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# Lambda Alpha Journal

Student Journal of the National Anthropology Honor Society



FOUNDED BY LOWELL D. HOLMES

PEER H. MOORE-JANSEN, EDITOR IN CHIEF

# LAMBDA ALPHA JOURNAL

## VOLUME 38, 2008

### CONTENTS

#### NOTES

NATIONAL OFFICERS AND EXECUTIVE COUNCIL	III
JOURNAL NOTES AND MANUSCRIPT INSTRUCTIONS	IV
LETTER FROM THE EDITOR	V
INDIAN INTERNATIONAL STUDENTS AT IUP MEGAN BOND	2
LIFTON'S ANALYSIS OF WAR AND AMERICA WITHIN THE FEAR OF DEATH MODEL: ITS RELEVANCE TO THE OCCUPATION OF IRAQ KRISTEN WAYMIRE	13
THE WHITES OF THEIR EYES: THE EVOLUTION OF THE DISTINCTIVE SCLERA IN HUMANS JOANNA BICKHAM	20
THE ARCHAEOLOGICAL RECORD OF KINGSHIP AT QUIRIGUA: AN ANALYSIS OF THE CLASSIC PERIOD DYNASTIC RECORD THROUGH MONUMENTAL SCULPTURE ZOE NIESEL	30
BOTTLED WATER: PERCEIVED SCARCITY AND REAL NECESSITY TROY BELFORD	38
MEAN CERAMIC DATES AND CHRONOLOGY MICHAEL TEED	47
FEAST AND FAMINE: THE ROLE OF ETHNOGRAPHIC FIELDWORK IN CULTURAL ANTHROPOLOGY MATTHEW S. HARMS	55
TAINO INDIANS: SETTLEMENTS OF THE CARIBBEAN RONALD HOPPER	62
PACIFIC HERRING, <i>CLUPEA PALLASI</i> FRANCES WISE	70

# CONTENTS

<b>BOOK REVIEWS</b>	
A GROUP CALLED WOMEN: SISTERHOOD AND SYMBOLISM IN THE FEMINIST MOVEMENT (CASSELL 1977)	<b>79</b>
IN ONE'S OWN SHADOW: AN ETHNOGRAPHIC ACCOUNT OF THE CONDITION OF POST-REFORM RURAL CHINA (LIU 2000)	<b>82</b>
DUDE, YOU'RE A FAG: MASCULINITY AND SEXUALITY IN HIGH SCHOOL (PASCOE 2007)	<b>85</b>
INTRODUCTION TO DOCUMENTARY (NICHOLS 2001)	<b>88</b>
CALL FOR BOOK REVIEWS	<b>91</b>
10TH ANNUAL LAMBDA ALPHA SYMPOSIUM ABSTRACTS	<b>92</b>
LAMBDA ALPHA CHAPTERS	<b>101</b>
LAMBDA ALPHA GRADUATE RESEARCH GRANT WINNERS	<b>113</b>
LAMBDA ALPHA SCHOLARSHIP AWARD WINNERS	<b>115</b>
NATIONAL DEAN'S LIST SCHOLARSHIP WINNERS	<b>117</b>
LAMBDA ALPHA SUBSCRIPTION FORM	<b>118</b>
LAMBDA ALPHA NATIONAL SCHOLARSHIP APPLICATION	<b>119</b>

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The journal will consider manuscripts for publication in any field of Anthropology and are accepted on a continuing basis. All papers submitted to *Lambda Alpha Journal* become the property of Lambda Alpha. All papers *must* be in Microsoft Word or ASCII-Text format and should be submitted on a CD or as an e-mail attachment. It must include any tables and list of references cited. Any plates or figures can be submitted separately, but must meet the general journal specifications and format. The e-mail attachment or CD version of the article *must* be accompanied by one original printed copy complete with any plates, tables, or figures. No page limit is enforced, but it is suggested that manuscripts do not exceed 25-30 pages in length. All literature citations must be correctly documented with the author's name, date of publication, and the page number, e.g. (Doe, 1969:340). A list of references cited should comprise only citations referenced in the text. The use of footnotes or end notes is strongly discouraged. To see guidelines for the submission of book, article or film reviews, please see the current issues of the *American Anthropologist*. Authors are encouraged to adopt the format and style established for *Lambda Alpha Journal Vol. 27* onward. Inquires or manuscripts can be directed to the editor electronically at: [pmojan@wichita.edu](mailto:pmojan@wichita.edu) or vial mail at:

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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 eighth volume of the Lambda Alpha Journal, a publication of the National Anthropology Honors Society. This year's volume presents nine papers with topics in cultural, archaeological and biological anthropology. We have also included four book reviews.

In the first paper, Megan Bond provides a micro study on the differences between male and female international students of Indian descent at Indiana University of Pennsylvania in their ability to adapt or maintain their cultural heritage. Kristen Waymire's paper explores the concept of death and denial and its effect using Lifton's psychohistoric approach to the current occupation in Iraq. Joanna Bickham's discussion on white sclera involves both a cultural and biological perspective. Zoe Niesel's paper examines archaeological artifacts to uncover the site of Quirigua. In the next paper, Troy Belford's ecological and cultural approach to the consumption of bottled water is explored. Michael Teed's paper discusses the importance of gathering mean ceramic dates in the archaeological method by applying known mean ceramic dates (MCD) from one site, Lake of Isles, to an unknown chronology in Mashantucket. In attempt to argue for the importance of ethnographic fieldwork for the sake of anthropology, Matthew S. Harms gives the reader a delicious pick of ingredients. In the following paper, Ronald Hopper examines the settlement patterns of the Taino Indians. In the final paper, Frances Wise's zooarchaeological approach is used to analyze the cause and effects of the decrease of pacific herring among the coastal Native American local tribes.

We have included four book reviews. Readers are encouraged to submit manuscripts in this category, even anthropological film reviews. I suggest that the reviews provide students with an important alternative for students to apply critical thinking to anthropological literature. Also, abstracts from the 10th Annual Symposium are presented to highlight Lambda Alpha student papers.

We conclude volume 38 with an updated list of chapters and advisors, followed by a recognition of past award recipients of the National Graduate Research Grant, winners of the National Scholarship Award, and National Dean's List Scholarship.

The journal staff and I welcome all recent chapters and new members to the society. We congratulate this year's award winners and wish them success in their future endeavors. I extend my personal appreciation to all advisors and officers of the Lambda Alpha chapters across the nation and to the student authors for their contributions. I offer a very special thank you to Ms. Sandi Harvey, student-editor, for her diligent work to complete this volume.

Sincerely,

Peer H. Moore-Jansen  
Editor-In-Chief

## INDIAN INTERNATIONAL STUDENTS AT IUP

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International students from India comprise the largest percentage of all international students studying in the United States (Schukoske, 2007). Indiana University of Pennsylvania (IUP) has over 700 international students representing 75 different countries across the globe, many of them from India. The Eberly College of Business at IUP has strong ties with the Peoples Educational Society in Bangalore, India, drawing large numbers of students to make the journey of approximately 7,000 miles and remain in a new culture until they obtain their degree. This fall, more than 60 students from Bangalore arrived in Indiana to pursue graduate degrees in business (Eberly College of Business and Information Technology). These students having lived in the United States for approximately four months have undoubtedly experienced many changes in their lives from educational aspects to their living arrangements and everyday routines. My research topic focuses on the changes these students undergo as they transition from life in India to Indiana. I assume that these students have employed various methods to ease their adjustment to living and working in a different culture, especially through social ties to other Indians at IUP and organizations such as the Indian Student Association and the Office of International Affairs. I would like to examine the differences in responses between male and female Indian international students regarding differences in class styles, living arrangements, and social lives and the changes these differences may reflect.

My hypothesis is that there will be marked differences in the educational and living and social arrangements of the Indian international students between IUP and India. These international students have moved thousands of miles away from their home nation in pursuit of an education. Living in a different culture for an extended period of time, the students would undoubtedly face issues of adjustment. The transition between India and Indiana poses challenges to the lifestyles that these students are accustomed to living at home. In regard to their education, my hypothesis is that the Indian students will find more flexibility in their education at IUP based on the assumption that the curriculum in India would tend to be more prescribed and that the class styles would reflect a different cultural work ethic. I speculate that this cultural work ethic would involve a greater amount of academic responsibility and homework and more lecture-based classes marked by a distance between professor and student. In their living arrangements, I

hypothesize that a majority of the students have not lived outside of their family home before moving to the United States. Socially, it is my conjecture that these Indian international students would make their closest social connections in the United States among themselves. This idea is based on my casual observations of Indian students in the Copper Beech housing development, where I have seen groups of Indians socializing together on many occasions.

Furthermore, I hypothesize that there will be a difference between the responses of male and female Indian international students in some aspects of their transition from their life in India to life in the United States, notably in the category of living arrangements. My assumption is that females are more likely to have a smoother adjustment to living independently from their families because of possible past involvement with household responsibilities in their homes in India. I presume that these women would be more closely connected to household activities in comparison to their male counterparts, who seem more likely to be removed completely from such domestic responsibilities. The fact that the male and female students are both attending IUP for similar educational experiences reveals that both sexes would have had a comparable educational background in India which would not lead to significant differences in their responses regarding differences in class styles based on sex. Their social arrangements in the United States are also likely to be related, regardless of sex, because of their shared experience of migrating to a new culture in pursuit of an education.

The population I researched is comprised of these described of international students from India, especially focused on those that have arrived in the United States approximately four months ago. To obtain a sample of this population, I spoke to some of the students with whom I am personally acquainted to gain personal contacts. I began correspondence with the current president of the Indian Student Association (ISA) and was able to make additional connections to Indian international students through this social organization.

The sample with which I conducted my research was located entirely through these personal contacts which then led to a snowball sample. Through connections that I made with four Indian neighbors that had recently arrived from Bangalore and the president of the ISA, I located thirty-five other Indian international students that were willing to complete a questionnaire about their experiences. My sampling frame was able to grow considerably because of the recommendations of the five initial informants.

My primary method of data collection will be the utilization of a four-page questionnaire to determine background information about these students' past experiences, and questions pertaining to their education, living arrangements, and

social lives both in India and Indiana. I distributed them to forty Indian international students between the dates of the 12<sup>th</sup> and 16<sup>th</sup> of November. On the 26<sup>th</sup> of November, these questionnaires were collected and thirty-one (77.5%) of them were completed. One informal interview was scheduled and completed with a 23-year-old male from Bangalore on the 6<sup>th</sup> of December.

The analysis of my data was a qualitative analysis of the personal experiences of the students drawn from their responses to the questionnaire and the informal interview. The respondents' answers on the questionnaire revealed the information presented and served as evidence for the confirmation or negation of the hypotheses.

### **Demographic Results**

There were thirty-one respondents. Of these, 18 were male and 13 were female, a population that is 58% male and 42% female. The population was composed entirely of graduate students. The majority (68%) were between the ages of 22 and 25. In the male population, 72% fell within this age range. A slight majority of females (53%), however, reported being in the younger age range of 18 to 22. Most have been living in the United States between 3 and 6 months. 72% of the males and 100% of the female respondents have been living in Indiana for this period of time.

### **Educational Aspects**

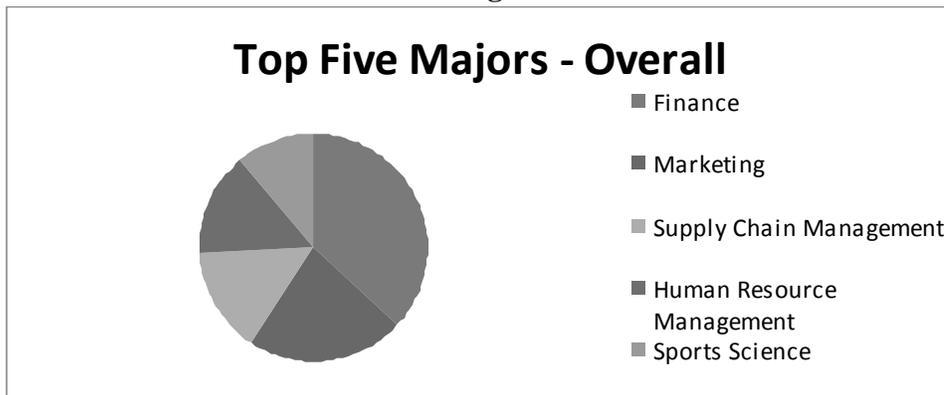
There was not a significant difference among the Indian international students' duration of IUP education. 45% reported that they will be studying at IUP for the duration of the graduate degree while 39% are attending IUP for only an academic year. The remaining 16% are at IUP for only the Fall 2007 semester.

The main reasons to the students' choice to attend IUP were split between IUP having a relationship with their educational institution in India and an international exchange or study abroad program. Twelve students (approximately 39%) selected each of these reasons to explain their choice. The remaining students chose the "Other" category of the questionnaire, writing in responses that included preferences for IUP's accreditation with The Association to Advance Collegiate Schools of Business, and the low-cost of an IUP graduate education.

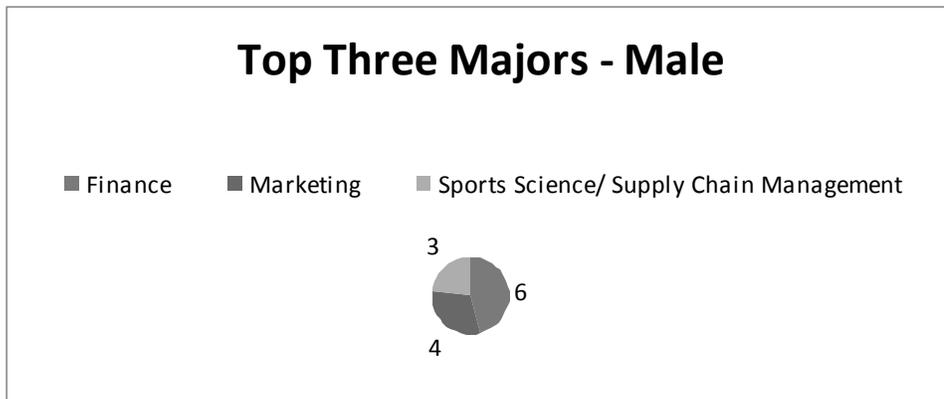
The top academic specializations for these Indian international students are found within the Eberly College of Business and Information Technology. Approximately 90% of all respondents are members of Eberly College. Notably,

the all of the female respondents belong to this College. Finance is the top major for both sexes with other business specializations being highly significant among this student population. The main draw for Indian students at IUP is the business curriculum. The fundamental explanation for this trend is related to the strong ties that the Eberly College of Business and Information Technology has with the Peoples Educational Society in Bangalore, India.

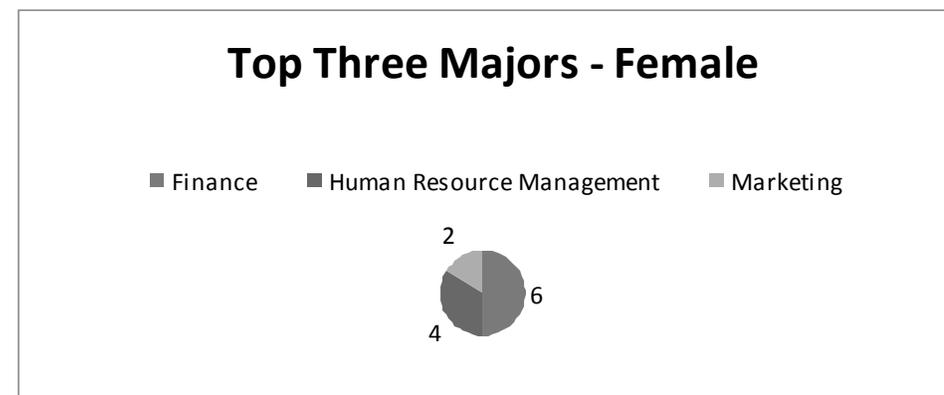
**Figure 1**



**Figure 2**



**Figure 3**



All of the Indian international students responding to the questionnaire earned their undergraduate degrees at an Indian educational institution. Therefore, each of them is experiencing American styles of education for the first time. More than half (18 students) of the respondents agreed that there are significant differences between styles of class instruction in India and at IUP. In response to an open-ended question on this topic, the Indian students stated that classes at IUP are more practice-oriented than those they had taken in India. They emphasize the importance placed on group projects and teamwork-oriented exercises, interactive lectures, and presentations at IUP. The students also mentioned the flexibility of the classes that they experience at IUP. One respondent stated that classes at IUP seem “more customized to extract the most out of students.” They find the professors at IUP to be “more approachable” and more likely to encourage class discussions.

When asked whether they preferred classes based on lectures or discussions, approximately 80% (25 students) answered that they had a preference for discussion-based classes. 74% of the students agree that classes at IUP are more discussion-based than classes in India. Male students tend to favor discussion-based classes more than their female counterparts. 89% of males reported a preference for discussions. A smaller majority (69%) of females shared this preference.

**Figure 4**



Responses regarding other differences in their education between India and Indiana in the areas of the importance placed on tests, class sizes, the importance of class attendance, and the amount of homework assigned were not as significant as the preference for discussion-based classes.

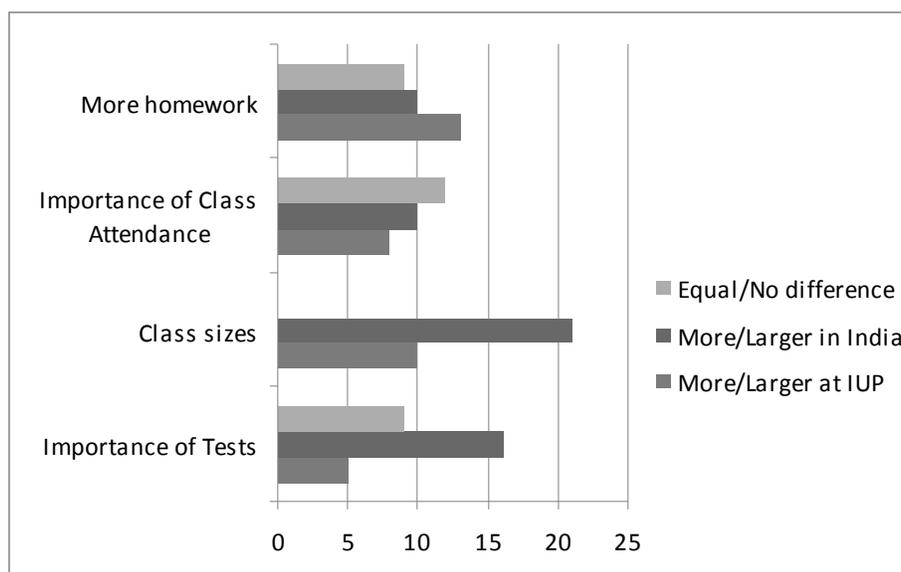
In regard to the importance placed on tests, responses among the female respondents indicated that the differences noted were insignificant. The largest percentage of females (only 38% or five students) specified that there is more

importance placed on tests in India. Among males, however, the responses were more considerable with 61% (11 students) agreeing that tests are given more importance in India. In total, 52% find that more importance is placed on tests in India with 29% claiming that there is no difference between the two nations and 16% believed that tests were given more importance at IUP. Overall, the conclusion is that tests are given slightly more importance in India. Some explanations for this opinion were expressed by the respondents' answers to open-ended questions regarding differences between education in India and at IUP. One student wrote that exams are comprehensive in India and IUP exams tend to be given at certain intervals covering only the determined material. Another student noted that open-book exams are entirely new to him and did not exist during his education in India.

The responses to the question of whether India or IUP had smaller class sizes had the opposite effect of the preceding question. Among the male population, the distribution of responses between the two options was relatively equal with the option that there are smaller class sizes at IUP at 56% (10 students) and smaller classes in India at 45% (8 students). Conversely, among females 85% (11 students) stated that class sizes at IUP are smaller than class sizes in India. In total, the responses of the questionnaire convey that approximately 68% (21 students) think that IUP offers smaller class sizes.

In regard to the amount of homework and the importance of class attendance, differences in responses by both sexes were insignificant and almost equally distributed among the three responses.

**Figure 5**



## Life in Indiana

For nearly every Indian international student included in these results (97% or 29 students), their move to the United States marked the first time that they had ever been to this country. Just two of the respondents, both male, had traveled to the United States in the past.

All of the respondents live in the Copper Beech residential community, where they create an enclave for Indian students. Possible explanations for the popularity of Copper Beech townhomes and apartments include the listing for Copper Beech on the website of the IUP Indian Student Association, the website of Copper Beech complete with up-to-date information on amenities, leases, policies in addition to pictures of their properties, the amenities that Copper Beech provides including full sets of furniture and appliances, and the high capacity of the Copper Beech community which can accommodate many students. The group of Indian international students in this research population lives among each other in this community, almost entirely living with only Indian housemates. Only one student in the population does not live with all Indian housemates. Approximately 65% of these students were acquainted with their current housemates in India. The other students met their Indian housemates in other ways such as Internet communities (12% or 4 students) or at IUP (10% or 3 students).

Most (95% or 17 students) of the male Indian students had lived outside of their family home before attending IUP. Conversely, only 39% of the female Indian students have previous experience with living on their own. As a result of this significant difference, the two sexes have experienced different degrees of adjustment to life in Indiana. The majority of females not only has to make the transition to living within a new culture but must also adjust to life outside of their family homes. The female Indian students cite responsibilities for cooking and doing household chores as the most notable differences in their lifestyle between India and Indiana. Another significant difference relates to the amount of freedom that the females feel they are experiencing for the first time.

The male population, however, has more familiarity with living independently. This experience is reflected in their responses. The males wrote about more broad differences between the cultures of the United States and India. The top difference that they cited involves “different standards of living” between the two societies as the most important difference in their living arrangements. Their past knowledge of living outside of their family home is also suggested by their responses that leases are more flexible in India. Other

reasons they mention include lower rent costs in India and the ease of procuring the proper ingredients for cooking in their home country.

### **Language**

Most Indian international students at IUP report that they never have difficulty understanding the English that their professors and fellow students use. Twenty-three (74%) of the respondents shared this view. Males and females have similar perspectives on this issue with 73% of males and 77% of females reporting that they never have difficulty with English comprehension. The explanation for the high degree of their command on the English language lies in India's colonial past. A former British colony, English is a language that unifies a linguistically diverse nation and provides the opportunity for its citizens to easily participate in the global economy. The majority of the students have been taught primarily in English for over a decade. Nearly 80% (25 students) of the respondents indicated that the language of instruction of their education has been English for this amount of time. The shortest amount of time that all of a student's courses have been taught in English is reported as 1-3 years. Only one student has had such limited experience with English as the primary language of instruction. The other 16% (5 students) have been taught only in English for the past 3-10 years.

In their personal lives and among their Indian friends, the students indicate that they use both their native language and English regularly. Eighteen respondents (58%) prefer to use the two languages interchangeably among their bilingual friends. The largest group of males (13 students or 73%) speak both languages regularly. The female respondents report that they prefer speaking English among friends (62% or 8 students). The reason for this difference between the two sexes is unclear.

### **Social Ties to Indians and Indian Culture Locally and Globally**

Twenty-two (71%) of the Indian international students in the research population revealed that most of their friends in Indiana are also Indian. Males (61% or 11 students) and females (77% or 10 students) have a group of friends that is mostly Indian. A great majority, 30 of 31 respondents, are involved in the Indian Student Association. The goal of this organization is to support Indian international students, promote friendships, and provide advice (IUP OHRL). Nineteen students (approximately 61%) use the services of the Office of International Affairs, the IUP office providing assistance to IUP's over 700 international students. Some of the students also engage in activities that they enjoyed in India. Most females (69% or 9 students) report that they do not partake in

organized Indian cultural activities in Indiana. Slightly more than half (56% of 10 students) of the male research population does participate in cultural and recreational activities at IUP. Of these 10 male students, 8 play in a cricket league together. Other activities include India Day, the largest event held by the Indian Student Association annually, and other cultural events.

Despite the more than 7,000 miles separating the Indian international students and their family and friends, a majority of the students indicate that they communicate with people at home in India through telephone, e-mail, and other forms of internet communication a few times a week. In the overall research population, approximately 52% of the students communicate with people in India at this frequency. Many of the males (61% or 11 students) connect with family and friends at home at the rate of a few times a week. Females are more likely (62% or 8 students) to contact people in India almost daily.

Although technology exists that can allow the Indian international students to reach people at home on a regular basis, there are many aspects of the lives in India that cannot be experienced in Indiana. In an open-ended question regarding things the students miss most about India there were a variety of responses. The thing that most Indian students at IUP found that their lives in Indiana were missing was genuine Indian food. According to 23 respondents, Indian food was a major component of their lives at home that they miss intensely. Across both sexes, food was the most frequently cited thing. In an interview with a 23-year-old male student from Bangalore, he revealed that he and his roommate have taken a taxi to an Indian store in Pittsburgh. On their last trip, they spent nearly \$400 on their bill and brought home many cooking necessities including 120 pounds of rice, spices, teas, and jars of chutney imported directly from India.

Students also commonly report missing family and friends. One respondent wrote that the thing she missed most about India was "the fact that I'm in a place that's MINE." Indiana and India have significant differences with which the students continue to cope. The Indian international students at IUP have been engaged in the process of adjusting to life in Indiana for several months. The changes they undergo are made more tolerable by their connection to their homes and their cultures. Their Indian friends, customs, social networks and the creation of their enclave at Copper Beech contribute to making a difficult adjustment more tolerable.

The fact that these Indian international students have experienced many changes in most aspects of their lives over the past few months leads to the conclusion that there are marked differences in the styles of education, living arrangements, and social ties for Indian students. Educationally, the students are

currently engaged in graduate programs that are likely to be more practice-focused and oriented towards class participation. The hypothesis that Indian classes would be more lecture-based in comparison to those at IUP is supported by the responses. That classes at IUP would be seen as more flexible than classes held in India is also supported by the open-ended responses written by several students without prompts on the topic. Indian classes requiring more homework than classes at IUP was an assumption that is not supported by the respondents. There is no significant conclusion regarding the location where more homework is assigned. Males and females tend to agree on the topics related to education. They have similar educational histories and are pursuing the same education; therefore, they are inclined to have responses that are generally alike. In the perception of the population, responses indicate that classroom dynamics comprise the most significant differences in education between India and Indiana.

The hypothesis that the Indian international students would be largely living outside of their parents' home for the first time is unsupported by the responses. The majority of males, who tend to be slightly older than the females, have experience with living outside of their family home and their responses regarding differences in living arrangements reflect their familiarity with independent living. Females, conversely, are more likely to be living outside their family home for the first time. This clear dissimilarity between the sexes supports the hypothesis that the male and female Indian international students would have differences in their responses, especially related to living arrangements. Females, tending to be younger than their male counterparts, have little experience with household responsibilities such as cooking and cleaning and cite these responsibilities as the biggest change in their living arrangements since they moved to Indiana. The hypothesis that the females would have more domestic ability and an easier adjustment to living in the United States because of their learned skills was false. The Indian females studying at IUP are most likely to be from middle-class families that can afford to hire domestic help. Therefore, these students were probably not required to learn to cook or clean and never needed to until they arrived in Indiana. The males, with more experience outside of their family home, do not mention cooking or cleaning responsibility as a new issue that they have to deal with in Indiana. Living arrangements is the research category with the most notable variation between the sexes.

The hypothesis that the Indian international students are likely to have their closest social bonds with other Indians is supported by the evidence. Indian students report that "most" of their friends in Indiana are also Indian. All of the students, save one, live in an entirely Indian household. Equally high proportions of Indian students are members of the Indian Student Organization, a cultural resource designed to forge connections between Indians at IUP and ensure a source

of social support and cultural celebrations. The fact that many Indian students knew their Indian housemates when they were back in India makes their associations stronger because of the direct ties to their homes. Males and females are similar in this regard, probably due to the similarity of their collective experience.

Past experience emerges as the most important predictor for perceived differences between India and Indiana between the sexes. Males and females in this research population share comparable educational, social, and cultural backgrounds that provide responses that tend to be close to one another in these categories. Males and females differ in past experience in the category of living arrangements, and that category represents the most significant changes between India and Indiana for the entire population as well as the most significant differences between the sexes.

The most important discovery of this research is centered on the Indian student enclave at Copper Beech. The Indian international students have created their own community within Indiana where they are able to maintain social and cultural ties to India and provide support for one another as they undergo the same adjustment. They have their own distinct community in which they can converse in Kannada, organize games of cricket, or devise plans for acquiring their favorite Indian spices. Their enclave is a fascinating example of the importance of maintaining cultural connections.

### **Bibliography**

Eberly College of Business and Information Technology. "Eberly Builds Partnership with Bangalore, India." News for Alumni and Friends. 25 October 2007 <<http://www.iup.edu/news/alumni/ecobit/>>.

Office of Housing and Resident Life. "Cultural Resources." 2 October 2007 <[http://www.iup.edu/house/apfa\\_2004.shtm](http://www.iup.edu/house/apfa_2004.shtm)>.

Schukoske, Jane E. "Backgrounder: Students from India." Institute of International Education. 25 October 2007 <<http://opendoors.iienetwork.org/?p=25086>>.

## LIFTON'S ANALYSIS OF WAR AND AMERICA WITHIN THE FEAR OF DEATH MODEL: ITS RELEVANCE TO THE OCCUPATION OF IRAQ

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Sigmund Freud introduced the fear of death concept as a component of his psychoanalytic approach. Freud conceptualized the denial of death as mode to cope the reality of our own mortality. He contended that no one could imagine his or her death; consequently, within the unconscious everyone is a fervent believer in his or her own immortality (Lifton 1976:30). Others expanded his theory of the denial of death, most notably Robert Jay Lifton. His paradigm of *death and continuity* within a *psychohistoric* perspective is not only riveting but also relevant to our times, particularly the current environment we have created and struggle through. Through Lifton's paradigm, we as not only researchers but as protean people are provided with a new model to critically analyze the foreign policy of the current American regime—the War on Terror and the Occupation of Iraq.

### **THE FEAR OF DEATH PARADIGM: ITS INCEPTION AND ITS SHIFT**

Sigmund Freud argued that along with or counter to the Life Instinct or Eros a Death Instinct or Thanatos exists and operates. It is drastically different from the Life Instinct: an inherent destructiveness and aggression directed mainly against the self. In fact, the Death Instinct is continuously moving towards death—ultimately a return to an organic state free of tension and conflict (Brown:27). The compulsion of repetition is an attempt to prevent further development in order to achieve the original organic state; thus, the aim of life is ultimately death. Because humans are the only beings to attain a high-level of consciousness whereby becoming aware of mortality, denial of death is immediate (Lawless). Freud contended that it was impossible to imagine one's own death. When one does strive to do so, he or she still exists as a "spectator". Freud thus maintained that within our unconscious we are certain of our own immortality (as quoted within Lifton 1976:30).

Robert Jay Lifton has shifted the Fear of Death paradigm within a psychohistoric perspective. He views the paradigm within the theory of symbolic

immortality (Lifton 1976:29). Lifton states that we are not convinced of our own immortality; “we both ‘know’ that we will die and resist and fail to act upon that knowledge (Lifton 1976:31).” The desire or need to overcome death is not purely denial but signifies a universal yearning to preserve an inner sense of continuous symbolic relationship with a person’s kin and history—past and future. His idea of symbolic immortality is based on Otto Rank’s suggestion that humans have an unending want for an ‘assurance of eternal survival for his self’ (quoted within Lifton 1976:32); indeed, Rank proposed that in order to preserve a person’s spiritual self culture was crated through alterations of natural conditions (Lifton 1976:32).

Lifton elaborates the process of symbolization by describing what he defines as five modes of symbolic immortality. One mode is biological whereby we live on through our children and subsequent generations. Lifton states that is not merely biological but also social as expresses through kinship and social relations. Another is the theological concept of immortality of transcending death through spiritual attainment. The third mode of symbolic immortality is accomplished through what Lifton calls ‘works’. These include artworks, one’s influences on others, etc. The fourth mode of symbolic immortality is the theme of eternal Nature—being survived by Nature. The final mode is the state of ecstasy or ‘experiential transcendence’, which may be attained through sexual pleasure, mysticism, battle or the use of drugs (Lifton 1976:32-34).

Through the employment of symbolic immortality theory, Lifton suggests that changes in cultural emphasis on certain modes of symbolic immortality from one historical period to another can be explained. He claims that we, particularly in the West, exist now in state of doubt of viability of these modes following the horrors of World War II—the atomic bomb on Japan and the Holocaust. The realization of our dilemma due to such calamities as environmental destruction and the dangers of nuclear weapons have generated imagery of extinction (Lifton 1976:34-35).

### **THE PROTEAN SELF: MALLEABILITY OF SELF AND OF A NATION**

Lifton further illustrates the effects of the dramatically changing social landscape of modern times in his book entitled *The Protean Self*. The protean self receives its name from the Greek sea deity Proteus. Proteus is known as great shape-shifter. The protean self is significantly distinct from that of the past due to its ability to alter itself by use of available knowledge and resources. It has emerged as result of mass confusion, which is a result of uncontrollable historical forces and social uncertainties (Lifton 1993:1-2). The historical forces or influences are the displacements of swift historical change, the mass media revolution, and the threat of human extinction. All of these forces have accelerated dramatically within the last

half of the twentieth century; thus causing a traumatic collapse of former group identities and former bases of authority. However, means of altering the self within extreme ambiguity have also changed. The protean self is a “mode of living”, especially in the United States (Lifton 1993:3).

The United States is described as the protean self embodied as a nation. Lifton considers the “shape-shifter” to be a fixture of the nation for three reasons. One is that we are displaced from our origins. Our nation is composed of continued influx of immigrants (ourselves included). The new arrivals are constantly ‘re-estranged’. The last reason is that we perceive ourselves as people of metamorphosis (Lifton 1993:32).

The United States as a protean nation is maintained due to the intensification and expansion of confusion within the society. When the Cold War ended, the United States and its citizens were no longer enabled to view themselves as stable. The world-clarifying enemy had disappeared. The Soviet Union was a constructed ‘other’ that provided us with the capability of defining ourselves in contrast with the perceived Soviet evil and created a sense of cohesion (Lifton 1993:32-33).

### **SUPERPOWER SYNDROME AND THE WAR ON TERROR**

Lifton describes the United States as suffering from Superpower Syndrome. The syndrome is the national mindset that has become omnipotent. A mindset perceived as unique, which entitles it to wield control over all other nations. The events of 9/11 reinforced the sense of claim to power and domination. Because, Lifton argues, at the center of superpower syndrome exist a prevailing fear of vulnerability, the attacks rendered the United States an “aggrieved superpower”. Because of this exposure of weakness, a livid resolve to restore or extend the domination of the superpower ensues (Lifton 2003:3-4).

The Superpower Syndrome and America’s apocalyptic mindset can be described and analyzed within Lifton’s concept of death and continuity. Lifton proposes that we yearn for meaning and are aware that we will eventually die; thus feeling the need to place our deaths within the cosmic order. When individual death is connected to the death and rebirth of the world, there is potential for greater importance. A person who believes and is involved in an apocalyptic ideology internalizes the feeling of a transcendent cosmic order; as a result, he or she is no longer merely immortal but linked to a deity. Due to this association, omnipotence substitutes vulnerability and anguish. (Lifton 2003:19-20). Lifton insists that what the individual believer:

...shares with all of us is the universal impulse to spiritualize death, to find some larger meaning in the continuity of life... Whatever its extremity, the apocalyptic imagination has its beginnings in ordinariness, in the conundrum we human beings experience in the face of death. This is why there is always the potential for a version of the apocalyptic imagination to appear (Lifton 2003:21).

Lifton argues that the “apocalyptic imagination” transforms into violent mission of purification when the group of believers becomes overwhelmed with death anxiety due to constant paranoia. Because evil is perceived as the cause of this anxiety, a fervent desire for the realization of the apocalypse develops in order to eradicate this evil. The malevolence is envisioned as a rival army who must be exterminated. The violent apocalyptic believers are enabled to accomplish this feat by amalgamating themselves with God or history—claiming the ownership of death by deciding who must die. Lifton further argues that the violent behavior of apocalyptic believers is an extreme mode of aggregate renewal or transcendence beyond death. Death is immortality; killing and dying achieve rebirth. The omnipotence generated by the alliance with God manifests grandiosity and even megalomania. Apocalyptic leaders and ardent supporters strive to replace the world with the self. The world must be obliterated in order to redeem it—to purify it of the evil contamination (Lifton 2003:22-24). The proliferation of nuclear weapons, particularly in the hands of the last superpower, have created a new dimension of the ownership of death—“ownership of the death of the world” (Lifton 2003:46).

The Vietnam War is a prime example that illustrates Lifton’s concept of apocalyptic ideology in practice and national foreign policy. The American war in Vietnam was a component of the global mission of destroying the expansion of Communist “evil”, a zealous mission of purification. A soldier’s statement exemplifies the mentality of the invasion and mission:

We had to destroy it [the village] to save it (Lifton 2003:46).  
The “War on Terrorism” is a form of apocalyptic ideology. Terrorism has been transformed by the Bush Administration and their mouthpieces in the media into a formidable enemy army. Indeed, Bush has revealed it as God’s mission to obliterate evil in the form of omnipresent terrorists. Warmongering, which was extensively utilized, is a form of collective transcendence (Lifton 2003:109-111).

The events of September 11, 2001, caused all Americans to become survivors. We all shared a specific psychological event. Geographical removal did not exclude us; television images and the feeling of suffering through a national

ordeal created social cohesion as survivors. If one examines the common themes in the psychology of the survivor, one will learn how Americans have responded to the events on September 11. The five themes identified by Lifton are death anxiety, death guilt, psychic numbing, suspiciousness, and construction of meaning (Lifton 2003:137-147).

The death anxiety of survivors consists of the fear of a similar disaster. The forms of human-induced catastrophes similar to what occurred on September 11 seem possible. Not only have those directly affected by the events felt vulnerable but all citizens of the United States, including leaders. Death guilt is sometimes referred to as survivor guilt; however, Lifton provides a clear distinction between the two: survivor guilt can be misunderstood as actual wrongdoing while guilt feelings are psychological expressions of self-condemnation and may be undeserved. Death guilt arises when others die while a certain individual survives. Termed failed enactment, one fails to act in a manner one expected or hoped. Another form of failed enactment is one feels he or she failed to experience the self-proscribed emotions. While death guilt can be transformed into animated guilt (such as anti-war Vietnam veterans), it is potentially unpredictable and dangerous if suppressed, which may lead into violent urges (Lifton 2003:140-141). Lifton defines the theme of psychic numbing as:

...the inability, or disinclination, to feel, a freezing of the psyche... a temporary death in the service of remaining psychically or even physically alive (Lifton 2003:142).

The theme of suspiciousness entails how survivors may subsequently become wary of others' intentions. The ultimate theme is construction of meaning in the wake of a disaster. The constructed meaning is infused with life-and-death dimensions and possibly with essential cultural values. Drastically different meanings can be formed from the same disaster. A passionate mission may derive from the meaning. The mission is a "form of witness" (Lifton 2003:144-146). The form of witness may be false whereby it is:

drawn narrowly, manipulatively, and violently, in connection with retribution and pervasive killing (Lifton 2003:147).

The act of false witness is evident in the My Lai massacre. Five hundred innocent Vietnamese were slaughtered as a form of retribution for the dead American soldiers who were killed the day before by ambushes and minefields. Now, American policy is a form of false witness again but this time as revenge for the American victims of September 11 (Lifton 2003:146).

The war and ensuing occupation of Iraq is another example of the apocalyptic ideology in action. Like Vietnam, Iraq is an:

“atrocious-producing situation”—a setting in which ordinary soldiers, men no better or worse than you or me, could readily commit atrocities: shooting prisoners, randomly killing civilians, mutilating corpses...[The] environment...was particularly conducive to atrocity: counterinsurgency warfare in unfamiliar physical and cultural terrain; an enemy with support from the people (whether in common cause or out of fear) who could strike and kill but was hard to directly engage: fighting in which civilians were often impossible to tell apart from military enemies; the “body count” of enemy dead as virtually the only measure of success; “free-fire zones” in which one was permitted to fire virtually at random; and encouragement from officers to avenge the deaths of buddies and to deal with feelings of angry mourning by killing anyone or anything in sight (Lifton 2003:46-47).

The atrocity-producing environment, including the erroneous war policy and constant warmongering, has inevitably produced egregious acts against humanity. The various incidents generated by the invasion and immediate occupation of the dilapidated country are due to psychologically and militarily structured situation of the Iraq War and the War on Terrorism in general. The torture unveiled at Abu Ghraib and Guantanamo Bay has demonstrated the dire situation we are all in due to both the Superpower Syndrome and apocalyptic ideology of the war architects. As Lifton states that, the scandals are not the actions of ‘a few bad apples’ but are systematic of the war waged (Lifton 2006:339-340). While Abu Ghraib is an example of the *atrocious-producing situation* (and compared by Lifton to the My Lai massacre in Vietnam) (Falk et al. 2006:339), Al-Falluja known as the *kill-zone* by Iraq civilians (Falk et al 2006:418) and the Haditha massacre of November 2005 are more appropriate comparisons to the My-Lai slaughter.

## CONCLUSION

While Lifton’s analysis of the United States as a survivor nation suffering from a syndrome of megalomania and apocalyptic ideology and violence seems very dire, hope exists to remedy the syndrome. We as members of the superpower must recognize that the American superpower is artificial and very dangerous not only to others but ourselves. We, including our leader must be willing to exercise *empathic imagination* regarding violent acts. Victimization must discontinue as a totalized condition that renders us as the absolute victims. The most essential (and possibly the most effective) is to reconstruct symbolic immortality by recognizing

limits as human beings. We have no claim to dominating death or history. If the citizens of the United States are willing to subvert authoritarian ideology that perpetuates apocalyptic violence, the American superpower will be recognized as a weak and illegitimate giant trying disastrously to rule and control the world and ultimately history (Lifton 2003:190-200).

### **Bibliography**

Brown, James A. C.

1961 Freud and the Post-Freudians. Baltimore: Penguin Books.

Falk, Richard, Irene Gendzier, and Robert Jay Lifton

2006 Crimes of War: Iraq. New York: Nation Books.

Lawless, Robert

2007 Lectures on the Fear of Death Model. 12 and 14 March.

Lifton, Robert Jay

1976 The Life of the Self: Toward a New Psychology. New York: Simon and Schuster.

1993 The Protean Self: Human Resilience in an Age of Fragmentation. New York: Basic Books, Inc.

2003 Superpower Syndrome: America's Apocalyptic Confrontation with the World. New York: Thunder's Mouth Press/Nation Books.

## THE WHITES OF THEIR EYES: THE EVOLUTION OF THE DISTINCTIVE SCLERA IN HUMANS

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At some point in human evolution, hominins developed eyes that were morphologically unique in comparison with their close primate relatives. Specifically, the amount of exposed sclera increased and the tan or dark brown pigment found in the sclera of other primates was eliminated. Because visual cues and gaze detection are so important to human behavior, it follows that the unique morphology of the human eye conferred fitness upon those individuals. Several theories have been proposed to explain these changes as adaptations to particular environmental and social selective forces, but very few studies have directly tested these theories. Based on the available data, it seems most likely that the unique morphology of the human eye initially developed as a result of hominins becoming terrestrial predators and was completed by the need to communicate effectively with other hominins.

The theories surrounding research in this area of hominin evolution range from very simple—that the white sclera would have signaled health and thus conferred reproductive fitness in the same way that a peacock's brilliantly colored tail attracts a mate—to complex theories that integrate both biological and cultural phenomena (Tomasello et al. 2007). A commonly espoused idea in the scientific community is that the most parsimonious answer to a question is often correct, but no evidence corroborates the mate attraction theory (Tomasello et al. 2007). Two major studies which will be explored in this paper concern the comparative morphology of a wide range of primates, how these differences affect behavior, and what inferences one can make regarding the adaptive reasons behind those differences. Hiromi Kobayashi and Shiro Kohshima conducted a study in 1998 that measured the eyes of 88 species of primates using computer-aided image analysis to determine the differences between species and to examine how these differences correlate with biological and environmental variability (Kobayashi & Kohshima 2001). Michael Tomasello and associates have carried out numerous studies using apes, monkeys, and children that explore issues relating to cognition and communication; this body of work is integrated into the "cooperative eye hypothesis," which will be explored in the body of this paper (Tomasello et al. 2007:316).

Kobayashi and Kohshima measured the width/height ratio of the eye outline (WHR) and an index of exposed sclera size in the eye outline (SSI) to analyze and compare eye shape differences. A total of 874 individuals representing 88 species were recorded by video camera or analyzed from photographs to collect eye shape measurements. Information concerning weight, sitting height, crown-rump length, and habitat type was collected from published sources (Kobayashi & Kohshima 2001), and some walking-height and sitting-height information was collected in the Japan Monkey Center. Eye coloration measurements of 92 species were recorded by direct observation of living animals and of prepared eye specimens by two persons working independently. Disagreement between the two observers occurred only 8% of the time, concerning the distinction between the eye colors of 6 species. Sclera coloration was divided into four categories: brown, pale brown, partly white, and white. The researchers collected data on eye movement by directly observing primates eating in cages and humans eating alone in a restaurant and calculated ratios of horizontal scanning to vertical scanning by counting eyeball and head movements (Kobayashi & Kohshima 2001).

Kobayashi and Kohshima found that humans have the largest area of exposed sclera and have the most horizontal eye elongation among the primates studied. Both SSI and WHR ratios increased in an order similar to what one would observe by following the branching of a primate phylogenetic tree: Prosimii, Ceboidea, Cercopithecoidea, Hominoidea. That is, the most primitive primates had the smallest SSI and WHR ratios. In light of this preliminary evidence, the researchers postulated that these differences could “reflect some difference in visual function and/or adaptation to some environmental or physiological factor such as the habitat and body size of the species” (Kobayashi & Kohshima 2001:424). To test whether or not relationships between the eye differences and these factors exist, they compared their eye data to known data regarding eye function, body size, and ecology (Kobayashi & Kohshima 2001).

The researchers found that not enough difference exists between the eye functionality of the studied phylogenetic groups to explain the eye shape disparities, but correlations with body size and environment were marked. The researchers then ranked the subjects using the aforementioned body size measurements, finding that the amount of exposed sclera increased with body size. This correlation was especially noticeable in walking height comparisons; the species with the tallest walking height, in this case the humans, have the largest area of exposed sclera (SSI). In primates, eyeball and/or head movement are especially important for the adjustment of perceived images (Kobayashi & Kohshima 2001). “A larger SSI means a smaller iris relative to the eye outline and probably a greater ability for visual field extension by eyeball movement; in eyes with a large SSI the small iris has a wider space to move within the open eye

outline” (Kobayashi & Kohshima 2001:426). Kobayashi and Kohshima hypothesized that the correlation between SSI and body size is an adaptation for extending the visual field by eyeball movement, as opposed to head movement. Without digressing into an intensive explanation, suffice to say that larger animals save energy by using the eyeball to redirect gaze as opposed to turning the whole head (Shultz 1940). Kobayashi and Kohshima tested this hypothesis by observing 18 species and counting the number of head and eyeball movements involved in changing gaze direction (2001). The results supported their hypothesis.

Observing that the mean value of WHR is “greatest in terrestrial species, moderate in semi-arboreal species and lowest in arboreal species,” Kobayashi and Kohshima theorized that a “horizontally elongated eye outline is adaptive in extending the visual field horizontally by eye movement, and terrestrial life needs more horizontal scanning than vertical scanning” (2001:428). They tested this hypothesis by again observing primates eating in cages and measuring the time and frequency of horizontal and vertical scanning. They found that the ratio of horizontal to vertical scanning is significantly higher in terrestrial species than in arboreal species.

As stated previously, Kobayashi and Kohshima separated 92 species into four categories based on the color of the sclera. Most of the primates observed have a dark brown sclera, while a few had lighter brown sclera or a partially white sclera; humans were the only primates observed to have white sclera without any pigmentation. Since pigmentation requires some energy, it follows that if primates have this pigmentation, it must have some adaptive function. A theory advanced by S.S. Duke-Elder (1985), states that the pigmentation may be an anti-glare device. If this were true, then nocturnal species should have white sclera and humans should have colored sclera; neither case occurs. Other researchers have proposed that having dark sclera is adaptive in many nonhuman primates because gaze direction is so important in intraspecific communication (Chance 1962; van Hooff 1962; Andrew 1964; Tomasello et al. 2007).

Direct eye contact is construed as threatening behavior in many species of monkeys, thus the inability to perceive whether or not another individual is looking at a dominant individual would reduce violent intraspecific altercations (Kobayashi & Kohshima 2001; Perrett & Mistlin 1990). Kobayashi refers to the research of P.W. Sherman in stating that “colored sclera obscuring gaze direction may serve to deceive natural predators . . . by making it difficult for predators to know if the prey has them in their gaze” (Kobayashi & Kohshima 2001:431; Sherman 1977). Thus prey might gain a slight advantage in concealing their gaze direction from potential predators. Kobayashi and Kohshima realized that if this “gaze camouflage theory” is a factor, then the color of the exposed sclera should

be similar to the color of the iris and/or the face around the eye, making it difficult to “detect the position of [the] iris in the eye outline and/or the eye outline in the face” (Kobayashi & Kohshima 2001:431). Another examination of the sclera data becomes necessary.

Kobayashi and Kohshima separated 82 primate species into four categories based on the degree of contrast between the sclera and the iris/face. The four types are: (1) dark sclera and similarly dark face and iris, obscuring both eye outline and iris position; (2) sclera darker than iris but similar to face color, obscuring iris position while allowing eye outline in face to be discerned; (3) sclera darker than iris but similar to face color, obscuring eye outline while allowing iris position in face to be discerned; (4) sclera is paler than face/iris and both eye outline and iris position are clearly discernable (Kobayashi & Kohshima 2001). The researchers found that “almost all [of the] nonhuman primates species observed (80 out of 81 species) belonged to Type 1 or Type 2 coloration types” (Kobayashi & Kohshima 2001:433). In these types, the direction of gaze is effectively camouflaged by obfuscation of the position of the iris in the eye outline and/or the position of the eye outline in the face because of similarly colored features. The only nonhuman species that did not belong to Type 1 or Type 2 was the ruffed lemur, which has a clearly discernable iris position but an obscured eye outline; this morphology also effectively camouflages the direction in which the animal is gazing. The only species that had a clearly visible eye outline and iris position were *H. sapiens*; in all cases the sclera was much paler than the surrounding facial skin and the iris. Thus Kobayashi and Kohshima’s results support the “gaze camouflage theory”; the question then arises as to why humans are the only species to completely lose pigmentation of the sclera (Kobayashi & Kohshima 2001:431).

The researchers suggest that humans may have lost the pigmentation of the sclera because of an increase in terrestriality, an increase in body size, and the use of tools and fire which may have made humans less susceptible to predators. This, coupled with an increase in cooperative and mutualistic behaviors, may have necessitated gaze signal enhancement instead of obfuscation. These factors would have reduced or eliminated the necessity of the protective feature of the darkened sclera while selecting for improved communication via clearly visible gaze signaling (Kobayashi & Kohshima 2001). While research regarding the correlation between body size and use of tools (and how they affected predation) is largely impossible due to the lack of fossil evidence that might have significant bearing on these issues, it is possible to study the differences in gaze signaling and cooperative communicative behavior in present day primates and humans to gain some insight as to how and why modern human ancestors may have begun to utilize complex communicative signals. Michael Tomasello and colleagues address the differences in gaze following in human and nonhuman primates in a recent (2007) study conducted at the Max Planck Institute for Evolutionary Anthropology.

Before presenting the results of Tomasello's study on the differences in gaze following, it is helpful to examine previous experiments which bear upon this issue. It has been noted that humans and some nonhumans cooperate in "some unique ways in close-range social interactions involving two or a few individuals acting together toward a concrete goal" (Tomasello et al. 2007:314). While chimpanzees have been observed to hunt together in small groups (Boesch and Boesch 1989; Mitani and Watts 1999), humans seem much more likely to engage in cooperative activities that are not goal oriented (Warneken et al. 2006). Also, "humans seem especially inclined, as compared with other primates, to engage with one another in collaborative activities around objects- so called joint attentional interactions" (Tomasello et al. 2007:314; Bard and Vauclair 1984; Tomasello and Carpenter 2005). In a 2005 study, Tomasello and colleagues found that in joint attentional interactions, individuals monitored what other individuals were focused upon, including whether or not the other individual was monitoring their own activity.

In an example important for understanding the circumstances in which language evolves, two separate studies have found that joint attentional interactions between mothers and infants form the "referential context within which skills with language develop" (Tomasello et al. 2007:315; Bruner, 1983; Tomasello 2003). Joint attentional interactions between human infants and their caregivers average twice as long in duration as those of human-raised great apes with their caregivers and the duration of infants' looks to the face/eyes of their caregivers average twice as long as those between human-raised great apes and their caregivers (Carpenter et al. 1995). Thus it would seem that communication via gaze is more important in human interactions and more highly visible eyes might have evolved because they would be especially helpful in initiating and maintaining joint attentional communicative interactions. Tomasello recognizes that studies have been enacted that demonstrate gaze following in both human and nonhuman primates, but only one study makes a distinction between head following and eye following. That study concerns only human infants, finding that infants follow an adult's gaze direction more often when her eyes are visible and open than when they were closed or obstructed with a blindfold (Brooks and Meltzoff 2002). In his recent study, Tomasello hypothesizes that, "based on humans' greater propensity for object-centered cooperative/communicative interactions. . . and their especially visible eyes. . . human infants would be more influenced by the eyes than the head, whereas great apes would be more influenced by the head than the eyes" (Tomasello et al. 2007:316). He calls this theory the "cooperative eye hypothesis" (Tomasello et al. 2007:316).

Tomasello and his colleagues performed one experiment with 19 great apes, including 11 chimpanzees, 4 gorillas, and 4 bonobos (aging from 4 to 27 years); the experiment was replicated with 40 human infants (aging approximately 12 months and approximately 18 months). Each participant was tested individually in a test

room where the participant was separated from the experimenter (E) by plexiglass or wire mesh (Tomasello et al. 2007). Each participant was tested 5 separate times in each of the 6 experimental conditions (for the apes) or 4 separate times in each of the 5 experimental conditions (for the humans). The experimental conditions were as follows:

**Head only.** E closed his eyes and looked immediately to the ceiling.

**Eyes only.** E kept his head stationary and glanced with his eyes to the ceiling.

**Both.** E looked to the ceiling with head and eyes.

**Neither.** E stared straight ahead at the subject.

**Back of Head.** E sat with his back to the subject and looked up to the ceiling.

**\*Back Control.** E sat with his back to the subject and stared straight ahead.

\*The “Back Control” condition was not used with the human infants because pilot testing revealed a tendency for infants to become upset when they were ignored (Tomasello et al. 2007).

The tests were videotaped and the tapes were reviewed by an independent scorer (not the experimenter). In the ape trial, the experimenters found that “apes followed E’s head direction up even if his eyes were closed, and they were more likely to follow his eyes to the ceiling if his head was also directed up” (Tomasello et al. 2007:317). From this, the experimenters concluded that head direction is more important in the gaze following of great apes, with the eyes playing a minor role (Tomasello et al. 2007). In the human trial, the experimenters found that the human infants followed both head and eyes movements, but, unlike the apes, “the most important factor for human infants was the eyes” (Tomasello et al. 2007:317-18).

Overall, the nonhuman apes and the human infants both responded similarly when E’s head and eyes were either oriented upward or downward, but in the conditions in which head and eye orientation were different, the two groups showed very different patterns. Apes looked up “approximately 2.5 times more often when only E’s head was oriented up (eyes closed) than when only E’s eyes were oriented up,” while the human infants looked up “approximately three times more often when only E’s eyes were oriented up (head down) than when only E’s head was oriented up (eyes closed)” (Tomasello et al. 2007:318). These results support Tomasello’s hypothesis and suggest that in gaze following situations, humans are much more attuned to eye movement than nonhuman apes.

Tomasello recognized that this area of research is new and thus the information gained from this study may be limited in certain respects. The age disparity between the test groups, for instance, could have affected the results, but other studies with younger apes—including a few concerning human raised apes—supported these results (Tomasello et al. 2001; Call and Tomasello 1994; Gomez 1996; Itakura and Tanaka, 1998). The fact that the experimenter was a human may also have affected the results; primates might more reliably follow the gaze of conspecifics. However, it is worth noting that in this experiment the overall level of gaze following was higher in the great apes than that in the human infants (Tomasello et al. 2007). In addition, only about half of all extant primate species were studied. It is both possible and probable that other species of primates could exhibit different gaze-following behavior. The lack of studies that differentiate between head and eye movement is also a problem. Future studies that also emphasize a qualitative distinction between eye oriented gaze following and head oriented gaze following would be instrumental in understanding this phenomenon.

Like Kobayashi and Kohshima, Tomasello discusses the possible reasons why nonhuman primates would have retained camouflaged eyes while humans have evolved high eye visibility. “In general, using head and/or face direction as the major cue makes sense for all animals, as head direction can be seen from a much larger distance” (Tomasello et al. 2007:318). As stated previously, subordinate animals living in a hierarchical social group would benefit from being able to hide the direction of their gaze, as perceived staring at a dominant male could have disastrous consequences. In terms of food acquisition, it would also be detrimental for an observer to be able to tell where an individual was looking; if the individual was looking at a potential food source, its visible gazing might introduce competition over that food source. Therefore, individuals in constant competition for food sources, even those that live in social groups, would not benefit from having highly visible eyes. From this standpoint, the evolution of highly visible eyes would “seem to imply cooperative group mates who will not exploit the gaze direction of others to the extent that the looker is disadvantaged” (Tomasello et al. 2007:318). In a related study, chimpanzees were more skillful in using a human communicative cue to find food when it was given in a competitive environment (Hare and Tomasello 2004); human two-year olds showed the opposite pattern (Hermann and Tomasello 2006). Tomasello’s body of work thus seems to support the “cooperative eye hypothesis.”

It may never be known when, and exactly why, hominins developed such unique eyes, but the current evidence lends itself to a theory that encompasses both environmental and social selective forces. Kobayashi and Kohshima found a strong correlation between body size and terrestriality; primates generally increase in body size as they become more terrestrial (Kobayashi & Kohshima 2001). Their

study found that terrestrial primates have larger and more visible eyes. While Kobayashi and Kohshima examined the difference between primates with dark colored sclera and those with white colored sclera, they neglected to examine the four species that exhibited a partially white sclera. If these species possess ecological and/or communicative characteristics that are intermediate between those of highly arboreal and highly terrestrial species, their morphologies would support the hypothesis that humans lost the pigmentation of the sclera when they moved into a highly terrestrial environment and began using more complex forms of communication. Michael Tomasello and colleagues tested nonhuman apes and human infants to detect what differences, if any, existed in their methods of gaze redirection. Their evidence, that humans are more attuned to eye-based gaze redirection, supports a theory that humans use their eyes more complexly in communicative interactions (Tomasello et al. 2007). In addition, human interactions are more likely to involve object-centered cooperative communication. Humans seem to use the direction of eye gaze more reliably than other primates and enjoy communicating for both the sake of communication and for mutual benefits.

### **Bibliography**

Andrew, Richard J.

1964. The displays in the Primates. In: J. Buiettner-Janusch, Ed. *Evolutionary and Genetic Biology of the Primates*, vol. 2. New York: Academic Press.

Bard, Kim A. and Jacques Vauclair

- 1984 The communicative context of object manipulation in ape and human adult-infant pairs. *Journal of Human Evolution*. 13 (2): 181-190.

Boesch, Christophe and Hedwige Boesch

- 1989 Hunting behavior of wild chimpanzees in the Tai Forest National Park. *American Journal of Physical Anthropology*. 78: 547-573.

Brooks, Rechele and Andrew N. Meltzoff,

- 2002 The importance of eyes: how infants interpret adult looking behavior. *Developmental Psychology*. 38: 958-966.

Chance, M.R.A.

- 1962 An interpretation of some agonistic postures: the role of "cut-off" acts and postures. *Symposia of the Zoological Society of London*. 8: 81-89

Duke-Elder, Sir Stewart

- 1985 The eye in evolution. In: S.S. Duke-Elder, Ed. System of Ophthalmology. London: Henry Kimpton. p. 453.

Hermann, Esther and Michael Tomasello

- 2006 Apes' and children's understanding of cooperative and competitive motives in a communicative situation. *Developmental Science* 9:518-529.

Kobayashi, Hiromi and Shiro Kohshima.

- 2001 Unique morphology of the human eye and its adaptive meaning: comparative studies on external morphology of the primate eye. *Journal of Human Evolution* 40: 419-435.

Mitani, John C. and David P. Watts

- 1999 Demographic influences on the hunting behavior of chimpanzees. *American Journal of Physical Anthropology*. 109: 439-454.

Perrett, David I. and Amanda J. Mistlin

- 1990 Perception of facial characteristics by monkeys. In: W. C. Stebbins & M. A. Berkley, Eds. *Comparative Perception-complex signals*. New York: John Wiley & Sons, Inc. p. 187-215.

Shultz, Adolph H.

- 1940 The size of the orbit and of the eye in primates. *American Journal of Physical Anthropology, Old Series*. 26: 389-408.

Tomasello, Michael with Brian Hare, Hagen Lehmann, and Josep Call

- 2007 Reliance on head versus eyes in the gaze following of great apes and human infants: the cooperative eye hypothesis. *Journal of Human Evolution*. 52(3): 314-320.

Tomasello, Michael and Malinda Carpenter

- 2005 The emergence of social cognition in three young chimpanzees. *Monographs of the Society for Research in Child Development*. 70 (1): vii-132.

Tomasello, Michael with Brian Hare, and Tara Fogleman

- 2001 The ontogeny of gaze following in chimpanzees and rhesus macaques. *Animal Behavior*. 61: 335-343.

Van Hoof, J.A..

1962 Facial Expressions in the higher primates. Symposia of the Zoological Society of London. 8: 97-125.

Warneken, Felix with Frances Chen, and Michael Tomasello

2006 Cooperative activities in young children and chimpanzees. Child Development. 77: 640-663.

## THE ARCHAEOLOGICAL RECORD OF KINGSHIP AT QUIRIGUA: AN ANALYSIS OF THE CLASSIC PERIOD DYNASTIC RECORD THROUGH MONUMENTAL SCULPTURE

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Located in the floodplain of the Motagua River, the site of Quirigua is known for its beautiful and well-preserved monumental architecture and sculptures. Though occupying a strategic position between the highlands and the coast of the Caribbean, Quirigua remained a relatively small and compact center throughout its history. At the city's peak, the population would not surpass 5% of that of the great center of Tikal (Ashmore 453). Furthermore, unlike the larger centers of the Peten, Quirigua was not a great urban center, but instead served as a ceremonial and economic hub for a dispersed rural population. The entire site occupies an area of about 4 square kilometers, but the monumental architecture and raised, carved monuments are focused in a site core that covers 0.5 square kilometers (Sharer, *Quirigua* 1). Despite its extremely fertile location and access to traded resources, Quirigua developed slowly and unsteadily, including a brief collapse period, before reaching a ceremonial and architectural climax in the 8<sup>th</sup> century AD (Looper 2). This Late Classic florescence was characterized by using public art to celebrate local kingship and power, and lead to the large and intricate public works that characterize the site of Quirigua.

Due to the alluvium floodplain deposits which now bury the remains of Early Classic settlement at Quirigua, very little is know about the first three centuries of occupation. Later historical reconstructions from the 8<sup>th</sup> century begin the history of the site at 426 AD (Martin and Grube 216). Monument 3, raised in 755 AD and located on the south side of Structure 1A-3, contains text that may refer to the earliest ruler at Quirigua (Sharer, *Quirigua* 31). Though carved over 300 years later, Monument 3 contains the earliest known point of historical reference for the site (Sharer, *Quirigua* 32). This date is consistent with further historical accounts that may link the founding of dynasty at Quirigua with the first king of Copan. Zoomorph P, an elaborate and flat monument dating to 795 AD, describes a *taali*, or coming, to a "Foundation House"<sup>1</sup> on September 6, 426 (Martin and Grube 216, Looper 36). Altar Q from Copan reveals that this was

also the date of the accession of the dynastic founder of Copan, Yax K'uk' Mo' (Martin and Grube 192, 216). Three days later, September 9, a stela was raised and the accession of the first king of Quirigua commenced under the authority of Yax K'uk' Mo' (Looper 36). References to the "Foundation House", or *wi te' naah*, correspond with the presence of the New Order and the installation of new elite rulers in the Peten under this campaign.

Settlement from the Early Classic period at Quirigua was focused in Group A, a hilltop along the banks of the Motagua River. Most of this region is now lost due to riverbed deposits that have covered the area (Sharer, *The Ancient Maya* 321). However, some ceremonial architecture has been found here, as well as on an earthen platform known as 3C-1 (Martin and Grube 216). Excavations in Group A have led to the discovery of Stela U, the earliest monument found at Quirigua thus far. The stela is approximately 2.7 meters high and displays the "wrap around" style<sup>2</sup> characteristic of Quirigua's carved monuments (Sharer, *Quirigua* 70). This stela describes the third king of Quirigua, Ruler 3, and the rear of the stela provides a fairly well-preserved Initial Series date of 9.9.3.8.0, or 478 AD (Martin and Grube 216, Sharer, *Quirigua* 70). The two columns of hieroglyphic text describe the completion of a ritual done by the king under the management of an individual with the west *kaloomte'* title<sup>3</sup>, most likely the ruler of Copan (Looper 40, Sharer, *Quirigua* 70). Ruler 3 is mentioned again on Monument 26, which was found at 3C-1 (Martin and Grube 217). The backside of the stela, which consists of two large fragments, dates the monument to 493 AD (Sharer, *Quirigua* 72). The stela portrays the fourth ruler of Quirigua, named Mih Toh, and bears a stylistic resemblance to Stela U (Looper 41). The continuing alliance between Quirigua and its overlord, Copan, can be seen in the stylistic elements of both of these stelae. Reference to rituals performed in the honor of Ruler 3, as well as the occurrence of maze iconography, link Monument 26 to ancestor worship, but the frontal portrait of Mih Toh closely resembles similar portraiture seen on Copan's fifth century Stela 60 (Looper 46). However, the clarity and simple lines of the Quirigua stelae are markedly different from the Copan stelae of this period, which, like the Early Classic Tikal stelae, are characterized by curving lines, diagonal forms, and varying textures (Looper 46-47).

The sixth century was a time of troubles for Quirigua. Following the relatively active monument building of the fifth century, no known monuments have been found for the period between 495 and 653 AD (Looper 50). According to Martin and Grube, this period of crisis had its roots in a natural disaster, possibly a volcanic eruption or hurricane, which would cause the Motagua River to breach its banks and flood the river valley (217). However, the political situation in the Peten may have been another cause for this quiet period at Quirigua.

The accession of the Lady of Tikal to the throne of Tikal in 511 AD began a period of economic and military defeat at the great Peten center. With the collapse of Teotihuacán and the defeat by Calakmul, Tikal entered its Hiatus Period, which would have affected the Peten-influenced Quirigua (Martin and Grube 40,Looper 50). Another possibility for the crisis at Quirigua is that of an attack. Though the potential attacker is unknown, the condition of Stela U and Monument 26 may point to a sixth or seventh century conquest. Both of these stela were broken into two fragments and the left eye of Ruler 4 on Monument 26 seems to be intentionally scratched away (Looper 50). The treatment of these monuments is similar to the treatment of Tikal's Stela 31, which was broken and destroyed during the conquest by Calakmul, (Looper 50).

The reawakening of Quirigua seems to begin in 672 AD, the dedication year of Altar L. Originally located on the plaza of the Ball Court, the altar is a three feet high disk made of rhyolite. It portrays a seated figure, Ruler 5, within a cartouche that forms an Ahau glyph (Sharer, Quirigua 64). Altar L documents the continuing relations between Copan and Quirigua by mentioning Copan's 12<sup>th</sup> king, Smoke Imix (Martin and Grube 217). During this period, Copan was continuing a campaign of consolidation that had begun under B'utz Chan. The mention of Smoke Imix on Altar L may be linked to Copan's attempt to bring Quirigua more firmly under its control, while expanding its influence to other sites such as Santa Rita (Looper 52).

Today, the site of Quirigua is dominated by seventh, eighth, and ninth century monuments, representing some of the largest in the Mayan world. These were all commissioned in a time of economic and artistic revival that began with the accession of K'ak' Tiliw Chan Yoat<sup>4</sup>. Little is known about his early life, but it seems that he was a local lord who acceded to the throne in 724 AD (Martin and Grube 218, Looper 57). Details of his accession survive only in retrospective history on several stelae and altars commissioned years later. Stela E, dedicated in 771 AD and originally located on the northern Plaza Platform, is one of the monuments to commemorate the rise of K'ak' Tiliw Chan Yoat to power. The total length of the stone shaft comprising the stela is 10.6 meters, making it the tallest in the Maya world (Sharer, Quirigua 36). It shows two portraits of K'ak' Tiliw Chan Yoat, located on the north and south sides of the monument (Sharer, Quirigua 36). Both portraits show the king in elaborate headdresses with a scepter across his chest (Sharer, Quirigua 36). The text on the monument records the accession of K'ak' Tiliw Chan Yoat under the auspices of Waxaklajun Ub'ah K'awil, the ruler of Copan (Looper 57). Like his predecessors, the early part of K'ak' Tiliw Chan Yoat's reign would occur under the political dominance of Copan.

Records from the first twenty years of the reign of K'ak' Tiliw Chan Yoaat seem dedicated to enhancing the power and supernatural ability of the local king. Even before the rebellion against Copan, K'ak' Tiliw Chan Yoaat oversaw major architectural projects in the city's main acropolis (Looper 57). In addition to newly commissioned buildings, K'ak' Tiliw Chan Yoaat also initiated a remodeling of the site core. This reworking of the core, including the main acropolis of Quirigua, seems to mirror the architectural ambitions of the king of Copan, Waxaklajun Ub'ah K'awil (Looper 64). The sculptured monuments that accompanied this surge in public architecture are focused on supernatural rituals conducted by the king in an attempt to establish a supernatural identity (Looper 57). Two such monuments, Altars M and N, both dedicated in 734 AD, represent the emergence of the political and supernatural power of K'ak' Tiliw Chan Yoaat. Both of these small altars are made of rhyolite stone and were found on the eastern edge of the Ball Court (Sharer, Quirigua 54). Forming a design similar to the "table altar" from Piedras Negras, the two were found used as a supporting base for Altar L. It is unlikely that this was the original placement of the three altars, and rearrangement in the ninth century is probably the cause of this unusual positioning (Looper 58).

Altar M is formed as the rounded head of what appears to be a jaguar, and its inscription contains the early titles of K'ak' Tiliw Chan Yoaat. On this monument, the king is named as the "black Copan ajaw" and "south kaloomte" (Looper 59). These titles give valuable insight into the politics between vassal Quirigua and the overlord Copan. Once mistaken for the Copan emblem glyph, the "black Copan ajaw" title is related to earlier inscriptions from both Copan and Quirigua, such as Stela 2, that also make use of the "black" title. The use of this title seems to show the king's origin in one of the provinces of the region under the political authority of Copan (Looper 59). The use of the title "south kaloomte" is the first use of this title by a lord of Quirigua. In the region, it was previously used only by kings of Copan, such as mentioned on Stela U. The use of this title (and the omission of K'ak' Tiliw Chan Yoaat's status as vassal) on Altar M speaks to the tensions in the relations between vassal and ruler (Looper 74).

In keeping with his grand architectural design, K'ak' Tiliw Chan Yoaat raised one of the most elaborate and ornate buildings in the acropolis during his early rule. Called Structure 1B-2, the building was later dwarfed by its neighbors Structure 1B-1 and Structure 1B-3 (Sharer, The Ancient Maya 323). Like Altar M, the building is a proclamation of the growing power of Quirigua and its ruler, and undermines Quirigua's status as the vassal of Copan. Initially, the structure may have served as the palace and living area of K'ak' Tiliw Chan Yoaat (Sharer, Quirigua 87). However, the rhyolite carvings and embellishments give the building a sacred meaning and function. Particularly noteworthy are the symbols that

point to Structure 1B-2 as a sacred mountain, or creation place. The cornice of the structure is decorated with maws that are traditionally found on Classic Maya temples, especially on temples that symbolically serve as the Creation Mountain (Looper 66). In addition, the toponyms on the walls of Structure 1B-2 seem to make reference to the Five-Flower place, a supernatural place that is identified with both the realm of the dead and the holy creation place (Looper 68). The combination of the Creation Mountain iconography on the cornice, references to the Five-Flower place, and the reoccurring maize foliage imagery lend evidence to the theory that K'ak' Tiliw Chan Yoaat raised the building to represent a "local maize-mountain," or a sacred Creation Mountain (Looper 72). By raising his own Creation Mountain, the king of Quirigua hoped for the city to become a sacred center in its own right. This action would have been interpreted as an attempt to turn Quirigua into a growing power in the southeast, and would have been architecturally representative of K'ak' Tiliw Chan Yoaat's attempts to reclaim political independence (Looper 74).

The artistic and architectural growth and revival that accompanied the early reign of K'ak' Tiliw Chan Yoaat would set the stage for what would immortalize him in the history of his city, the defeat of his overlord at Copan. In 738 AD, K'ak' Tiliw Chan Yoaat captured and sacrificed Waxaklajun Ub'ah K'awil, restoring control of the Motagua River trade route to Quirigua (Demarest 233, Martin and Grube 219). This victory would lead to a rapid growth in population at Quirigua and in the Motagua River Valley (Martin and Grube 219). It would also be the inspiration for the tall and beautiful stelae that were raised in the acropolis during the period following Copan's defeat. Following his victory, K'ak' Tiliw Chan Yoaat spent the remainder of his rule remodeling Quirigua to reflect the new economic power that came with control of the important Motagua trade route (Sharer The Ancient Maya 328). In some ways, this new architecture and artistry was an attempt to mimic the site of Copan's former splendor and glory, as well as assert the importance of Quirigua as a regional capital (Martin and Grube 220).

History of the conflict between Quirigua and Copan is purely retrospective and only appears on sculptured monuments years after Copan's defeat. Following the important events of 738 AD, it was seven years before recorded history reappeared at the city of Quirigua. This quiet period in the historical and artistic record may mean that the site was undergoing massive economic and political restructuring (Looper 88). Stela I, raised in 800 AD to celebrate the accession of Quirigua's sixteenth ruler, Jade Sky, makes reference to stela raised to celebrate the period endings of 9.15.5.0.0 and 9.15.10.0.0, but neither of these stela have been found (Sharer Quirigua 47-48, Looper 88). The dedicatory date of 746 AD makes Stela S the earliest stela found for the time period following Quirigua's rebellion (Sharer Quirigua 66). Though found in Group 7A-1, the original site of the monument

may have been Platform 1A-3 in the Great Plaza (Looper 88). Stela S is badly eroded, but contains the portrait of a human figure holding a scepter. This is most likely the earliest known portrait of K'ak' Tiliw Chan Yoaat, and is similar in style to early generation Quirigua stelae, such as Monument 26 (Sharer Quirigua 67, Looper 88). At 8.5 feet, Stela S is also the beginning of stelae and monument enlargement at Quirigua (Looper 90).

To accompany his new economic and political power, K'ak' Tiliw Chan Yoaat sought to give a supernatural element to the power of his royal line, as well as promote the growth of Quirigua as a sacred creation center. This goal is manifested in the king's legendary stelae, which showed the dominance of his rule through his ability to master the supernatural realm. Furthermore, these stelae gave particular attention the creation of the universe and the ability of K'ak' Tiliw Chan Yoaat to cross the boundaries of time to draw on ancient events (Martin and Grube 221). The erection of three monuments on Platform 1A-1, Stela A, Stela C, and Zoomorph B, are three such monuments that connect K'ak' Tiliw Chan Yoaat with events in ancient history, as well as grant him supernatural powers linked with the creation of the universe.

Dedicated in 775 AD, Stela C not only reinforces the divinity of the king of Quirigua, but also contains the most elaborate and complete version of the Maya's creation story (Martin and Grube 222). The south face of Stela C features a portrait of K'ak' Tiliw Chan Yoaat in full headdress and costume (Sharer Quirigua 30). The king's outfit contains elements of warfare, including anklets that may be decorated with the head of the war serpent (Looper 164). Juxtaposed is the northern face of the monument, which features an aged, dancing anthropomorphic creature. A bird-like figure perched above this dancing deity may represent Itzamnaah, from whom thin cords emerge. These cords represent the cosmic umbilicus and correspond with an event from the *Popol Vuh* that describes the stretching of cords to form the pattern of the universe (Looper 168-170). The western face text of Stela C seeks to anchor the actions of K'ak' Tiliw Chan Yoaat into deep history. The text recounts a monument dedication commissioned by an early king of Quirigua over three centuries before the dedication of Stela C. The date of this ancient stela dedication appears at the same tzolk'in position as December 29, 775, the dedicatory date for Stela A and Stela C (Looper 165). The eastern text of Stela C relates the Mayan Creation story, beginning with the birth of the universe from the setting of the three hearthstones of creation in 3114 BC (Looper 165, Martin and Grube 222, UTEXAS).

The glorious reign of K'ak' Tiliw Chan Yoaat came to a quiet end on July 27, 785 AD (Martin and Grube 222). He left behind a legacy of economic and architectural revival at the site of Quirigua, and the kings following him

would live in the shadow of this man turned legend. His immediate successor, known as Sky Xul, continued the enthusiastic building in the main acropolis by constructing several elaborate and massive zoomorphs (Martin and Grube 223). His first of such monuments, Zoomorph G, paid homage to K'ak' Tiliw Chan Yoaat and described the funerary rituals following his death. Zoomorph G was dedicated on November 6, 785 to celebrate the 9.17.15.0.0 period ending and features the head of a "Waterlily Jaguar" (Looper 187). Characteristics of *bufo marinus*, a sacred tropical toad, also appear in the form of scales and poison glands (Sharer [Quirigua](#) 43). A human figure emerges at each of the two ends of the monument, suggesting a possible "ancestral rebirth" (Looper 187). Text appears in panels on each side of the zoomorph and describes the death of K'ak' Tiliw Chan Yoaat, his funeral, and the inauguration of Sky Xul (Sharer [Quirigua](#) 44).

Two of Sky Xul's most beautiful monuments, Zoomorphs O and P, were raised in the Ballcourt Plaza late in his reign. Both these massive zoomorphs represent the Creation Mountain and feature crocodilian characteristics, but what is most impressive is the time in which they were dedicated (Martin and Grube 224). With dedicatory dates of 790 and 795, the monuments were raised at a time when other great Classic Maya centers had entered the Collapse Period (Martin and Grube 223-224). Despite retaining a continuing prosperity during this wave of collapse, the death of Sky Xul began the decline of Quirigua. The last named king in the dynastic sequence of Quirigua, Jade Sky, took the throne between 795 and 800 (Martin and Grube 224). The few monuments raised by this king are smaller in scale and feature significantly more condensed portraiture than the monuments erected by his predecessors. Jade Sky's Stela K is the shortest found at the site of Quirigua and is only 3.5 meters high (Sharer [Quirigua](#) 52). The stela depicts frontal portraits of Jade Sky and its inscription lacks the deep history present on the monuments of K'ak' Tiliw Chan Yoaat (Sharer [Quirigua](#) 53). However, it is symbolically similar to earlier Quirigua stelae, specifically Stela H. As on this early stela, Stela K features a representation of the double-headed serpent with images of God K emerging from the jaws (Looper 196).

The more modest monuments of Jade Sky show the inability of the king to call upon the enormous resources that were at the disposal of the previous king, Sky Xul (Martin and Grube 224). This inability to construct the elaborate displays of power necessary to divine kingship corresponded with the declining power of the divine kings and the impending collapse of the dynasty at Quirigua. The last known date from the site comes from inscriptions on Structure 1B-1 in the acropolis (Looper 196). The text commemorates the 9.19.0.0.0 period ending rituals done in association with the king of Copan, Yax Pasaj Chan Yoaat (Martin and Grube 225, Looper 196). However, this celebration between the two former rivals did not lead to a relationship, for the site of Quirigua was deserted over the next several years.

Though the Classic Period glory of the site had ended, it continued to be occupied until after 900 AD. A small center was established southwest of Quirigua and most likely continued to control the Motagua River trade (Sharer Quirigua 110). By 1250 AD, control of trade along the Motagua was transferred to the city of Nito, which continued as a powerful trade center until the Spanish arrival (Martin and Grube 225, Sharer Quirigua 110).

### Footnotes

<sup>1</sup>The “Foundation House” is associated with dynastic rituals in which rulers link their authority and power to the great Mexican city of Teotihuacán. Here it may also be associated with the *wi te’ naah*, the fire shrine of Teotihuacán.

<sup>2</sup>A monument representing the wrap around style would have a unified portrait of the king in his regalia displayed over three sides of a rectangular column. This style first appeared at Tikal and its appearance at Quirigua shows continuing interaction with the Peten.

<sup>3</sup>The *kaloomte’* title was reserved for the most powerful kings of Classic Maya centers. Its use was associated with the Entrada of Siyaj K’ahk and the hegemony of the Tikal-Teotihuacán alliance.

<sup>4</sup>Fire-burning Sky Lightning God

### Bibliography

Demarest, Arthur. Ancient Maya. New York: Cambridge UP, 2004.

Looper, Matthew G. Lightning Warrior. Austin: University of Texas P, 2003.

Martin, Simon, and Nikolai Grube. Chronicle of the Maya Kings and Queens. London: Thames and Hudson Ltd, 2000.

Sharer, Robert J. Quirigua: a Classic Maya Center and Its Sculptures. Durham: Carolina Academic P, 1990.

Sharer, Robert J. The Ancient Maya. 5th ed. Stanford: Stanford UP, 1994.

Wendy, Ashmore A. Precolumbian Occupation At Quirigua, Guatemala. Diss. Univ. of Pennsylvania, 1981. Ann Arbor: University Microfilms International, 1981.

## BOTTLED WATER: PERCEIVED SCARCITY AND REAL NECESSITY

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The focus of this paper is the commercial packaging of the most essential ecological resource on earth, water. Water is an indispensable part of life on this planet and the most basic of necessities. The process of bottling water for sale to the consumer represents an industrial practice which has market success. Product success in the market demonstrates a public desire or need for said product, so we can reasonably assume that people not only do drink bottled water but they do so for reasons that can be explained in terms of the desire for an alternative to municipal water.

The role that bottled water has taken in our society and the folk beliefs which maintain that role are based on concerns of an ecology which has become toxic due to the negative effects of industrial processes. In many senses bottled water is an example of the perfect post-industrial product. The product uses existing industry to create a commodity that can be sold with an incredible profit margin because it utilizes cheap natural resources and processes, with the resulting product having a cultural association which involves a perceived value that goes beyond values found in many traditional economic models. The fear of municipal water being contaminated has created a perceived scarcity which in turn rationalizes the value of packaged water. The practice of ascribing bottled water the same market value as soft drinks has culturally institutionalized the high profit margins that bottled water enjoys. Other examples of culturally institutionalized products that have incredible profit margins and low cost resources include movie popcorn, pre-recorded compact discs and prescription drugs. Bottled water differs from these in one major way: it is an ecological resource which is “manufactured” with the most minimal of effort and sold at one of the highest of profits.

### **What is bottled water?**

The sale of bottled water (in all of its aliases) accounts for four billion dollars a year. Americans consumed a total of 3.43 billion gallons of bottled water in 1997 alone (NRDC 2005). In 1991 the International Bottled Water

Association published a model for the regulation of bottled water as well as other redistributed forms of water. These guidelines were published as part of the 102<sup>nd</sup> Congress Hearing Before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce Before the House of Representatives (April 10, 1991). The model for regulation defined bottled water as “water that is placed in a sealed container or package and is offered for sale for human consumption or other consumer uses” (160). The document also gives a definition for drinking water as “bottled water obtained from an approved source that has at minimum undergone treatment consisting of filtration (activated carbon or particulate) and ozonation or an equivalent disinfection process” (161).

These two definitions are part of a larger set that was provided to congress as guidelines for labeling procedures. Folk model notions take bottled water as a preferable alternative to drinking water supplies. These definitions were proposed for the process of labeling products and as such the semantics involved are used for the legal definitions due to government pressures such as the Pure Food and Drug Act (34 U.S. Stat. 768), which requires that product labels honestly and faithfully reflect the contents and claims to the consumer. The consumer definition for drinking water has the provision that the water must receive a minimum of treatment before it be deemed fit to carry that label. The consumer definition for bottled water contains no such minimum treatment in the definition. In a certain sense these definitions are a reversal of the common American folk model, which defines bottled water as being processed more thoroughly than mere “drinking” water.

A further complication of these definitions is that mineral water is defined by the hearing as “containing not less than 500 parts per million (ppm) of dissolved solids” (161). The definition does not state what these dissolved solids can be. Theoretically it is supposed to be inert material but can also include trace metals or other materials of a toxic nature so long as they meet the Environmental Protection Agency’s (EPA) standards for toxicity in drinking water. A simple trip to the grocery store will inform anyone that mineral water tends to sell at a higher price than normal bottled water, yet by industry standards has the possibility (and probability) of having a lower purity than standard bottled water.

The Food and Drug Administration (FDA) is responsible for the monitoring of bottled water since it is defined as a consumable product. The FDA exempts 60-70 percent of bottled water from the agency’s standards since it is packaged and sold within the same state, thus not invoking the federal regulations of interstate commerce. Forty states have adopted the FDA (or higher) standards for bottled water quality within their own states, but most states lack the resources to police these standards consistently (NRDC 2005).

Municipal drinking water does have problems in industrialized nations. In particular, lead contaminants can be found in water which is carried through public water systems which use lead pipes or in private homes with lead pipes. While water systems are no longer built in the United States with lead pipes, a number of lead pipes are still in place. Congressional estimates (Hearing Before the Subcommittee on Health and The Environment, 102<sup>nd</sup> Congress May 10, 1991:80-81) contribute 20% of all human lead exposure to drinking water. Older pipes in municipal systems and private homes are slowly being replaced, but for the most part they are being replaced in cases where the lead concentration is above the EPA's guidelines of 50 parts per billion (ppb). Municipal water systems which violate this guideline can be given exemptions providing they try to meet these standards. In addition, the communities are given subsidy funding to try to reach the acceptable standards for lead contamination.

Lead is only one of 83 contaminants that are considered hazardous to human health which the EPA has set guidelines for in the Safe Drinking Water Act. However, there can be problems with the enforcement of these guidelines. During the 1987 fiscal year the EPA found 101, 588 violations of the Safe Drinking Water Act (88 U.S. Stat. 1660) but issued only 5,867 notices (Hearing Before the Subcommittee on Health and The Environment, 102<sup>nd</sup> Congress May 10, 1991:50). The enforcements tend to go to only the most serious and consistent violators.

Situations such as these routine violations, as well as high profile court cases where toxic substances have passed from industries into the local water table (and thus caused health problems for residents), have added to the popular folk model that places water from a container as being a more reliable source than water which comes from a tap.

### **Is bottled water safer than tap water?**

Some studies have refuted the claims of bottled water's perceived purity. In a 2004 study presented to the American Society for Microbiology researchers found that in a sample of 68 commercial mineral waters 40% of them contained bacteria and/or fungi (Rauscher 2004). In the same article Dr. Rocus R. Klont from the University Medical Center Nijmegen in the Netherlands made reference to the practice of hospitals giving bottled water to immune-compromised patients because it was assumed to be more sterile than tap water. This widespread assumption reveals how deeply the folk model response in favor of bottled water purity over tap water purity has influenced professional health care workers.

Some bottled water companies, particularly large corporations who are involved in other beverage sales such as Coca-Cola and Pepsi, are very conscious

about quality control and do test their products if for no other reason than to maintain consistency for their consumer base. The success of any product results in “generic” products sold at lower prices, such as competing discount colas. The quality control of generic products can be less consistent at times.

A case in point is Safeway water. This brand is derived from municipal water in the state of California. This brand routinely contained TTHMs (total trihalomethanes, potential carcinogens) at 3-4 times the California 10 ppb state limit (NRDC website). While this water was in violation of the state standard, the FDA requirement is 100 ppb and most states follow the FDA requirements of bottled water. This means that the Safeway water tested was not legal to sell in the state where it was produced but could be legally sold to other states. In addition, Safeway produced “spring water” which claimed it was “especially selected for its natural purity”. While exhibiting the same high levels of TTHMs as other Safeway waters, this product contained 14.2 ppb of Toluene in the sample tested (NRDC website). Toluene is a constituent in gasoline and the primary ingredient in jet and rocket fuel. 14.2 ppb is below the acceptable limit, but it is rare to find this chemical in any drinking water in the United States which is routinely tested.

The National Resource Defense Council also found TTHMs, bacteria and arsenic at levels exceeding state guidelines in 34 of the 103 packaged waters they tested over a four year period. In addition to Toluene, several other industrial chemicals were detected (NRDC website).

### **Why do we buy bottled water?**

Many factors contribute to our use and preference for bottled water. In the late 1970s Evian was introduced as expensive mineral/bottled water imported from France. This product was highly profitable, but mostly sold among higher class consumers as a luxury item. The real breakthrough in mass consumption of bottled water came when Coca-cola and Pepsi began to sell bottled water brands (Dasani and Aquafina respectively) through their pre-existing distribution systems. The water that these corporations use for the manufacture of their soft drink products is the same water that they use for bottled water. In most cases this is municipal water and is labeled as such on the bottle. Yes, the most readily available bottled water brands on the market are tap water in a bottle.

While the availability of bottled water has contributed to its massive sales, it would not be chosen there were underlying reasons motivating consumer behavior. There are many ways in which one can analyze consumer behavior, but a common approach is that consumers buy what they buy because they are

making a rational (within their folk model and personality) choice. Marketing is not just a process of making a person choose one product over another. Marketing is also the process of creating a perceived need for a product by reacting to the society, culture, economic system and emotions of the customer base. High profile court cases and investigative reports about contaminated water supplies can create the social opinion that healthy drinking water is a scarce resource.

People change their consumer behavior due to perceived needs that are manifested in their folk models. The consumer goals are motivated by various expectations and desires, of which one of the most important is to be healthy and not ill (O'Shaughnessy 1987:9). Thus bottled water sold along side soft drinks will be chosen because a consumer is acting on a desire to have better health by drinking water instead of high calorie caffeinated colored sugar water. In this case the buyer is making a rational choice between two options and choosing the more healthful of the two. This is a rational choice by the consumer due to the relative merits of two products (O'Shaughnessy 1987:66).

The choice of bottled water over tap water is an intrinsic preference as opposed to a rational choice (O'Shaughnessy 1987:73). Here the culture's folk ideas about bottled water as preferable to tap water are the motivation behind consumer behavior. An intrinsic preference is justified by the cultural parameters which are made up of fears of tap water impurity and marketing claims of bottled water purity. The consumer creates justifications for the buying of bottled water instead of drinking readily available tap water.

Perhaps one of the most common justifications of choosing bottled water over tap water is the taste. Popular stage magicians Penn and Teller were able to test this in an episode of their investigative television series "Bullshit" (2003). They asked random New York City residents if they drank bottled water and why. Those who said they drank bottled water for taste were given two samples of water to drink, one bottled water and one New York tap water. 50% of those polled said that the tap water was bottled water and vice versa. Those being polled would do just as well telling the bottled water from tap water by guessing without tasting it.

In addition to the two main reasons of bottled water choice (taste and purity) there are other factors to consider. A survey conducted by the Australian Consumers' Association (2005) cited that 29% of bottled water consumers bought bottled water because it was "a handy drink to have when you're out" and another 22% "said they bought it mainly because it comes in a useful bottle that you can refill from the tap". Easily available and ubiquitous, bottled water is bought because it is a very visible product.

Bottled water is also incorporated into media images. We see musicians drink bottled water on stage. We see celebrities drink bottled water. We see athletes drink bottled water. Part of the acceptance of bottled water as a consumer product is the visibility of the use of the product throughout the media. These images reinforce the normalcy and acceptability of the product. A bottle of Evian in the 1970s was an economic signifier of class. The same bottle of Evian in the 2000s is just one of many available choices of packaged water that has become a normal consumer item regardless of social class. Bottled water, in thirty years, has changed from a symbol of luxury with questionable utility to an ever-present consumer commodity which is heavily consumed on a global level.

There are inconsistencies which demonstrate themselves in the behaviors of people who adhere to the folk model of bottled water consumers. An observable case is restaurants, where one can see some the inconsistencies of the bottled water only mindset. Most people, even those who abhor drinking tap water at home will drink the tap water in a restaurant. Is it significant that the person does not see the water come from the tap? Most soda in restaurants comes from tap water passed through a “fountain”, which mixes tap water with syrup and adds carbonation. Coffee and tea are also made using tap water. Though both contain caffeine and are acidic, which grants some anti-bacterial properties, the chemical contaminants that are in municipal source water are not removed in the brewing process. In the case of soda, tea and coffee there is often *an increased danger* of bacteria exposure due to inconsistent cleaning and sterilization of fountains and brewing equipment. All of these products do not benefit from the pasteurization process that is used in beverages like milk and beer.

Almost everyone uses tap water for cooking. Heating water does not remove chemical contaminants and only extensive boiling for ten minutes or more will sanitize the water of (almost) all biological contaminants. The only food products that are cooked long enough to eliminate (almost) all biological contaminants found in the tap water used for cooking are foods traditionally prepared by extensive boiling such as mashed potatoes, cabbage or soups. It is not often that you find Americans that boil frozen peas or a can of corn (packaged in municipal source water) for ten minutes.

### **Should we buy bottled water?**

Some areas of the world have pathogens that can cause intense illness in those without the developed immunity that a native population has. Bottled water is indispensable when a person with familiarity to one water source visits places such as India, Eastern Europe, Central/South America and Africa. In some parts of the world, despite having highly modern water treatment facilities, there can

still be risk to travelers without a developed immunity to local bacteria due to imperfect seals on distribution pipes or water storage towers. The increase of global travel and tourism has resulted in bottled water being produced in many parts of the world to facilitate the needs of tourists. This idea seems admirable. Tourism fuels the local economy and if bottled water can be produced locally then jobs are created. Unfortunately, this is not the case.

India began producing bottled water as early as the 1970s. By 1998 Parle Bisleri was the leading bottled water producer in India with 60% of the market share. The introduction and mass consumption of bottled water has had negative cultural effects in India. In the past traditional earthen pots of water were available at public places such as temples so as to allow the thirsty to have a drink. As bottled water is introduced these containers are disappearing. There are class conflicts being created as wealthy Indians can afford the purified bottled water while the poorer people must make due (Shiva 2002:99-103). It would be interesting to see if the United States is installing fewer drinking fountains and more vending machines in its public places.

The problem of accumulated plastic bottles is another threat. These plastic bottles are recycled in some cases, but the recycling process is often toxic. In addition, chemicals used to manufacture the plastic for the bottles can be a problem since many of the chemicals (styrene, poly-vinyl chloride, bisphenol A) are endocrine disruptors. These chemicals can cause severe developmental growth problems to both human and wildlife exposed to them (Rauch 2005).

Bottled water can also be an economic drain in any society. People spend from 240 to approximately 10,000 times more per gallon for bottled water than tap water. While the packaging of water does create some jobs at water bottling plants (usually the same plants which bottle soft drinks) and distribution networks the money a person spends on bottled water might be better invested in an activated charcoal filtration system for their home water supply. In the case of undeveloped or partially developed nations water resources that become privatized for packaging can take important water away from citizens who need it for drinking, cooking and agriculture.

## **Conclusion**

Bottled water is sold based upon a consumer's desire to be healthier. Bottled water in most cases *is* tap water and can sometimes be worse for you than tap water. The intrinsic consumer motivations for buying and using bottled water operate on folk model beliefs that are inconsistent with a person's general usage of water. It is bought for the sake of convenience in many cases, but the consumer

justifies their purchase with the folk model belief that bottled water has a better taste and purity. The bottled water industry is filling a post-industrial desire for clean and uncontaminated water that industrialized citizens think of as a scarcity. In most cases they are buying the tap water they fear at a steep markup and using consumer justifications for that behavior. Their folk model beliefs about municipal water are directly effecting how they procure their most basic ecological need of drinking water.

While bottled water can become an option for people who live in areas where water is scarce or not potable, it should not have to be. The sale of bottled water to a population should not be considered over the investment in a good, local water treatment system. The “manufacture” of drinking water should not be an alternative path to dealing with the public health of developing (and developed) nations who deserve to have the base right of clean and affordable water. Privatized profit motives should not decide that clean water must be bought from the “manufacturer” while public water will be substandard and at times not even available.

### Bibliography

Australian Consumers' Association

2005 A triumph of marketing. *Choice*, July:8.

Bottled Water Regulation: Hearing Before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce. 102<sup>nd</sup> Congress. First Session. April 10, 1991.

Rauscher, Megan

2004 “High levels” of bacteria found in bottled mineral water: study. *Clinical Infections Diseases*, 2004(39):iii-iv.

National Resource Defense Committee

2005 Bottled Water: Pure Drink or Pure Hype? Electronic Document, <http://www.nrdc.org/water/drinking/bw/bwinx.asp>, accessed December 1, 2005.

O, Shaughnessy, John

1987 Why People Buy. Oxford University Press.

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Penn and Teller: Bullshit!

2003 Season One. Showtime Networks Incorporated. Los Angeles.

Protection From Drinking Water Contamination: Hearing Before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce. 102<sup>nd</sup> Congress. First Session. May 10, 1991.

Rauch, Molly

2005 Drinking-water: know-how. *Mothering*. March 1, 2005:26.

Shiva, Vandana

2002 Water Wars: Privatization, Pollution and Profit. Cambridge, MA: South End Press.

## MEAN CERAMIC DATES AND CHRONOLOGY

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One of the most fundamental goals of archaeology is to date excavated sites. A sound chronology of a site allows the archaeologist to fully comprehend the data found in the site. There are many different methods of determining a site's chronology, and one of them is mean ceramic dating. In historical sites, the most abundant artifacts are ceramic sherds. These sherds can be identified by their gloss, color, shape and texture. From that typology, the sherds can be dated to a specific time range of production. Then, by using frequencies of the production dates of the ceramics found, it is possible to determine the time range of occupation of a site (Barber 1994). This paper examines the effectiveness of mean ceramic dates by comparing mean ceramic dates (MCD's) to known occupational periods in the Lake of Isles sites. That knowledge can then be applied to the Mashantucket site, which has an unknown chronology in order to identify the occupational periods.

The Lake of Isles sites were Euro-American settlements located just outside of the Mashantucket Pequot reservation in Preston, CT. The Mashantucket sites were Native American settlements inside the Mashantucket Pequot reservation. The Lake of Isles sites had an established chronology based on land deeds and other historical documents. On the other hand, the Mashantucket Pequot sites had no such records and thus the chronology has not yet been clearly defined. The only documented site on the entire reservation from this period was 72-171, which was dated to 1774 (MPMRC 2007).

A lack of records is an obvious problem in understanding the cultural changes that were occurring within the reservation from the 17<sup>th</sup> century to the present. One method of determining the chronology of the reservation would be to create MCD's for all of the sites. Of course the reliability of these tests then comes into question. Based on the evidence from the Lake of Isles sites, it appears that the overall method of mean ceramic dating is dependable and can be used to form a reliable chronology for the Mashantucket Pequot reservation sites. In order to investigate this properly, the Lake of Isle sites 102-70 and 102-44A are examined to expose the pros and cons of using mean ceramic dates for these sites. Thereafter, the criteria can be applied to the Mashantucket Pequot reservation sites in order to establish a chronology for the reservation (MPMRC 2007).

In relation to the historical documentation for the site 102-70, the MCD is inaccurate. The historical documentation shows that the site was occupied from 1758 to 1770. Theoretically, this means that the MCD should be 1764. However, the mean ceramic date is 1776 (+/- 15.9 yrs), and this date does not even lie within the documented years of occupation. Interestingly, even though the mean ceramic date appears to be inaccurate, the MCD 2 sigma range of 102-70 is from 1744 to 1807. Although that range extends a bit beyond the actual range of occupation, it still wholly encapsulates the sites occupation. This range is entirely more reliable and representative of the site than the mean ceramic date itself (MPMRC 2007).

Another site that the mean ceramic date does seem to accurately measure is the site 102-44A. This site was occupied from 1769 to 1890 as demonstrated by the historical documentation, with a mean date of 1829.5. The mean ceramic date is 1820 (+/- 30.87 yrs) and is entirely more accurate for this site than 102-70. Again, the MCD 2 sigma range also encapsulates the occupation range, but this time more closely, with a range of 1758 to 1882 (MPMRC 2007). From these sites, it is apparent that mean ceramic dates are only useful when the sites have long occupational periods and a large variety of tightly dated ceramics. 102-70 was occupied for a short period of time and still contained a larger quantity of ceramics than the better dated 102-44A. This means that the mean ceramic dating technique cannot be reliable for a site that was in use for a short period of time, even if the total ceramic number was high. For example, 102-44A was used for a much greater period of time than 102-70 and as a result, the MCD was much closer to the actual mean date of the site. That is not because there were more sherds, but rather because the site was exposed to a larger variety of tightly dated ceramic types.

The inaccurate ceramic date in 102-70 may be due to a number of things. It could be that the ceramics found at the site were either bought after the production period, or the ceramics had a long curation period. These two problems are common with mean ceramic dates. The problems arise from the fact that the date ranges given for ceramic types are of production ranges, and not based on availability to the people in the area, let alone when they were acquired. That difference creates a time lag in the MCD. Also, once acquired, there is no way to tell how long the vessel was used before it was discarded (Barber 1994). In regard to these sites, there is probably a time lag of only a few years (two to three), because these sites seemed to acquire the ceramics at a fairly uniform and timely manner, which has reflected itself in the data (Figure 4).

Unfortunately, pipe stem chronologies cannot be used in these sites to supplement the mean ceramic dates because of the low number of pipe stems. In order to have a reliable pipe stem date, a sample of at least 250 pipe stems is needed.

Both the Lake of Isles and Mashantucket Pequot sites have very small samples, making a reliable date impossible. For example, 102-44B had 11 pipe stem fragments, with a date of 1735 (+/- 22.36). According to the historical documents, the occupational period was from 1739 to 1788. This demonstrates the unreliability of pipe stem dates for these sites (MPMRC 2007).

In order to better understand the large volume of data, as well as to create more accurate data, three types of ceramics were isolated to best represent the occupational periods of the sites. Creamware, Pearlware, and Whiteware were chosen because of their specific production periods and availability in New England from the establishment of the reservation to 1900. These ceramics had well defined benchmarks or identifiable periods of production that could best identify the age and chronology of the sites. Creamware was produced from 1762 to 1820, Pearlware from 1775 to 1840, and Whiteware from 1820 to 1900. Depending upon when the site was occupied, some of these ceramics would be present and some would not. This allows the sites to be specifically placed within more precise time ranges (Hume 2001).

The availability and chronology of those ceramic types appear in frequency seriations taken from each area. The idea behind seriations is that types of ceramics would initially increase and finally decrease in popularity, creating a bell curve in assemblages over time. The seriations from both areas are almost identical and show that the Lake of Isles sites (Figure 2) and Mashantucket Pequot sites (Figure 3) had some correlations between the types of ceramics that were available to them and what they were buying (Sutton 2005). In fact, it appears that the inhabitants of both sites were buying the exact same things at almost the same time. Interestingly enough, this indicates that both groups had equal access and desire for the same ceramics.

The data was then divided up into the percentages of each ceramic (Cream/ White/ Pearlware) found in each archaeological area and then plotted on a graph of each whole site. It appears from this data that both the Lake of Isles sites and Mashantucket Pequot sites had access to the same ceramics and received them about the same time (Figure 4). That fact alone explains a lot about the relationship between the Mashantucket Pequots and the Euro-Americans. It shows that the Native Americans sought after Euro-American goods. They had even adopted the Euro-American tea ceremony into their own lives. More importantly, it shows that the MCD's must also be somewhat reliable for the Mashantucket Pequot sites. This is because the Mashantucket Pequot assemblages follow the same consumer patterns as the Lake of Isles sites.

If the MCD's are a good indicator of occupation, it may be possible to determine the occupational ranges of a number of the Mashantucket Pequot sites. It appears from the Lake of Isles sites that the best way to determine occupational ranges for a site would be to use the MCD 2 sigma ranges in conjunction with observing the seriations of the three refined wares outlined above. The MCD 2 sigma ranges were consistently closest to what the real occupational periods were, and with information from the three refined wares, a substantial amount of information can be gleaned from the sites (MPMRC 2007).

However, these ranges are only reliable when the ceramic assemblages are moderately large in the refined wares for the site. Many of the Mashantucket Pequot sites have few ceramics, especially refined wares. For example, the site 72-209 had only ten ceramics in the entire assemblage, seven of which were untyped, utilitarian wares and yielded little information about the site. That site in particular had a MCD 2 sigma range of 140 years, which is most likely incorrect. Ceramics like the utilitarian Red Earthenware, which had a production range of 130 years, had a tendency to throw off the data in 72-209. The MCD 2 sigma ranges cannot be determined from these smaller assemblages because the assemblages lack solid indicators of occupational periods, especially when they are comprised of untyped and utilitarian ceramics (MPMRC 2007).

One Mashantucket Pequot site that most likely has a reliable mean ceramic date is 72-70B. The site contains all of the necessary elements to make the date trustworthy. First of all, there is a fairly large overall quantity, so the site was probably occupied for an extended period of time, but more importantly it contains a large variety of refined wares and other tightly dated ceramics. Also, the standard deviation is lower on this site, which is another good sign of a reliable occupation range. The MCD is 1797 (+/- 11.18) and the occupation of the site was probably, as the MCD 2 sigma range suggests, from 1775 to 1820. Of course this time frame should be supplemented with further information, including a more comprehensive knowledge of the stratigraphy of the site, as well as additional dating methods (MPMRC 2007).

The simple explanation for the low total ceramic counts is that most of the Mashantucket Pequot sites were inhabited for shorter periods of time than the Lake of Isles sites. Common sense would suggest that sites which had been inhabited for shorter time periods would have smaller assemblages than longer occupied sites. However, that does not appear to be the case. For example, the Lake of Isles site 102-44A has the longest documented range of occupation out of the other Lake of Isles sites (from 1769 to 1890). Yet 102-44A is the fifth highest in the total number of ceramics out of the thirteen Lake of Isles sites. This means that there is not a direct correlation between the quantity of ceramics and the duration of

occupation at these sites. Another reason for the smaller number of ceramics at the Mashantucket sites may be due to the socio-economic difference between the Mashantucket Pequot and Lake of Isles sites. The Mashantucket Pequots had less economic security than the inhabitants of the Lake of Isles sites. Therefore, the inhabitants of the Lake of Isles sites would not only be able to buy better quality goods, but also larger quantities of those better ceramics (MPMRC 2007).

Overall, mean ceramic dates appear to be a good way to get a basic understanding of the chronology of sites. However, it is apparent that mean ceramic dates can only be reliable if specific criteria are met by each assemblage. Accurate MCD's must have large number of ceramics, with a number of tightly dated ceramics. Also, only the MCD 2 sigma ranges, with low standard deviations can be used with confidence. Most importantly, MCD's have to be used in conjunction with other dating methods, as well as a keen understanding of the sites and their stratigraphy. The chronology of the Mashantucket Pequot sites seems to be contemporaneous with the Lake of Isles sites and both had almost identical consumer patterns. This demonstrates the level of acculturation in the Mashantucket Pequot reservation from around 1764 to 1849, as well as the effectiveness of mean ceramic dates in establishing the chronologies for those sites.

### **Bibliography**

Barber, Russel J.

1994 *Doing Historical Archaeology: Exercises Using Documentary, Oral, and Material Evidence*. Pp. 166-169. Upper Saddle River: Prentice Hall.

Hume, Ivor N.

2001 *A Guide to Artifacts of Colonial America*. Pp. 98-150. New York: Vintage Books.

Mashantucket Pequot Museum and Research Center (MPMRC)

2007 *Mean Ceramic Date Report*.

Sutton, Mark and Brooke Arkush

2005 *Archaeological Laboratory Methods*. Pp. 304-305. Dubuque: Kendall/Hunt.

**Lake of Isles Sites (Figure 1)**

Site	MCD	Cream	%	Pearl	%	White	%
102-44B	1767	36	23%	0	0%	0	0%
102-62	1770	63	17%	0	0%	0	0%
102-70	1776	661	57%	0	0%	0	0%
102-58	1787	32	68%	5	11%	0	0%
102-49B	1790	537	86%	28	4%	0	0%
102-65	1792	2103	78%	347	13%	0	0%
102-50	1798	387	58%	273	41%	2	0%
102-69	1799	2322	46%	2522	49%	14	0%
102-59	1806	614	20%	2173	70%	145	5%
102-44A	1820	317	26%	424	35%	409	33%
102-63	1820	285	15%	757	41%	628	34%
102-48	1832	7	1%	302	51%	281	47%
102-67	1837	21	6%	133	35%	220	58%

**Mashantucket Sites**

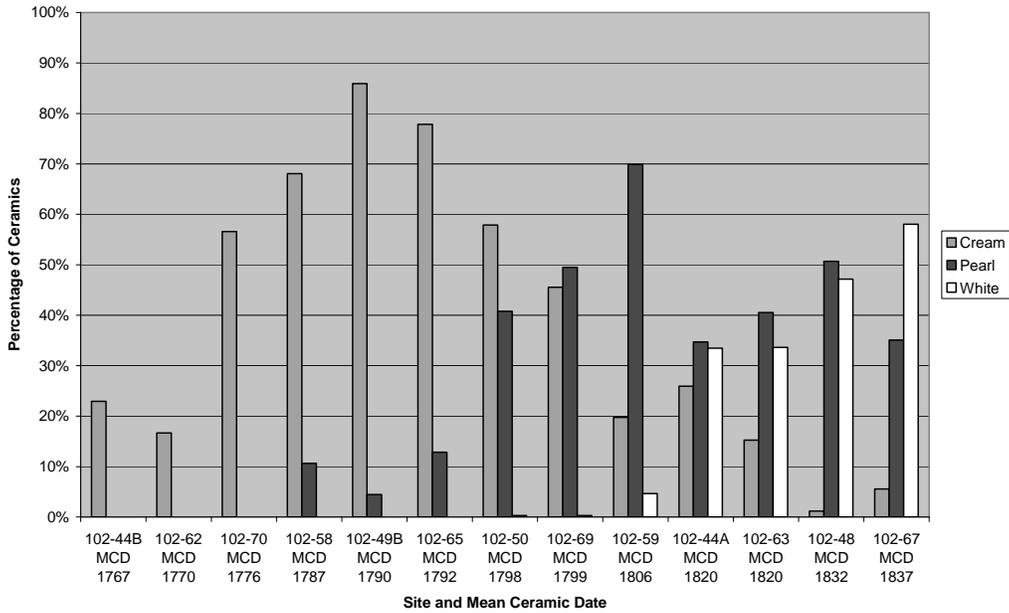
Site	MCD	Cream	%	Pearl	%	White	%
72-58	1764	1	1%	0	0%	0	0%
72-171	1767	115	24%	1	0%	0	0%
72-70A	1786	97	36%	85	32%	0	0%
72-41	1790	112	82%	1	1%	0	0%
72-66	1790	4395	88%	44	1%	0	0%
72-97C	1791	374	98%	0	0%	0	0%
72-161	1791	6257	90%	254	4%	0	0%
72-91	1794	4259	75%	1371	24%	0	0%
72-165	1794	33	73%	12	27%	0	0%
72-70B	1797	2171	43%	2264	45%	4	0%
72-88	1804	72	62%	17	15%	16	14%
72-38	1817	16	21%	22	29%	28	37%
72-209	1833	2	20%	1	10%	5	50%
72-226	1838	13	9%	37	25%	91	62%
72-37	1841	213	25%	28	3%	582	68%
72-120	1849	5	8%	6	10%	51	81%

Figure 1 (continued)

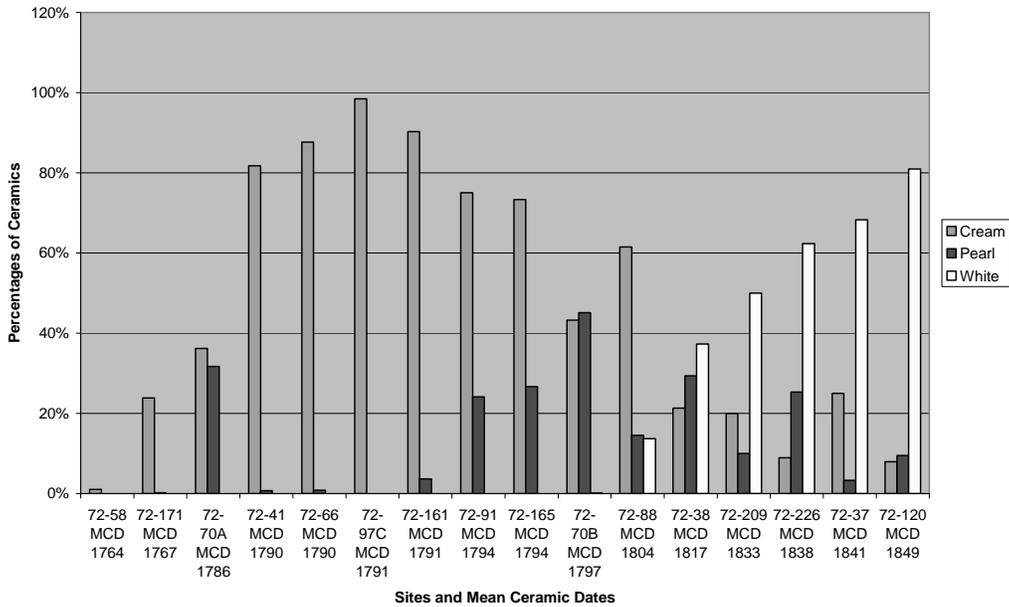
Salt Glazed Stone	%	Other Stone	%	Earthen	%	Delft	%	Other	%	Total
70	45%	0	0%	17	11%	4	4%	26	17%	157
101	27%	0	0%	137	36%	0	2%	77	20%	378
326	28%	27	2%	40	3%	2	1%	112	10%	1168
8	17%	1	2%	1	2%	0	13%	0	0%	47
17	3%	0	0%	37	6%	0	1%	6	1%	625
56	2%	0	0%	165	6%	0	0%	30	1%	2701
1	0%	0	0%	5	1%	0	1%	1	0%	669
10	0%	0	0%	186	4%	0	0%	44	1%	5098
12	0%	8	0%	150	5%	0	0%	7	0%	3109
9	1%	6	0%	42	3%	0	0%	15	1%	1222
1	0%	6	0%	183	10%	0	0%	1	0%	1867
0	0%	0	0%	6	1%	0	1%	0	0%	596
1	0%	0	0%	2	1%	0	2%	2	1%	379

Salt Glazed Stone	%	Other Stone	%	Earthen	%	Delft	%	Other	%	Total
88	94%	0	23%	4	0%	0	0%	1	1%	94
144	30%	8	5%	84	0%	0	0%	130	27%	482
39	15%	3	8%	25	0%	0	0%	19	7%	268
0	0%	0	16%	21	0%	0	0%	3	2%	137
43	1%	0	0%	509	0%	2	0%	22	0%	5015
1	0%	0	6%	4	0%	0	0%	1	0%	380
2	0%	0	0%	381	0%	0	0%	37	1%	6931
7	0%	5	0%	18	0%	0	0%	14	0%	5674
0	0%	0	49%	0	0%	0	0%	0	0%	45
32	1%	28	0%	518	0%	0	0%	28	1%	5019
1	1%	2	19%	9	0%	0	0%	2	2%	117
2	3%	1	29%	6	0%	0	0%	1	1%	75
0	0%	1	220%	1	0%	0	0%	1	10%	10
2	1%	0	15%	1	0%	0	0%	0	0%	146
8	1%	20	3%	1	0%	0	0%	20	2%	852
0	0%	0	35%	1	0%	0	0%	0	0%	63

Ceramic Percentages by Lake of Isles Site (Figure 2)



Ceramic Percentages by Mashantucket Pequot (Figure 3)



## FEAST AND FAMINE: THE ROLE OF ETHNOGRAPHIC FIELDWORK IN CULTURAL ANTHROPOLOGY

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To anyone who is hungry while reading this, I apologize. Some of what you will read will likely remind you of this hunger and perhaps exacerbate it. Nevertheless, a polite invitation is extended to you, to continue reading to the end, that perhaps some good will come of the exercise, and permit you to subsequently take leave to satisfy your hunger in any which way you choose.

The holiday season brings out many cherished, even craved, foods that are enjoyed with extra relish. For the author, a significant other's cinnamon rolls, made entirely from scratch are just such an item. Consider for a moment your own sinfully indulgent dessert or dish, that rouses and scintillates your appetite and carnal desires. Perhaps it's double chocolate molten cake or Italian can noli stuffed with mousse or could it be warm pumpkin pie or even fried bananas topped with toasted coconut, and served with coconut/passion fruit ice cream, all drizzled in warm, gooey caramel? Now that you have imagined your most impassioned culinary vice (and no doubt are craving it at this moment) lets discuss how, whatever it may be, it is made. It all starts with a recipe, right? Wrong! Someone else put in the time to experiment and concoct these orgasmic organizations of olfactory and palatal delight, and thereafter, having perfected their creation, have recorded the process and requisite elements, as a recipe.

Analogue to this, anthropological fieldwork and the formal culmination of it, ethnography, hold a relationship not unlike the food itself and the recipe that documents it. Fieldwork is the mainstay, and the staple of cultural anthropology. In my judgment, cultural anthropology cannot exist without fieldwork. Moreover, fieldwork without a reporting of it, is nor more useful or satisfying than eating this paper. In the same vein, reading about a people and

culture is scintillating and stimulating in much the same way reading a good recipe is. Yet, the recipe and the recipe card are not the dessert. To truly enjoy a decadent dessert, one does not read about it, one devours it slowly, deliberately, and with measured panache. The cultural anthropologist needs to not only *read* about people and their cultures, but also *taste* through firsthand fieldwork and participant observation. The reading of printed recipe cards does not and cannot supplant the experience of enjoying a dish firsthand. Indeed, for someone who has never tasted chocolate, how does one truly communicate how it tastes? The same success would be had in trying to describe to a blind-from-birth person what purple looks like.

Despite the assertion above, fieldwork and ethnography derived from it, have not always held a steady position in anthropology. Why is this so? What role then does fieldwork and ethnography play in cultural anthropology? How has this role and perceptions of it changed over time? What has influenced these changes? Has the production of fieldwork and ethnography existed as either feast or famine? In other words, has ethnographic fieldwork waxed and waned in its practice, and if so, in what ways? It is these questions, and the discussion of them that will occupy the rest of this treatise, and hopefully provide ultimately a satisfying assessment of fieldwork and ethnography's role in cultural anthropology.

Hortense Powdermaker in opening her book *Stranger and Friend*, begins her treatise by relating her own experiences of anthropology, and in particular fieldwork, by which she describes her view of the discipline as connected to these actions. She describes cultural anthropology as both a science and an art of capturing as far as possible, the thoughts, feelings, and sights of another culture's members, by participating alongside them in their society (Powdermaker 1966: 9). Her view of the discipline is no doubt informed by Malnowski's own construal of its mandate, having herself been taught by him at the London School of Economics (*ibid.*:33-35,38- 39).

Initially, ethnographic fieldwork was not par the course, rather work, known as at-a-distance armchair work, was conducted through the use of other's writings, letters, government forms, and colonial reports, various explorer's accounts, and large scientific multi-disciplinary expeditions exemplified by Haddon's Torres Straits work, and tourist elicitation with guides such as *Notes and Queries* (Stocking 1992:17-24, Van Maanen 1988:14-15). A new standard was ushered in by Gillen, Spencer, Haddon and Malinowski, who's work among indigents of Australia and Melanesians proved the value of extended hands-on study and participant observation in "getting at the 'why' of things" (Stocking 1992:24-36, Van Maanen 1988:16-17).

What brought about this new standard? In the case of Gillen and Malinowski, it seems illustrative for their early hands-on efforts in camps or houses near the natives became unsatisfactory; they wanted to taste the native's lives and understandings of things firsthand, in experiencing aspects of their lives, and even speaking their language (Stocking 1992:25-26,42-3 44}. Frazer even seemed to realize the need to have "men-on-the-spot" to support his musings, while perhaps not perceiving the death of his style of "armchair anthropology" (Stocking 1992:26,57). Boas in the Americas led the charge in this direction, advocating his students to go out and collect culture (Van Maanen 1988:16-17). Thus, by ascendancy of World War I, "fieldwork was to anthropology *as* the blood of martyrs is to the Roman Catholic Church" (Seligman, as quoted in R. Firth 1963:2, Stocking 1992:30). From the mid-1920s, four decades of anthropological fieldwork ensued guided by Malinowski's charter of fieldwork that both lent authority to and pressure to conduct immersive fieldwork (Stocking 1992:54,59).

It thus seems all the more paradoxical that in his own charter would lie the seeds of its own future embattlement. In his suite of practices to be emulated, Malinowski kept a journal, that when published in 1967, combined with other forces in motion to question the epistemological acumen of fieldwork and thereby ethnography (ibid.:15,59). To some, learning of his derogatory un-guarded views of the natives and not so god-like practices at gleaning information from them, called into question the role of the ethnographer, and hence fieldwork itself (ibid.:15-17,59). Combined with the growing realizations of anthropology's role in colonialism, this developed into what some have called "the crisis of [socio-cultural] anthropology" (ibid.:15,59).

Recent critiques anthropological fieldwork and ethnography have rightly stated that each fieldwork experience as truly unique can never be duplicated. This is true. Just as no recipe, however closely followed, produces the exact same results, so also fieldwork produces a unique experience, both spatially and temporally. Powdermaker (1966:19) explains that each fieldworker, as a "human instrument" brings with them to the field a unique combination of biological, psychological and social conditioning that makes them what they are, and moreover their interaction is with other people, likewise unique in construction; thus I would say no work with these factors and limited in time and space can be duplicated. So how is ethnography to be understood? Is it thus limited to being nothing more than a mutual experience and consequentially say nothing objective of culture? I rejoin with an emphatic no. Turning again the desert-recipe analogy, it is true that the eating of a dessert is far from the description of its constructive process and its parts. Yet, it does provide a sense of it, so that upon adequate study of it, if one should taste the dessert one would recognize what it is. Blindfolded I can discern pumpkin pie, and whether it has cloves, cinnamon or nutmeg in it or not. A soci-

ety's culture is knowable. It must be realized though that even desserts of a certain type do vary by myriad ways; the constituent elements though similar are not always the same, just as the production of them and the presentation vary as well.

Returning to this notion of "crisis," what was it exactly and how did it affect fieldwork and ethnography? The expansion of world-wide influence by colonial powers, first off was an impetus to the conducting of fieldwork, as it was felt that these cultures were disappearing due to acculturation {Stocking 1992:358}. Anthropological work came to be envisioned by those who had customarily been under study, as well as a growing body of intellectuals, as perpetuating a vision of backwardness engendering justification for exploitation by colonizing countries (Stocking 1992:358). Availability of "exotic" sites and funding for research to such places began to dry up, and the reevaluation gained momentum, culminating in a call for anthropology's "reinvention" (Stocking 1992:358-359). These developments directly affected the performance of fieldwork.

Another crucial element, the post-modernist critique, has indirectly affected fieldwork, through directly affecting ethnography. Fieldwork on its own cannot express culture- rather the collected and written thoughts produced from it, in the form of ethnography, comes to express or represent a culture (Van Maanen 1988:4). Since this writing, the collectivization of thoughts and ideas recorded in the field, and the actions observed that generated them, in concert with concerted thoughts of these in aggregate later on in an office somewhere far from the fieldwork, the actual writing of ethnography is to a degree independent of the fieldwork, yet informed by and tethered to it (Van Maanen 1988:4). Ethnography then can be considered as a written recipe- a written representation of, albeit far from the real thing, a society's culture or an aspect of it.

In the vein of writing ethnography, the element aforementioned, the post-modernist critique, in terms of or in connection to cultural anthropology, enters the stage most prominently with Clifford and Marcus' 1986 *Writing culture: the poetics and politics of ethnography*. The most influential aspect of it, reflexivity is regarded by Davies {1999:4-7} as mutuality in all social interaction including the relationship between the researcher/fieldworker and the informant. She adds that reflexivity should not to be regarded as deleterious, but rather irreducibly a part of all interaction, and thereby the product of research, meriting acknowledgment by the fieldworker by providing self and contextual reference to all aspects of the interaction (Davies 1999:4). She hastens to add, however, that ethnographers need to reject the extreme pessimism that can be derived from

reflexivity if taken to an epistemological extreme, ultimately asserting ethnography *can* be done reflexively (ibid.: 5-6, emphasis mine).

This resonates well with the dessert-recipe analogy I have proposed. For if ethnography is the ethnographer's understandings of a group's culture, so also is a recipe one's understanding of a dessert. The recipe is not the dessert, and never will be, but remains a representation of it by what it consists of, how it is organized, how it is made up, and presented. Yet, since the representation is nothing more than writing, then the conventions of written thought utilized will no doubt vary from person to person, and make each recipe differ in some manner, despite the possibility that more than one will be describing the same type of dessert or dish.

The post-modernist critique indirectly affected fieldwork through the writing of ethnography with the knowledge of writing conventions and their effect on the final product. With the realization that reflexivity, as a necessary ingredient in the text, could be planned for ahead of time and even included in the way fieldwork is conducted, altering the planning and modality of ethnographic research (Davies 1999: 73-74, 77-92). Fieldworkers in anticipation of this need could prepare to and be cognizant of various conventions, e.g. writing down one's own questions and responses in interviews with informants to thus include in the text later on and provide reflexivity, or learning the language ahead of being embedded, or examining the effects of location, history, language and various other elements on the interview or exchange itself and thereby make an effort to document them in fieldnotes and then to contextualize and include reflexivity, include where appropriate in the subsequent text (Davies 1999: 77-92, 100-107, 112-115).

In a similar vein, take the recipe analogy again. Ingredients listed and used to comprise a dish are not so straightforward. If vanilla is called for, does one reach for artificial, or real, and the type chosen will vary itself based on quality and price. Where a particular ingredient comes from, how it is processed, and even how it is added to and made part of the final dish is also important. Likewise, the details that bring into context the ways the ethnographer comes to know something, how the person or persons know it themselves, how and where and under what circumstances they relate it to you, and your own positioning in the exchange, are requisite.

These techniques or at least the idea behind them have not only recently been used in ethnography. I contest that some classical to pre-post-modern-era ethnography does indeed employ reflexivity, multi-vocality, and positionality. Malinowski, in *Argonauts of the Western Pacific* (1922) did indeed use the first

person, describes even including his role in them and relate the indigent's view as well as his own construal. Schieffelin's 1976 monograph *The Sorrow of the Lonely and the Burning of the Dancers*, a work conducted and printed well before Clifford and Marcus' *Writing Culture* (1986), copiously included what have been called or portrayed as strictly the property of post-modernist anthropological critique (46-47, 50 and all throughout the text).

With the post-modernist critique I conclude that emphasis was shifted primarily to the performance of certain conventions in the writing and reporting of fieldwork. However, it seems the emphasis remained so much on this aspect, that a majority of anthropological work came to be talking about other's tasting of dessert-others actual fieldwork, and thus ensued discussion of discussions. The detriment herein was the lack of attention to actual taste-testing, doing fieldwork itself. Sumptuous desserts await, yet are rarely enjoyed anymore due to lack of "going out to dinner" to try it.

These two elements, the onset of post-coloniality and post-modernism have been of service though. They have reminded cultural anthropologists of convention previously employed, but not always regularly so, identified those that need to be amplified and permitted the acceptance of some forms of anthropologically produced writings as ethnography, retroactively. Fieldwork has waxed and waned with the onset of these elements, which as in turn helped anthropology seem "new societies" with which to study. Whether anthropology is to feast or famine will ultimately lie as a responsibility with each of its practitioners to make cultural anthropology culturally oriented no matter who the "other" is. Your dessert awaits.

### Bibliography

- Clifford, James and George E. Marcus  
1986 *Writing Culture: The Poetics and Politics of Ethnography*. Berkeley: University of California Press.
- Davies, Charlotte Aull  
1999 *Reflexive Ethnography: A Guide to Researching Selves and Others*. London: Routledge.
- Powdermaker, Hortense  
1966 *Stranger and Friend: The Way of an Anthropologist*. New York: W.W. Norton & Company.

Schieffelin, Edward L.

1976 *The Sorrow of the Lonely and the Burning of the Dancers*. New York: St. Martin's Press.

Stocking, Jr., George W.

1992 *The Ethnographer's Magic: And other Essays in the History of Anthropology*. Madison: The University of Wisconsin Press.

Van Maanen, John

1988 *Tales of the Field: On Writing Ethnography*. Chicago: The University of Chicago Press.

## TAINO INDIANS: SETTLEMENTS OF THE CARIBBEAN

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In the past, and even currently, there is some confusion over just who the Taino Indians were. Many have also referred to them as Arawak Indians and although my own research has been able to determine why there is some confusion, it is still unclear if they are the same or a different ethnic group. I will describe our current understanding of who the Taino were, introduce two possible migratory explanations of the Taino, and discuss the settlements, the settlement locations, and their importance to Taino culture.

The name "Taino" in the native language means "good" or "noble." According to Peter Hulme (1986) this name was unofficially given by the Spanish to the people they encountered and was later applied to the same ethnic group by Cornelius Rafinesque in 1836 (60). The term "Arawak" was a name that was originally applied to the Taino by the Spanish based on the similarities of the language spoken by the Arawak Indians in Guiana. Irvin Rouse (1992) relates that Daniel Brinton looked at the similarities between the Arawak and the Taino in 1871 and determined that based on cultural and linguistic similarities, the Taino were of the same group as the Lokonos Arawak of northeast South America (5).

The Taino were one of two main populations living the Caribbean at the time of European contact. They occupied a large portion of the northern Caribbean and the Greater Antilles Islands. The other main population was the Island Caribs who occupied most of the eastern Caribbean and the Lesser Antilles Islands. While the Carib Indians were considered more warlike, the Taino Indians were considered more peaceful and docile. However, some evidence does suggest there were segments of the Taino population who participated in raiding parties. Often times, when hostilities occurred between the Taino and Caribs, the Taino were defeated. Carib raiding parties would often take Taino women and make the Carib wives. By AD 100 the Taino had lost a large portion of their territory in the northern portions of the Lesser Antilles and even in some of the eastern portions of the Greater Antilles due to territorial conflicts with the Caribs.

The Taino Indians were a matrilineal society who were, for the most part, peaceful and lived a semi-sedentary lifestyle. According to Leslie-Gail Atkinson (2006) farming was an important aspect in Taino subsistence and was supplemented with gathering, hunting of small animals, and fishing and shellfish gathering (100 and 105). They were accomplished seafarers and had extensive trade networks. Shortly after European contact in the mid to late 1400s, the Taino were a virtually extinct population due to disease, slavery, and conquest by Europeans. Those who did manage to escape, primarily in Jamaica, fled to the interior hills and mountain areas.

### **Migration and Taino Emergence**

Although the Taino were a recent addition to the Caribbean Islands (as late as 200 AD), it is important to understand the migrations into the islands prior to that. William Keegan (1995) believed that there were two migratory waves into the Caribbean Islands (407). The first wave is believed to have occurred as early as 4000-5000 BC from the Yucatan Peninsula of Middle America. It is believed that the colonists took advantage of the Caribbean Counter Current and were able to reach Cuba and move eastward into Hispaniola. Keegan (1995) explains that the second wave is believed to have been around 2500 BC and moved along the coastal areas of Venezuela and the Guianas to settle the West Indies. By the mid seventh century, the Taino had migrated through the Greater Antilles and had established large, permanent communities (407 and 411). According to Hilary Beckles (1999) the second migration saw the emergence of the Taino people in the Greater Antilles Islands around AD 200. By AD 650, the Taino had established large communities throughout the Greater Antilles (284).

Whenever we think of migratory movements it is important to bear in mind that population movements are generally a result of some form of external pressures such as conflict, internal population growth, and the opportunity to exploit resources which may not be readily available in the current area. It has been argued that each of the Caribbean Islands was settled in turn as they were encountered from the previous island or mainland. However, William Keegan (1995) shows that this could not have been the case. In his analysis of population dispersion, it appears that there would not have been enough time for the populations of one island to have reached a critical point to force migration and subsequent colonization of another island in the chain. Keegan shows that it is therefore not likely that each of the islands were settled in sequence, but rather were settled simultaneously (409 and 413).

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## Settlement Patterns and Distribution of the Taino

Settlement pattern and distribution can be defined as how sites are situated on the landscape, while settlement systems are the functions of contemporaneous settlements. This section will deal primarily with settlement pattern and distribution and the reasons for the Taino socio-political structure as a motivation for their settlement system.

By AD 800 the Taino had expanded into the Bahamian Archipelago and their population grew rapidly. There was a steady expansion of population based on efforts to maximize their access to productive resources. William Keegan and Morgan Maclachlan (1989) explain that access to resources is not the only explanation for their distribution (614). Keegan and Maclachlan (1989) relate the importance of these factors: "Studies of prehistoric settlement patterns emphasize resource distributions, production, exchange, and political relations as the determining factors of settlement locations. Settlement patterns are also influenced by social organization" (613). Keegan and Maclachlan (1989) further inform that some other reasons for adaptive strategies for colonization of new areas were generalized use of the environment, rapidly growing populations, spatial mobility, and maintenance of social organization (623).

The Taino were initially seafarers and gradually became land travelers as well. The sea offered opportunities which fostered exchanges of cultural ideas and helped to establish common identities allowing the islands to provide cultural differences. As an example of cultural difference, Irvin Rouse (1977) states that many of the ceramic artifacts found within sites in the Caribbean Islands show patterns of change which are gradual and indicate local development rather than an exchange of ideas (8). James Petersen (1991) explains that initial Taino settlements were primarily along the coastal areas, allowing them to focus more on the sea rather than land. As time progressed, they gradually moved inward to settle other areas of the landscape (129-130). Where this is evident is in Puerto Rico where short coastlines provided areas of settlement, yet only allowed for small populations. Difficulties in the Puerto Rico area also arose from the constraints of the river valleys.

William Keegan and Morgan Maclachlan (1989) indicate the Taino selection of islands for settlement and pairing of communities were for reasons of subsistence as well as for their social organization (623). The Taino colonized neighboring islands not out of convenience, but more likely as a means to maintain systems of matrilineal kinship and marriage. There appear to be compromises made in choosing settlement locations in order to maximize their availability of resources as well as maintain their social organization. There also

seems to be a preference to stay within easy communication with a parent community when creating a new settlement. This helped to promote inter-island visitation with fewer hazards.

Keegan and Maclachlan (1989) explain the two main forms of communal living for the Taino. The first is clustering, which is a grouping of small settlements around another settlement. The central settlement is interpreted to be that of a "king" or "high ruler". The second type of settlement is a plaza type, in which houses are situated around a central plaza (614-615). Keegan and Maclachlan (1989) indicate that Taino settlements evolved over time in three phases. The first phase was made up of settlements which were randomly distributed. During the second phase the settlements became regularly spaced pairs. The final phase is when clustering of settlements and the development of plaza communities occurred (624-626).

Many of the sites which occurred in pairs may have been influenced by social relations. Keegan and Maclachlan (1989) tell us that these pairs were contemporaneous sites which were situated within each other's catchment area (624). The transition from settlement pairs to clusters is interpreted to be not only from continued population growth, but also from long-distance trade and inter-island raiding as well. David Cook (1998) concludes the Taino settlements were organized into a series of confederacies, or chiefdoms (15). Each village was organized into a district chiefdom which was ruled by a single district chief. Much of the socio-political organization of the Taino evolved for more than access to resources and maintenance of social organization; it served also as a means of protection of resources since many conflicts broke out over hunting, fishing, and resource use rights between populations.

Another explanation of Taino settlement systems was participation in long distance trade and exchange networks. Many of these exchange trips involved men from several communities. These communities would have needed to be within close proximity of each other. Keegan and Maclachlan (1989) explain that the planning of such trips would require someone of high status, such as a chief to organize and lead them. If the chief were ruling over several of these communities, or "chiefdoms," it would have been much easier to organize trade trips with men of the surrounding communities (626).

According to Irvin Rouse (1992) many of the Taino villages were large, permanent villages which supported populations up to 2,000 people. A number of villages were comprised of single domestic buildings ranging from 20 to 50 houses with related families living together. The predominate housing (*caney*) of the Taino were generally round with a conical roof. They were irregularly arranged around a plaza. The chief's house was usually larger, better built, and

tended to be situated on the plaza (9). Rouse (1992) also informs us that the chief's house was also usually rectangular. All the houses were made of straw or thatch; they had dirt floors and no partitions between families. Ordinary people slept in hammocks (*hamaca*) while chiefs used wooden platforms to sleep on (9).

Keegan and Maclachlan (1989) show as the settlement grew and socio-political influence increased, houses were built around additional plazas with the one central house of the chief in the middle connecting the subsequent plazas (616). Both settlement clusters and plaza communities reflect increased political integration within the Taino population. Irvin Rouse (1992) concludes there is a noted hierarchy within the plaza communities: commoners (*naboria*) were those who lacked positions of authority within their lineage, and the elite (*nitaino*) were those who held high ranking positions within their lineage (9).

### **Importance of Geographical Location**

Taino subsistence consisted of farming, gathering, hunting of small birds, sea, and land animals, fishing and shellfish gathering. Atkinson (2006) states that among these, farming was the most important aspect of their subsistence (100 and 105). Their location on or near the water was also important as fishing provided a great source of protein for their diet. In addition to spearing fish and catching them with hooks, the Taino would also catch fish and turtles in nets. Irvin Rouse (1992) indicates what is unique about this and that they would create small weirs in order to place the caught fish and turtles until they were ready to eat them (13). Rouse (1977) explains archaeological evidence in the Antilles shows middens which contain abundant remains of land and sea animals being used for food (9).

David Cook (1998) notes the complexity of farming for the Taino indicate its importance as a subsistence strategy. The Taino would create growing fields, many of which contained mounds (*conucos*), some contained terraces, or some were just open fields that were tended (20-21). James Petersen (1991) contends the drier, more arid fields contained extensive irrigation systems (128). The use of mounds is a common strategy among Taino. Mounds were arranged in regular rows and measured one meter high and three meters in circumference. Mounds were used for a variety of reasons; to retard erosion, improve drainage, and make it easier to weed and harvest from. More importantly, the mounds were used because they helped to maintain the humidity in the ground longer and allowed for tubers to be stored for longer periods of time before harvesting. According to Irvin Rouse (1992) the Taino men planted cuttings with digging sticks, and women did the harvesting of crops (12).

Rouse (1992) reports in terms of the Taino farming and cultivation; yucca, corn, beans, squash, cotton, calabash, and tobacco were grown, and pineapple, palm nuts, guava berries, and guayiga roots were cultivated (12). Around the houses of the village calabash, cotton, and tobacco were grown. Calabash was used as a water container. While in other parts of the Americas maize was an important domesticate, for the Taino it was less important as a domesticate due to it not having a significant place in their religion. Rouse (1992) also indicates corn was usually eaten directly off the cob (12). In addition to this, bread was rarely made from maize because the humidity of the area didn't allow for it to preserve well. Instead of corn, Taino utilized cassava for bread. Cassava and sweet potato were the primary food domesticates. Cotton was used for fishing nets, hammocks, trade, and for skirts and headbands for women.

Rouse (1992) explains that the Taino were exquisite crafters of materials such as wood, stone, shell, bone, clay, and accomplished weavers of cotton (9). Access to these resources was a high priority to the Taino as many of these items were used not only for personal adornment, but for trade as well. Their extensive knowledge of sea travel allowed them to create long distance trade networks. Rouse (1992) explains that canoes were cut from logs that were charred and chipped out using stone celts (16). Additionally, Rouse indicates these canoes were capable of traveling great distances for fishing, raiding and trading (23). Another item used for trade was gold. Rouse (1992) explains that gold was mined locally, but the Taino lacked a working knowledge of metallurgy. Archaeological evidence shows pendants of gold cut with shell and overlaid on wooden objects as well as sewn into clothing. The Taino would usually hammer the gold into a plate before cutting it with a shell (9).

Other artifacts have been found and interpreted as being the personal adornment of a chief. These items are of copper and gold alloy which, Rouse (1992) indicates, are to be believed to have been obtained through trade with South America (9). This further stresses the importance of the Taino trade network as well as their locations along the coastal areas of the islands. J.A. Cosculluela (1946) believes there is evidence to suggest that their patterns of trade included the Yucatan, Mexico and the northeastern portions of the South American coast as well as the other islands of the Greater and Lesser Antilles and the Bahamian Archipelago (10). Rouse (1977) indicates these patterns of trade were most likely the principle means of social interaction for the Taino (9). Marian DeWolf (1953) shows archaeological evidence recovered from the Little River site in Jamaica indicate that Puerto Rico styles of ceramic motifs influenced the inhabitants of Jamaica (232-233). Rouse (1992) speculates there are also indications that Jamaican Taino had some of the greatest variety of

personal adornment (11-12). While this may be an indicator of rank or status within their political structure, it also further emphasizes the importance of their trade networks.

### **Conclusion**

In looking at the Taino several important aspects arise terms of why they chose to settle where they did and how those settlements were arranged. Coastal areas and even those inland areas which had easy access to the coast seem to be among the more important locations to the Taino. The changes from individual settlements, to pairs, and eventually to clusters around a central plaza show an increase in socio-political influence. This arrangement may have also helped to protect the village from outside influences.

Coastal areas were important to the Taino due to their reliance upon marine life for a portion of their diet. In addition, to this, their increasing socio-political influence and culture would flourish with the extensive trade networks that they frequently utilized. The inland settlements were equally as important as it allowed access to farming lands, fruits and berries which could be gathered, and land animals and birds which could be hunted to further supplement their diet. It also allowed access to materials which were used for crafting, trading, and making canoes.

Being a matrilineal society, the close proximity of their villages allowed for continued familial contact, promoted inter-island dependence, allowed for adequate defenses against raiders, and promoted the increased of their socio-political structure.

The Taino were rapidly becoming a very unique presence in the Caribbean. Some scholars even speculate that if not for disease, conquest, and slavery from European contact, they may have evolved into a civilization.

### **Bibliography**

- Atkinson, L.  
2006 The Earliest Inhabitants: The Dynamics of the Jamaican Taino. University of the West Indies Press: Jamaica.

Beckles, H.

1999 The Genocide Police in English – Karifuma Relations in the Seventeenth Century. In M. Daunton & R. Halpern (eds.), *Empire and Others; British Encounters with Indigenous Peoples, 1600-1850*: 280-303, Philadelphia: University of Pennsylvania Press.

Cook, N.

1998 *Born to Die: Disease and New World Conquest, 1492-1650*. New York: Cambridge University Press.

Coscolluela, J.A.

1946 Prehistoric Cultures of Cuba. *American Antiquity*, vol. 12 (1), pp. 10-18.

DeWolf, M.

1953 Excavations in Jamaica. *American Antiquity*, vol. 18 (3), pp. 230-238.

Hulme, P.

1986 *Colonial Encounters: Europe and the Native Caribbean, 1492-1797*. New York: Methuen.

Keegan, W. and Maclachlan, M.

1989 The Evolution of Avunculocal Chiefdoms: A Reconstruction of Taino Kinship and Politics. *American Anthropologist*, vol. 91 (3), pp. 613-630.

Keegan, W.

1995 Modeling Dispersal in the Prehistoric West Indies. *World Archaeology*, vol. 26 (3), pp. 400-420.

Petersen, J.

1991 Taino, Island Carib, and Prehistoric Amerindian Economies in the West Indies: Tropical Forest Adaptations to Island Environments. In Samuel M. Wilson (ed.). *The Indigenous Peoples of the Caribbean*, pp. 118-130. Gainesville: University Press of Florida.

Rouse, I.

1977 Pattern and Process in West Indian Archaeology. *World Archaeology*, vol. 9 (1), pp. 1-11.

Rouse, I.

1992 *The Tainos: Rise and Decline of the People Who Greeted Columbus*.

## PACIFIC HERRING, *CLUPEA PALLASI*

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### Introduction

The *Clupea pallasii*, the Pacific Herring, is a pelagic fish known throughout the Pacific Northwest for its distinctive elongated body shape, olive-green to blue-green color and cycloid scales. Ranging from Alaska to California, this fish is a historic staple of many coastal Native American economies and continues to be an important fishing and economic resource for the Pacific Northwest. In recent times, from 1970 through the present, the abundance of the Herring has decreased and local tribes, fisheries and researchers have become concerned over the future of this important species. Research on the decline of the Herring and studies undertaken by biologists and federal employees to understand Herring habitat and behaviors have uncovered many vital points to understanding the Herring and its environment, but more information is needed to strengthen the conservation effort. Zooarchaeology, with its ability to research the biology of the past and the evolution of environments and habitats, will strengthen the current understanding of the Pacific Herring and add to the base of knowledge supporting the conservation efforts of the future (Lassuy 1989).

### Biological Background

The life history of *Clupea pallasii* is composed of two cycles; the larval stage of the Herring's life and the maturation and spawning period. The average length of life for the Pacific Herring is nine years (Lassuy 1989: 6). Larval Pacific Herring metamorphose two to three months after they hatch. The juveniles school early on in their life cycle; the first summer after spawning they collect either in the intertidal or tidal waters where they hatched or in deeper water which they may migrate towards. Herring typically reach maturity at 2-5 years of age, although at increasing latitudes the age at maturity rises (Lassuy 1989: 4). Once the Herring individual has matured, it will join an adult school for spawning and as spring approaches move inland again (Stout et al 2001: 13).

Thus the Herring spends a good third of its life cycle, and possibly more, near shore (Norcross 2001: 42).

Tidal or subtidal shallow waters, habitats with dense vegetation, are ideal spawning grounds for the Herring (Lassuy 1989: 2). Spawning occurs in spring, within the period of March through June. In colder climates, spawning may occur at earlier times (Lassuy 1989: 10). The ideal temperatures for spawning are between 3 and 9 degrees Celcius. Most Pacific Northwest Herring will lack significant hatching success if the water temperature is above 10 degrees C. The exception to this occurrence is California, whose higher water temperature, 10-12 degrees C, required the Herring to adapt.

Another significant factor in reproductive success is the water chemistry, the salinity and oxygen content of the water. Optimal salinity for roe and Herring incubation is reported to be between 12 and 26 ppt [parts per thousand] (Lassuy 1989: 12). General observations of Herring roe suggest that 17 and 5 ppt are the best outlines for the range of optimal salinity: salinity below 5 ppt will damage larvae, and salinity above 17 ppt may have the potential to damage larvae as well (Lassuy 1989: 12-13). Oxygen levels should be at a minimum ambient concentration of 2.5 milligrams per milliliter at the eggs' surface for the larvae to develop properly, studies suggest (Lassuy 1989: 13).

Temperature and salinity are very important factors in larval growth and both vary by habitat. In consequence, the variability between different groups of Herring is great (Stout et al 2001). One constant that must be present to an equal degree in all spawning environments is clear water. A high concentration of silt in the water at the time that the roe are deposited causes a dusting of underwater surfaces and lowers the likelihood that the eggs will adhere to a surface such as kelp or other aqueous vegetation (Lassuy 1989: 13). Studies point out that the highest mortality count for the Herring occurs when the Herring are in a larval state, due to the delicacy needed for the eggs to be successful: small changes in temperature, water chemistry and habitat disturbance will directly influence the growing Herring spawn (Lassuy 1989, Norcross 2001).

Another risk accosting young Herring is predation. Roe are harvested by humans and eaten by seabirds and fish, the primary predator being the Pacific Cod (Livingston 1993: 213). The parents of the eggs are at considerable risk in the tidal zones once spawning has begun: Herring are prey to many coastal predators and some mainland predators as well. The "waves" of Herring congregating to spawn draw in humans, salmon, seals and sea lions, killer whales and sea birds. The seasonal spawning of Herring is a high point for many predator species (Lassuy 1989: 12)

Herring themselves consume phyto and zooplankton as their primary food source. Larvae and adult Herring both utilize the same food source, but larvae feed on smaller plankton than do adults, who feed on larger species and in deeper waters (Lassuy 1989, Norcross 2001).

Contemporary geographic distribution for the Pacific Herring is from the Bering area in Alaska through the Pacific Ocean off the coast of California. As the water temperatures grow warmer toward Mexico and colder further north toward the pole, the Herring population dwindles (Lassuy 1989, Norcross 2001, Livingston 1993).

The past geographic distribution of the Pacific Herring shows a range very close to the current distribution. Herring remains have been recovered in the archaeological record for South-Central sites from Alaska (Bear Cove in present-day Sitka) to Greater Vancouver (Glenrose Cannery site) and Coastal Washington from between 10,000 and 7000 years BP (Butler and Campbell 2004: 342) and from approximately 12,000 years BP in Puget Sound Washington (Stout et al 2001: 8). From the indications of the archaeofaunal record, the Pacific Herring was plentiful along the northwest coast throughout the Holocene (Butler and Campbell 2004).

### **Zooarchaeology**

Herring are common components in Pacific Northwest faunal assemblages (Butler and Campbell 2004, Stout et al 2001, Lassuy 1989). Because of the fineness of the bones of the *clupeiformes*, the skeletal elements recovered are often fragmented and incomplete. The bony remains which generally survive burial are the dense elements such as the vertebral centrum, the maxillae and flat bones of the skull (articular, dentary, operculae, etc.) and on occasion the caudal, anal and rostral fins. Species diagnostics for *Clupea pallasii* include rounded operculae which lack straiæ, a feature unique to the species (Lassuy 1989: 1). Recovered operculae can distinguish Pacific Herring to the species level. In addition, the spatial location of the remains can help indicate the species of *Clupeiformes* present in the assemblage. *Clupea pallasii* is the predominant species of *Clupea* in the waters of the Pacific, with the occasional overlap with its cousin *Clupea harengus*. The number of vertebrae for *pallasii* is less than the number for *harengus* on average by approximately four, although vertebrae numbers are shown to vary by habitat for *pallasii* (Stout et al 2001: 20-23). This species diagnostic is only helpful when the full vertebral column for the individual is present in the assemblage.

Some of the earliest archaeofaunal evidence of Herring use in the Pacific Northwest South-Central coastal region, studied by Butler and Campbell in

2004, indicates that Pacific Herring use changed over time (Butler and Campbell 2004: 341). The expectation for the progression of the fishing pattern in the Holocene records, according to Butler and Campbell, is that evenness of species represented will increase with time. In their pursuit of this progression, Butler and Campbell note that sites in the coastal habitat show a slight increase in herring use over time (Butler and Campbell 2004: 364). After 2500 BP, Herring begin to form a moderate component of the faunal assemblages recovered. At the point that Herring use began to rise, the fishing rake came into use in the Pacific Northwest as a species-specific hunting tool (Butler and Campbell 2004: 365). The Herring also has the distinction of being the only fish taxon to show temporal patterning in its increased widespread use in the South-Central Pacific Northwest (Butler and Campbell 2004: 374). The increased use of Herring did not increase overall taxa evenness, but it does indicate a possible raise in the rank of Herring as a caloric food source (Butler and Campbell 2004: 364-374).

### **Human-Animal Relationships**

The past uses of Pacific Herring are similar to its uses today. The Herring was widely regarded as a valuable food item by native tribes of the Pacific Northwest coast for its high oil content. Native American tribes from the Alaskan coast to the California coast, over the whole span of the Pacific Herring's habitat, made use of the fish for food, trade and as fishing bait (Lassuy 1989:6). Faunal remains from Butler and Campbell's 2004 study using 38 south-central Pacific Northwest assemblages from Alaska through Washington indicate that the Herring, relative to other fish utilized by tribes in this region of the Pacific Northwest, is ranked fifth in abundance- the frequency of assemblages in which Herrings were the taxa with the first rank. In addition, the Pacific Herring is present in 28 of the 38 assemblages considered for ranking (Butler and Campbell 2004: 361).

Part of the usefulness and popularity of the Herring as a food source was its drying ability- salted and dried it maintained its oily content and served as an excellent winter fat source. Herring also had a dual seasonal availability. The roe were harvested in the early spring, by the use of netting that was suspended in the waters in which the Herring came to spawn. The roe was eaten fresh or salted and cured. During the early fall, the Herring moved into deeper waters and coastal tribes went out into the waters to fish for them. The methods for obtaining and processing the catch vary by tribe, although there are similarities in the treatments of the fish. To illustrate the past use of Herring by Native American tribes I have selected three case studies: the Tlingit of the Alaskan coast, the Aalsea of the Oregon Coast, and the Snohomish of Puget Sound, Washington.

The Tlingit people relied primarily on fishing resources (De Laguna 1972:102). Living in a very seasonal environment, they placed great importance on resources that could be stored and kept for winter months. Although the fatty Herring was widely harvested both as roe and as adults, there was no seasonal celebration or ritual associated with Herring fishing as there was with salmon (De Laguna 1972:102-103).

Fishing for the Tlingit was a male activity (De Laguna 1972:102). The placing of weirs to gather the roe of the Herring in early spring was also carried out by males, as the traps must be brought in by canoe with hooks and nets. The Tlingit also utilized the long kelp native to the waters to gather the Herring eggs, and fished the kelp in strands from the water to scrape off the roe (De Laguna 1972:118). Fishing for adult Herring was done primarily with long handled fishing 'rakes', spruce staffs with nails driven into a flattened end. The rake was trolled through the water and then lifted, in the manner of an oar, to remove the impaled fish (De Laguna 1972:119).

Once the fish were caught, the processing began. Herring could be roasted whole while they were fresh, but most frequently they were dried and the oil extracted to store and to trade. The oil from the Herring and the Eulachon were very valuable commodities for trade with other coastal tribes and inland tribes (De Laguna 1972:102, 119).

Similar to the Tlingit, the Alsea of Oregon did not have a ceremony or a ritual to initiate the Herring seasons. The Alsea were also a fisher people, and they practiced logistical mobility: movement from one living site to the next on a seasonal basis in pursuit of resources. Like the Tlingit, they were documented to use a fishing rake at times, but they preferred a scoop net, a wooden staff with a circular end that was fitted with a conical woven net. Not much detail is given about the preparation of Herring, but as they are listed as a resource for oil and high fat content, and drying given for the primary means of fish preservation by the Alsea, one may assume they are cured in a method similar to the Tlingit's. (Drucker 1939: 82-83).

The Snohomish of the Puget Sound were primarily coastal fishing people as well. They caught Herring in addition to smelt (Eulachon) and other small fish prized for their fat content. It is stated that they caught Herring "in abundance" and dried it "in large quantities" (Haerberlin 1930: 21). Like the Tlingit, the Snohomish used fishing rakes, theirs constructed from cedar wood, to catch the adult fish. This activity took place at night or in late evening (Haerberlin 1930: 28).

Current uses and fishery practices for Pacific Herring show many similarities to past tribal use. Herring fisheries still abound on the Northwest coastline, from California to Alaska, and are still a large part of local food economy, particularly for the native peoples of the regions (Lassuy 1989:6). However, the most lucrative avenue in Herring fisheries today is the harvesting and production of roe, which is primarily shipped to Japan (Lassuy 1989:6-7). Recently, in the 1980s, the Tlingit practice of harvesting roe on the leaves of native sea kelp resurrected. "Spawn-on-kelp" is now a prized delicacy in Japan, and commands a high price on the International market. Port Gamble Bay, Washington and Coos Bay, Oregon, are two places experimenting with Native American-run "spawn-on-kelp" farms. With development this lucrative avenue could be used to assist the economies of local tribes (Lassuy 1989:8).

Although Salmon fisheries net a larger annual profit (Langdon-Pollock 2004) Herring fisheries and maintained stocks in Oregon, Washington and California, Alaska and Canada bring in enough revenue to cause concern among legislatures over declining Herring numbers (Lassuy 1989, O'Neill 2001, Carls 2002).

### **Current Status**

The Pacific Herring is still, in most waters of its natural habitat, considered an abundant species (Stout et al 2001). However, in the last decade, the numbers of Pacific Herring across the Northwest coast have dwindled (Stout et al 2001, Carls 2002, O'Neill 2001). In the Prince William Sound in Alaska, the year of 1993 saw a sharp decline in Herring numbers following the Exxon Mobil oil tanker spill in March of 1989 which dropped more than 40 million litres of crude oil directly on the spawning grounds of the Pacific Herring during their peak spawning month (Carls 2002: 153). Because of the conditions required by the Herring roe for proper development, disturbance and contaminants in water such as chemical or heat pollution, dredging or dumping of debris or trawling of boats in intertidal spawning water can damage or exterminate a season of eggs. Many current studies (Stout et al 2001, Carls 2002, O'Neill 2001, Lassuy 1989) argue that human development has posed a significant threat to the Pacific Herring population by disturbing the spawning inlets of the Herring and affecting the Herring when they are most vulnerable (Norcross 2001). Overall, these studies suggest that Herring are negatively impacted by human modification of their habitat.

Several areas (Puget Sound, Georgia Basin) have moved to include their population of Pacific Herring on the endangered species list as a "distinct population segment (DPS) of vertebrate species or subspecies threatened or

endangered [if] severe declines in abundance are indicated or substantial risks are facing the species” (Stout et al 2001: 1). In a case study, Puget Sound in Washington made such a movement, but was not rewarded with an ‘Endangered’ status for its population of Herring. The Biological Review Team (BRT), composed of federal biological scientists, did not consider the Puget Sound Herring ‘Endangered’ because the “tendency for Herring to stray among spawning sites” would make re-colonization of the under-populated areas feasible. The author of the case study argues that because Herring are very area specific, even to the point of morphological changes in populations only a few miles apart (Stout et al 2001: 20-23), simple relocation will not help the local population expand. The author suggests hearing the views of a zooarchaeologist in order to explore the past of the Herring populations and see if relocation could work for specific similar morphological populations or if it would be impossible as a conservationist tactic (Stout et al 2001: 4-5).

Local fisheries in California, Oregon and Washington hold stocks of Herring in known spawning areas in hopes of inducing a rise in local populations (Lassuy 1989: 9). However, many studies on the vulnerability of larval Herring have led scientists and researchers to suggest that fisheries and legislature focus on the preservation and protection of roe and spawning sites for Pacific Herring and not on the protection of adult Herring or preservations and reserves in deeper, off-the-coast waters (Lassuy 1989, Carls 2002, Stout et al 2001, Norcross 2001, Livingston 1993, O’Neill 2001). This debate is an area in which zooarchaeology could be useful. The argument here is between those who believe that the solution to local under-population is the transplant of more abundant populations from spatially adjacent habitats and those who feel that environmental and habitat challenges to young Herring are the primary cause of population failure. Zooarchaeologists have the opportunity to show the effects of environment on Herring populations in the past, and the change in populations of Herring over time which make them area-specific in their habits, spawning and morphology and feeding habits/preferences. Biologists have concerned themselves in the Herring debate for this past decade and advanced the knowledge of Herring ecology and life cycles tremendously. But as several researchers have noted (Stout et al 2001, O’Neill 2001, Lassuy 1989), it is time to look to the past and see what long-term effects have acted on the Pacific Northwest Herring populations if we are to make long-term plans for the future.

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### Bibliography

- Butler, Virginia and Campbell, Sarah  
2004 Resource Intensification and Resource Depression in the Pacific Northwest of North America: A Zooarchaeological Review *Journal of World Prehistory* 18:4.
- Carls, M. G., Marty, G. D. and Hose, J. E.  
2002 Synthesis of the Toxilogical impacts of the *Exxon Valdez* oil spill on Pacific Herring (*Clupea Pallasii*) in Prince William Sound, Alaska, U.S.A. *Canada Journal of Fish and Aquatic Science* 59:153-172.
- Drucker, Philip  
1939 *Contributions to Alsea ethnography*, by Philip Drucker ... Berkeley, Calif., University of California Press.
- Emmons, George Thornton  
1991 *The Tlingit Indians / George Thornton Emmons ; edited with additions by Frederica de Laguna and a biography by Jean Low* Seattle : University of Washington Press; New York : American Museum of Natural History.
- Haeberlin, Herman Karl  
1930 *The Indians of Puget sound*, by Hermann Haeberlin and Erna Gunther Seattle, Wash., University of Washington press.
- Langdon-Pollock, Jennifer  
2004 *West Coast Marine Fishing Community Descriptions* Pacific States Marine Fisheries Commission, Portland, OR
- Lassuy, Dennis  
1989 *Species Profiles: Life Histories and Environmental Requirements of Coastal Fishes and Invertebrates (Pacific Northwest): PACIFIC HERRING* U.S. Department of the Interior Fish and Wildlife Service Research and Development National Wetlands Research Center, Washington, DC.
- Livingston, P.A.  
1993 Importance of predation by Groundfish, marine mammals and birds on walleye Pollock *Theragra chalcogramma* and Pacific Herring *Clupea pallasii* in the eastern Bering sea *Marine Ecology Progress Series* 102:205-215.

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Norcross et al.

2001 A Synthesis of the life history and ecology of juvenile Pacific herring in Prince William Sound, Alaska *Fisheries Oceanography* 10:1. 42-57.

O'Neill, Sandra and West, James

2001 *Exposure of Pacific Herring (Clupea Pallasii) to Persistent Organic Pollutants in Puget Sound and the Georgia Basin* Washington State Department of Fish and Wildlife, Puget Sound Research.

Stout et al.

2001 *Status Review of Pacific Herring (Clupea Pallasii) in Puget Sound, Washington Approaches to the Species Question* U.S. Dept. Commer., NOAA Tech. Memo. NMFS-NWFSC- 45, 175.

Suttles, Wayne P.

1974 *The economic life of the Coast Salish of Haro and Rosario Straits* [by] Wayne P. Suttles New York, Garland Pub. Inc.

# BOOK REVIEWS

## A GROUP CALLED WOMEN: SISTERHOOD AND SYMBOLISM IN THE FEMINIST MOVEMENT JOAN CASSELL, 1977

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This book is an account of the author's dissertation fieldwork while participating in the New York City women's movement from 1971 to 1973. The book is separated into two parts, the first concerning the processes by which a woman becomes a feminist and the second concerning structure and symbolism in the women's movement. Cassell states "this book discusses a contemporary urban social movement...[therefore] it is easier for them to challenge my observations and interpretations. I cannot even present myself as an 'objective' observer" (p. ix). With this in mind, she is still able to maintain a slight sense of detachment due to commitments outside the feminist movement – indeed, she writes that others may "find me a half-baked feminist" (p. xii).

Throughout the work, Cassell illuminates the different phases through which various women's movements progress (e.g., New York's movement versus that of another city) noting that each movement seems to follow a similar pattern. According to Cassell, a woman usually first becomes a feminist through a consciousness raising experience by acknowledging that she suffers systemic oppression – oppression can occur in any area of life, whether domestic, professional, or academic. This consciousness raising occurs in a group setting and helps women reify previously unknown deficiencies in their lives. Common themes are usually present and allow these women to experience the bonds and solidarity that come with "sisterhood" and redefining one's identity.

Cassell provides a case study of a consciousness raising group (p. 38) comprised mostly of women in their twenties (save one who was thirty-five) that lasted approximately a year. The case study explores the somewhat successful efforts of these women to improve their life situations and develop

intimate and meaningful friendships with other women. The group was mostly non-militant/non-activist and instead members focused on sharing a “sense of commonality in feelings and experiences” (p. 49). The remainder of Part 1 focuses on the transformation of women into either “reform” feminists or “radical” feminists, reform being those whose logic dictates working within the limits of the patriarchal system for change and radical being those whose logical extreme might be “outing” oneself as a lesbian and severing most, if not all, ties with men. As Cassell states, “if a raised consciousness [is defined by] a woman's segregation from the outside world, then the lesbian feminist...has a very high consciousness indeed” (p. 81).

The second part of Cassell's book deals with structure and symbolism as perceived by both factions (women's rights and women's liberation) within the women's movement. It seems as though Cassell spends an inordinate amount of time in this part of the work dealing with women's liberation and how other parts of the movement and outside society compare to that faction, though this can be explained in that Cassell spent more time working within women's liberation groups. Additionally, women's liberation groups tend to be the most radical and are more easily contrasted against others. Radical women's liberation groups, and to a certain extent more traditional women's rights groups, are primarily focused on a sense of radical egalitarianism in which all women are treated as possessing equal potential, though a myriad of factors (usually attributed to inadequate or male-dominated socialization) prevent women from self-actualizing this potential. These groups attempt to negate these factors by dispensing with regular leadership, using a complete consensus form of decision making, alternating roles that each person serves within the group, and actively encouraging new recruits and novices to participate. Cassell uses Gerlach and Hine's multigroup model (p. 107) to examine functional dynamics within these groups and comes to the conclusion that a group's stated goals are often contradictory to the way the group actually functions. She finds for example that consensus decision making often leads to inaction or belayed actions as members come and go while trying to formalize objectives. She also notes that women who are self-actualized and possess high abilities are often forced out or excluded from groups when they display ability with the reasoning being that they are “elitist” (p. 128) or displaying male characteristics – several times throughout the work, Cassell's informants say that radical egalitarianism or collective efforts are the “woman's way” while power and coercion are the “man's way.”

It appears that Cassell identified with the women she observed though in some instances she expressed disdain for the manner in which women's liberation participants treated her in her second year of research. Though somewhat repetitive, the book was effective in detailing processes by which the 1960s and 1970s

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New York City feminist movement gained traction and influenced contemporary society. It provides an easy to understand introduction to feminist concepts with only minimal theory and is suitable for undergraduates in all disciplines or those with limited knowledge of feminism.

IN ONE'S OWN SHADOW: AN ETHNOGRAPHIC ACCOUNT  
OF THE CONDITION OF POST-REFORM RURAL CHINA  
XIN LIU, 2000

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*In One's Own Shadow*, written by Xin Liu, is an ethnography about the daily lives of the people of Zhaojiahe, a rural village in central China. In his account, Liu uses a variety of structuralist and postmodernistic theories along with folk models to explain "everyday practice" of the Zhaojiahe villagers. He highlights how social, political and economic changes in China in the last hundred years transformed the nature of everyday practice.

In the introductory section of *In One's Own Shadow*, Liu gives necessary background information about China and the villagers he studied. Because the book relates daily activities to changes through time, Liu explains how he has divided the twentieth century into traditional, the Maoist era, social reform or revolution (late 1970s through the 1980s), and the present (1990s). He makes an interesting point in that the peasants of China, such as the villagers of Zhaojiahe, are a necessary element of the modern social reform campaign. Without a "backward" group of people, the modernized population has no one to measure themselves against. This renders rural peasants simultaneously necessary and unwanted.

Even though they feel backwards, the villagers Liu studied, desire modernization. They want expensive items and hold those from cities in high esteem, but at the same time they are suspicious of modernization. Modernization is characterized by three main changes, in Liu's opinion. It has meant a loss of collectivism, greater individualism and all the fear and empowerment associated with personal choices. Secondly, it has increased social stratification and a desire for money. Thirdly, through modernization people have lost control in the government. Because of these modern developments, many view Maoist era in retrospect as a dreamworld, "not for what it had actually offered but for what it had

promised” (14). According to Liu, villagers view their lives as increasingly disenchanting and he paints a good picture of this general despondency through vignettes of their daily lives.

The notion of practice is a central theme to the book. Liu strives to look for the relationship between experience and performance in the everyday, ordinary actions and habits of the villagers. According to Liu, much of practice is subconscious and practitioners do not even realize how or why what they do has evolved. To break it down by section, in the first part, Liu theoretically analyzes how everyday practice concerning kinship, marriage and food has been transformed from the traditional era, to the Maoist era, through reform and modernization. He claims the second part of the book focuses on “practice from the perspective of the actors” (109). This section contains more vignettes of daily life, but is not without analysis from Liu’s and others’ viewpoints.

Certainly, Liu’s continual quest to pin down the subconscious reasons or motives behind practice can get convoluted at times. He teeters between various theoretical paradigms and is occasionally unclear whether or not he supports or disapproves of specific theoretical methods. This occurs in Chapter 4 when Liu gets caught up in abstract binary reductionism using structuralist theory to explain how food and everyday practice associated with food (i.e. preparation, attending feasts, gift giving, planting, etc.) has been transformed through the Maoist era, revolution and into modern times. Ironically, in Chapter 5, Liu discredits the very kind of structural analysis just performed by saying it “is limited by its too-exclusive focus on systems of classification,” which fosters a high degree of conceptual abstraction in analyzing types of society” (128). Not all of Liu’s analyses were so contradictory or inappropriate. Some were helpful in understanding the material, like when he applied a structural analysis to kinship and family organization.

A downfall of *In One’s Own Shadow* is Liu’s apparent confusion about emic analysis in his study. The second main section of the book “The Logic of Practice” is not always logical. In this section, he claims he wants to portray everyday practice from the villagers’ viewpoints. This is in contrast with one of his main goals for the book – to look at how actions get performed and experienced subconsciously. In China, Liu claims, there is no connection between societal forces and emotions so actions are usually not directly related to individual emotions, but rather to what society prescribes. If he believes the motivations behind practice are subconscious to the actors then how can they explain them? Liu’s harsh and disabling statement “they cannot satisfactorily explain their own behaviors” (113-114) is fatal to his emic analysis.

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Sometimes ethnographies focus on extraordinary events. In *One's Own Shadow* is an interesting account of ordinary, everyday lives. Despite Liu's periodic analytical confusion, he presents great stories and shows how practice has been transformed historically by social, political and economic changes. Perhaps, the average person would appreciate the everyday stories and learning about some idiosyncrasies of peasant villagers in rural China during the 1990s. Professional anthropologists and graduate students who know about different theoretical paradigms would probably get the most out of Liu's ethnography.

## DUDE, YOU'RE A FAG: MASCULINITY AND SEXUALITY IN HIGH SCHOOL C.J. PASCOE, 2007

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This book is a product of Pascoe's dissertation work at University of California, where she received a Ph. D. in sociology. She states that the purpose of the book is to reveal how high school students, teachers, and administrators effect and control the production of "adolescent masculinity" through language (p.4). The relationship between gender and sexuality is examined to show how they "reinforce and challenge inequality among students" (p.18). She also looks at how race affects sexuality and masculinity. Pascoe performs her research through interviews and observations, where she places an emphasis on school rituals. These rituals are analyzed to show how discourse is used in the construction of masculinity.

Pascoe states that sexuality "refers to sex acts and sexual identities" as well as the meanings produced through both of these (p.10). She uses gender and queer theory to assess how the organization of sexual life and sexual knowledge is influenced by "institutional and interactional practices" (p.11) Pascoe takes a postmodern approach to her research by analyzing traditional categories such as "male/female, masculine/feminine, and straight/gay" in a non-traditional way (p.11). These categories are examined not just to reveal their structure and function, but also to show how they are created, maintained, and dismantled.

Pascoe's research is not of an entire culture, but of a middle class, suburban high school. The town is very similar to other middle class towns in the United States in reference to who "attended college, marriage rates, and age distribution" (p.18). Pascoe spent 1.5 years at River High, where she used the traditional methods of interviews and observations to acquire information. She interviewed students, teachers, and administrators. Her observational settings included classrooms and school rituals, such as football games, school dances and drama performances.

Pascoe looks at sexual discourse throughout chapters two and three. Chapter two primarily assesses how the institution reinforces the construction of sexuality through disciplinary practices and school rituals. Chapter three looks at

fag discourse as a temporary identity and its ability to “serve as a discourse with which boys discipline themselves and each other through joking relationships” (p.54). Being labeled a fag represents a boy’s failure or inability to perform a masculine task or the expression of a feminine quality. Through fag name calling the name caller reinforces their own masculinity and diminishes others. Pascoe also finds that fag discourse is used differently among white boys and African American boys. Different behaviors are defined as fag by the two social groups and African American boys do not use fag in name calling as much as white boys. I would like to have seen information on the relationships between fag discourse and Latino boys at River High, especially since they make up a larger percentage of the population at the school than African American boys.

Pascoe remains holistic in the respect that she looks at masculinity from the perspective of masculine boys, feminine boys, and masculine girls. The use and effects of fag discourse on Ricky, an openly gay boy at River High, are shown to be very different from heterosexual boys. He was harassed in the form of name calling and violence. Pascoe found that Ricky avoided “highly sexualized or masculinized school events” in order to protect himself from violence (p.71). She found that masculine girls tended to challenge gender convictions while still having the possibility to be popular. Girls deal with “masculinity processes of repudiation and confirmation” through “capitulation, subversion, and criticism” (p.162). Masculinity in females is sometimes viewed as acceptable. This suggests that the meaning of masculinity is not universally applied. It is different for masculine boys, feminine boys, and masculine girls.

Pascoe suggests that the study of masculinity be intertwined with feminist studies of gender. Since masculinity is not universal it is crucial to “attend to the manipulation, deployment, and enactment of varieties of masculinity” (p.166). Masculinity should not just be studied from the perspective of men. Instead, it should be “a study of the creation of gendered selves and resistance to normative gender identities” (p.167). This allows gender inequality to be taken into account in masculine studies.

Pascoe ends by making recommendations for change concerning issues such as gender inequality and the protection of “gay, lesbian, bisexual, transgendered and other non-normatively gendered students” (p.167). She suggests the implementation of organizations and other resources that could help educators and parents to foster sexual and gender equality in the educational system. Pascoe also says that educators can produce equality by enforcing legislation that protects minorities and through the use of posters, speakers, and assemblies that deter homophobia and sexism. School rituals should be reorganized so that they are not “heterosexist, homophobic and sexist” (p.171). Pascoe places the responsibility on adults to help develop masculine identities that do not facilitate negative outcomes.

I would suggest this ethnography be used at the undergraduate and graduate level. It is easy to read and very informative. Not only is the information interesting and relevant to our society, but Pascoe's book is a great representation of ethnographic protocol. The entire first chapter is dedicated to giving the reader enough background information to understand the concepts she will discuss. It also outlines the whole book for the reader. Pascoe follows through with her purpose and outline. She does exactly what she says she will. She concludes by making suggestions for further research and how that research could be performed.

## INTRODUCTION TO DOCUMENTARY BILL NICHOLS, 2001

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Bill Nichols is a frequently read and important author when it comes to the subject of documentary filmmaking and the problems of documentary (Nichols 1991, 1994). The book *Introduction to Documentary* examines the subject of documentary film in a way that is engaging to students who are in need of an introductory text with the appliance of a somewhat loose formal grouping of categories to aid in thinking about the subject.

The introduction sets up some of the problems in the definitions of documentary as a film genre and makes transparent the fact that the films chosen for discussion in the text are not intended to be considered essential films for the understanding of documentary. Bill Nichols is careful to note: “I have tried to avoid constructing a canon. Such an approach carries implications about how history works (great artists, great works lead the way)” (p. xv).

Each chapter heading is phrased as a question. Chapter one, “Why are ethical issues central to documentary filmmaking?” (p. 1-19) begins the book with one of the elemental questions of documentary production. That question is “What are the filmmaker’s responsibilities?” Following this discussion of the social role of documentary film (and obligations of the filmmaker), the discussion turns to the problems of definition. Chapter two is titled “How do documentaries differ from other types of film?” (p. 20-41). This chapter is followed by a discussion of how the documentary film definition has led to a unique format for documentaries to present their subject. It can be the result of the institution which funds the documentary (p. 22-25) or it can be a response to the needs of viewers (p. 35-40).

Chapter three (p. 42-60) deals with the differences of “voice” in documentary, particularly how the subject is articulated by the filmmaker and the film subject’s own statements. This chapter also discusses the role of narration and how narration through memory provides framing of events. This is followed nicely by a chapter which presents the communicative aspects of documentary through abstraction (p. 65-68), persuasion (p. 68-73) and presentation of metaphor (p. 73-81).

Chapter five (p. 82-98) presents a short history of documentary filmmaking, quickly followed by a chapter which presents a grouping of formal categories: poetic (p. 102-105), expository (p. 105-109), observational (p. 109-115), participatory (p. 115-124), reflexive (p. 124-130), and performative (p. 130-137). The author is quick to note that this frame work is loose and a work is likely to overlap more than one category (p. 99-100).

Chapter seven (p. 139-167) discusses the cultural and social issues that documentaries must engage and the different approaches to reportage and advocacy. A consideration of issue oriented documentaries is whether the people presented in the film are considered victims or if they are agents of the situation. Nichols also divides this use of documentary film into categories of social issues and personal portraits based on there presentational aspects found in the construction of the film, the films tone and the way in which social actors are framed within the film.

The final chapter (p.168-177) provides some ideas about how students should write about documentary film. The author gives some insight into how a student might approach writing about a particular film, with some examples of essays based on the viewing of a film. This section was a good inclusion since writing about film can easily stray into personal responses to the film (or its subject matter) and film synopses of any information presented in the film. The deeper questions about presentation, filmic reality, narrative construction and other elements of the documentary form are not so readily accessible to the student. Having some instruction on how to approach the documentary subject both critically and interpretively is a good inclusion and appropriate conclusion to the book.

I found this book to be very insightful and useful as an introductory text on the subject. The development of a loose category of documentary types is very useful in providing a conceptual framework to allow discussion and comparison of documentaries. Nichols has a self-conscious recognition of the fluidity of his categories, and the films which we attribute to these categories, is commendable. The chapter dealing with the history of documentary film could have been longer, but a more appropriate treatment of the history of documentary film

is presented in books like Jack C. Ellis and Betsy A. McLane's *A New History of Documentary Film* (2005).

The book features copious references to documentary film examples. There are so many films mentioned that you cannot expect a student to have seen all of them, but the high number of examples insures that a student has hopefully seen a few of the films mentioned and gives the instructor a representative pool to select class screenings from. Books about film often have the difficult task of choosing examples from among a group of films where availability from a distributor can be unsure. A good portion of the films Nichols writes about are not going to be too difficult to find.

*Introduction to Documentary* is an indispensable book for understanding documentary film. It does not provide great detail about production techniques or great depth about film history. As stated earlier, this is better served by other texts. As a painless introduction into how a student can think critically about documentaries it is exceptional. While the author's qualitative attributions are admittedly reductionist in some senses, they provide a generalist framework that is not possible otherwise.

### **Bibliography**

- Ellis, Jack C. and Betsy A. McLane  
2005 *A New History of Documentary Film*. New York, NY: The Continuum International Publishing Group.
- Nichols, Bill  
1991 *Representing Reality: Issues and Concepts in Documentary*. Bloomington, IN: Indiana University Press.  
1994 *Blurred Boundaries: Questions of Meaning in Contemporary Culture*. Bloomington, IN: Indiana University Press.

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We are currently seeking book reviews in all four fields of anthropology (cultural, biological, archeology, and linguistics) for future volumes. Please note that book reviews are accepted on a continuing basis. All book reviews submitted to *Lambda Alpha Journal* become the property of Lambda Alpha. To see guidelines for the submission of book, article or film reviews, please see the current issues of the *American Anthropologist*.

Book reviews should include, the full title of the book , the full name of the author and year in which it was published, author's name, department, and university. Book reviews should not exceed 2-5 pages. All book reviews *must* be in Microsoft Word or ASCII-Text format and should be submitted on a CD or as an e-mail attachment. You can send your book reviews via e-mail to [pmojan@wichita.edu](mailto:pmojan@wichita.edu) or vial mail to the following address:

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## ABSTRACTS

**Laura Bennett, Wichita State University**  
***Determining Burn Patterns***

Various studies and experiments were carried out to examine to what extent the skeletal remains of a burned body can provide information regarding the origin of a fire and the travel pattern of a fire. A secondary objective of this research project addressed a common conclusion that the human cranium will explode, once subjected to the pressures of high heat. A post-burn examination of the skeletal remains included observation of the burn patterns on the bones and seeks to identify the travel pattern of the fire as it moves across the body. The determination of the direction of fire is based on the observation and recording of various colors changes throughout the post-burn skeletal remains subsequent to exposure to fire and heat. Conditions affecting the outcome of the results, including the use of "head" shroud and a less than complete cadaver are discussed

**Kristen Bernard, Wichita State University**  
***How much is that Doggie in the Window? Taphonomic Analysis of Faunal Remains***

Many experiments and/or research projects have been performed on human and animal remains to examine the taphonomic processes that occur in different settings. A particular setting of interest found after extensive library research that has not been performed is the taphonomic events of specimens (animal or human) in a sealed or unsealed plastic container. This topic is of interest in the forensic setting because decaying human bodies in several documented cases in the past decade or so have been found in sealed plastic garbage cans or other plastic containers. The purpose of this research project is to study and record the decomposition rates of *Canis familiaris* (domestic dog) in a sealed plastic container versus an unsealed plastic container. Two questions to be answered from this research project are: Are there differences in rates of decomposition between a sealed versus unsealed container? Is decomposition slowed or does it occur at a faster rate? Two canids were placed in separate containers, with one lid sealed in place and the other lid latched, but unsealed. The remains were examined once a week over a five week period via a window to prevent disturbance. Several variables were recorded, including temperature and humidity levels. The results from this experiment may be able to shed some light in the case of examining human remains found in sealed or unsealed plastic containers.

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**Travis Cagle, *Wichita State University***  
***From the Little Old Men to Peyote Religion: The Osage Take a New Road***

Francis La Flesche was a member of the Omaha Indian tribe and an anthropologist with the Bureau of American Ethnology in the early 20<sup>th</sup> century. His work involved studying tribal religions, which he regarded as the pinnacle of a people's intellectual progress, to correct erroneous perceptions of Native Americans. He discovered that his personal perceptions needed correction in the case of the Osage, a tribe related to the Omaha. Their religion, comparatively vast and complex, was more than La Flesche expected to find. His ethnographic work, along with reports from early explorers and tribal oral history, demonstrates how the tribe held to its traditional culture through the proto-historic period until the late 1800s, when political and environmental changes forced them to consider another way of life. This brief paper describes the original religion of the Osage, how it guided the tribe in all matters, and outlines the changes over time that resulted in a new road for their people.

**Jeremy Cleek, *Wichita State University***  
***The Inheritance of Criminality***

Biologists, criminologists, and other various scholars have tried for the past century to determine if there is a link between genetics and criminal behavior. There have been three main research designs developed which include family studies, twin studies, and adoption studies. I intend to elaborate on these designs to discover the true value of the results as well as discuss the scientists' findings. All three schemes have potential substance; however, the real issue that will be integrated into this presentation is whether or not they were actually able to eliminate the environmental factor from the genetic equation. After conducting the review of the studies, this paper concludes that there could be a possible genetic link that predisposes individuals to criminal and anti-social behavior.

**Derek Cox, *Wichita State University***  
***The Origins of Agriculture in the Fertile Crescent: Applying the Stress Model to the Archaeological Record***

The transition from subsistence pattern of foraging to one that involves the intentional planting and harvesting of crops was perhaps the most profound occurrence in human history. This transition occurred independently in different regions and quickly spread throughout the world, forever changing the ways in which human societies survive and interact. Many archaeologists agree that the first steps toward domestication were taken in an area of the Near East known as the Fertile Crescent. Theories as to how and why this series of events took place differ. This paper will

propose that an ecological paradigm known as the stress model can be applied to the archaeological record of this region to explain how and why this transition in subsistence patterns occurred, and demonstrate how climate change and population pressure were the precursors of this event. Collectively, this information will show how this distinctively human innovation was not an invention to improve quality of life, but rather a necessary effort insure the continued survival of an increasing population in a changing environment.

**Matthew Harms, *Wichita State University***

***Fencing Mountains and Appetites: A New Zealand Community's Culture of Conservation***

The Māori and Pakehā (non-Māori New Zealander-European descent) bicultural society in a rural community around Mount Maungatautari, New Zealand, seems to have overcome some significant culturally-embedded differences as exhibited in the collaboration of a large-scale and complex conservation project, that is devoid of government control and funding. The emergence of this and other such community-initiated projects in New Zealand compels an examination to determine the factors attendant to the emergence of such projects. A comparison of Hawaii's state of community conservation is felt to highlight those key factors. Through the comparison, common Polynesian and Western cultural-historical factors emerge, and the New Zealand community's key factors of cross-cultural communication and collaboration are made visible. Maori-Polynesian culture and values are seen to influence the present stage of collaboration, with the elements of valuing differences, the maintenance of strong ties to land through tribal organization, tribal land recognition, intact culture and identity transmission, and a willingness to apply their own notions of *tapu* (sacred restriction or removal from the sphere of the profane) to suspend other cherished cultural traditions, allowing the regeneration of species. Pākehā culture in this project stems from the re-visioning of New Zealand as a nation intended to be a bicultural society by both group's ancestors in the 1840 Treaty of Waitangi, international discourses of environmentalism and the value of indigenous knowledge, and the cultivation of a "kiwi" identity that boasts multiple generational ties and affection to land.

**Sandi Kana Harvey, *Wichita State University***

***Champuru Dreams: The Making of Okinawan Popular Music***

In discussing the connection between culture and folk songs, Alan Lomax states, "Song style symbolizes and reinforces certain important aspects of social structure in all cultures."

In the early 1990s, the global community started to take notice of Okinawa's musical hybridization, which mixes traditional *min'yo* (folk songs) and *shima uta* (island songs) with Western musical elements. The uniqueness of Okinawan popular music will be explained by recognizing its main components: the use of indigenous language, traditional instruments and specific themes found in traditional Okinawan culture, which is embedded in the style, performance and lyrical content. Okinawan popular music presents a symbolic construct to explain the relationship between the global (capitalized market) and the local (maintenance of cultural heritage). By analyzing the making of Okinawan popular music through historical, social, economical and political systems, I hope to identify aspects of Okinawan identity and to further situate the Okinawan experience through my observations made in July of 2007 and January of 2008 on the main island of Okinawa.

**Benjamin Henry, Wichita State University**  
***Culture in Transition: Observations Among the Kekchi Maya***

Cultural change is observed in the everyday patterns of human activity. When witness to a culture in flux, how do anthropologists' perceptions of that culture change as they interact with its members, and perhaps as importantly, how do the perceptions of those from that culture change in regard to us, the "observer"? Indeed, who really is the "observer"? This essay is an attempt to contribute to a number of related discussions on culture in transition. Drawing on my experiences with Kekchi Maya in Belize, and with inspiration from the fieldwork of noted anthropologists such as Nigel Barley, this essay looks at the Kekchi Maya as one such "culture in transition". I work to identify not only some of the key markers of cultural change within this Kekchi community, but some of the changing and often contrasting perceptions of both the "observer" and the "observed".

**Julie Holt, Wichita State University**  
***Cat Scratch Fever: The Effect of Grain on Decomposition***

The rate of decomposition of human remains varies with what condition the remains are in and grain elevators are no exception. Whether or not the remains being enveloped in grain will effect decomposition and why this would be was examined for this paper. Two deceased feline specimens were placed in containers simulating sealed grain elevators for six months during various weather conditions. Initial expectations were that the grain would wick away any moisture and the combination of no air flow or insect activity would result in mummification of the remains. There has been no obvious external change in the specimens which leads this researcher to believe that the remains have become mummified due to the conditions they have been placed in.

**Shannon Kraus, *Wichita State University***  
***Opening of the Mouth: Death and Rebirth in Ancient Egypt***

The 'Opening of the Mouth' is the ancient Egyptian title of a ritual that originated in the Old Kingdom and was practiced up to the Roman, or Ptolemy, Period. It has been known to have been performed on statues and also, from the New Kingdom (1570-1085BC) at least, coffins. The ritual consists of ritualistic use of tools and designated people to touch the mouth and eyes of the image to enable a spirit to receive food and drink, therefore allowing the soul (or ka) of the deceased to re-inhabit their body so they may live again in the Afterlife. In looking at this ritual, it provides us valuable insight into the ritual expressions of ancient Egyptian religion as well as the evolution of the rite itself.

**Nick Macaluso, *Wichita State University***  
***Continuing to Define the Pratt Complex***

The following presentation is a brief account of the archaeological background and history of the Pratt complex. It also addresses the progress of a current project to catalog sites 14PT1, 14PT301, 14PT302 and 14PT409. The paper reports on the material assemblages from these sites with a display of artifact photographs and charts developed from excel spreadsheets, statistically describing the site inventories held at Wichita State University's Department of Anthropology. All materials are from Pratt County, Kansas, and are made up of surface collections donated to the Wichita State University Anthropology Department by local avocational archaeologists. Finally, an attempt is made to construct a more developed description of the Pratt complex by detailing the frequencies of the material assemblages at each site.

**Jan Mead-Moehring, *Wichita State University***  
***A Primatological Conundrum: Where Do We Go From Here?***

Ape populations are dwindling in Asia and Africa due to the logging industry and human encroachment and exploitation. It has been estimated that free-living ape populations may be extinct in the next fifteen to twenty years. In the last fifty years, many breakthroughs have been made into the understanding of free-living and captive ape behaviors which have given scholars insight into ape, and human evolution. But the future of these studies is as bleak as the future of the apes themselves, since one is tied symbiotically with the other. This literature review is a discussion of primate studies and their impact on the understanding of free living and captive ape populations. The genetic closeness to our ape cousins has been answered by geneticists, but the presence or absence of human-like cognitive abilities, culture, and language is presently being debated in scholarly forums.

**David Muskus, Wichita State University**

***The Zyba Site: An Archaeological Assemblage in Sumner County, Kansas***

The Zyba Site is an archaeological component associated with the Late Ceramic Period, located in Sumner County. The Zyba Site is believed to be an agricultural site. Some of the artifacts collected are projectile points, end scrapers, a variety of knives, animal bones, and a few other interesting artifacts. According to the collector he said there was evidence of trade at the Zyba Site. He found numerous obsidian flakes and some turquoise beads which were not very common in the part of Kansas, the site is in. As far as I can tell from my research and looking at the artifacts and talking to the collector the people of the Zyba Site may have been horticulturalists.

**Evan Muzzall, Wichita State University**

***Morphological Variation Among Central European And Recent U.S. Immigrant Skeletal Samples***

This paper investigates secular trends between modern Central European populations and recent U.S. immigrants. Although human growth is largely genetic, human skeletal plasticity is affected by socioeconomic factors to varying degrees. By comparing class-specific socioeconomic statuses, we can elucidate potential causes of differences between the mean heights of populations representing different social strata. This presentation comments on potential differences and similarities between and among modern Central European populations and recent U.S. immigrants and the future potential of secular trend studies concerning socioeconomic effects of human skeletal plasticity in relation to group heterogeneity, growth, and development.

**Carol Shallue and Brent Weeks, Wichita State University**

***Lost in the Park: Using GPS/GIS Technology to Enhance Recording Accuracy in Field Archaeology***

In response to the growing emphasis on electronic applications in field recovery and documentation in anthropology, this paper identifies recent developments using GIS in archaeological investigations performed by WSU.

**Amber C. Schrag, Wichita State University**

***In the Shadows of the Big Houses: Excavations at a Non-Elite Residential Group at Uxbenká, Belize***

Households inform us about social relationships in ways that public-centered research might exclude. Studies of non-elite settlements are also an excellent way to

bring attention to the rich diversity that characterized pre-Columbian society. Surprisingly little is known about Maya commoners despite the recent influx of studies that address the residential areas of sites. Even less work of this type has been done specifically in southern Belize where Uxbenká, the site studied, is located. Uxbenká's settlement system is characteristic of Maya sites, and includes residences, ancillary structures, burials, modified landscape features surrounding the household, and related gardens and agricultural areas. Excavations were conducted in 2007 to assess the temporal occupation and functional use of space at one non-elite residential group at the site. The data collected are compared with other residential excavations conducted at Uxbenká and with other sites aiding in the development of a more comprehensive and contextual view of the occupation of the site. The 2007 excavations and analysis of this residential group settlement offer a fundamental component to our basic knowledge of the site.

**William C. Schaffer**, *University of Arkansas-Fayetteville*  
***Treponemal Disease in Southeast Florida: Results from Ossuaries at MDM Parcel D***

The human skeletal remains (MNI = 172) from two prehistoric ossuaries in coastal southeast Florida contained cranial and postcranial lesions reminiscent of the clinical diagnosis for treponematosi. Instances of chronic, severe non-specific infections in the upper and lower limbs are prevalent and saber shin tibiae were also observed within the population sample. Most were not associable to discrete individuals due to preservation and idiosyncrasies of mortuary program, with the exception one burial with a series of craniofacial and appendicular lesions. An overview of archaeologically documented cases in Florida confirms that the current study to date is the furthest south treponemal infection has been reported in the continental United States. The conclusions from this investigation provide evidence that endemic treponemal disease, similar to the modern manifestations of yaws and endemic syphilis, was present in the host population, likely since Late Archaic times.

**Brent W. Weeks**, *Wichita State University*.  
***Evolution: What's it all about, Charlie?***

Evolution, the mere mention of it brings up heated and passionate arguments in many circles. The present paper takes a brief and light hearted look at Charles Darwin, his theories, and examines some misconceptions and misunderstandings about him and his work. The presentation will also address briefly some of the non-scientific alternatives to evolution.

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**Julie Yeager**, *Wichita State University*  
***Buried in Ashes***

In the western world, once death occurs people choose either to be buried or to be cremated. My research investigated what happens to bones during the process of cremation and made comparisons to historic data on human cremations. Color transformations, chemical changes and stress fractures from heat illustrate the process of cremation. I placed animal bones in fires of varying temperatures and measured mass, length and color of the bones, and degrees Celsius. I used three types of burning methods: bones placed directly into the foil, bones wrapped in aluminum foil, and placing a screen to hold bones directly above a fire. Each of the three types of burnings yielded significantly different results. These patterns showed that there are both similarities and differences between human and animal cremations. Data from my experiments were compared with published studies of human cremation. These experiments have implications on zoo-archaeology, experimental archaeology and forensic anthropology.

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