	Sitting close to another gorilla ($\leq$ 2 meters)
Social Grooming/ Examination	Social grooming or touching of any body part except genitalia
Social Play - Running/Chasing	One individual chasing another in play; brief touching and/or grabbing or no touching
Buddy Walk	Two walking together with arms around each other or holding hands/arms
Social Play – Wrestling	Grabbing, biting, holding in play; may turn aggressive
Display	Throwing objects, swinging or running to hit glass, beating on chest or abdomen
Aggression	Any contact or display that leads to displacement
Displacement	An individual's departure of an area upon the approach of another individual (avoidance; dominance)
Solitary Sleeping/ Lounging	Sleeping or laying alone ($\geq$ 2 meters from other gorillas)
Social Sleeping/ Lounging	Two or more individuals sleeping or laying near each other with little interaction; can have some contact (non-sexual)
Out of View	Animal is not visible to researcher
Interaction/Display Toward People	Any interaction with public such as banging window (display), sitting and watching, etc.
Solitary Activity	Playing, eating, sitting alone and $\geq$ 2 meters from other gorillas

*Ethogram was compiled by behaviors observed by Jan Mead-Moehring and inspired by, and modified from, a series of gorilla ethograms compiled by the Gorilla Advisory Group at Primate Info Net http://pin.primate.wisc.edu/aboutp/behavior/gorillas2.html.

Pictures

1) Dorsal-Ventral Mount
Sampson Insertive ➔ Jabir Receptive

2) Ventral-Ventral Mount
Sampson Insertive (top) à Jabir Receptive (supine)

SALAMANCA, SPAIN: COLLECTIVE MEMORY IN THE URBAN SPACE-TIME CONTINUUM

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Salamanca, Spain is a university town of approximately 180,000 citizens which lies on the River Tormes in the state of Castilla y León. While it is certainly not as prominent or well-known as other Spanish cities such as Barcelona and Granada, its importance in the country's history is rivaled by few others. It has been elegized as the Athens of the West, a miniature Rome (Francia 2002:13)[1], and is universally regarded as the cultural capital of the Spanish Golden Age (Casanova y Todolí 2002: Preface). James Michener has similarly described it as "the heart and nucleus of Spanish culture" (Francia 2002:37)[2]. Indeed, Salamanca's role in the cultural development of the Iberian Peninsula has been so profound that in 2002 it was honored as the European Capital of Culture by the European Union.

While living and studying in Salamanca during the fall of 2004, I was struck by the amount of history contained within the city's medieval walls, not only in the dozens of museums and collections which are scattered throughout, but in the architectural fabric of the city itself. Drawing from contemporary scholarship in urban studies I analyze the architectural history of Salamanca and apply my findings to the current dilemma of the modern city. This analysis is presented in three sections. The first is a brief overview of the history of Salamanca and several of its most prominent architectural monuments as described by Ubaldo de Casanova y Todolí in his comprehensive work *Salamanca: Biografía de una ciudad*. This section also incorporates information which was disseminated during faculty-led tours of the city which I regularly attended. The second section is a discussion of the roles of space and time in the urban fabric and how the continuous and enduring relationship between the two creates collective memory in Salamanca. The third and final section examines the importance of maintaining the urban space-time continuum (and, thus, collective memory) in the modern city.

Salamanca: a history written in architecture

A city, like any other living being, suffers a process of evolution which begins at its birth, continues with its growth and, in some cases, culminates with its death. But those cities which continue to exist have continued to develop themselves (employing that which they have accumulated throughout history) and today can still be found shaping projects for

their future. In this way, each city has created its own personality which has allowed it to distinguish itself from all other cities. And this is what has happened with Salamanca.
-Ubaldo de Casanova y Todolí (2002: Preface)[3]

Although archaeological evidence has shown that what is today the city of Salamanca was inhabited from as early as the seventh century BCE (Casanova y Todolí 2002:23), the history of the city with which we are concerned (that is the history which has manifested itself in the urban geography) begins in 220 BCE with the arrival of the Carthaginian conqueror Hannibal (25). The Carthaginian occupation had only lasted a few years when Roman forces took the city during the Second Punic War (218-202 BCE). Salamanca soon became an important waypoint on the *Via de la Plata* (the north-south route along which silver from the southern colony of Mérida was transported) and in the year 89 CE the Romans erected a stone bridge over the River Tormes in order to accommodate traders arriving from the south (27). The Roman Bridge's endurance as a symbol of Salamanca is evidenced by its representation in the city's heraldic crest.

With the fall of the Roman Empire in the fifth century CE, Salamanca went through a tumultuous period of alternating Christian, Visigoth and Moorish occupations (30-33). After nearly three centuries of political upheaval, Salamanca had experienced a severe decrease in population and in 1102 Alfonso VI entrusted the Count of Borgoña to repopulate the city (37). In order to accommodate the new citizenry (as well as to continue attracting new inhabitants) a Romanesque cathedral was built between 1140 and 1220 (39). Known as the *la Catedral Vieja*, its bell tower (*la Torre del Gallo*) remains the tallest and most prominent figure on the urban skyline today.

In 1492, Isabel of Castile and Ferdinand of Aragon (known collectively throughout Spain as *los Reyes Católicos*) wrested Granada from Muslim control and united the Iberian Peninsula. This unification coincided with an explosion of nationalistic Gothic architecture in Salamanca. A year after the fall of Granada, construction began on *la Casa de las Conchas*, a private residence in the Isabeline Gothic style, appropriately named after the Queen. The hundreds of scallop shells which adorn the exterior of the building identify its residents as members of the noble Order of Saint James and the prominent display of the royal crest of *los Reyes Católicos* above the main entrance demonstrates their allegiance to the new monarchs (94).

The Plateresque style which is peculiar to Salamanca emerged shortly after in the early sixteenth century. Characterized by intricate details, deep relief and a profound sense of *horror vacui*, the Plateresque was made possible in Salamanca because of the city's access to *la piedra de Villamayor*, a unique stone which when

first extracted from the quarry is highly malleable but which hardens with continued exposure to air and sunlight (184). *La piedra de Villamayor* is also significant to the architectural history of Salamanca because of its golden color which has earned the city the endearing nickname *la Dorada* (the Golden One).

The façade of the University of Salamanca is the ultimate expression of the Plateresque style. Constructed in 1529, the façade embodies the transition from Gothic to Renaissance. In addition to paying homage to the monarchy and the papacy, the façade depicts a humanistic allegory of good and evil for all of its students to see. A tiny frog which sits atop a skull (and which was originally intended to warn male students of the seductive and sinful nature of women) has become a popular symbol of the city for it is said that finding the small amphibian amidst the dense ornamentation of the façade will bring students good luck on their final exams.

As the reputation and the student body of the University continued to grow, so did Salamanca. The nave of *la Catedral Vieja* could no longer accommodate the growing citizenry, but rather than demolish the old cathedral and build a larger one in its stead, the city decided to build a new cathedral and attach it to the old one (114). *La Catedral Nueva* began construction in 1513 and was one of the last Gothic cathedrals to be constructed in all of Europe (115). On November 1, 1755, twenty-two years after the cathedral's completion, the aftershocks of the Lisbon Earthquake were felt in Salamanca. To make sure that the integrity of the combined Romanesque-Gothic cathedral had not been compromised, the folk hero e*l Mariquelo* climbed to the top of *la Torre del Gallo* to measure the angle of the tower. His legendary ascension is reenacted every November 1 to the delight of tourists and citizens alike.

The seventeenth century saw the decline of the Spanish Empire and a renewed period of depopulation in Salamanca: the expulsion of Moorish and Portuguese families in 1609 and a catastrophic flood in 1626 decreased the citizenry from about 20,000 to approximately 16,350 (157). It is important to note that the flood also destroyed several important buildings in the neighborhoods closest to the River Tormes. In spite of (or, arguably, because of) these difficulties, Salamanca saw the rise of the Baroque style during this period. The rich ornamentation of *La Clerecía*, which began construction in 1617, was a visual symbol of the Catholic Church's response to the Protestant Reformation.

In 1700, Charles II, the last of the Hapsburg monarchs, died without an heir leading to the War of Succession (1700-1714). During the War, Salamanca supported the claim of the Bourbons to the throne and when they emerged victorious the city experienced a period of postwar prosperity. With this new wealth, the city leaders decided to build a central square where the sixteenth century Saint Mar-

tin's Market had been (177). Constructed between 1728 and 1755, *la Plaza Mayor* has endured as the center of public life in Salamanca: *In the little over two centuries in which it has existed, la Plaza Mayor, a gift from the Bourbons to the city, has been a marketplace and agora, a revolving walkway in which gentlemen and ladies walk in opposite directions*[4]*, a wheel of leisure activity, an open square for bull fights and lively chess games alike, a rhetorical stage for political and poetic exaltations, a theatre and balcony, a seasonal solarium, a walkway for retired persons, a clock and multicenter (Aníbal Nuñez, quoted in Francia 2002:48.)*[5]

During the Peninsular War (1808-1814), Spain was occupied by French forces and Joseph Bonaparte was installed as King of Spain (203). During the Battle of Salamanca in 1812, British and Portuguese forces emerged victorious against the French army, but not before French canon fire had severely damaged the historic neighborhood of *los Caídos*, which is still in the process of reconstruction today (204). The nineteenth century also saw the rise of the bourgeoisie, industrialization and urban sprawl in Salamanca. The creation of large urban parks such as *la Parque de la Alamedilla* during this period hints at the influence of the City Beautiful Movement (210).

The twentieth century saw the introduction of modern architecture in Salamanca, the most prominent example of which is *la Casa Lis* of 1904, an Art Deco masterpiece with a striking stained glass façade which lies at the feet of the Cathedrals. The city's architectural addendums have continued to evolve in style on into the twenty-first century, especially in the ever-expanding University campus. Perhaps the most interesting example of Post-Modern architecture in the city is *el Palacio de Exposiciones y Congresos*, a large, boxy building on the outskirts of the medieval city limits which serves various municipal functions. However, the fact that this building is one huge block of *la piedra de Villamayor* reflects the city's attitude towards architectural innovation: *The architectural tendency during the past few years has been centered on combining what has already been started with the monumental, creating an architecture with a modern air which is more in accordance with current tendencies. Insipid imitation and mimicry have predominated in a city which does not seem to wait for any other execution than that which is in strict harmony with its monumentality (Casanova y Todolí 2002:233-234.)*[6]

Space, time and space-time: collective memory in the urban fabric

> *The city is the result and expression of the historical space-time continuum by recording and assimilating the past into the present.*
> *-Milos Bobic (1990:27-29)*

The collective memory needs to be anchored in visual monuments.
-Diane Barthel (1996:154)

Certainly the architectural fabric of the city comprises a visual historical text in Salamanca: the history of each successive age has been permanently etched into the urban landscape in the form of monumental edifices. But how does this monumental architecture create collective memory? To answer this question we must examine the two major components of memory (space and time) and how they work together to create unifying, continuous symbols.

Space is the three-dimensional plane in which the physical structure of the city is realized. According to Eviatar Zerubavel, urban space (or place) is the foundation for collective memory: "Constancy of place is a formidable basis for establishing a strong sense of sameness…[our physical surroundings] constitute a reliable locus of memories and often serve as a major foci of personal as well as group nostalgia" (2003:41). Svetlana Boym agrees that place is important but suggests that it is not sufficient to create collective memory by itself: "Places are *contexts* for remembrances and debates about the future, not *symbols* of memory or nostalgia" (2001:77).

According to Heidegger, time is the confirmation of human existence, the foundation of our sentient nature (Bobic 1990:4). Milos Bobic elaborates further on the importance of time referring to it as "an essential part of man's search for his individual and social fate" as well as "the greatest universal value which enables control over all other values" (4). Because of its universal importance, Bobic concludes that "time generates the shape of individual and collective notions of the city" (9).

Certainly space and time make important individual contributions to the creation of an urban environment which is conducive to collective memory, yet these two entities are inherently interdependent. Bobic asserts that "three-dimensional space can neither be completely understood nor can it appear without the fourth dimension of time" (1990:15). Conversely, four-dimensional time cannot manifest itself visually outside of the three-dimensional context of space (38). Hence, the symbiotic relationship between time and space necessitates the creation and maintenance of a space-time continuum.

This continuum is the key to fostering collective memory in the urban fabric and consciousness. The interdependent relationship between space and time has been described by Mikhail Bakhtin as a *chronotope*, a point "in the geography of a community where time and space intersect and fuse. Time takes on flesh and becomes visible for human contemplation…Chronotopes thus stand as monuments to the community itself, as symbols of it, as forces operating to

shape its members' images of themselves" (quoted in Jordan 2003:34). Bobic concurs with Bakhtin's analysis of the relationship between space and time, although he defines the continuum as *urban space-time* rather than a *chronotope*: "The passage of time leaves its inscription in space so that space and time universally and dialectically represent the cultural totality of a city" (1990:6).

Obviously space and time are the dimensional bases for collective memory in the city, but continuity is the functional process by which the space-time continuum is maintained. According to Bobic, "continuity comprises numerous transformations of a spatial shape whereby certain urban elements are maintained, added on to and developed over time as urban constants, while others are replaced by transformation or destroyed forever" (1990:33). Essential to the maintenance of continuity is the concept of duration which is defined as *an expression of people's will, part of biological evolution,…the reason for the city's existence on a plane in the past, its construction and transformation in the present by creating functional, spatial, social, economic and ecological predispositions for survival in the future (27; italics added.)*

As Bobic's definitions of continuity and duration suggest, not all urban forms can endure permanently. Spiro Kostof offers a viable solution to this paradox: "We should be content with saving as much as we can, to know what we once had—and to add our own pieces sympathetically to this collective artifact, with a feeling of love for the whole" (1991:93). Thus, as Lewis Mumford asserts, "each generation writes it biography in the buildings it creates; each culture characterizes, in the city, the unifying idea that runs though its activities" (1995:165).

The metaphorical glue which holds architecturally diverse urban entities together in continuity is symbolism. Bobic defines a symbol as "a primary element of individual identification with a collective historical identification and the generator of the evolution of subjects in its psychic and mental development" (1990:58). While monuments are powerful symbols of collectivity, their stylistic diversity makes it difficult for them to unite the distinct urban-chronological layers into a harmonious visual whole. However, a more malleable symbol which can be applied to all forms and styles of architecture is a symbol that "not only generates concrete physical space, but also transmits messages from the past, the history of the totality and becomes the cultural and abstract standard of an urban environment" (Bobic 1990:67).

Salamanca is overrun with symbols of its urban identity: the heraldic crest that incorporates the image of the Roman Bridge; the hundreds of medallions depicting *los Reyes Católicos* and other historic figures that adorn *la Plaza Mayor*; the scallop shells that embellish *la Casa de las Conchas*; and the frog on the University's façade whose visage is found in every gift shop on every souvenir imaginable. But the overarching symbol which connects all of these lesser symbols is

the golden *piedra de Villamayor* in which they and the monumental buildings they adorn have been carved. Hence, this architectural material "has established itself as the unifying element of the city's monumentality" (Casanova y Todolí 2002: Preface).[7]

It is this vision of Salamanca, its urban skyline shining like gold in the Castilian sun, which defines the city as a whole and which connects its citizens to its architectural matrix in both space and time. And it is this urban portrait, "the familiar, fond icon of the city-form, a vision to cherish and come home to" (Kostof 1991:283), which all *salmantinos* have integrated into their sense of self, the symbol which links them to the place where they live and to the history of all of the people who have lived there before them. This symbol of spatial-temporal continuity and urban identity is what ties *salmantinos* like Teófilo Marcos to their beloved city, no matter how far they roam: *The journey, my journey, the journey of many young salmantinos of my generation, had an Ithaca. And this Ithaca, the end of the journey, was, paradoxically, Salamanca itself. […] And this is what Salamanca signifies. An initial stimulus at the beginning of the journey, upon leaving, that like poison makes you abandon the city one day, and later, with the passing of the years, convert it into a point of reference, the final Ithaca, which you long to return to so that you may linger in its plazas, in its streets, in its spirit, in the magnetic current which its stones exude, in the amalgamated memory which resides in the time of all those who have lived there before (quoted in Francia 2002:65; italics added).*[8]

Human nature in the modern city: applications of collective memory

> *The architectural embodiment of the modern city is in fact impossible until biological, social, and personal needs have been canvassed, until the cultural and educational purposes of the city have been outlined, and until all of man's activities have been integrated into a balanced whole…The city, if it is anything, is an expression and symbolization of man's wholeness—a representation in buildings of his* nature and *purposes.*
>
> *-Lewis Mumford (1995:162)*

> *The city will only be rethought and reconstructed on its current ruins when we have properly understood that the city is the deployment of time.*
>
> *-Henri Lefebvre (quoted in Crang 2001:190)*

Throughout the twentieth century, many cities experienced a continuous period of modernization and globalization, the consequences of which can be seen in the Modernist architecture of the urban landscape. Now, in the twenty-

first century, we are beginning to examine the effects that modernization and globalization have had on the natural environment (Swyndegouw and Kaïka 2000), biology (Salingaros 2003) and human nature (Mumford 1995). What this examination has yielded thus far is a grim portrait of a modern urbanism which compromises these aforementioned characteristics of human existence. However, the space-time continuum and collective memory which characterize Salamanca may provide a possible solution to these urban ills.

One of the primary concerns surrounding the modern city has been the condition of the natural environment. In order to understand how we may preserve the natural environment, we must first understand the symbiotic relationship between nature and the city within the context of urban space-time. When we acknowledge that "the environment of the city (both social and physical) is the result of a historical-geographical process of the urbanization of nature" (Swyndegouw and Kaïka 2000:569), we realize that nature and society (like space and time) are interdependent. Similarly, when we accept that "the dialectical link between nature, buildings and time" creates historical continuity (Bobic 1990:15), we can use the morphology of the urban space-time continuum as a model for how nature and the city have co-existed throughout history. Hence, by acknowledging the historical relationship between the urban and natural environments, we may begin to look for answers to present problems in the patterns of the past.

The other major concern which scholars have is that the urban fabric of the modern city denies the basic needs of human biology and psychology. According to Steven Pinker, the assumption of city planners that humanity is infinitely malleable has led to the rise of Authoritarian High Modernism (Salingaros 2003). Mumford derides the modern city in similar fashion by citing how its physical structure creates a sense of alienation and disinheritance among its citizens (1995:164). Their criticisms are not unfounded: Modernist experiments such as Brasília have failed miserably in their utopian attempts to create social harmony (Salingaros 2003, Holston 1989).

However, like environmental nature, human nature is inexorably linked to the urban space-time. Milos Bobic asserts that "there is a dialectical relationship between the evolution of the city and the evolution of mankind, that they generate each other interactively" (1990:31). Similarly, "if the human community develops in evolutionary continuity, then the city has the same historical path" (34). No self-respecting evolutionary biologist would suggest that human beings have evolved independently of their physical surroundings and neither should urban planners. Instead, in order to accommodate human nature in the modern city, we must look back to the interdependent evolution of human beings and their urban environments within the context of the space-time continuum.

In addition to the destruction of the natural environment and the civic alienation which characterize the modern city, globalization has been a major point of contention among urban scholars. Globalization poses a major threat to the local urban identity by rapidly introducing new architectural forms and cultural patterns into the preexisting fabric of the city. It also creates social tensions between different classes and nationalities which threaten the unity of the citizenry.

According to Jennifer Jordan, however, the global and the local are not necessarily in conflict. She asserts that the "accretion of collective memory in space means that places of concentrated memory can sit shoulder to shoulder with the kinds of interchangeable spaces typical of globalization" (2003:33). Similarly, these newly introduced global spaces can be incorporated into the collective memory of the city (46). Hence, the effects of globalization can be reconciled with the space-time continuity of the city through the maintenance and evolution of urban collective memory.

The symbolism which creates collective memory is an essential component in maintaining the peaceful coexistence of the global and the local. As Diane Barthel notes, *There is a need for some measure of social solidarity, even as, or especially as, society becomes more differentiated. Preservation can help respond to this collective need, enabling people to view themselves not simply as individuals, with individual rights, or as members of classes, with opposing interests. Preservation can form local and even national arenas in which people join with others who are different, even strangers, in the complex flow of time (1996:154.)* Thus, the preservation of the symbols of the urban space-time continuum can unite a diverse, global citizenry by fostering collective memory.

When we apply the work of Steven Pinker to this idea, the implications for the potential value of collective memory in the modern city become even more striking. According to Pinker, our shared neurobiology allows human beings to determine architectural value in a universal manner (Salingaros 2003). Because of this it may be possible for all human beings, regardless of their national or cultural origin, to evaluate the symbols of their urban environment in the same fashion. If this is indeed true, then the city itself as the overarching symbol of urban identity can serve to unite its diverse citizens around a universal collective memory, a memory which resides in the urban space-time continuum.

Conclusion

It has not been my goal in this essay to portray Salamanca as an ideal or utopian city. Nor has it been my intention to prescribe the maintenance of the urban space-time continuum and the creation of collective memory as a panacea for all of the ills of the modern city. Rather, my aim has been to present Salamanca as an illustration of how space and time function in the city and how the maintenance

of urban symbols throughout the history of the city has created collective memory among its citizens. As a result of this examination it becomes clear that recognizing the functions of space and time, continuity and symbols, in the urban fabric is the first necessary step towards understanding human nature in an urban context. Therefore, it is my conclusion that the future of the modern city must rely on the lessons of the urban past as evidenced by the evolutionary continuity which characterizes the relationship between humanity and the city.

Notes

[1]"Salamanca, la Atenas de Occidente. Salamanca, Roma la Chica."

[2]"El corazón y el núcleo de la cultura española."

[3]"Una ciudad, al igual que todo ser vivo, sufre un proceso de evolución que se inicia con su nacimiento, continúa con su crecimiento y, en algunas ocasiones, culmina con su muerte. Pero las que siguen existiendo se han ido desarrollando, por lo que han acumulado tras de sí mucha historia, y en el momento actual todavía se encuentran configurando proyectos para el futuro. De este modo, toda ciudad ha ido creando una personalidad propia que le ha permitido distinguirse de cualquier otra. Y esto es lo que ha sucedido con Salamanca."

[4]It is said that young men and women circled the arcades of the Plaza in opposite directions so as to clearly see the faces of their potential suitors.

[5]"En poco más de dos siglos de existencia la Plaza Mayor, regalo borbónico a la ciudad, ha sido zoco y ágora, paseo giratorio en opuestos sentidos de caballeros y señoritas, noria de ocio, plaza de toros y ajedrez viviente, escenario retórico de exaltación política y poética, teatro y balcón, solarium de entretiempo, corro de jubilados, reloj y multicentro."

[6]"La tendencia de la arquitectura durante los últimos años se ha centrado en conjugar lo que ya se estaba haciendo con lo monumental, relegando casi por completo una arquitectura de aire moderno más acorde con las tendencias actuales. La imitación anodina y el mimetismo han predominado en una ciudad que no parece esperar otras realizaciones que aquellas que estén en estricta consonancia con su monumentalidad."

[7]"…la piedra de Villamayor, la cual se ha erigido en elemento unificador de todo el conjunto monumental de la ciudad."

[8]"El viaje, mi viaje, el de muchos amigos salmantinos de mi generación, tenía una Ítaca. Y esa Ítaca, final de viaje, era, paradójicamente, la propia Salamanca. […] Y Salamanca significa eso. Estímulo iniciático al viaje, a la salida, que como veneno te hace abandonarla un día, para después, con el paso de los años, convertirla en punto de referencia, en la Ítaca final, a la que deseas volver para remansarte en sus plazas, en sus calles, en su espíritu, en el fluido magnético que destilan sus piedras, en el recuerdo amalgamado en el tiempo de todos los que allí vivieron."

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BOOK REVIEWS

THE PROTEAN SELF: HUMAN RESILIENCE IN AN AGE OF FRAGMENTATION
ROBERT J. LIFTON, 1993

Review by Troy Belford
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Robert J. Lifton is an interesting author. He is a psychologist who utilizes his patient interviews the way an anthropologist does, drawing generalizations and tendencies out of the individual and applying them to the cultural. The main theme of this book is the "Protean Self", named after the sea god Proteus that could take many different forms. The protean self is a defense mechanism, a way of coping with the modern fragmentations of self and society in a quickly changing (both materially and culturally) world. The way in which the individual deals with this chaotic social system is the "calling forth (of) the innate plasticity of human development and behavior" (p. 230).

The book deals with the malleability of the modern self which "emerges from confusion, from the widespread feeling that we are losing our psychological moorings" (p. 1). Lifton presents three factors which contribute to this modern protean self: historical dislocation, the mass media revolution and the "end of the world" influence of nuclear weapon proliferation and religious end time scenarios associated with millennialism.

These three themes become ethnographic through Lifton's presentation of psychiatric case studies in order to corroborate the influence of these three themes on the individual people. The psychology of the social activist provides most of the insight into personal motivation for public action. The presentation of these biographical vignettes, told through psychoanalytical sessions, demonstrate how personal events can cause people to react to social, political or economic events and ally themselves to groups for the solving of them (pp. 93-119). The relationship of the individual to family as well as other groups can also provide the motivations for personal changes of the protean nature (pp. 120-136).

The rebellion against protean fluidity is brought into question by the matter of religious fundamentalism (pp. 160-189). Here Lifton employs the ethnographic convention of psychoanalytical vignettes in the description of how religious fundamentalists maintain their belief structure in the face of competing ideas in a multicultural system. The goal of the fundamentalist's teleology is to create a static and fixed self that is concerned with rejecting influences considered "contaminating" and by viewing outsiders as agents of that "contamination" process. Though Lifton does not dwell on the distinction in his psychoanalytic vignettes in this chapter he does view (and I am in considerable agreement with him) that fundamentalism is not only a religious phenomenon but a political one as well.

The author presents fundamentalism as a philosophic construct that incorporates the post-enlightenment views of rationality but rejects the modernist maxims of "science will save us all." Lifton does a wonderful job of teasing forth the philosophical constructions (often made on the spot in the same way that that protean philosophical constructions are) in using the pointed question of whether nuclear weapons are part of the Millenarian God's plan for the apocalypse. Through varied responses from his informants he was able to present a case for the internal protean nature of the static fundamentalist model of the self that on the one hand takes the Bible as an authoritative truth and on the other hand has to expand the literal in order to make it "fit" the social norms and issues of the present.

In Lifton's study of protean malleable self taken to a "formless" extreme (pp. 190-212) he is able to cast insight into the "dissociative" issues of abnormal psychology. By presenting the psychoanalytic case histories of poor urban blacks that have been subject to very antagonistic (to say the least) environments of violence and criminality he is able to make a very strong case for the functional influence that one's socio-economic surroundings can have on the formation of the self. This is also true in the longer section on Gordon Parks' autobiography (pp. 151-159) in which the ever-changing person of Parks is seen to undergo many stages of identity as was necessary to deal with his environment.

I enjoyed the book tremendously and am in agreement with the author's central thesis of the protean self as a response to the changing post-industrial world of multiculturalism and mass media. The issue of nuclear proliferation and the fear that they engender was of particular interest to me as an American citizen who was born in 1975 and had to deal with these fears in my early youth. Considering the current fears about nuclear programs in North Korea and Iran this book transcends its timely references of the early 1990s and has much to say about the current public mindset today.

THE ARCHETYPAL ACTIONS OF RITUAL
CAROLINE HUMPHREY AND JAMES LAIDLAW, 1994

Review by Jennifer Scriven
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Can a theory be extrapolated based solely on a single ethnographic study? Can the examination of a single form of ritual suffice to create a blanket research method which is applicable to all forms of ritual? Is meaning merely a construct which participants lull themselves into believing that ritual possesses? And does intentionality have an effect on the consideration of meaning within ritual? I will attempt to elucidate several aspects of the responses to these questions within the context of James Laidlaw and Caroline Humphrey's work, *The Archetypal Actions of Ritual*. I will also comment upon and demonstrate the difficulties inherent in the creation of the authors' model of ritual theory.

By definition, a scientific theory is a framework within which all aspects of a specific topic may be explained. It is the best model to date, one which has been scrutinized and found to be most true. A hypothesis, in contrast, is an idea of how a topic might be explained. It is not yet thoroughly explored or tested, and it remains to be seen whether it will stand up to all tests necessary to verify it as true for all cases to date. Laidlaw and Humphrey propose what they call a new theory of ritual, one which they feel is more fully explicative of ritual, compared with other models currently working in the anthropological world. They create this theory based largely on a single case study – that of the Jain faith of India, using informants' responses as the preponderance of evidence to support their new idea. I will demonstrate that, while some of their modes of thinking about the ritual in question (the *puja*) are indeed unique, application of a single ethnographic study is insufficient to cover the broader topic of ritual throughout the world.

I will briefly describe what I believe are the two most important elements of the Jain rite which Laidlaw and Humphrey stressed as keys to understanding ritual: meaning, and the relationship between action and intentionality. I will also discuss the authors' view of what they call the 'ritual stance' or 'ritual commitment'. And I will conclude with an elucidation of the problems I encountered in the formulation of their theory.

Clearly, most people in both the lay and anthropological communities would agree that ritual has meaning, on some level, to its participants. In fact, I believe most would also agree that if ritual were lacking in meaning, no one would bother to participate in the first place. Laidlaw and Humphrey believe that this is not necessarily the case. They argue that while participants believe there is underlying meaning to the rituals they perform, in actuality there is none. They assert that "people attempt to counteract the meaninglessness of ritual by imposing religious meanings which they have been told about, have read about, or have thought up for themselves" (p. 6). The authors base this conclusion on informants' testimonies. When asked, participants gave often widely differing explanations as to why they performed the *puja*, prompting the authors to believe that this indicated a true consensus of meaning. For them, this demonstrated that there was, in fact, no meaning to the participants' performance.

Humphrey and Laidlaw also note that anthropology has in general neglected looking at actual acts of worship as their own entities, instead favoring a more holistic view. This is seen as contributing to the lack of understanding of the meaning of ritual (p. 80). As an antidote to this more traditional way of thinking, the authors have offered their theory as an alternative that they believe is more applicable, and will shed more light upon the subject.

Further, they believe that meaning is also not "provided by the acts themselves", and state that their "main objective...is to establish that there is an important sense in which the action in general has meaning, but ritualized action does not" (p. 91). But if ritualized acts have no meaning, is there no mitigating circumstance which can give one meaning? For Humphrey and Laidlaw, the relationship between action and intentionality is the key to understanding this aspect of ritual.

For the authors' respondents, acts within the context of the *puja* ritual were merely empty movements; "meanings must be put into ritual, to infuse its emptiness with spiritual significance" (p. 2). For the participants, the most important aspect of the rite is the internal spiritual attitude and transformation which is the essence and purpose of the acts. Humphrey and Laidlaw, therefore, view intentionality as the cornerstone to understanding ritual and placing meaning within it.

Where, then, do the intentions lie in ritual actions? The authors argue it is within the context of ritualization. "Action is ritualized if the acts of which it is composed are constituted not by the intentions which the actor has in performing them, but by prior stipulation" (p.97). For Humphrey and Laidlaw, this does not negate the absence of meaning, but puts the meaning squarely in the hands of the agent as he or she is performing. They describe this as the 'ritual commitment'.

A "ritual commitment [is] a particular stance with respect to [one's] own action" (p.88); it is a desire to participate in a proscribed action, whether one believes there is any meaning behind it. Participation shows others of the group that one is willing to comply with the stated and unstated precepts concerning the act. It shows solidarity with the group, and implies a belief in the same ideology. One's intentions are never questioned, only assumed to agree with those of the others present. It may indeed be the case that all participants believe, but it is not required. The only important factor is whether the acts are performed properly, according to proscription.

But that having been said, when a participant uses a widely defined act as a ritual performance, the agent is no longer the author of their own acts (p. 99). The argument is that "it is you as yourself who actually performs these acts...who constitutes your action as ritualized and thus *make it the case* that you are no longer, for a while, author of your acts" (p. 99). The authors believe that in following the strict guidelines of the actual performance of the acts, you are too busy following to be able to make the action truly your own. If you are pre-occupied with "getting it right", you give up your autonomy in the act, which would give it meaning; "the actor...mimics an idea of what should be done" (p. 103). But, ironically, with the loss of authorship of your actions, Humphrey and Laidlaw believe you also lose meaning.

With these observations in mind, what is the theory which the authors propose? They see it as "a new *kind* of theory", one in which "ritual is [discerned] as a quality which action can come to have – a special way in which acts may be performed" (p. 64). Humphrey and Laidlaw also believe that "cultural symbolism...is particularly likely to accrete around ritualized acts...having social functions" (p. 180-1). And, lastly, they argue that "it is better to see the discursive models and meanings of rituals as one of the possible responses to ritual, rather than as underlying its constitution" (p.265).

While some of the authors' perceptions have merit, I believe their theory is fundamentally flawed for a number of reasons. Some of these include: the use of one ethnographic study alone, consensus as a determinant of meaning, and their criticism of other anthropological models' use of informant information. I will attempt to discuss these flaws, and show how they create a shaky foundation for the authors' theory.

Beginning with the manner of the development of their theory, I think the use of only one ethnographic example is a major detriment to their argument. It is widely accepted among physical science practitioners that one does not proclaim a theory to be accurate after only one experiment. This is true, also, among

anthropologists. One case study is woefully inadequate to demonstrate any theoretical model, as human culture is a highly varied entity. It is much more efficacious to use a case study to refute a theory, since in practice, it only takes one exception to any scientific rule to cast doubt upon its accuracy. If Humphrey and Laidlaw had used the Jain study as an example to question a current theory, it would have worked very well. However, it is highly premature to posit a new theory based on such scant evidence.

Another flaw is Humphrey and Laidlaw's use of consensus among participants as a determinant of true meaning within a ritual. They say that "most influential anthropological studies of ritual have tended...to portray closed, local communities with a shared culture and symbolic code, and symbolic consensus has come to be seen as characteristic of ritual" (p. 80). This is true in many cases. The authors use a similar tactic, however, when arguing their theory. They stress throughout the work that they did not find a consensus, and that this lack indicates no underlying meaning. But this tack is simply a mirror image of the polemic they argue against. It is illogical to argue that one extreme is incorrect, and then proceed to say that the opposite extreme is correct. In a world where culture comes in infinite variety, the correct approach often takes the middle ground, with peripheral extremes still allowed for.

The final flaw I will mention involves the authors' criticism of researchers' use of informant information. In aiming for honesty in reporting, Humphrey and Laidlaw complain that not all anthropologists use informant information appropriately. They feel that "[a]nthropological interpretations have commonly covered up ...unhelpful replies in order to produce a reading from their own deductions" (p. 180). This is also likely a true statement. However, I feel the authors are guilty of using the same device. There are many instances in this work where the authors note their informants' responses to queries regarding the meaning of the *puja* they have performed. In all cases, only those which represent disparate views are mentioned. One would assume that there were at least some instances where responses were, if not identical, at least similar enough to constitute an agreement on the meaning of the rite. If so, why were these not noted as well? If Humphrey and Laidlaw wished to accurately represent their informants' responses, and if they felt so strongly about honesty in reporting among anthropologists, then similar answers should also have been noted.

In sum, I believe that Humphrey and Laidlaw have made some interesting comments regarding ritual, which should be further developed through study by others as well as the authors. Is ritual truly meaningless? How important a role does the relationship between action and intentionality play? These are intriguing questions, and their book should serve as another vehicle for examining them. But

as to whether or not their conclusions truly can be said to constitute a theory, that is another matter. It would seem that by only relying on a single case study, their notions would be more appropriately deemed an hypothesis. It remains to be seen whether it can be shown to elucidate ritual in other cultures beyond the Jain. But their ideas are certainly useful in giving yet another frame of reference for study.

RITUAL AND RELIGION IN THE MAKING OF HUMANITY
ROY A. RAPPAPORT, 2004

Review by Pat Stepanek
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Roy A. Rappaport systematically presents an intriguing theory on ritual and religion in his book Ritual and Religion in the Making of Humanity. The book is a culmination of Rappaport's life's work. He insists that a reader should view this book as a work in progress, because it does not say exactly what he wanted it to say (p. xxi). Rappaport argues his theory on ritual and religion using an ecological and structuralist approach. He provides extensive cohesive descriptions using evolutionary theory, systems and communications theory, information theory, semiotics, and more. He provides illustrations from anthropology, history, philosophy, and comparative religions, such as Christianity, Buddhism, and Judaism. He cites from his own field work done with the Maring people from the highlands of New Guinea, and from other authors who have studied religion and ritual with other cultures, such as the Sioux, Navajo, or Australian Aborigines. Rappaport says, "Because ritual is taken to be ground from which religious conceptions spring, the preponderance of the book – chapters 2 through 12 – will be devoted to its analysis. These chapters will, as it were, "unpack" a definition of ritual…" (p.3). In the "unpacking," of his definition of ritual, Rappaport presents one successful piece out of the anthropological theoretical pie when his theory is kept within its ecological, structuralist, and evolutionary context. In this paper, I will focus on a few key elements that Rappaport uses in his literary style that make his theory cohesive and his book successful.

To "unpack" his theory, Rappaport provides the reader with a skillfully written definition of ritual. The literary style he uses to convey his definition seems to be a tool for understanding and he systematically defines ritual in an unfolding or evolving manner. Rappaport predominantly uses a formal causal or structural argument (p. 28). He defines ritual twice, first in a

condensed form and then in its entirety (p. 24, 27). The reader gets a taste of his theory in the first couple lines of the definition with a thorough explanation and this foreshadows what he will explain in depth as the book evolves. Rappaport says, "The most general aim of this book is to enlarge, if only by a little, our understanding of the nature of religion and religion in nature" (p. 1). He goes on to say, "This book is not a theological treatise but a work in anthropology" (p.2). He is "attempting not only to grasp what is true *of* all religions but what is true *in* all religions to claim" (p. 2). In defining ritual, Rappaport is developing an anthropological theory that he hopes will provide a better understanding of religion and the role it plays in the evolution of humanity. In this paper, I will predominantly focus on the ritual portion of the material that Rappaport unfolds. To justly credit Rappaport, I will provide his full definition of ritual (p. 27),...*the performance of more or less invariant sequences of formal acts and utterances not entirely encoded by the performers logically entails the establishment of convention, the sealing of social contract, the construction of the integrated conventional orders we shall call* Logoi...*the investment of whatever it encodes with morality, the construction of time and eternity; the representation of a paradigm of creation, the generation of the concept of the sacred and the sanctification of conventional order, the generation of theories of the occult, the evocation of numinous experience, the awareness of the divine, the grasp of the holy, and the construction of orders of meaning transcending the semantic.*

Within the almost five-hundred pages of this book, Rappaport unfolds his definition of ritual, sometimes explaining a word and other times a line. In each sentence, paragraph, section, and chapter, his definition is built, bit by bit, from a simple foundation of his theory into a complex, systematic, and cohesive whole. Rappaport begins his book from an evolutionary perspective, stressing that without religion, humanity would still be in a "pre- or proto-human condition...religion's origins are, if not one with the origins of humanity, closely connected to them" (p.1). He goes on to discuss the universality and role of ritual in the evolution of humanity after stating, "Religion's major conceptual and experiential constituents, the sacred, the numinous, the occult, and the divine, and their integration into the Holy, are creations of ritual" (p.3). Then, Rappaport begins to concisely "unpack" or unfold his definition of ritual through describing elements that he calls "features" (p. 24).

Rappaport uses his explanation of the features as an expansion to his ideas on ritual form. The features he discusses are "performance, formality, invariance, inclusion of both acts and utterances, and encoding by other than the performers" (p.24). These features are included within the first couple of lines of Rappaport's definition of ritual. He dedicates all forty-five pages of chapter two, to the initial introductory explanation of the features in his theory of ritual, which follow

his explanation of ritual form. Rappaport uses and begins to build relationships and interrelationships with the words form, formality, performance, performer, performativeness, metaperformativeness, and other words with the term "form" within them in his explanations and definitions that will appear throughout the book. As he gradually unfolds his theory, he 'unpacks' meaning for the many words with the term "form" within them, as he progresses in complexity with his definition of ritual, chapter by chapter. To define Rappaport's definition of all these terms containing the term "form" would be too extensive to explore in this paper. I will touch on a few of his ideas concerning the term "form," which is the first 'form' word that he uses. To begin his explanation, Rappaport clarifies a few points for the reader. He points out that the term "symbol" is not included in his definition of ritual, he says he purposely does not state what ritual is "about' or "for," and he is adamant that the relationship among the features will vary (p. 26). In chapter one, Rappaport says, 'I will argue there that social contract, morality, and the establishment of convention are intrinsic to ritual's form…" (p. 22). In chapter two, he adds, "…the term "ritual" designates…a form or *structure*, and I will argue that, although none of the elements constituting this structure is unique to ritual, the relations among them are" (p. 26).

To clarify and paraphrase what Rappaport is saying, form and substance are inseparable, are conceptually distinguishable, and certain meanings and effects can only be expressed or achieved through ritual, which must mean that "these meanings and effects follow from ritual's universal form" (p.30). Ritual form adds something to the substance of ritual that the symbolically encoded substances by themselves cannot express, ritual form and the metamessages intrinsic to that form are universal, and ritual does not have equivalents or satisfactory alternatives, so it can be taken to be the social act basic to humanity (p. 31). He is saying that forms and substances "shape" ritual (p. 30) and that ritual plays an important role in the evolution of humanity. To expand further on his notions of form Rapport begins to unfold his definitions of the "features," which includes an explanation of the role of language, communication, and how they evolved together along with ritual, and an ability to lie. He begins explaining signs, symbols, indexes, and liturgical order, which he will expand on later bit by bit as his theory unfolds (p.50-54). The unfolding and evolving process Rappaport uses in his definition and its unfolding expansion leads the reader from an explanation of form, to those of the features, on to his next level of skillful "unpacking" of his ritual theory, where he begins to use dichotomies.

Another literary strategy that Rappaport employs to "unpack" his definition of ritual even further is by using dichotomies or binary oppositions. In chapter two, Rappaport begins to define self-referential and canonical messages. These two types of messages present dichotomies. He says, "There seem to be two broad classes of messages transmitted in human ritual…the participants

transmit information concerning their own current physical, psychic or social states to themselves and to other participants…I shall refer to this class of messages as 'self-referential'" (p.52). There are other types of messages that are transmitted but are not encoded, and "these messages *cannot in themselves* represent the performer's contemporary state…states of those uttering and performing them…I shall refer to this class of messages as 'canonical'" (p.53). Together the difference between the two is that one is encoded and the other is transmitted; one is confined and the other is not (p.53). However, both self-referential and canonical messages are interwoven together (p.53). Generally speaking and from this perspective, human beings have inner messages that come from within his being and outer messages that come from other sources, and they both occur together. These condensed explanations unfold into expanded explanations later as Rappaport's definition of ritual evolves. Rappaport discusses how self-referential messages are transmitted and he introduces ordinal and cardinal messages into the "unpacking" of his theory (p. 82-84).

He says, "There is usually possibilities even in the most invariant of liturgical orders for variations of numerical sort, with possibilities for both their cardinal and ordinal characteristics to be significant (p. 83). To be brief, ordinal messages convey information (p. 83). The point is that Rappaport is again presenting two ends of a spectrum by using a dichotomy. When Rappaport begins discussing the time portion of his definition of ritual, he begins to outright state that he is referring to the "binary aspects of ritual occurrence" (p. 89), or binary oppositions. Rappaport says, "…binary signals are intrinsic to ritual occurrence, and they are, in their nature, free of ambiguity" (p. 89). Binary signals offer clarity, or a sharper distinction. They remove the vagueness and ambiguity that exists in daily life of human beings. "That is, or brings it to the binary, to the reduction of discrete units or states to two only. Any ritual…can at any given time only be occurring or not occurring. The occurrence of a ritual transmits a binary (yes/no, 0/1, on/off, either/or, boy/man, war/peace, etc.) signal" (p. 89).

A reader must also keep in mind that Rappaport has a Durkheimian view in that they both share similar ideas on society and humanity. They both share similar ideas on sacred and secular. Rappaport discusses how time can be viewed in what can in an extremely general and condensed overview be called sacred or secular time, or sacred or mundane time, in chapters six and seven (p. 169-235). He says, "…rituals and sequences of rituals as 'liturgical orders'…" keep things in order; they establish and constitute order, rather than chaos or disorder (p. 169). These are orders that can be ranked and they are directives (p. 169). Overall, time provides a framework for conceptualization (p. 171). For example, in discussing the binary aspects of time, sacred time would deal with things such as a perception of eternity. Rappaport says, "…liturgical orders can and do organize, or even construct socially, the temporal orders of at least some

societies, and that 'temporal' orders, when organized by ritual, make a place for eternity as well as for mundane time" (p. 175). For both the individual and the society "…the public ordering of time, not simply to coordinate social life, but to provide a well-marked road along which each individual's temporal experience can travel" (p. 177). The result is a separation in conception between time in daily life and other-worldly life, or secular and sacred. Rappaport expands on time notions to include such things as ritual, myth, history, life, death, birth, rebirth, being and not being in the complex unfolding of his explanation as the book evolves. Dichotomies or binary oppositions are proficiently addressed in the "unpacking" of Rappaport's definition of ritual and they are aided by repetition, which contributes to the expansion of his explanation of his theory.

Although Rappaport does not state he is purposefully using repetition of material to "unpack" his theory, his skillful use of repetition is a successful literary tactic that is effective for comprehension. The repetition is a great literary tool that provides clarity and understanding. Rappaport uses many sentences that are similar, and he repeats some of his examples. Sometimes he repeats his arguments from chapter to chapter. Rather than be redundant and repeat Rappaport's repetitions, I will simple say, to use the same quote about Christianity, or repeat what he has already said about pigs and the Maring people. This allows the reader to know that he may be offering a more detailed explanation of what he has already said. Often times this forewarns the reader that Rappaport is getting ready to "unpack" another level of his definition into a deeper context. I believe Rappaport is being intentionally repetitive and for very good reason. He is "unpacking" a definition and theory on ritual, bit by bit, and the repetition is the element that binds his extensive and complex definition and theory together into a unified whole.

He presents a great deal of information using explanations from various perspectives such as through evolutionary theory, systems and communications theory, information theory, semiotics, and more. Repetition is a useful tool for him to cohesively, explain his complicated definition of ritual, tie it in with religion, and the making of humanity, and then in to how they pertain to the evolution of humanity. Without repetition, the reader would become lost in Rappaport's blending of theoretical sources from the fields of anthropology, history, philosophy, and comparative religions. The repetition also reminds the reader to stay within the context that Rappaport is presenting his theory. Rappaport constantly reminds the reader that his theory is an evolutionary theory, and that he is primarily concerned with the ecological and structural aspects. To make his argument and convince the reader that his theory is viable he must present the material in a systematic format that is easy to grasp and repetition is the tool that makes his argument strong and successful.

In conclusion, the literary style that Rappaport uses to present his ritual theory contributes to the success of his argument and book. By "unpacking" a definition of ritual, using dichotomies or binary oppositions to expand his ideas, and presenting systematized repetition for cohesive explanations, Rappaport takes a complex theory and makes it seem simple. The term "unpack" used by Rappaport is excellent and suitable. "Unpack" is an effective and the best term he could have used within his literary style to describe his evolutionary theory. I would not be surprised if future authors borrow the term "unpack" to explain their own theories. The book is successful when it is kept in its ecological and structural context, and an evolutionary theory as Rappaport consistently reminds us. His theory can become problematic if looked at from other anthropological theoretical perspectives, such as through cultural relativism. For example, a cultural relativist may have difficulties accepting Rappaport's notions on "universality." The term "universality" begins to appear in the introduction of the book and repeats throughout his book. From a cultural relativistic viewpoint, there is no "universality" between cultures. Each culture must be studied on its own terms. However, all theories have positive information to add to the field of anthropology, whether the theories are evolutionary or cultural relativistic.

Rappaport's theory is successful as long as a reader keeps the content of his book within its ecological, structuralist, and evolutionary context, the context that it is written in. As previously stated, it took Rappaport almost five-hundred pages to presents his theory and he used an effective writing style. Rappaport himself was not completely satisfied with his completed book. At the time of his death, he considered the book to be a "work in progress". His book is a great contribution to the field of anthropology and it is Rappaport's legacy for future theorists. Future theorists can continue to expand on Rappaport's "work in progress," because it is still evolving.

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