Meet the Flintstones

A critical essay on the perpetuation of the 'caveman' stereotype, from the late 1800's to today.

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Abstract

Images can convey a lot in a little space, and communicate in a way that words cannot. For this reason, studying visual communication is important in order to ensure that users are conveying the right message. This thesis aims to better understand paleolithic reconstruction, and the stereotypes that are associated with them with the help of the following theoretical perspectives: gender, visual perspective, agency, and critical theory. Images are taken from three different periods in order to track the progression: the late 1800's, the 1960's, and today. These images are analyzed to extract elements of the stereotype. These elements are discussed in association with their appropriate time periods and paradigms in order to grasp various aspects associated with perpetuation. We see that certain aspects of reconstructions have remained stagnate since the birth of the stereotype in the late 1800's, and that these aspects are the result of various socio-political factors as well as conscious and unconscious motives. In addition to researching the reasons behind stereotype perpetuation, it was necessary to conduct a survey to show how images affect those who are exposed to them. The survey shows that images affect both archaeologically and non-archaeologically trained students to varying degrees.

KEYWORDS: Stereotype, Stone Age, Illustrations, Academic, Popular Culture, Perspectives, Socio-Politics, Late 1800's, 1960's, Modern.

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Chapter 1 – Introduction

Through the rise of gender archaeology in the last few decades the inaccuracy, or rather the indifference, of illustrations depicting prehistoric people have come to the forefront; especially in regards to the overrepresentation/exaggeration of men and their activities. This representation of men brings with it the idea of a male stereotype. A stereotype is simply a generalized idea of something, which may not be grounded in fact (Hall 2012, 158). The stereotypical male for prehistory is the strong and brave man, who faces dangers and toils, all to serve and support the women and children with whom he is connected. We are all products of our time, and thus constrained by our society and societal pressures. While the concept of gender is a relatively new phenomenon, the stereotypical "Leave it to Beaver" mentality of the 50's with a breadwinning father, a subservient house wife who vacuums in pearls, and playful and mischievous kids is also relatively new. The newness of gender awareness and Western family values is difficult to reflect on because we are still negotiating within these parameters.

The habitus of our time shapes our thinking and preconceptions, and it is likely that this habitus will spill over into other aspects of society, of which illustrations are not exempt. Despite the fact that archaeology is meant to gather as much information as possible to study the past, and present its data in a clear and sensible manner, complete objectivity and unbiased viewpoints are not possible (at least not now). As we have seen through the shifting paradigms that archaeology has participated in, the subject went from claiming to have exact truths about the past, to the understanding that we can only do so much when discussing the past, and should try and explain it in a manner that makes the most sense.

Paradigm is a major concept in this thesis. Paradigm, the definition given by Google, is as follows: par·a·digm /ˈparə , dɪm/ (a noun) 1. a typical example or pattern of something; a model. 2. a world view underlying the theories and methodology of a particular scientific subject (2013). A paradigm is something that resembles a model, and a typical way of doing science. A paradigm is a little more than a model though, because, it is a shared model(s) that unites a group through its use and acceptance (Hacking 2012, xxiv), and in our case it is the model(s) that unite an archaeological community.

While some choose to argue the semantics of the word 'paradigm' (Hacking 2012, xxiii), it is sufficient for this thesis to think of a paradigm as a shared model. The definition of a paradigm by semioticians is a system created by social rules that dictate when one thing can be substituted, added, or removed without the system being undermined as a whole (Hall 2012, 138). A paradigm shift, however, is more complicated. Thomas Kuhn was the man who brought the word paradigm to the renowned

status it has today, and introduced the science community to the term 'paradigm shift' (Hacking 2012, xi). Kuhn chooses to define a paradigm shift as something which occurs when current methods are no longer applicable to cope with the amount of anomalies received; at which time new achievements redirect research, thereby creating a new paradigm (Hacking 2012, xxiii). Again, nothing is clear cut with these words or terms, but for the purpose of this thesis it is enough to understand that a paradigm is a model/way of doing science that is accepted by many; and, a paradigm shift occurs when current models are no longer sufficient and new models are found and implemented in acceptable ways.

Inside the world of archaeology researchers and professionals have the best understanding of what is going on with the empirical data, and the methods and theories being used to make the most sense of it; however, it is the illustrations of these beliefs that are most accessible to the public, and it is the illustrations which are less conclusive than the artifacts behind them. Illustrations also leave a resounding impression on the general public due to their visuality. The failure to understand the data and methods behind archaeological illustrations is not their fault, because these illustrations are often not encountered in a museum where patrons can choose to read or disregard the text which accompanies them. Illustrations of the stone age can be found as easily as with the click of a mouse – through search engines such as Google. Search engines, of which Google I would argue is the most popular, are some of the easiest and fastest ways to obtain information. Living in Western society, where speed is becoming increasingly important (i.e. fastest downloads, quickest access, etc.), responsibility needs to be taken for what is being produced. Controlling the quality of production in archaeological illustrations will lead to better information being available on the web for the public.

The male dominated world and mentality experienced in the early 20th century has leaked into illustrations of the past. These illustrations are not so much representative of a time long since passed, as representative of how the present would look in a time long since passed. One of the most iconic settings for this to occur is the stone age. The stone age is a time when the human race was just beginning to flourish and take on the form of what we are today. Socio-politics and power relations penetrate almost every aspect, on either a conscious or subconscious level, of the world in which we live. How socio-politics and power relations imbed themselves into reconstructions of the past, how they influence the creation of the stereotypical "caveman", and how illustrations of the past are used to validate the present and direct the future are topics I would like to discuss in this thesis. I will look specifically at the stereotyped representation of men, which in turn will reflect on the passive and marginalized nature of women, during the paleolithic and neolithic. This will be done by examining

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images from three different paradigms: the late 1800s, the 1960's, and the modern paradigm. I will also look at the imaged "step" human evolution took from paleolithic hunters and gatherers to neolithic farmers.

1.1 Goals, Motives, and Questions

The immense distance of time between us and our ancestors from the stone age means that the absolute truth about their societal constructs is out of reach, at least now, and therefore it might be easier to reconstruct their society in terms of our own; however, the reconstructions are not always a realistic depiction of modern society, but an idealized representation. This idealized representation is a byproduct of those controlling the story of the past, and the factors that allow this control should be the forefront of argumentation. Although this thesis deals with gender archaeology in reference to gender bias within the profession and illustrations, it is not a thesis that is attempting to change or scrutinize the bias. My goal is to bring attention to the bias and the role it plays in shaping the habitus of the archaeologist and the illustrator. Specifically, the way power relations within the social organization of archaeology, and by extension other social sciences, have created a habitus in which modern gender roles are acceptable to be assigned to the distant past (i.e. the stone age). A secondary goal is to discuss the agency behind the illustrations to legitimate and perpetuate the ironically stereotyped caveman into eternity, and thus modern gender roles, despite the advances in archaeological research to increase unbiased and objective interpretations.

The subject of gender archaeology and visual communication are interesting due to the fact that archaeologists, illustrators, and viewers place a lot of modern concepts and ideals on how they visualize the past via illustrations. We see in terms of ourselves. As archaeologists we are meant to understand the past for its own value, but, as some illustrations show, we can't help but conform the past to the conventions of the present (especially in terms of gender roles, and the stereotypes). This thesis will try and explain the creation and perpetuation of the male stereotype, because it will be useful to better understand it in order to recognize what to be aware of when creating and viewing illustrations.

Too often we are met with ambiguous texts that end their explanation of visual inaccuracies in archaeological reconstructions with conclusions that blame the stereotypes and the use of modern gender roles for their own perpetuation. The effect and the cause are the same; however, the reality is never that simple. Living in a visual world, in the "age of visuality" (Stocchetti 2011, 33), images play

an important and influential role. Images are not passive objects which have no effect on the viewers; and images are also not 'pure' in what they mean. The impact of images is colored with preconceptions, cultural history, and power to say what words cannot. Therefore it is not pertinent to say that images contain a stereotype, and that the stereotype is, in and of itself, the reason we see it. The recognition that reconstructions of the past contain a stereotype is a good start, but that is all it is – a start. The next step is to ask: What causes illustrators to continue representing the same motifs and events for the distant past? What causes archaeologists to approve these representations? What effect do these reconstructions have on the general public?

Questions
1. How does the comparative iconographic analysis differ through time, or does it remain the same?
2. What socio-political factors influenced the stereotypes creation?
3. What socio-political factors are present today?
4. Who are the agents behind the perpetuation of stereotypes in stone age reconstructions?
5. What influences the agents to perpetuate stereotypes?
6. How do the images effect viewers – both archaeologically trained viewers, and non-archaeologically trained viewers?

Chapter 2 – Theoretical Perspective, Material, and Methods

Chapter two introduces the theoretical perspectives by providing explanatory information as to what each perspective entails. Information is gained from various literature and authors who advocate and use them. Chapter two also explains how the perspectives will be implemented within this essay to answer the questions presented above. The section concerning material informs readers of the material I have chosen, how I chose it, as well as presents source criticism. Similarly, the section on methods introduces the methods being used, provides information indicating which methods will answer which questions, as well as methodological criticism.

2.1 Theoretical Perspective

Theoretical perspectives are an important part to any research paper today because they offer a guiding

point to the way in which arguments are structured. As there is no such thing as complete objectivity in archaeological research it is necessary to point out what perspectives are being used to reach various conclusions. The use and proclamation of theoretical perspectives will allow the researcher and reader to understand why certain questions and conclusions are raised and made as opposed to others. The topic of stereotypes and modern gender roles being perpetuated in archaeological reconstructions can be tackled from multiple perspectives, yielding different results. For the results I wish to obtain it is necessary for me to approach this problem using gender theory, visual perspective theory, agency theory, and critical theory.

2.1.1 Gender Theory

The issue of a male stereotype and the portrayal of modern gender roles in past societies have a lot to do with our newfound understanding of what it means to be a gendered individual. Prior to the introduction of the term 'gender role' in 1955 by the psychologists and sexologist John Money (Money 1985, 71), gender was automatically linked to biological sex (Lorber 1994, 14), and therefore universal in a sense (for Western cultures). If only two sexes exist, and sex and gender are synonymous, then gender roles are a constant. Considering this, the appearance of modern gender roles and the male stereotype seen in stone age illustrations, would not appear shocking or abnormal; however, today, we understand that gender and the gender roles Western society abides by are not universal, and the likelihood of our gender roles being observed by a paleolithic or neolithic society is low. The universality of gender roles is what builds stereotypes, and the stereotypes continue to exist because we "expect universal characteristics" (Sørensen 2000, 69).

Gender is something that needs to be learned, it is not innate (Lorber 1994, 18). Our notions of gender today, even with the rise of gender archaeology and gender studies in general, are imbedded in our mind and vocabulary as Westerners. Western culture tends to view gender as a 'taken-for-granted' feature of life (Lorber 1994, 13). These gender notions have a strong influence on how we perceive everything; regardless of efforts to avoid their impact. Therefore, a gender standpoint is used in tackling the perpetuation issue of the male stereotype, and the use of modern gender roles in stone age reconstructions.

Gender differences, while not caused by politics, are an effect of politics; and the presence of females in the archaeological record does not mean that there exists a separate category of 'women' (Scott 1999, 80-84). I will discuss how gender was viewed in the archaeological discipline throughout

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the changing paradigms, mostly in terms of how gender affected the practice of archaeology, which in turn affects how interpretations are made and represented. The "past duplicates the present-day norms and values" (Gero 1985, 344), and the prehistoric past is populated with modern gender roles (Sørensen 2000, 37). Feminist and gender studies are not enough to guide the development of archaeology, in terms of gender bias (Sørensen 2000, 36), and because of this, I am implementing three other theories to take this thesis beyond other gendered studies of the past: visual perspective theory, agency theory, and critical theory.

2.1.2 Visual Perspective Theory

Paul Klee, "art does not render the visible but renders visible" (Danto 199, 211).
Visual perspective theory is complex, and there are many aspects that accompany this theory in order to grasp the fullness of what it means to perceive. Visuality, and the aspects that accompany it, are essential to this thesis. They are necessary to heighten the explanation of male stereotype perpetuation and the use of modern gender roles in reconstructions of the stone age. Humans, especially today, are visual creatures – we interpret the world through what we see, and visuality is a very important tool we use to make sense of the world (Pole 2004, 1).

Visual perspective theory will allow a deeper understanding of how stone age reconstructions are effected by 'communication noise' between the archaeologist and the illustrator, and between the illustrator and the viewer. This 'noise' (i.e. confusion) is enabled through a history of cultural perception. These culturally specific perceptions contain preconceptions and expectations which visual perspective theory can help illuminate. Our culturally specific perceptions are partly guided by language (Danto 1991, 201; and Burr 2003, Ch. 3). A key aspect to archaeological representations of the stone age is that they are usually guided and accompanied by text. Richard Wollheim (1991) states that we see what we are told. When archaeological reconstructions are guided through text the stereotype becomes even more embedded in our culture.

The image itself is nothing, but it is how that image is viewed that will reproduce or resist current stereotypes and power relations. Considering that the image itself is nothing reinforces the fact that we take visual research for granted, because we see things on a daily basis; but, what is necessary is to recognize how visuality plays into to our social world in complex ways (Pole 2004, 2-7). Visual perspective theory will explain how perception, and aspects associated with perception, work in creating, sustaining, and/or changing our view of the male stereotype by looking at the progression of

stone age reconstructions and the role they play in legitimating the stereotype through cognitive visual processes.

2.1.3 Agency Theory

Agency is "active involvement" and has to do with active agents, who are potentially conscious and self-aware of their involvement with structure (Gardner 2008, 95). The relationship between agency and structure is dependent on time, and therefore contextual; so, while habitual actions work to reproduced social structures over time, their acceptance is dependent on current structural context and rules (Gardner 2008, 99). Agency theory is used to explain the role that archaeologists, illustrators, and viewers play in the perpetuation of stereotypes and the use of modern gender roles in stone age reconstructions. The idea of the archaeologist and the illustrator working together as agents is important. While agency is often attributed to individuals, it is the relationship and dialogue between people that allow agency, because this interaction breeds self-awareness (Gardner 2008, 96). Agency has the power to reproduce (or resist) current power relations through intentional or unintentional actions; similarly, it also has the capacity to explain how some aspects change and others do not (Gardner 2008, 96).

Agency theory, in this thesis, works with visual perception theory to explain how perception gets legitimated by those actually creating the perception. Images have no power in and of themselves, and to say that they do masks relevant political issues, protects the creators and users of these images, and pacifies the role of the viewer (Stocchetti 2011, 25-32). By incorporating agency theory, the source of misconceptions represented in stone age reconstructions will be identified; and, while the source may not be the cause for ultimate blame (i.e. the source is just one part), once identified it may help with the rectification of misconceptions.

The idea of agency is a difficult one, because of the complexity of its nature to be shaped by and shape structure. Talcott Parsons, in 1968, was the first person to recognize the relationship of agency with time (Emirbayer, Mishe 1998, 965). Agency is essentially how we orient ourselves in time and space, but at the same time we are not bound to this orientation; it involves the constant reconfiguration of the past and future in the present (Emirbayer, Mishe 1998, 971). This reconfiguration is defined by Mustafa Emirbayer and Ann Mische in their 1998 article 'What is Agency?', and consists of three parts: iteration, projection, and practical evaluation. Iteration is concerned with the past as the most resonant tone in agency, projection is concerned with the future; and practical evaluation is concerned

with the present. All three of these aspects are involved, although dependent on the moment when making a decision to act, there may be a greater concern for one over another.

More important than the concept of agency, and what agency is, is how agency works for change. Agency exists for humans to critically reflect the past, and exercise a choice in the present, that affects the future; however, in order for agency to evoke change, humans must be conscious of their own agency, otherwise agency would act as a robotic feature of human action (Burr 2003, 122). Change will be met with resistance, and that is why some changes go unheard; but, humans are capable of reflection, and selecting good strategies to implement change (Burr 2003, 123-124). So, while our own ideas may be modeled from previous agents, we are capable of 'authoring' our own stories (Burr 2003, 147). Agency working for change is important for this thesis, because it is seeking a change in the strategies of creating stone age reconstructions. Without this conscious agency, archaeologists and illustrators will be on auto-pilot when creating reconstructions.

2.1.4 Critical Theory

The discussion of the perpetuation of stereotypes, and the use of modern gender roles on reconstructions of the stone age, require a critical perspective. Critical theory means to recognize and reflect on the taken-for-granted ways of understanding the world, and to be aware of the fact that knowledge is a particular construction which has received a 'stamp of truth' in society (Burr 2003, 2/68).

In the use of gender theory: critique is directed at the presence of a male stereotype, the use of modern gender roles on stone age reconstructions, and the profession of archaeology itself as a male bias practice. The current state of archaeology today should not be simply accepted, but questioned in regards to why it is the way it is. Critical theory means to question why a dichotomy of gender has become so influential, and will introduce ways to think about the reification of a gender dichotomy is subtle ways (mainly through the use of images).

Critical theory also lends a hand in visual perspective theory and agency theory, in the sense that it seeks to deconstruct what we may find so normal in our day to day encounters with images of the stone age. Looking at the visual culture of archaeological reconstructions of the stone age, and relating them to the varying inequalities of gender seen over the past century, could suggest that these images are being perpetuated to reinforce and legitimate present-day power relations. The politics behind the visual cannot be found just by studying the images themselves, but need to be analyzed as material

culture which were produced and used in relation to other forms of communication, and in connection with social and economic aspects of their time (Herkman 2011, 51). Furthermore, images cannot create, sustain, or change political values, only the way in which they are used; therefore, it is essential to be critical of the image users (Stocchetti, Kukkonen 2011, 3). The users of images are the ones communicating; visual communication is then communication by proxy (Kukkonen 2011, 57). Therefore we must take a critical view of what these users are achieving, and not just view images as passive forms of communication. The goal of critiquing the way in which images are used is to point out the inequalities associated with traditional forms of knowledge (Herkman 2011, 39).

Critical theory has been a part of archaeology since its early beginnings, mainly taking form through shifting paradigms. Michael Shanks, in his 1992 book *Experiencing the past – on the character of archaeology,* discusses the shifting paradigms archaeology has undergone, and presents the critiques these new paradigms had on older ones. He compares archaeology to a game and a theater production, suggesting that while there are rules and an original author, archaeologists take it upon themselves to bend the rules and interpret the play as they deem necessary. Present-day values become naturalized, politics leaks into interpretation, the past works to service present social constructs; archaeological reconstructions do not simply remind us of the past, they create and change the world we know by selecting one version of the past over another (Shanks, Tilley 1987, 188-205). Therefore, we must be critical as to what is being handed to us, not just take it as fact.

2.2 Material

The main material used to investigate the perpetuation of the male stereotype in stone age reconstructions, and to explain the reasons behind its perpetuation, will be (not surprisingly) illustrations. There are a total of ten images: three images from the late 1800's, concerning the dawn of prehistory; three images from the 1960's, and three images from the present (ca. 2010 or after), featuring (1) paleolithic hunters and gatherers, (1) neolithic farmers, and (1) popular culture representation of "cavemen" (i.e. images from a non-academic standpoint); and, one popular culture image from the 1920's. Images are chosen from three different periods within a span of over 100 years in order to track stereotype perpetuation in the long term. Other qualifications for my image selection will be presented in the methods section, under 'acquisition of images'.

The images were chosen on the basis of their appeal and use. All images were originally obtained from Google image search, but credibility had to be verified from other sources. The

illustrations that are meant to represent an academic standpoint had to be confirmed as being used in an academic setting. The images from the late 1800's and 1960's were confirmed in Stephanie Moser's 1998 book *Ancestral Images.* The modern images were confirmed as being used in an academic setting via personal communication with the artist, or through reading the artist's biography. Confirming the uses of these images is very important, especially for the academic illustrations. Academic illustrations carry more weight to them, in terms of their acceptance as accurate in society, because of the context in which they are presented. The illustrations that come from a non-academic standpoint, the popular culture images, were chosen for their ability to reach a wide audience (i.e. movies and television series). The image from the 1920's is a movie still of Buster Keaton in his role as a caveman in the 1923 movie The Three Ages. The image from 1960's is the poster for a television show called the Teenage Caveman which aired in 1958. Finally, the popular culture image for the modern era is a movie still of Matthew Willig in his role as Marlak from the 2009 movie Year One. The need to incorporate popular culture/non-academic images is to show how engrained the 'caveman' stereotype is in modern society, and therefore so too are the gender roles.

Some other materials which should not be overlooked are the illustrators, archaeologists, and viewers. Their role in the perpetuation of stereotypes in reconstructions are just as important, if not more important, than the images themselves. The biographies of illustrators and archaeologists will be used; however, when individual biographies are not available or are insuffent, the general nature of illustrations and archaeology will have to suffice. In addition to discussing viewers on a general level, a more specific angle is taken through the use of a survey. The survey targets a specific demographic of viewers: students.

2.3 Methods

The methods for this thesis contain four different parts: the acquisition, the comparative iconographic analysis, the critical discourse analysis, and the survey. The methods described for this thesis are of a qualitative nature. Qualitative means to have an emphasis on entities, processes, and meaning in terms of their frequencies and intensities (Denzine, Lincoln 2005, 10). This thesis takes images and discusses their meaning in terms of intensity and impact on society. "Qualitative research is an inquiry project, but it is also a moral, allegorical, and therapeutic project" (Dezine, Lincoln 2005, xvi). Living in the world today, it is more important than ever to do qualitative research to cope with our post-colonial, electronic, and gender aware state (Dezine, Lincoln 2005, xv-xvi).

The acquisition of illustrations demonstrates how accessible these images are to researchers and the general public. This method will answer question six partially, through showing search patterns and availability of images. The Comparative Iconographic Analysis (CIA) shows what elements in prehistoric illustrations remain stagnate, as well as if and how they change. The CIA also points out the elements that categorize the 'imagined step' between paleolithic hunter gatherers and neolithic farmers. This method will answer question one. Question two and three will be answered through the Critical Discourse Analysis (CDA), by examining the socio-political factors behind reconstructions. Question four and five will be answered in section 4.4, the power of images, by discussing aspects of perception. Question six will be answered through the survey.

2.3.1 Acquisition of Illustrations

I drew inspiration in finding illustrations from online sources, and particularly Google image search. The main reason for searching online began as an easy way to find applicable images; however, as I was filtering through the myriad of images, I was struck by how many images are available. Having been well researched in archaeology myself I was able to discern what images would have been used for academic purposes and what images clearly had entertainment value; but, upon visiting the sites that these images belonged to I understood that not everyone has the same background knowledge.

Search engines mediate returns between us and the vast information of the web, yielding (hopefully) desired results (Lorigo *et al*. 2008, 1041). Performing a Google image search provides vast quantities of images without textual explanations (unless one takes the extra time to visit the source pages, upon which you may only find a title for the image). Even when clearly defining a search, for example with "paleolithic illustrations from 1960's", a wide array of images are returned, many of which do not fit a desired return. Many times, the case for searchers is that that images are chosen at random, or other sites, without consideration for the source. To be provided with information that has no clearly defined credibility is dangerous in a growing visual age. This is not dangerous for those educated in what they are searching for, but it can be detrimental for those who are not; and, I would argue that many times we turn to the internet for information in which we are not educated.

Eye tracking studies in search engine behaviors showed an interesting correlation between rank of search results and preference. A study done in 2008 by Lori Loringo *et al, '*Eye tracking and online research'*,* recorded eye movements and their correlation to user preference during an online search. Three different studies were conducted. The first two used Google, and the third was a comparison

between Google and Yahoo!. All participants in studies were university undergraduates, and so the results are only applicable to students and not to a random sample of the general populous. Regardless if the Google result query was altered or not (in study 2 result queries were inverted), users showed equal preferences to the first two results, but clicked on the first more often. They concluded that while inverting the query effected behavior (i.e. taking a longer time to processes the information available), the preference for ranking prevailed. Furthermore, very little time was spent reading the abstracts presented in the result query. Information about the various results was obtained through scanning, and 40% in study 1 chose to refine their query search after considering only three abstracts. Study 3 sought to compare these results to another search engine. The only point of interest for this essay is that all but one of the forty participants claimed Google as their primary search engine; and the results concerning preference differed little between Google and Yahoo!.

While the above study was done in terms of information preferences in Google search, it is not completely applicable to Google image search; however, I know of no study that has utilized eye tracking to record preferences on image returns. The study is applicable in the sense that it demonstrates a preference for rank when it comes to choosing query results, regardless of the relevancy of what is being shown. While participants glanced and scanned the abstracts of the query results, they were not read in depth. The same would be true for images, that they are scanned but not deeply processed with conscious effort – and a preference for rank would be true as well. Results would either be accepted or the search query would be refined. "Broad access to an abundance of information is one the defining characteristics of today's environment" (Lorigo *et al*. 2008, 1041), and while it is a defining characteristic, it is also a dangerous one when you consider search behaviors and the trust we have for positional rank within a search engine.

When choosing the images myself, there was a significant amount of choice involved. For the academic images my Google image search input was some variation of "academic illustrations of paleolithic [neolithic] from the late 1800's [1960's][2010]". If a desired image was not found on the first page the search was refined. Clues were taken from the first page as to how best to refine my search. Academic images needed to contain a certain degree of complexity in terms of containing people (preferable both sexes), actions being performed, and a detailed background. Once an image fit the criteria, a source check was performed to be certain that the image had been used in an academic setting. For the popular culture/non-academic illustrations, the search was first performed with a regular Google search to find popular caveman movies and/or television shows of the early 1900's,

1960's, and late 2000's. Titles were checked on IMDB (internet movie database) to make sure they were real movies/television shows, as well as their popularity. Thee Ages (1923) had a rating of 7.2 (out of 10); Teenage Caveman (1958) had a rating of 2.8; and Year One (2009) had a rating of 4.8. Once I had chosen the movies/TV shows the title was then placed into a Google image search to find the images. The images needed to contain people (preferably both sexes) and performed actions, but the background was of little concern.

2.3.2 Comparative Iconographic Analysis

A Comparative Iconographic Analysis (CIA) highlights the progression of these illustrations through time, indicating what has/has not changed. The comparative method of analysis will pit one image against another, in a circular motion of comparison. A total of three CIA will be done: first concerning the paleolithic images (late 1800's, 1960's, and modern); second will be the images depicting an 'imagined step' from paleolithic hunters and gatherers to neolithic farmers (1960's and modern); and the third will compare the popular culture/non-academic images (1920's, 1960's, and modern).

Within the CIA various elements will be noted (mentioned below). These elements will be compared and analyzed with the help of Erwin Panofsky's three strata of meaning (Panofsky 1972 [1939]). The first consists of the primary/pre-iconographic meaning and is limited to the recognition of forms and expressions. The second consists of the secondary/iconographic meaning and is limited to the elaboration of the primary forms and expressions. Elaboration consists of labeling what the forms and expressions are, based on secondary sources such as literature and other illustrations from the appropriate time period. The third consists of the intrinsic/iconological meaning which limited by a 'history of cultural symptoms' (i.e. the knowledge of historical conditions in which specific themes and concepts were expressed). The third level will situate the labels within their broader historical context; and for this thesis specifically, it will situate them within their broader context of archaeological history. The third strata of meaning will be referred to in the Critical Discourse Analysis and the Power of Images in order to discuss how historical conditions influenced the perpetuation of the stereotype.

When analyzing these images I am coming from a certain value perspective of what these images are saying; however, through using Panofsky's three strata of meaning I am aiming to be as objective as possible by highlighting those elements that are apparent (i.e. the pre-iconographic analysis), and then attributing those commonplace terms to their labels. The third stratum will be the level where my own values will be most visible, so caution is taken to let the reader know that these are

my interpretations based on my research, but are not the only way in which these images can be interpreted.

Elements

1. The stance will show who is in control of the surroundings, the main focus of the image, and the perspectives of individuals; the stances will also be compared between the paleolithic images and their neolithic successors to see how they differ.
2. The gender ratio will show if men outnumber women and children
3. The actions will tell what has remained stagnate in the stereotype, as well as what new actions have arisen; the actions will also compare how productive individuals have become in order to take the 'step' from hunter-gatherers to farmers.
4. The overall mood of the illustration will track the violent aspect of the 'caveman' stereotype, which was a main feature in earlier reconstructions; as well as compare the moods between the transition images to see how they differ.
5. The contents of the background is mainly necessary for the transition images, as a main feature of neolithic life is increased control of the evironment; by looking at how background contents differ we can see how the 'step' was viewed for each paradigm.

- All five elements will be used when analyzing illustrations of paleolithic hunters and gatherer.
- All five elements will be used when comparing/analyzing neolithic farming illustrations in relation to paleolithic illustrations; special interest will be paid to the actions and contents of the background, because what is interesting is how the 'imaged step' is depicted in terms of increased control over environment, and who is responsible for this progression.
- The first four elements will be used to discuss the popular culture/non-academic images.

2.3.3 Critical Discourse Analysis

From the analyzed elements a Critical Discourse Analysis (CDA) is used to discuss the way that elements in the images reproduce (or resist) the male gender stereotype, as well as what has progressed between the paleolithic and neolithic epochs, and why it has progressed as such. The CDA is done specifically in conjunction with the social and political inequality and/or power dominance of the late 1800's, 1960s, and today within the practice of archaeology. The CDA includes aspects of social constructionism, semiotics, and male dominance in order to challenge the taken-for-granted feature of a

gender dichotomy.

The CDA discusses the politics behind reconstructions for each paradigm in three ways: a general overview of archaeology, the artist/author/publisher, and the western aesthetics/male dominance. Elements of the CDA are elaborated in following section, 4.4, through the aspects of visual perspective theory. Those aspects deal with perception, expectation, and the agency of decision making. These two sections work together to form a more coherent view of the subtle ways that power and control manifest themselves through seemingly innocent images. The way in which power has been manifested, and continues to manifest, creates the foundation for forming a habitus toward the unconscious acceptance and necessity of said stereotypes.

2.3.4 The Survey

The survey is given to two different departments at Lund University, archaeology and psychology. The survey consists of six questions that pertain to viewer's perception of the Paleolithic. The questions are designed to see how their perception has been influenced by the static and stereotypical history of images. The survey is given to these two departments to demonstrate how images affect both the archaeologically and non-archaeologically trained. Details of the survey will be explained in section 4.5 along with the results.

Chapter 3 – Changes in Archaeology through the Ages (and the gender roles that accompanied it)

The rise of gender archaeology in the 1970's and 1980's has shed a lot of light on biases within the practice of archaeology. Prior to the advent of gender archaeology bias in the profession went, more or less, unnoticed. The male bias seen in archaeology manifests itself in two primary ways: first, in the archaeological profession; and, second, in the information archaeology produces. In terms of bias in the archaeological profession, there is a male dominance. Those who practice, those who interpret, and those who receive recognition are mainly males. In terms of the bias in archaeology's information production, there has been a tendency to over represent the males of the past, at the expense of women, children, and other gender roles. The causes of gender inequality are complex, and while gender differences are an effect of politics, politics are not the cause (Scott 1999, 84). The profession and

practice of archaeology is working towards actively incorporating women, changing its politics if you will, to highlight and understand female roles in the past; as well as being open to the possibility of other gender roles which may have been experienced.

Inside the archaeological discipline, researchers and those who study are more aware of the advances and changes occurring in order to push archaeology toward being as unbiased as possible; however, the general public is less aware of these efforts. Illustrations of the past are a popular media to present to the public, as well as to other researchers within and outside archaeology. Illustrations are meant to represent the best possible image that archaeologists have created through their application of methods and theories on empirical data. Archaeologists may be able to recognize the limitations of illustrations, but the general public will regard them as, more or less, a true representation (Wood, Cotton 1991, 33).

To recap from chapter two, gender is a relatively modern word/concept when it is applied to people. Just as the concept of gender in relation to identity is relatively new, so is the stereotypical "Leave it to Beaver" mentality of the 50's. Illustrations are just as susceptible to socio-political inputs as we are. Images of the stone age depict overtly masculine males and submissive females (if they are depicted at all). With the rise of gender archaeology it could be assumed that this issue with stone age illustrations would correct itself; however, that is simply not the case. Below I will discuss the archaeological paradigms of the late 1800's, the 1960's, and today to show in what ways socio-political dominance has influenced archaeological research, and therefore contributed the nature of archaeological reconstructions.

3.1 Late 1800's Paradigm

The 18th and 19th centuries were an important time for science, especially where archaeology is concerned, because during this era geological and paleontological evidence revealed that the earth was somewhere in the order of billions of years old, causing the image of humans in antiquity to change (Moser 1998, 107). Prior to this scientific discovery the truth of human origins had been in Biblical references, which created tension in accepting humans existence as contemporary with the extinct fossils paleontologists and geologists were discovering (Moser 1998, 107). Archaeology arose out of a curiosity for the human past; and what may seem clear cut and rational to us now, in terms of evolution, was a huge struggle for society at the time – and many of the archaeological illustrations reflect this tension (Moser 1998, Ch. 5).

Illustrations are very important for this period because they served the purpose of reaching out to an illiterate public, trying to make the unbelievable believable (Moser 1998, 109). Despite the geological and paleontological evidence mounting to prove earth's antiquity, the idea of humans inhabiting this past were widely rejected until an 1859 excavation at Brixham Cave in Torquay England which provided sound enough evidence for the scientific community to accept that human antiquity was equal to that of the extinct fossils previously found (Moser 1998, 119). In attempts to reconstruct human antiquity, with the very fragmented evidence they had, many archaeologists turned first to their modern contemporaries, and then to ethnographic accounts of "savages" (Moser 1998, 134). Analogy research, such as this, is designed around predetermined interests based on deeply rooted notions of what it means to be human (Wiber 1997, 126).

Archaeology during the late 1800's was, as with many other sciences, powered and dominated by males. Power and dominance are separate entities. Power refers to the ability to voice opinions and be heard; dominance refers to having greater numbers, and thus sway over which opinions are heard (Engelstad 1991, 509). These males guided archaeology, choosing to ask certain questions and not others, as well as guiding the interpretation process (Engelstad 1991, 505). Males were also the ones commissioning illustrations, choosing to highlight certain aspects of human antiquity and not others. Choices are shaped by historical situations and unconscious cultural assumptions, creating a type of "selective bias" (Slocum 1975, 37).

Women were present in archaeology from the beginning; they just received little (very little) recognition. Mary Ann Levine, in 1994, published an article which tracked females' participation in this male dominated field. She accounts that by 1880 women held positions in museums and participated loosely in field work as unpaid contributors. Honorable mentions of women involved in the professionalization of archaeology are: Mary Hemenway (1820-1894), Zelia Nuttall (1857-1933), Matilda Coxe Stevenson (1849-1914), and Alice Fletcher (1838-1923). These women were, however, not involved in any type of communication within archaeology, and thus their power and recognition was limited; although their participation should not be overlooked when considering archaeology's history and those involved in making it what it is today.

The study of prehistoric archaeology first began, and was more progressed, in Scandinavia; however, England and France were the political and economic powers of the time, and therefore received the most attention (Trigger 2006, 156). Cultural-Historical Archaeology is the paradigm for which early archaeology is associated. This paradigm was mainly concerned with grouping and

cataloging material culture to creating various "groups" or "cultures". Many excavations were, however, unsupervised at this time (Trigger 2006, 152). The goal was to trace human antiquity as far back as possible, and the epochs of antiquity were viewed in a uni-linear manner (Trigger 2006, 152-153). Prehistoric archaeology was a rationalist study of cultural evolution, and romantic investigation of how humans lived prior to the earliest historical accounts (Trigger 2006, 164).

3.2 1960's Paradigm

The 1960's mark a decided shift in the practices of archaeology, coined Processual Archaeology. The shift to processual archaeology stressed the idea that archaeology is closely related to anthropology, and therefore requires the archaeologist to answer more difficult questions about past human activity and identity. The relation of archaeology to anthropology, while it provided new questions to ask and different methods and theories to use also closed off possibilities to reflect on possible biases as it was engaging with a field that had a similar history of male power and dominance.

Anthropology was subject to the same types of male questions, interpretations, and language (Slocum 1975, 37-38) as archaeology. *Man-the-hunter* (Lee, Devore 1968), was very influential to anthropology at the time, and stressed the importance of prehistoric hunting by males based on the fact that modern men hunt (Slocum 1975, 39). Seeing hunting as something important and vital to human evolution was not unique to anthropology, it also guided archaeology's methodology, as it sought for evidence of hunting as a crucial piece to our historical puzzle (Nixon 1994, 6). *Man-the-hunter* contains papers presented at a 1966 symposium in Chicago, with the same title (Lee, Devore 1968). Anthropology is not the only discipline during, or before, this time that had influential male texts. Prior to the 1960's all sciences were extremely male dominated. *The social role of the man of knowledge* by Florian Znaniecki, published in 1940, is a great example of this. In this book men are the sole creators, sustainers, and transferors of knowledge; additionally, knowledge, for Znaniecki, is referred to as a woman. Knowledge (the female) is essentially nothing without man to understand and transmit her.

When reflecting upon the different paradigm shifts archaeology underwent, it is easy to see the clearly defining dates and debates that structured them; however, when you are inside the shifting paradigms it is harder to see the dividing lines that separate changing ideals. Therefore it is reasonable to accept that there might be influences from cultural-historical archaeology that get included in early processual work – mainly the fundamental act of grouping. Anthropology also influenced archaeologists to incorporate the idea of binary oppositions, and from this the act of grouping grew

more familiarized (Sørensen 2000, 67). For processual archaeology there is a grouping of males and females who populate past space and discourse, indicating how archaeologists chose to interpret material culture.

Material culture is not, in itself, a clear indicator of who made or used the object; however, material culture is often suggested to be such. For example, grave goods are often used to identify an individual, and there are certain male and female signifiers for which archaeologists are looking; and, if a female item is found in a male grave, or vise versa, it is interpreted differently (Ginge 1996, 68-71). These suggestions come from the researcher's own socio-political understanding and influence (Sørensen 2000, 189). Socio-political factors outside of archaeology also contribute to the continuation of grouping, as with the generalization of sexes from the 60's feminist movement (Sørensen 2000, 67).

While archaeology was still a "boy's game" in the 60's, there are two generations of female archaeologists which should be mentioned for their contribution to archaeology, leading up to and into the 1960's (taken again from Levine's 1994 article). First, we have the generation after those mentioned in the late 1800's paradigm that began their careers in the 20's and 30's. Options within archaeology were still constrained for these women. Fieldwork remained closed off; although, they enjoyed more freedom in the academic sector. The first PhDs for women associated with archaeology belong to this generation. The 'third generation' is the women who began their careers in the 50's and 60's. For this generation there is an expansion of established niches in which women continue to exploit: mainly the academic and museum sectors. Increased freedom is had by the third generation of women, but is paired with continued resistance to be fully accepted within this field. Additionally, the first female PhD in archaeology is awarded to this generation.

The 1960's is not so distant, and yet if feels distant when looking at it in terms of gender bias in the profession. Modern thought would lead us to believe that gender bias has been eliminated, as women are growing increasingly independent; although I am somewhat bias myself in assuming this because I am a woman, and I may not recognize the inherent gender biases which I have come to view as 'normal'. Unarguably, archaeology advanced a great deal when it reached the processual shift through aligning itself with anthropology; however, a significant amount of irony is involved in this shift when one considers the advancement of niches experienced by different genders within this progression.

3.3 Modern Paradigm

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Between the 1960's and today archaeology experienced another paradigm shift to Post-Processual Archaeology. Post-processual archaeology is not drastically different from its predecessor – the goals and values of post-processual archaeology can be viewed as an expansion which incorporates new methods and theories to answer more diverse questions, as well as builds on previous questions. Post-processual archaeology incorporates Marxism, symbolic anthropology, and hermeneutics; and is avid in the criticism of positivistic, functionalistic, and adaptive models that draw inferences from technologies, economies, and biological processes (Engelstad 1991, 502). Post-processual archaeology also offers a more multi-vocal approach to better capture the variability of the past (Sørensen 2000, 34). Good science, for post-processualists, means to be reflexive and to recognize that knowledge is historically contingent, so there cannot be one absolute truth (Engelstad 1991, 503-504).

Connected to post-processualism is the rise of gender archaeology. Women in archaeology took the lead from female anthropologists, who, in the 70's, established COSWA – 'Committee on the Status of Women in Anthropology' (Levine 1994, 23). This modern paradigm, beginning with post-processual archaeology, and ending with whatever paradigm we are currently in at this moment, is where we finally see a power shift in the practice of archaeology. The shift in power is not a complete 360°, but can better be thought of as a push in the right direction. The shift comes with female voices finally being heard within the archaeological profession. Some female archaeologists who contributed to the feminization of archaeology in the 20's and 30's were not recognized until the 80's (Levine 1994, 26); as well as feminist critiques from the 60's, which exposed male power and dominance in archaeology, and other disciplines - surprisingly natural sciences is among them (Engelstad 1991, 503).

Power of voice is just one part, but dominance is a whole different ball game. These female voices were being presented to society, but required the sub-discipline of gender archaeology; furthermore, male domination retaliated against gender archaeology by claiming it to be a 'fad' (Levine 1994, 23). Joan Gero, in a 1985 article, discussed the male dominance in archaeology in terms of niche exploitation by women, coupled with inverse success rates for men and in women in NSF (National Science Foundation) grants in Meso-American archaeology from 1979-1980. Her study showed that women continue to exploit the niches which were carved out for them in the beginning by their foremothers (i.e. museum work and academia). Men made up 74% of the total sample, accounting for 83% of all fieldwork, 81% of all dissertations related to fieldwork, and 93% of all field related NSF grants. Women made up 26% of total sample, accounting for 45% of all non-field related research, 46% of all dissertation concerning non-field related work, and 27% of all non-field related NSF grants.

Overall men were two times as successful in achieving field related awards, and their overall success was not dependent on what they chose to pursue (i.e. field or non-field related endeavors). Women, on the other hand, were dependently successful – receiving more success if they stayed within their niche of non-field related research. Inequality regimes in practice, process, action, and meaning, while fluid, can work to sustain inequality (Gönas, Rosenberg 2012, 97). These regimes of conditional equality can be reified by employers [or NSF grant distributors] through their expectations of traditional gender divisions in family, which lead them to believe that women come with a higher cost (Gönas, Rosenberg 2012, 105-107). Gendered notions simply affect equality (Brush 1999, 180). Traditional gender divisions within the family are changing today through what Lisa Brush calls 'deindustrialization', where unpaid work within the family is being redistributed (Brush 1999).

For a small comparison of how this relates to present success in the NSF I took a look at the most recent archaeological grants awarded to Californian archaeologists (primarily from 2010-2012), California being the state with the 2nd most awards grated, with a total of 22 (Arizona is the 1st, with 23). Out of the 22 most recent grants, 82% were headed by a male PI (principle investigator), leaving 18% to the females (3 in total). 2 of the 3 females worked independently, meanings without any co-PI, and the third had a female co-PI. 23% of grants involved male co-PI, and 36% involved a female co-PI. These statistics show that not much has changed in regards to a male dominance in the archaeological profession, and also points toward the notion that in order for women to succeed in NSF grants they must play the secondary role of 'co-principle investigator' to men.

While post-processual archaeology is currently the new paradigm, it is somewhat dated, and some say that we are on the brink of another shift; and the irony presented in the 1960's paradigm concerning the advancement of archaeology, but no advances in breaking down the barriers of 'gender niches' is amplified. The modern paradigm stresses the need for reflection in archaeological work, but fails to recognize the need to reflect on one's own work and thought process; the modern paradigm stresses the multi-vocality of the past, and yet interprets, presents, and directs its findings toward the single voice of men (Engelstad 1991, 511).

Gero (1985) also mentions the public's view toward archaeologists is stereotyped: they see men as the pioneering adventurists, digging in the dirt to unearth hidden secrets about the past, and see the women as patiently sitting inside a tent, organizing and consolidating the material found. While this stereotype is reflected in the division of labor seen above, the public is not aware of this (unless they regularly check updates on grants from NSF or other sources). Where does the public's view on this

stereotype come from? One major component is popular media. I would like to call this the Indiana Jones phenomenon. The first of the Indiana Jones movies came out in 1984, and the most recent one came out in 2008. The stereotypical Indiana Jones archaeologist has left an imprint on society. Lucia Nixon says that the public's image of archaeology is strongly related to Indiana Jones (Nixon 1994, 13); however, Indiana Jones is not the only example. Other examples include: National Treasure's Benjamin Gates, The Mummy's Rick O'Connell (lead character, although not an archaeologist), with the most iconic female archaeologists being, an overtly sexual, Lara Croft.

3.4 Issues in Gender Archaeology

The biggest critique of gender archaeology is that it is too political. Many feminist critiques within archaeology are directed at men, and demand more attention for women in the past (Sørensen 2000). While bringing attention to the bias is good, it does nothing to solve the problem. We must go further and discover actual pragmatic ways in which to solve these flaws. No longer is it the issue of marginalized women and overtly masculine men, it is the issue of finding real plausible truths about our deep human history, in order to get a better picture of how we evolved to the modern world we live in today. Understanding all the changes humans went through, not just in terms of technological developments, but in terms of social interaction and varying gender roles, will not damage the present, it can only enhance it. And, while archaeology itself is working to find unbiased and objective truths, illustrations have not kept up with this trend. The past is important, and it does matter what kind of past you have; but a past used to validate the present (Nixon 1994, 19) is no substitution for a past that validates the past.

Chapter 4 – Down to Business

This chapter contains the Comparative Iconographic Analysis of images, along with the Critical Discourse Analysis, the power of images, and a survey. In the Comparative Iconographic Analysis (4.2) Panofsky's first two strata of meaning are used – the identification of pure forms, composed of objects and expressions, and the connection of those pure forms with themes (Panofsky 1972 [1939], 5-7). The third stratum of meaning is identified in the Critical Discourse Analysis (4.3), as the themes are connected to their intrinsic meaning. The intrinsic meaning involves ascertaining the basic attitudes of the period, which may have been unconsciously superimposed onto the images (Panofsky 1972 [1939],

7). The basic attitudes of the period are discussed in relation to the archaeological paradigms mentioned above, and the stereotypes and gender bias produced. The power of images (4.4) discusses how the unconscious superimposition of a paradigm is not the only reason for paleolithic/cavemen representations to be stereotypical. The power of image sub chapter discusses the role that perception, expectations, and other related social constructions play in perpetuating the stereotype. Stereotypes and the use of modern gender roles are not just created and perpetuated by a current paradigm, but affected by the previous ones as well. Finally, the survey (4.5) shows how these illustrations have affected the general public.

4.1 Images

Paleolithic Images

Img1880Pa   **Img1880Pb**

Fig. 16. L'homme à l'époque du grand ours et du mammouth.

UNE FAMILLE À L'ÂGE DU RENNE

Img1880Pc

L'HOMME VAINQUEUR DE L'OURS DES CAVERNES

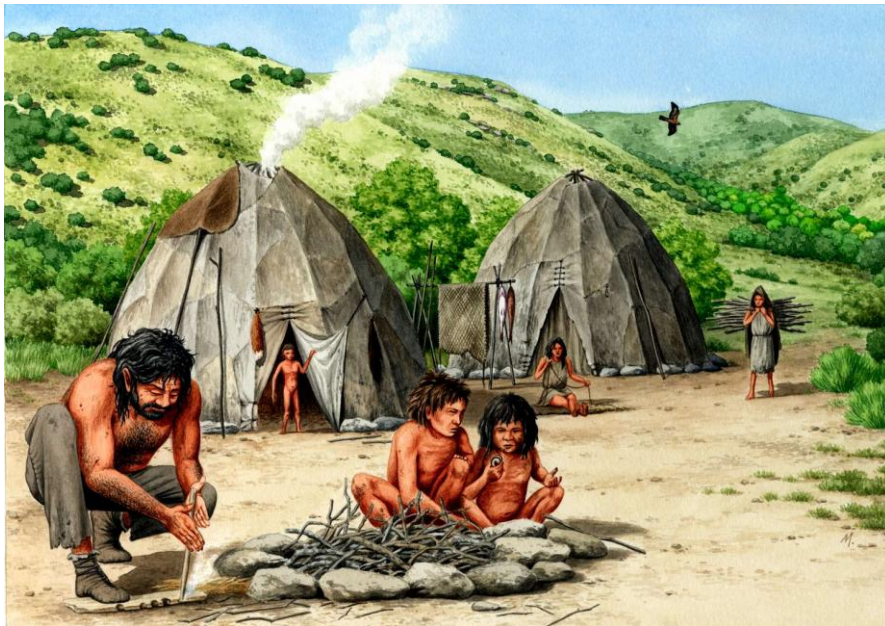CRÉATION DE L'HOMME ET PREMIERS AGES   **25**
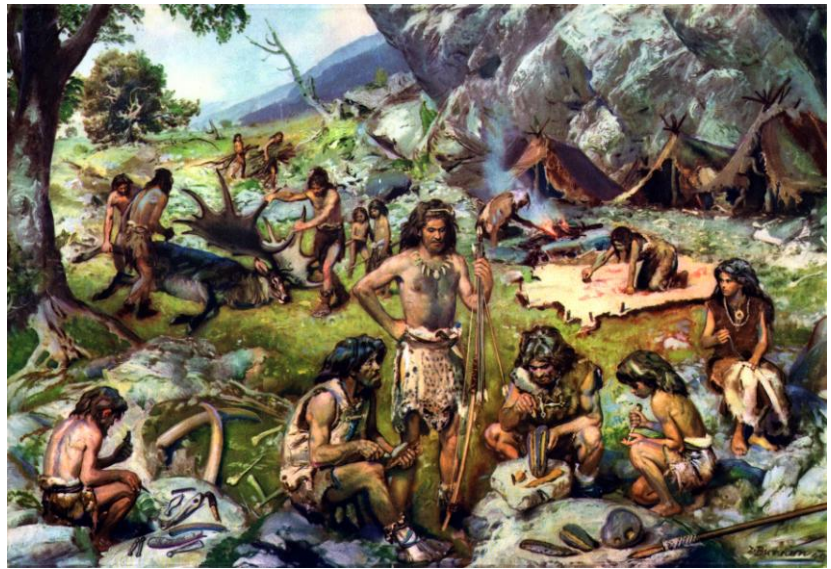
Img1960P

Img2010P

Neolithic Images

Img1960N

Img2010N

Popular Cultural/Non-Academic Images

Img1920PC

Img1960PC

Img2009PC

4.2 Comparative Iconographic Analysis of Images

Paleolithic images

Stance: Img1880Pa contains five people, all of whom have their own stance. Three of the stances occur near the rock – one is kneeling on top of the rock, another leaning on the rock (both are holding objects high from their bodies, the objects are inferred as weapons based on their shape and context of the scene), and a third is on the ground in front of the rock, being held in place by a bear's paw. The final two people are standing in the cave, with the man in front of the woman, also pointing a weapon toward the bear. Img1880Pc also involves a brandished weapon as part of its stance. The stance in Img1880Pc is upright and controlled, based on the spread feet and the hand around the bear's neck. Img1880Pb also has a controlled upright stance by a male (but no wild animal), who is leaning against a rock with one hand on his hip. He is the only one standing in this image; the other four stances are sitting around him. The woman is sitting nursing a baby, and the two children are sitting at the man's feet looking at an object. The stance of the children in Img2010P is very similar, as they are sitting near the fire pit looking at an object; the third child in Img2010P is standing in the entrance to one of the house structures. The man in Img2010P is sitting on his heels to the left of the fire pit, manipulating a stick. One woman in Img2010P is sitting on the floor, and the other woman is standing in the distance. Img1960P has the most stances of all, as it contains the most people; however, all stances revolve around the central male in the middle, who is standing upright (similar to the way in which all other stances revolve around the male in Img1880Pb). The other stances in Img1960P include five people sitting in the foreground, all with objects in their hands. Two people kneeling in the right hand corner, one on an animal skin and the other by a fire. Five people in the left hand corner around a dead animal. Finally, two people in the background carrying some bundles.

Gender ratio (males:females:children): Img1880Pa has a ratio of 4:1:0; Img1880Pb has a ratio of 1:1:3; Img1880Pc has a ratio of 1:0:0; Img1960P has a ratio of 11:2:2[12]; and Img2010P has a ratio of 1:2:3. Women are either outnumbered by men, or absent. In the one case where women outnumber men (Img2010P), the two women are drawn in small perspective and their combined presence does not equal that of the man in the left corner of the foreground.

Actions: Img1880Pa and Img1880Pc both involve fighting, as suggested by the close proximity of a large bear, with weapons brandished towards the animal, the man pinned to the ground in

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1   One figure in the foreground is gender ambiguous, however, classified as a male due to similarities with other males in the image. The gender ambiguity will be discussed later in the essay.
2   The two figures in the background, carrying sticks, are classified as male due to their lack of shirts

Img1880Pa, and the blood on the man in Img1880Pc. All other images involve calmer actions. Img1880Pb and Img1960P are similar in that all actions revolve around the central male. In Img1880Pb the man is gazing off to the right, and in Img1960P the man is gazing downward, observing the foreground. Gaze was noted by the direction of their eyes and head. The woman in Img1880Pb is nursing an infant, which is evident by the way she is holding the baby near her breast. The children in Img1880Pb are looking at an object, with their backs turned toward the viewer. These children are very similar to the two children sitting by the fire pit in Img2010P, who are both looking at an object as well, although their faces are turned toward the viewer. The five people in the foreground of Img1960P are all working: with tools, with animal skin, or with art. One person in the right hand corner is working with an animal skin, and another is tending to a fire. One woman in Img2010P is working with some sort of string. The person tending to the fire in Img1960P is similar to the man in the foreground of Img2010P who is manipulating a stick to make fire, as inferred by the smoke rising from the stick. Three of the people in the left hand corner are actively working with the dead animal, in Img1960P, as noted by one grasping the horns, another lifting the leg, and a third with an implement in hand. The two children are observing. One child in Img2010P is also observing from the entrance to one of the house structures. Finally, the two people in the background of Img1960P are carrying sticks, just as one of the women in Img2010P.

Overall mood: Img1880Pa and Img1880Pc are the only images that have an aggressive mood, as inferred by the presence of a large bear and the brandished weapons indicating fighting. The facial cues in Img1880Pa also indicate fear. Img1880Pb, Img1960P, and Img2010P have a calmer mood, as suggested by the lack of large beasts. Img1880Pb is the calmest because the actions are passive (i.e. gazing, nursing, and looking). The far off gaze of the male in Img1880Pb indicates disinterest, as it is not a concerned gaze, but a calm one. Img1960P and Img2010P are more productive, indicated by the various activities being performed by the people in the illustrations. Img1960P being the most productive as it contains the most people.

Contents of background: Img1880Pa and Img1880Pc contain a cave, or an opening, in the side of the rock face. Img1880Pa also has a mammoth in the background, the only image to contain another live terrestrial animal. Img1880Pb has the least developed background, featuring a rock and hills. Img1960P and Img2010P both contain house structures; however, aside from the house structures there is little else of significance in the background.

Paleolithic and neolithic transition images

Stance: Img1960P and Img1960N have a similar stance organization, with one central stance and all other stances revolving around the central figure. Img1960N's other stances include: one kneeling and grinding food stuff, as inferred by the metate and mano in hand. Another is kneeling and holding a curved implement, most likely a sickle because of the grain; and another is standing beside, holding the same implement. The two final stances are in the background: one is carrying a large log of some sort, and the other is hunched over a pile with an ax implement (the same implement as the central figure). Img2010N has less varied stances, as half of the stances are working on a house structure. The other stances include: one loading an object onto a cart. Another is crouching next to a dog. Another stance is holding an object out, for which another stance is placing something into that object. The two final stances are working with some type of material, probably animal hide. Img1960N has fewer stances than Img2010N.

Gender: Img1960N has a gender ratio of 4:2:0. Img2010N has a ratio of 7:1:4.

Actions: Img1960N has productive actions; all individuals are actively working on something. While there are less people in Img1960N than Img1960P, Img1960N can be classified as more productive in their actions because all individuals are active, as compared to Img1960P where the central male is just observing. Img2010N is more active than Img1960N, as half of the individuals in Img2010N are working toward the common goal of building a house structure.

Overall mood: the overall mood of Img1960N is calm and productive; however, the overall mood of Img2010N is more productive. Img1960N is less productive, in terms of mood, because everyone seems to be very private in their actions, and settled in their environment; whereas Img2010N is more productive, in terms of mood, because half of the individuals are working together to build a house structure, which increases their environmental control. Img2010N is also more engaged in its mood, as the other individuals are working cooperatively as well.

Contents of background: both Img1960N and Img2010N contain similar house structures, composed of large support posts and thatched roofs. Both Images also contain domesticated animals in the background. The domesticated animals in Img2010N are corralled, whereas in Img1960N they are not. Img2010N also feature designated paths, something not present in Img1960N.

Popular culture/non-academic images

Stance: the stance in Img1920PC is upright and controlled, similar to the stances in Img1960PC and

Img2009PC. In all three images the stances are taking place in a wild setting as suggested by the foliage, in Img1920PC and Img2009PC, and the wild beast in Img1960PC. The stance of Img1920PC is the only other one to contain a female in close proximity. The stance of the man suggests control over the female, as she is slung over his shoulder. Her stance is timid and passive by her lack of struggle. Similar to this is the stance of the female in Img1960PC, where her timid and passive stance is suggested by her leaning posture, creating distance between her and the beast. Img2009PC has no female to compare the male stance to, but the lack of a female suggests the ability of the man to stand alone. Img2009PC has a similar stance to the previous two images in that he is upright and controlled. Control of the male stance in Img2009PC is suggested by his crouched position and outstretched fingers indicating precise movement.

Gender ratio: the gender ratio is 1:1 for Img1920PC and Img1960PC; but 1:0 ratio for Img2009PC. While the 1:1 ratio seen in the first two images would appear to make an even representation of the two genders, the stance, actions, and mood surrounding the portrayal of the female make her role in the images secondary to the male.

Actions: the action of the male in Img1920PC is carrying a female and a club simultaneously. The action of this image is more passive compared to the action in Img1960PC, where the male is in combat with a wild beast. Combat is suggested by the directed aim of the weapon held by the male, and the target presence of the wild beast. Both the females presented in Img1920PC and Img1960PC display no actions, but reactions. For Img1920PC the female is at the mercy of the male, although appears not to struggle, and actually enables him to carry her by the way her arm is wrapped around his neck. For Img1960PC the female is at the mercy of the monster, and her inability to act is seen by her lack of weapon and distance from the monster; furthermore her passivity is suggested through her lack of running away. Img2009PC's actions are more similar to Img1920PC, in that the male is passively carrying a weapon. Based on the hunched posture and spread out hands the male in Img2009PC appears to want to be unseen; contrary to both Img1920PC and Img1960PC, where both males appear to command presence in their actions.

Overall mood: Img1920PC has an overall mood of confidence and power exhibited by the male, similar to the mood exhibited by the males in the other images. Confidence in Img1920PC is inferred by the stoic expression of the male (especially when contrasted with the fearful expression of the female), and the power is inferred by the presence of the club. The same is true for Img1960PC: although the expression of the male cannot be seen, confidence is inferred through his proximity to the

monster (especially in contrast to the distant female), and power through his poised weapon. The powerful mood is continued in Img2009PC with the presence of a weapon, and is increased by the independence of the male. For Img1920PC and Img2009PC, both males appear to be preoccupied with something to the right, outside the scope of the image. This creates a mood of mystery: a mystery for which the male in Img1920PC appears unconcerned, and the female appears distressed (based on facial expressions); and a mystery for which the male in Img2009PC appears to be in control of, through his ability to remain unnoticed by whatever is off to the right.

How does the comparative iconographic analysis differ through time, or remain the same?
For the paleolithic images some aspects have changed and others have not. The violent atmosphere of the late 1800's images disappears in the 1960's and today, being replaced by a more peaceful environment. While a peaceful environment is depicted in one of the images from the late 1880's, it is not as productive as the environments featured in later images. Men are the prominent feature in all images. In all but one image men outnumber the women, and in all images men are the central focus. Central placement enhances focus and relays messages of importance to the viewer; which is in direct opposition to the margins of an image (Hall 2012, 98). For the late 1800's men are either the central focus by fighting or standing over their family, which command attention from the viewer. In the 1960's image everything revolves around the male standing in the center. The other people in the foreground are sitting, and those standing in the background do not measure up in size to the male. Just like the modern image where even though the man in the foreground is crouching, his represented size dwarfs the standing female in the background. Additionally, more attention is paid to the foreground than the background (Wells 2008, 36), which further enhances the crouching male and devalues the females in Img2010P. The females that are depicted in paleolithic images are also very productive, with the exception of one female in a late 1800's image who is being protected by a man (Img1880Pa). Men are the only ones who seem able to relax and observe (Img1880Pb and Img1960P). Stephanie Moser (1998) says that there are six iconic scenes used to represent human prehistory, which were established in the late 1800's: combat with wild beasts, hunting, making fire, making tools, eating rituals, and creating art. All of the paleolithic images depict one of these scenes, aside from Img1880Pb. The adherence to these scenes is interesting, in that they are the only snapshot offered of a prehistoric past.

For the paleolithic to neolithic transition images, from the 1960's and today, there is an increase in the

amount of control neolithic farmers have over their environment. Both images show a significant amount of control when compared to their paleolithic contemporaries; however, the modern image exhibits more control of the surroundings (i.e. the corralled animals, designated pathways, and more effort toward improvement with the depiction of people actively working to build another structure). For both Img1960N and Img2010N men dominate the transformation of nature to culture. This transformation in progress (a mastery over nature) is a male accomplishment (Wiber 1997, 131). These images show that a significant leap was taken between the paleolithic and neolithic time periods, and this leap becomes more pronounced with modern depictions of the neolithic. This increase in prominence can be attributed to the eras in which the images were created; the modern era has seen more progress in the world, and within archaeology, than what was seen in the 1960's. This increased progress then gets superimposed upon the imagined 'step' hunter-gatherers took to become farmers.

In regards to popular culture images, not a lot has changed from the 1920's to today. The males are always depicted as in control of their environment, no matter what is present or not present. They are confident and never scared. The females, on the other hand, are always featured as helpless and needing protection; only capable of having reactions and not actions. Furthermore, the garments depicted for males have remained fairly stagnate. The garments are of fur, however, the amount of fur decreases as you progress through time. The same is true when comparing the female garments in the first two images, albeit with a greater decrease. The woman in Img1960PC almost appears naked.

4.3 Critical Discourse Analysis

The Critical Discourse Analysis (CDA) mainly discusses the paleolithic images, and touches on the transition images, through highlighting the politics and male dominance behind them. Images affect politics and power through their power of 'imagination', which is a threat to control (Stocchetti 2011, 19). Images are an important discussion topic today because of the 'visual turn' that occurred in the 80's and early 90's, and the rise of visual cultural studies which opened discourse concerning the distrust of fixed truths, identities, ideologies, and thoughts (Herkman 2011, 44-45). The CDA is organized in terms of the general atmosphere of archaeology, the artist/author/publisher, and western aesthetics/male dominance of each era. Western aesthetics are important because artistic style is an inescapable factor in archaeological illustrations (Wiber 1997, 70). The CDA is organized by eras, because images need to be critically discussed as material culture from the time in which they were

produced and used, and in connection with the social and economic structures of the time (Herkman 2011, 51).

Late 1800's Images

General overview

As mentioned above, in chapter three, the late 1800's was a blossoming time for science in regards to human's and earth's antiquity. Images were known to progress in the following iconic ways: Biblical iconography → chivalrous iconography → ape-like iconography (Moser 1998, 133). Scenes went from Edenic to battles, from Biblical to scientific, and from Adam and Eve to modern men (Moser 1998, 124). Prior to the "truly scientific" accounts of the later 19th century, the study of human antiquity in the early 1800's was meant to provide a non-mythical account of human origins (Moser 1998, 107-108). At this time there was a greater concern with placing humans in prehistory than with the context of finds.

One major obstacle for scientists and artists was rendering images of the distant past that popular science books would endorse. Images were not permitted to depict humans too far back in earth's history; likewise, they were not able to depict humans alongside extinct animals – regardless if scientific evidence could prove otherwise (Moser 1998, 121). The desired image was to be one that audiences could connect with on a known level, because these were images of their own ancestors; but, the images also needed to depict a somewhat inferior race, in order to explain how modern humans got from their humble beginnings to the advanced society they are today - "This picture of savagery enhanced the Victorian's self-image as civilizing rulers" (Moser 1998, 125). Images of prehistory were highly skeptical, based on loose evidence, yet somehow told a complete story.

In the 19th century the rise of the middle class allowed the purchase of more books, with illustrated books being the most popular for a mainly illiterate middle class (Moser 1998, 109). These books were centered around associating middle class progress with biological evolution (Trigger 2006, 146). Industrialization, at the turn of the century, brought with it consciousness of the differences between classes, and a threat to the bourgeoisie of being able to maintain control of the social order for their own interests (Fiske 1989, 66). Not only were the books meant to provide new scientific discoveries to a wider audience, they had a clear political agenda that validated the struggles of a working class. Archaeologists created this 'generalized other' which they used to guide behavior of those devouring the knowledge (Charon 2009, 158-199). Archaeologists carefully controlled their

writing and flow of knowledge, as they work in the present and overwhelm the past with their concerns (Carman 1995, 99). Power only works in its ability to mask a certain part of itself and to hide mechanisms (Burr 2003, 73); and archaeological reconstructions hid their mechanisms of persuasion behind explanations of human antiquity. The struggles against wild animals in Img1880Pa and Img1880Pc could be read by the middle class as representing their modern struggles against an oppressive upper class, fighting to provide for their family.

Artist/author/publisher.

Img1880Pa and Img1880Pb were made by Emile Antoine Bayard, for Louis Figuier's book *L'Homme Primitif* (1870). Emile-Antione Bayad began his career producing humorous drawings for various magazines; he later began drawing current events for select magazines. As his field began to disassemble with the introduction of the photograph he turned to illustrations. Bayard is most famous for his illustrations in Victor Hugo's *Les Miserables*.[3]

Louis Figuier, in his books, was prone to symbolically include scientific facts, not the actual hard facts derived from science (Moser 1998, 123). The appeal of his stories were not the artifacts, but the composition of illustrated scenes, which contained "current views of gender roles"; probably in an attempt to make them more accessible (Moser 1998, 129). Img1880Pb is a perfect example of this, as it represents a nuclear family, headed/protected by a father, with a nurturing mother, and three children. Regardless of his 'un-scientific' methods for depicting human antiquity he became a sort of template for other illustrators; and, by the end of the 19th century his set of thirty images concerning human prehistory was reduced to five or six (hunting, tool making, eating rituals, making fire, combat with wild beasts, and art), which were chosen for their visual appeal (Moser 1998, 131/141).

Img1880Pc was made by Henri Raison Du Cleuziou, for Camille Flammarion's book *La Creation De L'Homme et les Premieres Ages De L'Humanite* (1887). Henri Raison Du Cleuziou was probably the main author, as well as illustrator, for the book*,* with Camille Flammarion acting as an editor and publisher. Raison Du Cleuziou was an archaeologist and French historian, who authored many books in his lifetime[4].

Camille Flammarion was not a trained archaeologist. He is mostly known for his work in astronomy. Later in his life, he became interested in extra-ordinary sciences, such as: telepathy,

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3   All information about Bayard was obtained from 'Art Directory' (internet site)
4   Le Coeur Pensif

apparitions of the dead, prematory dreams, and clairvoyance[5]. For Flammarion humans, and especially man, held a special place in the images he endorsed. In Img1880Pc we see that man is the central focus, the image being a testament of man's strength against beast. In other images Flammarion has chosen to represent prehistory (i.e. "accent of life"), humans appear to have a special place in evolutionary history; however, the text of Flammarion's books did not match the images, as they openly discussed man's connection to apes in evolution (Moser 1998, 121). This disconnection between images and text is one example of how images needed to conform to strict rules in order to be published.

Sadly, not much is known for either of the authors, and less for the artists, aside from some literature and scanty biographies put together on the internet. Stephanie Moser mainly refers to the authors and publishers when she discusses prehistoric imagery in the late 1800's. While they were not the creators of the images, it was their conscious choice that is most important for her. The intense concern with the archaeologists and publishers, however, leaves out the role of the illustrators. Melanie Wiber mentions that the artist's personal aspects are often ignored when discussing images (1997, 205). By the turn of the century, artists were becoming more well-known than the scientific knowledge on which they were basing their images (Wiber 1997, 68). Therefore, information on the artists is necessary, and to down-play their roll would leave out crucial pieces of the puzzle in stereotype perpetuation.

Western aesthetics/male dominance

The male power and dominance of the late 1800's is apparent in the illustrations. Not only were the artists male, they were contracted by male archaeologists (or scientists). They saw the world through their eyes, and created a world for the prehistoric past in their mind's eye. Furthermore, the artists did not have a background in archaeological reconstructions; they were trained in other areas of contemporary aesthetics – mainly humoristic and cartoony styles. Going from their own background of illustrations, they needed to draw inspiration from other sources; this inspiration came from the information given to them by the archaeologists, as well as other areas of contemporary art. Contemporary art played a large role, as it was necessary for these images to have more visual appeal than accuracy.

Visual appeal is mediated by Western ideals of aesthetics. Between the mid 1800's and early 1900's the female nude was a popular subject. The medium of painting became a container to en-frame

5   Encyclopedia

and control the unbridled threat of female sexuality, constructed to tame the anxious roaming gaze of men, who were the dominant subject of European society (Jones 2012, 65). Jean Paul Satire, quoted in *Seeing Differently* (Jones 2012), said "for three thousand years, the white man has enjoyed the privilege of seeing without being seen", and this is true for images of prehistory. The creation of a society in prehistoric times was solely up to the dominant artists and archaeologists of the time, with a desire to tame and control the threat of an unbridled past. They were able to take the distant past, represent it in images and texts, all without being challenged by those whom they were representing. With the length of human antiquity continuing to be extended, and with evolution providing more proof of humans' connection to primates, there was a growing need to make a difference between us and them (Moser 1998, 144-145); however, there was still a need to make the past accessible.

Archaeologists and illustrators created a past that made sense in the present. The stereotyped caveman and static set of prehistoric scenes depicted in illustrations were created during this period. Somewhere in between all the transition mentioned above society dictated what was permissible and appreciated for paleolithic reconstructions. Once scientific evidence had mounted, and it was accepted that the Bible was not the true account of human origin, all that was left was communication noise between the evidence and the personal reality of the illustrator and archaeologist. With the little amount of evidence and rudimentary methods they had, especially in regards to deciphering the social life of prehistoric humans, "predictably they [the archaeologists and illustrators] turned to the images already fixed in mind" (Moser 1998, 123). The images in their mind, especially for the illustrators, came from Western ideals of aesthetics and beauty, ethnographic accounts, and their own lives. Careful measure was taken to balance these extremes. The caveman was born to represent a prehistoric life in a modern framework (Moser 1998, 131).

1960's image

General overview

What characterizes the 1960's paradigm of processual archaeology from its predecessor is its close relation to anthropology. Although anthropology is the study of humans, archaeology was not interested in the human behind the artifact, but the system operating behind the individual and the artifact (Kent Flannery, quoted in Trigger 2006, 410). Additionally, changes were seen in terms of generalizations and not particulars (Johnson 2010, 23). The concern with these systems and generalizations is apparent in the transition images (Img1960P and Img1960N), where the illustrator took it upon himself to

represent, through generalizations, how much the system had changed between the two time periods. The most dramatic difference between the two images is the intense control of the environment, which is mainly what archaeologists were focused on.

While processual archaeology marks a decided shift in the practice of archaeology, a lack of concern for understanding the individual is prominent in the beginning. The concern with systems, and disregard for people, manifests itself in another way through the transition images. The images depict a decrease in population between Img1960P and Img1960N. Neolithic settlements, because of increased technology and manipulation the environment, would be able to sustain a larger population than a paleolithic settlement; however, as individuals are not the main concern for archaeologists, the facts about individuals are not salient to the illustrators.

Artist/author/publisher

The illustrations chosen to represent the 1960's are by Zdeněk Burian, he created both Img1960P and Img1960N. Burian was a Czech artist, whose work, throughout his life, gained international success. For Burian, creativity and science existed together (Stoczkowski 1997, 249). While he was revered for working closely with paleolithic archaeologists, had a lot more evidence to work with compared to the previous paradigm's illustrators, and presented prehistoric life in a wild and un-romantic way, Burian's representations are still remnant of Louis Figuier's template (Moser 1998, 162). In fact, the image chosen to represent the paleolithic exemplar (Img1960P) contains most of Figuier's standard set of scenes mentioned above: hunting, tool making, making fire, and art. In addition to being well known for his illustrations of the paleolithic, Burian is also widely renowned for his reconstructions of times before humans – dinosaurs, and extinct flora and fauna. Like his fellow illustrators before him, Burian also illustrated books; but, unlike the other illustrators he became widely recognized for his work in scientific reconstructions[6]. Images by Burian continue to be used today; they are made to fit new evidence by altering the captions and texts (Moser 1998, 164). Burian's works are widely published in text books and in popular magazines, such as National Geographic (Wiber 1997, 71). The reuse of his work has made him an influential artist for this genre, as we will see later for the modern illustrator.

The largest difference between the late 1800's images of prehistory and Img1960P, is the amount of detail. The gratuitous amount of detail increases the plausibility of the image, by signaling to the viewer that all elements in the image are a product of careful choice; furthermore, careful choice on

6   JVJ publishing

behalf of an artist whose validity is backed up by the expert text of a museum, archaeologist, or scientific publication (Gifford-Gonzales 1993, 27-29). The goal of Burian was to be accurate and complex; however, his illustrations show that it is difficult to get away from the earlier stereotypes created (Moser 1998 164).

Western aesthetics/male dominance

Archaeologists were, at one point, part of the general public, and their interest in the field of archaeology was most likely inspired by popular representations of prehistory (Moser 2001, 264). These images played a role in their career choice, as well as provided examples of what a good prehistoric reconstruction should look like.

In addition to gaining inspiration from past examples of images, which is a common occurrence, the binary model of understanding the self and others became central to visual arts theory and practice (Jones 2012, 71). The binary model, after being appropriated by Freud and Marx, became deeply embedded in Western culture (Jones 2012, 78). Western societal constructs not only stress the belief of binary opposition, but also engage in binary ranking (i.e. gender ranking). In addition to binary oppositions of gender, the 1960's also experienced gender bending (i.e. flower power movements with men encouraged to grow out their hair, or women in the military required to cut theirs), perhaps in an attempt to move beyond binary oppositions of gender. In Img1960P there is a gender ambiguous person in the foreground of the image, which could be the result of this trend in society.

Regardless of the gender bending exhibited in the 60's (which includes extreme gender bending like transgender), it only served to preserve the two legally recognized gender roles: a dichotomy, where men are ranked higher than women (Lorber 1994, 20-30). One male-to-female transgender, whose transition was completed in 1975, reported growing increasingly feminized due to her treatment in society: she found that men generally liked and expected women to be less talkative, less-apt, less-informed, and less self-centered than they were (Lorber 1994, 29-30). This view of gender is apparent in the image chosen to represent the 1960's. Img1960P is one that is dominated by males. Regardless of the male in the center, who is the focal person, there are only two women clearly present; and, those women are engaging in the stereotypical activities of preparing hides (Gifford-Gonzales 1993, 37; Wiber 1997, 100) and sewing.

Despite how accurate an image may claim to be in reflecting a natural process, they are

constrained by the social constructs of a given time (Molyneaux 1997, 3). Recalling from chapter three, *Man-the-Hunter* (1968), was a very influential text. Language shapes meaning (Moser 2001, 263), and the popular and influential texts of this time were male. The use of the word 'man' in evolutionary texts is so overused that no one thinks twice about it (Chabot 1990, 139). Men were given more access to the past, and this access was grounded on an evolutionary basis (Wiber 1997, 79). Evolutionary basis to support this can be found in useful, although not necessarily truthful analogies, such as Sherwood Washburn's resilient attempt to correlate male dominance in early societies with baboons, who orient societies around males for defense purposes (Wiber 1997, 124). Not only was hunting given precedence, but seeing as it was considered an all-male activity, men were given a special place in prehistory. This special place is evident in Img1960N, and especially in Img1960P, with a man portrayed front and center, and all other work revolving around him.

The extreme male centered illustrations and interpretations of prehistory from the late 1800's become amplified in the 1960's through texts like *Man-the-Hunter*, as well as the archaeologists and illustrators who continue to validate this view on prehistory through their analogies and guided methodologies that attribute credit to men for advancing society to its status today. Men dominate in this paradigm, so they must have dominated in prehistory, and been responsible for its progress. The social construction of gender remains binary and simplified, as it did in the late 1800's. Males dominate in society, in the discipline of archaeology, and in the choice of artists to represent prehistory. These men were born into a male dominated world and retain the biases of former generations, seeing the world through male eyes.

Modern image
<u>General overview</u>

The modern paradigm began in the 70's, shortly after processual archaeology had started, and was named post-processual archaeology by Ian Hodder in 1985 (Trigger 2006, 444). A main difference between processual and post-processual interpretations is the desire to look at the individual as active (Johnson 2010, 108). Archaeologists are equipped with different methods and theories to understand the past and the people in it. Post modernists all agreed that there is no single objective vision of the past, and that all data is theory laden from the onset (Johnson 2010, 105). Some radicals even took it upon themselves to deconstruct the hegemonic nature of knowledge, which they believed served those in power at the expense of those not; because power and knowledge are socially constructed (Trigger

2006, 447, Johnson 2010, 105). The hegemony of archaeology occurs in the interpretation and reconstruction of the past; a past that belongs to everyone, but is made sense of by a select group of educated people (Shanks, Tilley 1987, 198).

One example of knowledge hegemony is presented through gender archaeology. Gender archaeology started during this paradigm, occurring at different times and places around the world; however, this concern with finding gender in the archaeological record did not overcome the male dominance of archeology's discipline. Mentioned above, in chapter three, many considered gender archaeology to be a fad (Levine 1994, 23). Controlling discourses is in the interest of powerful groups, and changes in discourse will be met with resistance (Burr 2003, 76-77/123). The powerful groups in this context are male archaeologists. The retaliation toward gender archaeology, by males, can also be connected to deindustrialization. Deindustrialization, in addition to changing gender division within the family, brought with it tones of 'de-masculinization', which resulted in many men seeking a scapegoat to reaffirm their masculinity (Brush 1999, 173-174). Gender archaeology became its own sub-discipline of archaeology. As a sub-discipline, gender archaeology was not actively incorporated into every aspect the practice; it remained a sort of side note. This sub-discipline was dominated by women, and at the beginnings was mainly a political protest toward the absence of women in archaeology as a whole, as well as the interpretations of the past.

Artist/author/publisher

Img2010P is by Marcos Ollivera, an artist from Portugal, who has worked with a variety of different archaeologists to recreate scenes from the distant past. Ollivera is not exclusively an archaeological illustrator; he did, however, receive a degree in history. His inspiration came from other archaeological illustrators such as: Zdeněk Burian, John Sibbik, Jay Matternes, and the Kennis brothers. While he is inspired by them, he does not feel that he copies them, but instead draws inspiration from what he likes, disregards what he does not, and adds many of his own views. When asked to create an archaeological illustration Ollivera is given information about a site, and any other pertinent details from the excavation. Ollivera will 'fill in the gaps', so to speak, with his perspectives by including people for which their numbers and social relations are unknown. He says that he searches books and the internet to get as much information as possible before beginning his drawing. An interesting comment he made was that the archaeologists who contract him "must (or should) follow the illustrator's work, guide him and suggest elements, etc."; however, the 'should' suggests that this is not always the case. A lot of

reflection is done on behalf of the illustrator, and it is a conscious effort to make the images as accurate as possible. Ollivera does take great pride and care in his reconstructions[7]. The modern image is by far the least stereotypical; however, there are still aspects that continue to represent the original stereotype created in the late 1800's – which will be mentioned below.

The artist of Img2010N is Ken Dewar. He studied art and design, and finished his studies by graduating from a visual communication program. As the trend seems to continue, Dewar is not strictly an archaeological illustrator. His art is directed in many different areas, one of which is a children's book series[8]. Img2010N is part of a touring neolithic exhibition from the Royal Ontario Museum, Canada[9]. Another trend, which was first seen in the 1960's transition images, is amplified in the modern renderings: individuals have become much more active in gaining control of their environment. There is more activity, more control, and more people in Img2010N than Img1960N. Unlike the 60's transition images, we see less people in Img2010P than in Img2010N; which demonstrates thought on behalf of the artist and archaeologists to understand that paleolithic settlements would support less people than a neolithic one.

Western aesthetics/male dominance

In modern Western ideals of aesthetics, with the help of many feminists, there was a movement away from the representation of binaries (Jones 2012, 94-101). William Pope L, an artist from the early mid 90's, took this stance on identity politics: "you think you know … [but] maybe you don't" (William Pope L, quoted in Jones 2012, 102). Progressing through the 90's and into the 2000's, we begin to see the binary structure crumble in contemporary art – there is no binary, "the other is you", we are all interdependent on each other to identify ourselves (Jones 2012, 102-105).

When looking at the art of archaeology and comparing it to the contemporary art of the time, as well as to the new paradigm, archaeology's art does not seem to fit. Post-processual archaeology became very concerned with its poetics (i.e. how archaeology is being discussed), but the representational side seems to have been disregarded (Moser, Gamble 1997, 185). Gender, and thinking about gender, in modern culture, involves three tiers: process, stratification, and structure (Lorber 1994, 32). As a process gender is learned throughout life; and in Western society we learn what is expected of our two legally defined gender roles. As stratification, mentioned above, gender is unevenly ranked. As

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7   All information regarding Marcos Ollivera was obtained through personal communication via e-mail (10/2 – 15/3/13)
8   Three in a Box
9   ACAD

a structure it means a division of work. Although gender equality has grown alot since the 60's, there are still remnants of a gender bias, with men being favored (see *modern paradigm* in chapter three). Gender archaeology does show an attempt to address the gender issues of the past and present, but the voices of women at this time are still muted in comparison to men. With this in mind, the reconstructions of the paleolithic retain much of their predecessor's style. The main retention is that individuals are simply inserted based on the artists' assumptions of what they would be doing, without careful consideration by the archaeologists. There is no proof for this division of labor in early societies, although it is taken as an essential (Wiber 1997, 107).

Despite this movement away from binaries by many contemporary artists, Amelia Jones states in the conclusion of her book *Seeing Differently* (2012) that we often cling, without acknowledging it, to older traditions in how we identify ourselves and others, and we need to find a way to move beyond this. Michael Shanks shares in her idea that thinking in binaries [dichotomies] is commonplace in Western culture; even in post-processual archaeology, with dichotomies between presence/absence and identity/difference, and we need to find a way to sublate them (Shanks 1992, 42-43). Dichotomies and binaries, especially in the way we view gender, have been imbedded within Western society for well over a hundred years, as shown in the course of this thesis. The long standing nature of a gender dichotomy gives it power and prevalence, any attempts to change it will be slow and subtle; because, as mentioned, we often cling, albeit without realizing, to these older modes of thinking and representing. Even when we think we may be over-riding it (i.e. with gender bending) we are actually contributing to it.

This idea of clinging without acknowledging to earlier traditions is very visible in modern reconstructions of the paleolithic. Looking at Img2010P, we see that although the male is off to the left, his size still dominates the picture, trumping all other figures. The main focus of the images is making fire, as it is presented in the foreground – and this theme of making fire is one of Figuier's original set of images. Doubtlessly, there are a myriad of scenes illustrators could choose to depict. With a little imagination anything could be possible, yet illustrators always seem to cling to the original set of five or six scenes, as well as cling to the use of modern gender roles and ways of representing the gender dichotomy. Additionally, the two children in the center of Img2010P are eerily similar to the two children in Img1880Pb. Two children, who are sitting together and looking at an object; the only difference is that the children in Img1880Pb are facing away from the viewer, whereas the children in Img2010P are facing toward the viewer.

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Short cuts are often taken in archaeological reconstructions, in which older illustrations are copied and/or altered, which is a major factor in the perpetuation of stereotypes (James 1997, 39). While these short cuts and copying can be a factor in the perpetuation of stereotypes, they are not the whole story, because clearly if it was something as easy as giving illustrators more time and information, the issue would have corrected itself once the cause had been identified. The perpetuation of the stereotype has to do with the acceptance of it; the unacknowledged aspect of viewing the world through gendered eyes, and the perceptions, expectations, and preconceptions that go along with viewing/creating images.

This division between men and women whether one wants to acknowledge it or not, is still apparent, and most apparent in paleolithic illustrations. This acceptance could have something to do with the understanding that these images are meant to represent a distant past; however, as we have seen, the images are more representative of a modern era. Whether or not illustrators and archaeologists are aware of the past they are creating, they are creating it – not objectively telling the story. As mentioned in chapter two, archaeology, and the information it presents to the public, is a product of social conditions, and always produced with specific interests and values (Shanks, Tilley 1987, 200).

Above, we have shown that the creation of the caveman was heavily influenced by the politics of the late 1800's, with the creation of conclusive illustrations from fragmentary evidence, and the manipulation of images for their visual appeal and messages of evolutionary progress. We have acknowledged the fact that socio-political constraints are present within the practice of archaeology through the questions that archaeologists choose to ask, the way in which the results are visualized, and the time constraints/commercial concern for illustrations. Both the archaeologist and the illustrator play active roles in the creation and perpetuation of both knowledge and stereotypes. The next section shows the way in which the unconscious works to create and accept these stereotypical images. This section will highlight the role that our perceptions, conceptions, preconceptions, and expectations play in helping to form the acceptance toward aspects of society that we may not agree with. The analysis of popular culture images will be discussed in the following section, as well as later in the thesis through the survey.

4.4 The Power of Images
There is no doubt about the importance of illustrations in the advancement of science (e.g. *Making*

early histories in museums 1991 (ed) Merriman; *The cultural life of images* 1997 (ed) Molyneaux; and *Ancestral Images* 1998 by Moser as a few examples); however, images come with so much baggage, as they are able to communicate in a way that text cannot. There are many debates over whether or not images should be used in academia, but the simple fact of the matter is that they are a valuable teaching and communicating tool, regardless of their deficits. Therefore images should not be cast aside, but understood better.

Data is fragmentary, but illustrations are complete (James 1991, 119). This essay has tracked the perpetuation of the male stereotype from its creation to its use today, and explained the perpetuation in terms of power relations; however, there is more going on than simply politics. Politics may act as the first part, but to use politics as the sole reason for perpetuation is an oversimplified answer, and an answer that will only prompt more critique and less action. A second part to the perpetuation of the male stereotype is the image itself. Images are not created in a vacuum (Bryson 1991, 66), and this is especially true for archaeological illustrations, as they are created through teamwork and communication between the archaeologists and illustrator (James 1997); additionally, the images themselves are able to transcend time, and be brought into new historical circumstances to exert their influence (Bryson 1991, 71-72; Champton 1997. 213). A third part to the perpetuation is that many museums re-use old artifacts, and thus re-display old information (Wood, Cotton 1991, 30-31) in which old illustrations will be used. A fourth part to the perpetuation is the idea that these old illustrations will not be interpreted based on the time and place they were created, but interpreted by a myriad of viewers in a new social context with their own perceptions – that is the power of an image (Bryson 1991, 71). The power of these images is not only subject to the, often, archaeologically un-educated viewers of museums and popular science magazines, but also subject to the illustrator him/herself. Illustrators draw from a combination of actual hard data, communication with archaeologists (James 1991), and their own perceptions (Bryson 1991, 63).

To look at the power of images we will need to discuss it in three parts: the illustrators, the archaeologists, and the viewers. The discussion will relate to the psychological aspects behind decision making and perception in terms of human agency - the agency of the illustrators, archaeologists, and viewers - to reproduce the stereotype of the paleolithic.

Illustrators

As we have read in the last section, all of the illustrators, aside from Raison Du Cleuziou, were/are not

trained archaeologists; and many spent their artistic careers working in other types of artistry. From my conversations with Marcos Ollivera, I found that archaeologists are not always as involved as they should be in the creation of illustrations. Therefore, we need to try and explain how this creative process may work – what is happening when these illustrators are conceptualizing their final creations. The best comparison for the late 1800's illustrators is to that of a fairytale illustrator. Mentioned previously in the last section is the fact that the first renderings of prehistory were meant to simply be non-mythical accounts of human origin, they were not created from "truly scientific" methods (Moser 1998, 108). Just as illustrations of a fairytale may evoke sympathy, or other emotions, from the viewers for a specific character (Bottigheimer 2010, 146-147), so were the illustrations of the late 1800's meant to evoke emotions from middle class viewers for their distant ancestors; as well as provide a connection to the struggles endured then and now.

The image by the illustrator can be thought of as a guided window into the past, because it will only include what the illustrator and client desire (Pole 2004, 3). Sue Lafky (PhD in mass communication) and Daniel Kahneman (Nobel Prize winning psychologist) discuss how people make judgments about uncertain events, and I would argue that judgments concerning prehistoric illustrations in the late 1800's were highly uncertain. Judgments involve a certain amount of heuristics, and those heuristics enable our brains to take shortcuts. Populating a prehistoric past not easy, and when illustrators 'predictably turn to what is in mind' (Moser 1998, 123), an availability heuristics becomes activated. This availability heuristics is influenced by the illustrator's own experience, as well as the experiences dominant in society (Kahneman 2011); and, is also based on how quickly instances come to mind, not the sum total of occurrences (Lafky *et al*. 1996, 382). For illustrators in the late 1800's, social organization revolved around men; and when calling upon their availability heuristics, the social world they create will also revolve around men. This is an extremely simplified process for the brain, as availability heuristics is part of system 1 thinking (quick thinking) (Kahneman 2011). System 1 thinking is quick to believe what it thinks is true, especially if this belief does not violate any aspect of the real world, making this form of thinking very powerful; and, it does not recognize disregarded or un-available information (Kahneman 2011). Availability heuristics is also prone to be very stereotypical (Lafky *et al*. 1996, 382).

For illustrators in the 1960's, things get slightly more complicated. The study of prehistory has been developing, in Europe, for a century, more or less. Non-mythical accounts of human origins have been replaced by "truly scientific" accounts; this replacement, however, does not solve this issue of

stereotype perpetuation. The availability heuristics of 1960's illustrators can now include earlier images into its repertoire. In line with the fairytale analogy mentioned above is the idea that removing well known icons from their context is unthinkable (Bottigheimer 2010, 143). This original prehistoric story that had been created in the late 1800's played a large role in society; how could illustrators from the 1960's think of changing it? Burian, the 1960's illustrator, did not want to change it, he reproduced the power relation.

In addition to availability heuristics, for Burian, his closeness with the discipline of scientific reconstructions make him somewhat of an expert. Kahneman describes something called intuitive heuristics, in which experts learn to hone in their intuition to make decisions based on their experiences (Kahneman 2011). While this sounds like a good thing, it involves the same simple process as availability heuristics. Intuitive heuristics is also governed by system 1 thinking, and involves the substitution of a hard question for an easier, related question (Kahneman 2011). Burian's intuitions about prehistoric life may have been more based on what was being written about it then on serious reflection. Mentioned above is the importance of texts like *Man-the-Hunter* (1968) in guiding archaeology, and these texts clearly placed a significant amount of weight upon males and their contribution to prehistoric life. Instead of asking a questions such as "how would a paleolithic campsite look on an average day?" Burian may have asked "what has been written about paleolithic life so far?" Kahneman mentions that system 1 is usually the dominant voice, unless it fails, in which case we turn to a slower form of thinking (system 2); however, with expert texts and previous illustrations backing up Burian's mental picture, there is no reason to believe that his expert intuition has failed in regards to realistically representing paleolithic life.

Modern illustrators have an even more complex environment in which to work. In addition to availability heuristics including images from the late 1800's and 1960's, there is more at stake in creating illustrations for the modern era. Stakes are higher because of the criticism visual culture and archaeology has received in terms of bias awareness from gender studies, and control of power from visual communication studies. The genre of prehistoric illustrations has been established, with an abundance of images and research to call upon when creating illustrations. Genres establish particular codes that allow communication be as successful as possible (Hall 2012, 154). The codes for the genre of prehistoric illustrations include Figuier's set of five or six images, as well as a preference for highlighting males and their activities. While these codes are highly stereotypical, they can be seen as helpful in providing a short cut to understanding certain situations (Hall 2012, 158). Depicting scenes

in their most recognizable forms may be a preferred method for illustrators. You cannot just remove the man from prehistoric reconstructions, because that's where he belongs. What would a prehistoric illustration be if not reminiscent of Figuier's standard template?

Information pick up theory believes that perception is learned to the extent of what information is available (Gibson 1966, 269). Available information provided to the artist by the archaeologist does not involve information about social organization; this must be obtained elsewhere. Ollivera stated that he turned to the internet and books to grasp his view of prehistoric life. The artist, as a perceiver, is "self-tuning", picking up reinforcing information which brings clarity, and registers as positive to the brain (Gibson 1966, 271). Reinforcing information about prehistoric reconstructions will come from previous images, considering that the artists are working to produce a visual medium. Kahneman states that system 1, the system for picking up relevant information, is notorious for jumping to conclusions; and if system 1 fails to recognize that its judgments are inaccurate, it begins to provide suggestions to system 2 (Kahneman 2011). System 2 thinking, for paleolithic illustrators, has been given many suggestions by system 1; and since it is only recently that criticism toward visual aids has become prevalent, system 2 thinking will have a harder time re-orienting itself away from the bias suggestions it has received so far.

We see that illustrators are very much a product of their culture. "We are born into societies that have been around for a long time. We enter into interaction that has gone on between other individuals for a long time" - cultural perspectives have already been developed, and change is slow due to the retention of prior establishments (Charon 2009, 166). The goal of the artist is to transcribe perceptions accurately (Bryson 1991, 63), and illustrators have done this; however, we now understand that perceptions are highly mediated by heuristics, bound, to some extent, in past ideals, difficult to recognize falsity, and slow to change.

Archaeologists

Following the fairytale analogy presented above, often only one image is provided to represent a whole fairytale; that illustration marks a moment worthy of emphasis, more important than any other in the story (Bottigheimer 2010, 145). Louis Figuier's condensed set of images, concerning the prehistoric, are those moments worthy of emphasis. The archaeologists from the late 1800's had the duty of explaining as much of the past as they could, in a way that would make the most sense; and while their explanations and images had a political agenda behind them (mentioned above in 4.2), there was too

little known in order to achieve a more accurate representation.

Archaeologists, as we move forward in time, have growing amounts of evidence and are equipped with better tools to interpret and explain the past; however, the images that represent the past evolve very little. Images are more or less an afterthought for archaeologists, and are not their main concern (Gould, referenced by James 1997, 39); furthermore, illustrations are not considered as a form of information that communicates directly to viewers (Molyneaux 1997, 1). This lack of consideration may be due to the fact that, still today, commercial, not academic quality plays a larger role in image publication (James 1997, 39). Some archaeologists are not even that interested in informing the general public (Wood, Cotton 1991, 31). Archaeologists simply "do visual archaeology badly" (Zimmerman 2003, 47), but images gain success through their relation to archaeology (Champton 1997, 223). Representations of the past reduce information to its barest forms, and therefore archaeologists may view the use of previously established icons as an effective way to communicate a lot in a little space because of the public's familiarity with them (Moser 2001, 271; Champton 1997, 223). The stereotypes and power relations that these images are reproducing may not even register with the archaeologists, especially considering that the images play such a minor role in their eyes. Within archaeology biological sex is paramount, but within illustrations archaeologists are asking for a population to be replaced by a social group (Wiber 1990, 79-80), and perhaps without serious reflection as to what is being produced.

Images are not highly regarded in academia (James 1997, 24-25). Archaeologists, none-the-less, do contract illustrators to represent aspects of prehistory for public use, either in museums or for academic purposes. These selected images are not neutral (Zimmerman 2003, 47). Mentioned previously, in chapter two, is the idea that not images, but their use, should come to the forefront of argument (Stocchetti, Kukkonen 2011, 3). Matteo Stocchetti defines power as the "competition for the control over the distribution of values in society" (Stocchetti 2011, 15); and the choice of images that archaeologists use do distribute certain values of archaeology to the general public. Placement indicates what is most important, in terms of communication; and all messages are coded (Hall 2012, 89/129). The paleolithic images, with men in the forefront and an emphasis on male activities, relay messages of male power. The images depicting the transition from paleolithic hunters and gatherers to neolithic farmers also bring messages of power to progress, presenting innuendos of male responsibility for this progression through highlighting them in paleolithic and neolithic imagery – either by being the central focus or by being more productive than their female counter parts.

Archaeological images of prehistory employ persuasion by mimesis and tellability. Persuasion by mimesis means that clues, paratextual markers, and the pragmatic context of an image claim its truthfulness (Kukkonen 2011, 58). The example given by Karin Kukkonen in *Images in use* (2011) is that of a news broadcast performing live. Archaeological reconstructions also have persuasion by mimesis through the displaying the real artifacts, made and used by past people, depicted in the images. Persuasion by tellability mean that clues, paratextual markers, and the pragmatic contexts of an image claim that it is worth looking at (Kukkonen 2011, 58). The example given by Kukkonen is that of advertisements which use loud colors and catchy phrases to entice the viewer. Archaeological reconstructions can also have tellability, for example, through the use of images in magazines like National Geographic with catchy titles and well written text.

If archaeologists have little concern for this mode of information communication, they will not place too much of their own efforts into its creation. Less reflection and heuristics is required on behalf of the archaeologists, as they are not the ones creating the image; however, they are responsible for approving these images for use. The use of images in museums is a power game, loaded with complex power relations and institutional concerns between political aspects, curatorial expertise, and budget (James 1991, 127-129; Wood, Cotton 1991, 30-31). "The archaeologist partakes of, contributes to, is validated by, and dutifully records present-day social and political structures in the identification of research problems and in the interpretation of findings. It remains for reflective, socio-political research in archaeology to decipher the present while we unearth [or illustrate] the past, and to distinguish the two whenever possible" (Gero 1985, 347).

Some aspects of judgment heuristics are involved when archaeologists approve these images; mainly something Kahneman calls an anchoring effect (Kahneman 2011). An anchoring effect works, as the name suggests, like an anchor. Previous images provide a sort of 'base rate' for archaeologists to weigh their contracted images against. This 'base rate' of previous images provides a starting point from which archaeologists to not want their images to deviate too far from. Extremity breeds unfamiliarity: extreme deviation from Western culture (James 1997, 34), as well as from other previous illustrations. While this base rate is extreme in itself, exposure to one extreme long enough causes it to become normalized (Gibson 1966, 308-309).

Not only are archaeologists responsible for choosing the images, they are also affected by them. One example is the feminist critique of images. Feminist oriented archaeologists noticed the male bias in images, and voiced their concerns and oppositions through gender archaeology. Illustrations can also

inspire someone to become an archaeologist (Moser 2001, 264). Personally, I became interested in archaeology when I was 10 years old through a picture book of ancient Egypt. I was enthralled by a life so long ago, and the vivid images of the Egyptian's life made me want to pursue a career in reconstructing the life of past peoples.

Viewers

Another commonality between fairytales and archaeological illustrations is their accompaniment with text. Readers of fairytales unquestionably accept what the image depicts because of the text (Bottigheimer 2010, 155); just as viewers of archaeological reconstructions will accept the images as a true depiction because of the texts which back them up. Archaeological reconstructions are not mutually exclusive from text (Champton 1997, 225), even though there are cases where images are available without text (e.g. Google image search). While viewers may or may not take the images with a grain of salt, they do view the images as a whole, taking in the subtleties. No prior experience with pictures is necessary; recognition is human nature (Costall 1997, 54-55). The persuasion tactics (i.e. mimesis and tellability) mentioned above are detected by the viewers in unconscious ways (Kukkonen 2011, 58).

Just as it is the artist's task to transcribe perception accurately, it is the viewer's task to re-perceive the perception as accurately as possible, with minimal 'noise' (Bryson 1991, 63). But with the viewers, just as with the artists, "the eye is tainted by the original sin of cognition" (Danto 1991, 207). Information provided to the viewer about the image at hand will effect what they see, creating meaning. Part of perception is expectation. Expectation is perception enforced by basic laws (Gibson 1966, 281). Visual perception of images is complex compared to everyday perception, but the rules of Gestalt psychology concerning visual perception apply to all aspects of perception, not just the simplified explanations provided in text books (Wells 2008, 40; Wageman *et al.* 2012, 1180). The brain develops neural networks based on experience, which encompass the brain's understanding/perception in all aspects of visual reception (Wells 2008, 38).

Laws enforcing archaeological reconstructions have been in place since the late 1800's – laws regarding what is permissible and acceptable to represent in regards to a distant past. When we move forward in time we see that those original laws, while not as rigid or openly expressed, still apply. The failure to see these regulations means missed opportunities to question them (Hall 2012, 142). The expectation of what a stone age image should look like has penetrated society, being reified in popular

culture/non-academic settings. The inclusion of three popular culture/non-academic images is meant to demonstrate that fact. We see some evolution in terms of academic images, but no evolution in popular culture images. The cavemen remain brute and primitive, to a comedic extent. The most prevalent and iconic popular culture/non-academic images of prehistory are comedic. Films like <u>Clan of the Cavebear</u> (1986), a serious film about prehistoric life, are more likely to be met with depressing box office results once released to the public than are the comedic ones; with few exceptions to that rule (Klossner 2006, 31). Capitalism requires diversity, but a controlled form of diversity (Fiske 1989, 27).

From the beginnings of prehistoric archaeology in the early 1800's, images were more concerned with visual appeal than accuracy, and today commercial quality still drives the use of images (James 1997, 24); and this, combined with the fact that the prehistoric film genre is saturated with comical representations of prehistoric life, mean that viewers have come to expect the male dominated world and presence of an iconic 'caveman'. An SAA (Society for American Archaeology) poll in 2000 found that the majority of Americans learn about archaeology through television (56%), books/encyclopedias/magazines (33%), and newspapers (24%); very few said that school was an influence in their knowledge of archaeology (Zimmerman 2003, 10). The longest history is one that is still being shaped by live active thinking individuals (Charon 2009, 166). The iconic history of the caveman, while current archaeology may be trying to rectify this stereotype, is still being reified through popular culture/non-academic images. The popular culture/non-academic images presented in this thesis are just a few examples in a sea of many.

The use of images representing knowledge (such as archaeological reconstructions) is a form of control (Stocchetti 2011, 16-19). The control that is exhibited by images is also a one way form of controlled communication, a discourse in which the viewers cannot participate (Stocchetti 2011, 32). Viewers are dawned with perceptual sets, which they acquire throughout their life, and allow them to form associations that guide their perceptions (Dunning, Balcetis 2012, 35). Since the perceptual system is self-tuning (Gibson 1966, 271), the perceptual sets acquired for archaeological reconstructions of the stone age have been very constrained. The original set of five or six images, established in the late 1800's, has persisted, and this has amplified the perceptual set of viewers in regards to stone age reconstructions.

The survey, in the following section, will demonstrate how the public view paleolithic illustrations, the stereotypes that they hold of the paleolithic, as well as the source of how they gain their information.

<u>"We're all in this together"</u>

Section 4.4 has so far been presented in individual terms: the illustrator, the archaeologist, and the viewer. But, it is the actions of these individuals which reaffirm or challenge the consensus through negotiations, and these various action/interaction inputs effect the net result (Charon 2009, 161); and the net result in this case is the perpetuation of the male stereotype in stone age reconstructions. All actors simultaneously belong to the past, present, and future (Emirbayer, Mische 1998, 1012). The most obvious interaction in this scenario is between the illustrator and the archaeologist; however, their joint production of an image, in any setting, interacts with the viewer. The illustrator and archaeologist call upon past repertoires, consider the future, and adjust their present. Viewers do something similar when engaging with an image: the image may evoke notions of the past, imaginations about the future, and reflection on the present. These viewers then "act back on society and shape it, putting forth ideas, actions, [and] directions that arise from within and that influence the direction of others in the ongoing cooperation" (Charon 2010, 167).

Power, within agency, is the ability to act toward resisting or reproducing power relations (Gardner 2008, 96). Beginning in the late 1800's and continuing to today, images reproduce power relations in favor of males, for the various reasons presented above (i.e. politics, gender, etc.). These images were produced through conscious effort by illustrators, and selected by the archaeologists and publishers, to be given to the public who take the images as meaningful. Mentioned before is the fact that images are a one way form of communication in which viewers cannot participate (Stocchetti 2011, 31). The public view these images without any possibility to take part in, or even understand, the images creation. When archaeologists and illustrators work to portray a prehistoric image that is not stereotypical (i.e. the boxgrove reconstruction [James 1997, 41]) these images' do not enjoy the same longevity or popularity as the others, because viewer perception has been trained to expect and seek the stereotypical.

Viewers accept these stereotypical images because they have been exposed to the same male bias world that the illustrators and archaeologists have been; however, the viewers' exposure to a stereotypical stone age is amplified because they are the receivers of the images. While the receiving role is somewhat pacified, the viewers, as receivers, do contribute to archaeological reconstructions by dictating 'commercial quality'. As dictators of 'commercial quality' viewers are actively producing commodities of people (Fiske 1989, 24). The system 1 thinking of the viewers, as described above for the illustrators and archaeologists, has been conditioned to provide these stereotypical expectations,

because these expectations do not violate any aspect of the real world (or the prehistoric world to which they have been introduced). These expectations create an intentional blindness in which people see what they expect, and do not see what they don't expect (Wells 2008, 35). Commercial publications, who capitalize on these expectations, are a whole different topic, and one for which there is no time to discuss in this thesis.

What the reader may begin to see is a pattern in action, in which a cycle begins to emerge, reproducing a stereotypical and bias view of the stone age. "Visual communication is powerful because it binds the viewer in a communicative relation where agency is hidden and meaning is ambivalent" (Stocchetti, Kukkonen 2011, 4). As mentioned in chapter two, agency is a difficult subject which involves interaction, constraints, and changes. The reproduction of the stereotypical 'caveman' is bound in interactions between the illustrator, archaeologist, and viewer who are all acting within the present, made up of the past, and designing the future.

4.5 Survey

I gave the survey to two different departments at Lund University: archaeology and psychology. The purpose of giving my survey is to provide a comparison between archaeologically trained students and non-archaeologically trained students. The comparison highlights what has been discussed in this thesis, by demonstrating that those familiar in archaeology will have a different perception of archaeological reconstructions, and of the paleolithic, than will those not familiar with archaeology. I also took note of which sex filled out each survey, because seeing through gendered eyes plays a role regardless of being educated in archaeology.

- Question 1: Indicate which image best fits your idea of the paleolithic stone age.

    ◦ This question involved a set of 5 images to choose from: Img1920PC, Img2010P, Img2009PC, Img1960P, and Img1800Pc. All images were arranged on the page in random order.

- Question 2: Please provide a brief explanation about stands out to you most in the image you chose.

    ◦ This question offered a few lines in which to provide one's own explanations

- Question 3: Circle the 5 most common activities of paleolithic people.

    ◦ This question had 10 activities arranged in random order. Five of the activities were from Louis Figuier's condensed set of images concerning the stone age: hunting wild game,

making fire, making tools, creating 'cave art', and eating rituals. The other five activities would have also been observed in the paleolithic, but are not frequently represented in images: gathering vegetation, cooking/preserving food, teaching children, washing/cleaning clothes/equipment, and relaxing.

- Question 4: For the activities above place F for female or M for male next to the activities to indicate which gender you believe to be most responsible for those activities.

  ◦ This question required the participant to indicate which gender performed the activities they chose.

- Question 5: Circle what has influenced your idea of the prehistoric period most.

  ◦ This question had 5 possible selections: movies/television, museums, the internet, academic literature, or popular science magazines.

- Question 6: Can you mention some specific movies/books?

  ◦ This question provided a few lines in which to write down any movies/books that came to mind.
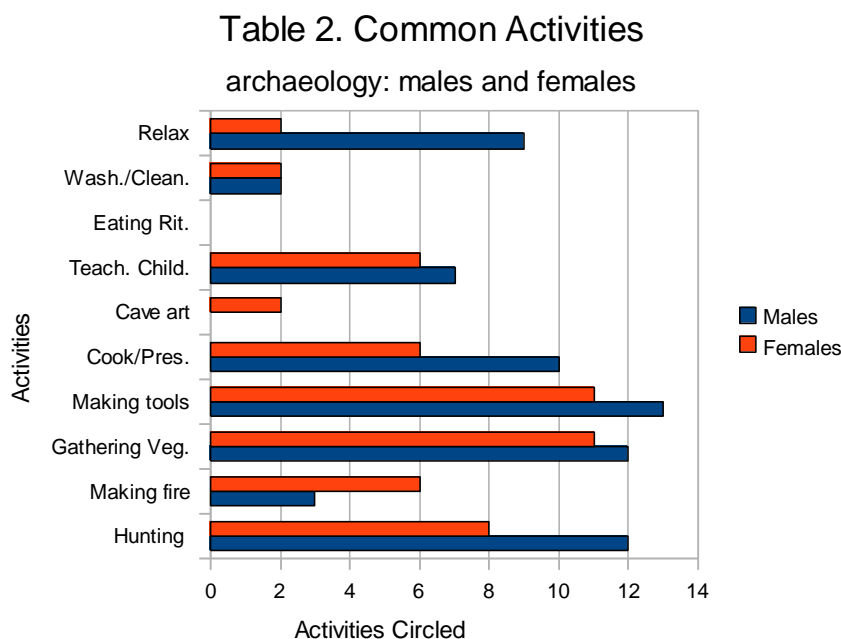
Survey 1 (archaeology)

25 surveys were administered to two different archaeology classes. Of the participants 14 were male, and 11 were female. For the first question all 25 participants chose either Img1960P (44%) or Img2010P (56%) (Table 1).

Table 1. Image Choice
archaeology: males and females
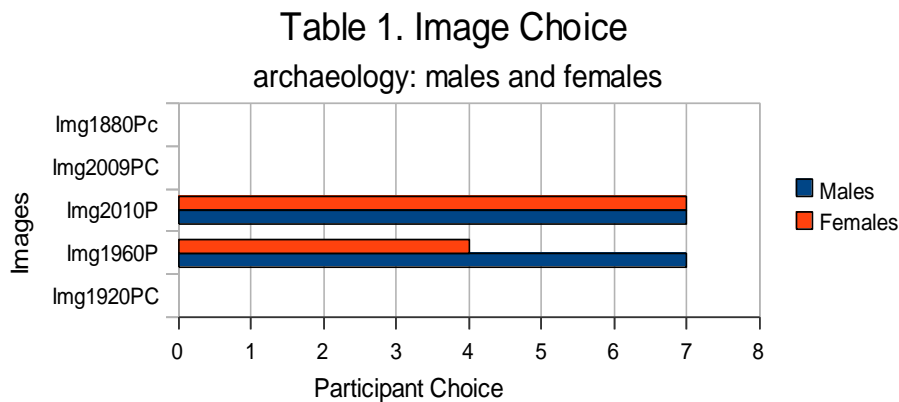
For the second question answers varied depending on which image was chosen. The males who chose Img1960P (50% of males) had two general themes in their answers: first, two males noted gender divided tasks, with one specifically mentioning the lack of women. Second, the five remaining males noted, to varying extents, the activities of the individuals and the background: three of which

specifically mentioned group cooperation, and two who talked specifically of the artifacts and activities. Of the females who chose Img1960P (36.4% of females) one wrote down 'hunting and tools', a second told a narrative of men coming home from hunting with women preparing food, the third said that this was the most realistic picture from which to choose, and the fourth said that this was the image for which women were most active. The males who chose Img2010P for the second question (50% of males) had many different answers: two said the Img2010P was the least stereotypical, one said it was a gender biased image, one mentioned the housing and different activities, another said it was a good picture of hunters and gatherers, another mentioned the landscape/vegetation, and the final participant mentioned the small group but did not like the landscape. The females who chose Img2010P (63.6% of females) answered the second question in the following ways: four said that it was the closest possible images for that period, a good picture of everyday life, another said it was the least gender biased in terms of activities, and another said the people stood out the most, that they appeared as a cohesive group where "everyone had a little place"; the final female in this group chose to describe the other images, as they must have stood out to her the most, despite her choice of Img2010P. She described the overtly masculine male in Img1880Pc, and the activities in Img1920PC.

For the third question males and females circled the following activities (Table 2):

Table 2. Common Activities

archaeology: males and females

Activities	Males	Females
Relax	9	2
Wash./Clean.	2	2
Eating Rit.	0	0
Teach. Child.	7	6
Cave art	0	2
Cook/Pres.	10	6
Making tools	13	11
Gathering Veg.	12	11
Making fire	3	6
Hunting	12	8

Activities Circled

For the fourth question, males divided gendered activities in the following ways[10] (Table 3):

Table 3. Engendering Activities
archaeology males: (M)ale, (F)emale, M/F
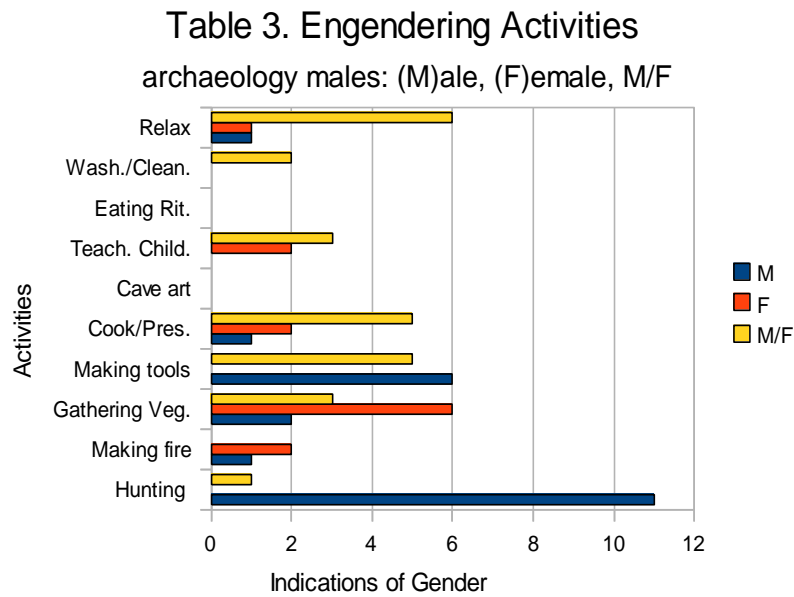
For the fourth question, females divided gendered activities in the following ways[11] (Table 4):

Table 4. Engendering Activities
archaeology females: (M)ale, (F)emale, M/F

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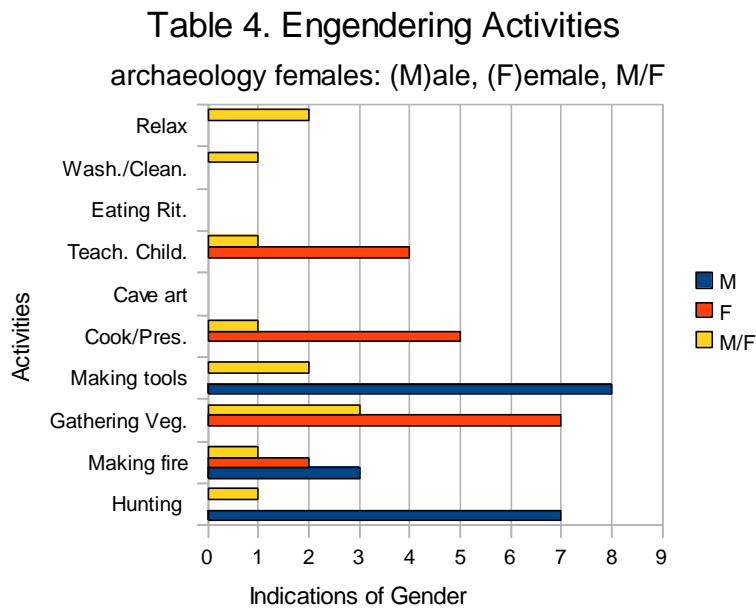
10 2 males chose to not answer question 4, saying that dividing work by gender was situational
11 1 female chose not to answer question 4, saying that gender divided tasks are culturally dependent

For question five, academic literature was circled 95.8% of the time, with 30.4% of those being circled with additional sources (Table 5).

Table 5. Information Source
### archaeology: males and females
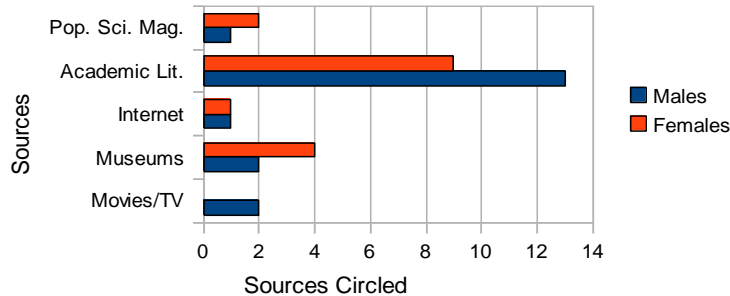
Not every participant answered question six, but those who did had a couple of similar answers. 16% (4 of 25) wrote *Oxford illustrated history of prehistoric Europe.* For other academic literature 8% (2 of 25) wrote *Human past* edited by Chris Scarre; 8% wrote *Nordic Archaeology.* For movies, 12% (3 of 25) wrote 10,000 B.C. Names of popular science magazines included *Illustrerad Vetenskap Historia, New Scientist,* and *National Geographic.*

Survey 2 (psychology)

28 surveys were administered to three different psychology classes. Of the participants 13 were male, and 15 were female. For the first question all 28 participants indicated various images[12] (Table 6):

Table 6. Image Choice
psychology: males and females
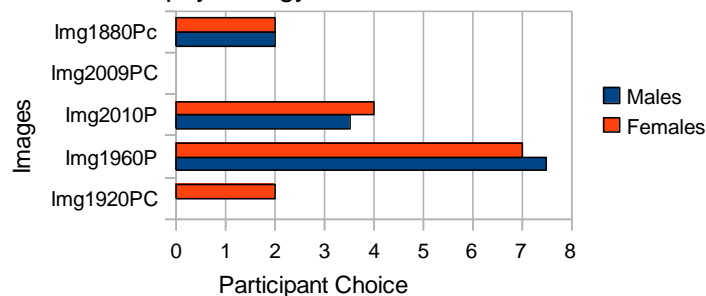
For the second question answers differed between participants. The following is what stood out to the males who chose Img1960P (7.5)[13]: three mentioned group cooperation and community, two mentioned various elements (i.e. clothing, fire, tools, etc.), one mentioned the activities, and another

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12 1 male participant indicated two images, and his results are divided (.5) for each image.
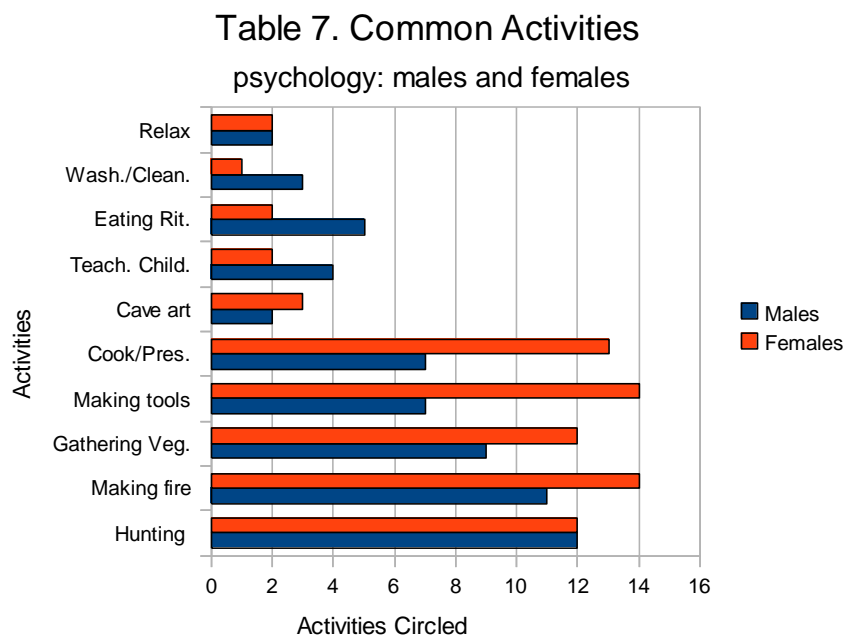13 1 participant chose not to answer question two.

said this image showed that people were more intelligent and productive than he thought. The females who chosen Img1960P (7) said the following stood out to the most: three mentioned working and various activities, two mentioned the amount of people, one mentioned that it seemed realistic, and another one said that it was a campsite which revolved around hunting.

For the males who chose Img2010P (3.5), the following stood out to them the most: two mentioned the clothing of the men, one said it was a good picture of everyday life, and the final participant said that the other images were too extreme. The following stood out to the females who chose Img2010P (4)[14]: one told a narrative of cooking dinner, another mentioned the small community, and a third said it was the least stereotypical.

For the males who chose Img1880Pc (2) the following stood out to them the most: one mentioned the knife, and the second mentioned the battle between the man and bear. The following stood out to the females who chose Img1880Pc (2): both mentioned the quality of the image, one noting its age, and the second highlighting the cave.

The females were the only ones to select Img1920PC (2) and the following is what stood out: one mentioned the clothing, and the second mentioned the relationship between the man and the woman, saying that "he is the strong care taker."
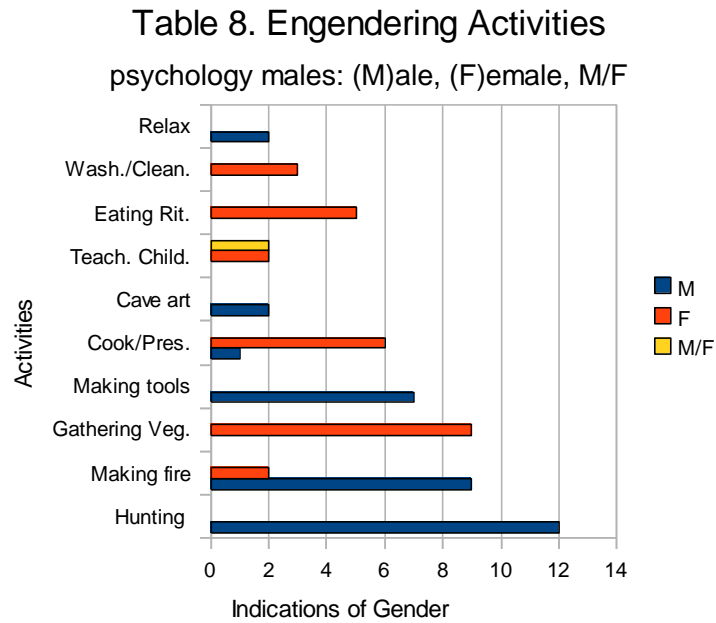
For the third question, males and females circled the following activities[15] (Table 7):

Table 7. Common Activities


psychology: males and females

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14 1 participant chose not to answer question two.

15 1 male participant circled only two activities.

For the fourth question, males divided gendered activities in the following ways (Table 8):

Table 8. Engendering Activities
psychology males: (M)ale, (F)emale, M/F

For the fourth question, females divided gendered activities in the following ways (Table 9):

Table 9. Engendering Activities
psychology females: (M)ale, (F)emale, M/F
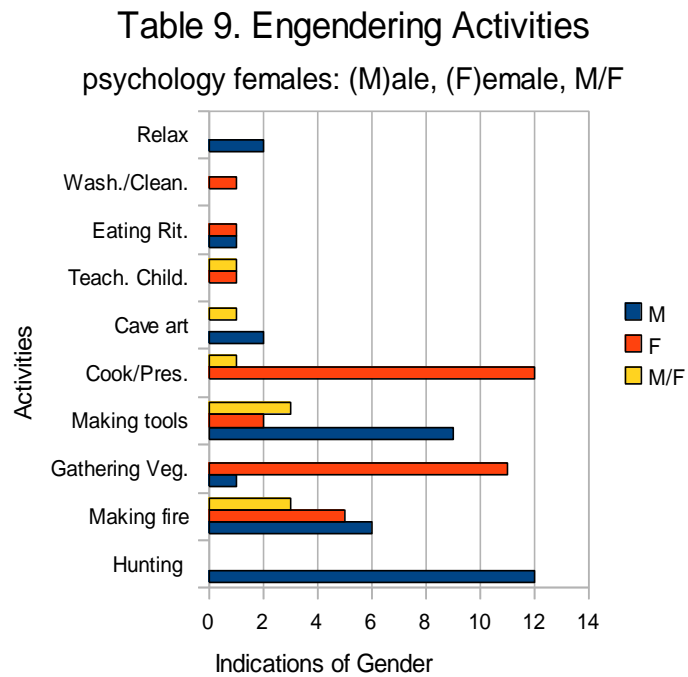
For question five, information about the paleolithic came from various sources, with movies and television being indicated in 64.3% of the surveys (Table 10):

Table 10. Information Source
psychology: males and females
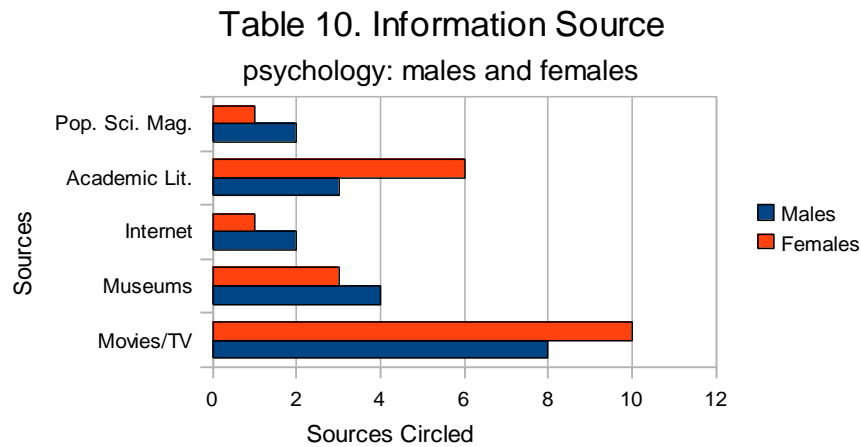
Like the archaeology classes, not all participants in the psychology classes chose to answer question six, but there were some similar answers among those who did. 14.3% (4 of 28) wrote The Flintstones. 7.1% (2 of 28) wrote *Barnen Hedenhös*; another 7.1% wrote simply children's books. 7.1% wrote Jean M. Auel as an author for which they learned about the prehistoric period. One participant wrote *Illustrerad Vetenskap.* Two movies were mentioned: 10,000 B.C. and Clan of the Cavebear.

Discussion of results

The surveys given to the archaeology and psychology classes had expected results. All participants in the archaeology classes had chosen academic images for the first question. When describing what stood out the most, the majority noted gender inequality to some extent. The others focused on the artifacts (i.e. tools, animals, tents), or group cohesion. One female participant told a narrative about men hunting and women cooking. Melanie Wiber conducted her own study on archaeological reconstructions and asked students to describe pictures. In her study she noted that students often created story lines which justified the gender roles being portrayed (Wiber 1997, 99). The participant in my studying did just that, as she provided a narrative which placed individuals into their effective niches. The indication of activities was relatively equal, with males and females circling the same activities with similar frequencies; however, males circled 'relaxing' far more than females. Additionally, the activities indicated were not as a constrained by the activities commonly pictured in illustrations.

Participants of the psychology classes had a wide array of image choices for the first question, although, Img1960P was favored. When describing what stood out the most, only a few noted the extreme or stereotypical nature of the representations. Three females from this group provided

justifications for the gender roles portrayed: one told a story of a family (Img2010P), one described the campsite as revolving around hunting (Img1960P), and the final female said that Img1920PC featured a relationship in which "he [the male] is the strong care taker", but that in today's society we are more equal. She accepted the image because she believed it painted a picture of gender roles in the past. The indication of activities was less equal, with males circling stereotypical male activities (i.e. making fire) and females circling stereotypical female activities (i.e. cooking) more often. Additionally, the activities indicated were more constrained, overall, to Figuier's template (compared to the archaeology classes.)

Of Louis Figuier's condensed set of images, archaeology participants indicated them in the following ways (Table 11):

Table 11. Stereotyped Activities
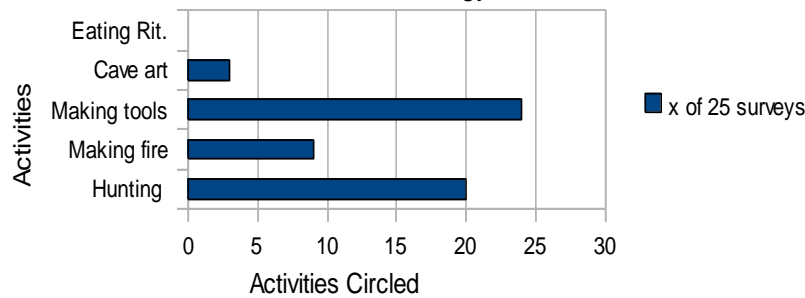
For those who circled 'making fire' (9), seven had chosen Img2010P, in which fire was the main focus; and for those who circled 'creating cave art' (3), two had chosen Img1960P, which features 'cave art' in the foreground of the image. The choice of circling 'making fire' or 'creating cave art' could be directly related to the image the participant had chosen. The archaeology participants seem to be less affected by the history of images; however, some seem to be affected by the individual image chosen.

The psychology participants indicated Louis Figuier's images in the following ways (Table 12):

Table 12. Stereotyped Activities
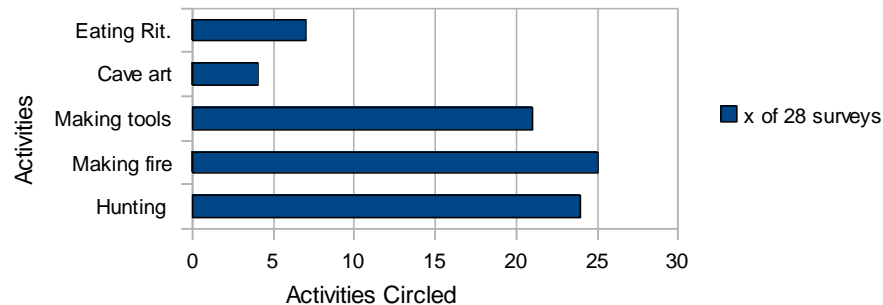
One male participant circled all five of Figuier's images. This male chose Img1960P, which features the majority of these stereotypical activities. Indicating 'eating rituals' was something unique to the psychology participants, making this group conform completely to Figuier's condensed set of prehistoric scenes. 'Eating rituals' was not featured in any image on the survey, which means that the psychology participants are more affected by the history of images in general, than the individual images they chose.

In terms of gender divided activities, the archaeology classes indicated the following (Table 13):

Table 13. Gender Stereotypes
archaeology: (M)ale, (F)emale, M/F
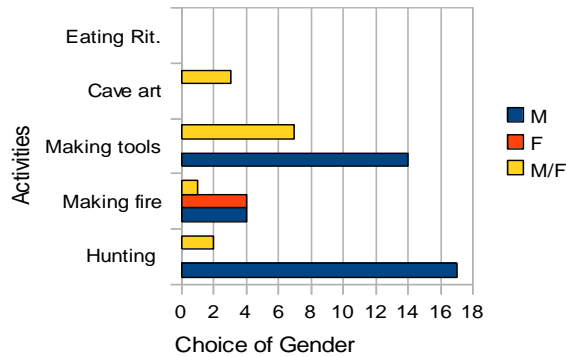
Engendering activities seem to be most affected by secondary sources, as some activities were gendered in opposition to the images. Overall, the archaeology participants exhibited a preference for gender neutrality; although some activities were seen as primarily male or female (Table 3 and 4). Table 3 also shows that males were more gender neutral than females when engendering activities.

In terms of gender divided activities, the psychology classes indicated the following (Table 14):

Table 14. Gender Stereotypes
psychology: (M)ale, (F)emale, M/F
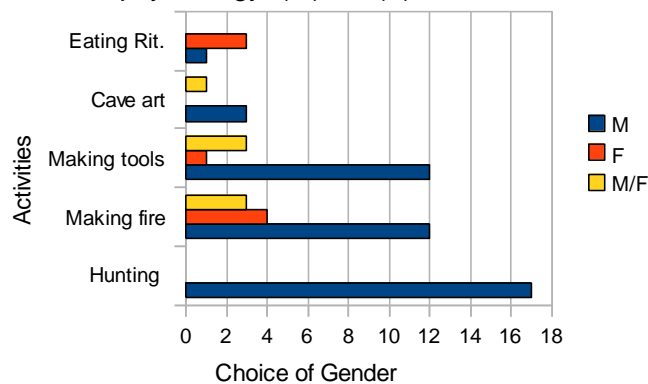
Hunting was seen as a completely male activity; additionally males were seen as mainly responsible for the majority of activities, aside from 'eating rituals'. The psychology participants exhibited a preference for a gender dichotomy, choosing to engender each activity with confidence. This gender dichotomy is more influenced by the history of images, than the individual images chosen (as mentioned above). This history of images comes from participants' information source, and recalling Table 10, information for psychology participants is mainly gained from movies/television.

The most common activity that was indicated, which is not representative of Figuier's original set of images, was gathering vegetation. Gathering vegetation was indicated by 92% (23) of the archaeology participants, and 75% (21) of the psychology participants. Gathering is depicted in the background of Img1960P and Img2010P, but is not a main focus. When engendering this activity, 13 archaeology participants indicated it as a female activity, 2 as a male, and 5 as a dual gendered activity. 20 psychology participants indicated it as a female activity, and 1 as a male activity. While the archaeology participants showed more gender neutrality overall, there are some activities which have a gender stigma that is hard to avoid.

Archaeology students showed a deeper understanding of the paleolithic: they obtain their information from academically trusted sources, aside from the one participant who mentioned television/movies. Their answers to the questions seemed only loosely related to the images they chose, and even more loosely related to images of the prehistoric in general. The psychology students showed less understanding of the paleolithic: they obtain their information mainly from movies and television, and the majority of those who circled 'academic literature' said that their knowledge came primarily from elementary school. Their answers were more constrained by the history of images, although not necessarily by the image selected for the first question. The archaeology students showed more gender neutrality; however, there are some activities which have a strong gender stigma. This stigma is present in viewing hunting and tool making as primarily male and gathering vegetation as primarily female. This stigma is more apparent in the psychology surveys, where activities were engendered either male or female. Gender stereotypes and stigmas are the result of paleolithic imagery being flooded with concerns for male activities, the reproduction of Figueir's original set of images, and popular culture renditions of the prehistoric. The history of male influential texts is palpable as well; because, despite the fact that the books noted by the archaeology students had been published in the 2000's, the effects of perception (mentioned in the previous section) still apply, even to those trained within archaeology.

Chapter 5 – The Finale

This essay has covered a lot of aspects surrounding the issue of stereotype perpetuation in stone age reconstructions. In chapter five I will return to the question posted in the first chapter and answer them through elements which have been discussed within this thesis.

Question 1: how does the comparative iconographic analysis differ through time, or does it remain the same?

This question was answered extensively in chapter four, but here I will recap and provide some generalizations about the iconography of stone age reconstructions. In the late 1800's, when research in human antiquity was beginning to get its foothold, the stereotype was created. Louis Figuier condensed his set of thirty images concerning prehistory in to five or six iconic scenes: combat with wild beast, hunting wild game, making fire, making tools, creating cave art, and eating rituals (Moser 1998, 141). These five/six scenes became a template for Figuier's contemporaries, as well as his successors (Moser 1998 131). As we progress forward into the 1960's we see that some, but not all, of Figuier's original template has persisted: hunting wild game, making fire, making tools, and creating cave art. Combat with wild beasts and eating rituals are not featured; although some of Burian's other images of human prehistory do feature these activities. In the modern image (Img2010P) the theme of making fire is the main feature. Figuier's template, created in the late 1800's, has structured future illustrations; however, certain scenes have become favored depending on the paradigm. One feature that has remained completely stagnate is the focal male. In every image chosen a male is front and center. While this is only a small sample of images available for prehistory, the majority do spotlight men.

The 'imagined step' depicted in the transition images become more pronounced in the modern era. This increase in pronunciation of an 'imagined step' could be the result of the advancement archaeology has taken between the 60's and today. More understanding of the paleolithic and neolithic could results in a greater step being taking between the two epochs. Another contributing factor could be the increased progress in society that modern illustrators and archaeologists experience. The modern era is more progressed, in general, than it was in the 1960's, and this could be a contributing factor to the modern transition images depicting a more pronounced step.

There is very little change in the popular culture/non-academic images, aside from the costumes – which seem to decrease through time. The amount of clothing correlates to the era of each movie's creation. Popular culture representations are situated within certain time periods, and abide by certain

conventions. The nature of males also remains stagnate in popular culture renditions of cavemen. These males are strong and controlling, and often featured as confused, with a "brawn over brain" stigma. Keaton in 1923 played a caveman that had a hard time fitting in to the typical caveman role; the Teenage Caveman is the smartest male featured in the popular culture images chosen; and Willig in 2009 played the epitome of a "brawn over brain" caveman character.

Question 2: what socio-political factors influenced the stereotype's creation?

The creation of the prehistoric male stereotype occurred in the late 1800's. This figure was born during a dubious time, when human antiquity had to be reconciled with the Bible, when industrialization brought a rise in the middle class, and a heightened awareness to the bourgeoisie's threat of control (Moser 1998, Ch. 5; Fiske 1989 66). This threat lent itself to a control of published knowledge. Hidden behind the guise of 'commercial quality' images were structured to fit the political agendas of an elite class, in an attempt to maintain control. Illustrated books were a main source of information for a widely illiterate working class (Moser 1998, 109), and these images painted a picture of prehistory for which the middle class could understand, and be validated in their hardships. Images and texts did not always match (Moser 1998, 121), highlighting the fact that those in charge of disseminating knowledge, were careful to control what was being said, and to whom.

Pictures could be manipulated, because the evidence was so fragmentary. Illustrators capitalized on this. Using Western ideals of aesthetics as a guide, illustrators used the medium of art to paint a picture of prehistory that was desirable and tamable. This picture highlighted the male ability to overcome obstacles and progress society. These images reflect a very romantic notion of prehistory. The idea of prehistory was romantic in general during this time (Trigger 2006, 164). The goal was simply to trace man as far back as possible (Trigger 2006, 152). Men dominated society in the late 1800's, and the ability to see man's domination as long standing reinforced their notion of superiority.

Illustrators were, however, careful to correlate their images with mounting scientific evidence; albeit in a visually pleasing manner (Moser 1998). As evidence began to increase, in terms of evolution, and man's connection with apes, images took on a more primitive/savage feel (Moser 1998, 134). This increase in primitivism was not a threat to 'commercial quality'; in fact, this guise used the increased primitivism to their advantage by strengthening the understanding that man had to endure and overcome great struggles in order to progress. Images told the story that all these struggles and progressions were strenuous but ultimately worth it; and these images were readily available to an

illiterate working class, who would in turn read these images in terms of their own struggles.

Question 3: what socio-political factors are present today?

The nature of processual archaeology was concerned with systems over individuals (Trigger 2006, 410), thereby making systems the most salient to illustrators. Individuals were inserting into illustrations based on assumptions held by illustrators, and accepted by archaeologists. These assumptions were based on a binary model for understanding the self and others; which, once appropriated by Marx and Freud, became deeply imbedded in Western culture (Jones 2012, 71). In addition to this binary model, male language dominated the 1960's paradigm, with texts like *Man-the-hunter* (1968), which guided interpretations of the past (Slocum 1975, 37-38; Nixon 1994, 6).

Commercial quality plays a large role in image publication still today (James 1997, 39). The genre of prehistoric reconstructions has been established, and images from the 1960's and today take guiding points from Figuier's original set of images. These iconic scenes proved an effective form of communication in the past, and viewers have come to expect them. Zdeněk Burian (the 1960's illustrator) was very popular for his scientific reconstructions, and this caused his images to be widely used and recycled to fit new contexts. The use of images in museums is a power game, loaded with complex power relations and institutional concerns between political aspects, curatorial expertise, and budget (James 1991, 127-129; Cotton, Wood 1991, 30-31).

Power games aside, other socio-political mechanisms are masked behind explanations of prehistory in the modern paradigm. Laura Brush (1999) refers to deindustrialization bringing with it tones of 'de-masculinization', causing men to seek a scapegoat to reaffirm their masculinity. Prehistoric reconstructions had been used, in prior paradigms, to highlight man's role in shaping society. Today, these illustrations could be seen as a subtle way to reify male status in a changing society. Illustrations, for the general public, are an afterthought (Gould, referenced by James 1997, 39); and illustrators are generally left to themselves to 'fill in the gaps' of a prehistoric social life, for which there is no direct evidence. Illustrators may make these scenes to cope with this new found 'de-masculinization', and archaeologists may approve them for similar reasons.

Question 4: who are the agents behind the perpetuation of stereotypes in stone age reconstructions?

Agency needs interaction to breed awareness (Gardner 2008, 96). The interaction between the archaeologist and illustrator produce an image, and that image interacts with viewers. All three are

bound in a system of interaction which creates an image of the past, for the present, that affects the future. The image is influenced by how archaeologists are reading the past, based on various social constructs and predetermined goals. The image is influenced by the experiences of the illustrators, as well as various artistic inspirations. The image is influenced by viewers, who are the dictators of commercial quality, and have come to expect a certain view of prehistory.

Agents are also bound by time, in which various aspects of the past, present, and future are palpable (Emirbayer, Mishe 1998, 971). The past concerns the cultural history of previous work, for which the archaeologists, illustrators, and viewers have been exposed. This exposure influences decisions made in the present. All three agents are capable of reflecting upon the past and how it relates to their present; however, there is a prevalence to cling (without acknowledging) to previous models of identification (Jones 2012). These previous models have conditioned a set of expectations, which hinder the ability to clearly see how the past effects the present. These present decisions and experiences ultimately become part of the past, which in turn affects the future. These decisions affect the future by either reproducing or resisting older models; additionally, the tangible object of the image can project into the future through its reuse, and be re-perceived in different ways (Bryson 1991, 71).

Question 5: What influences the agents to perpetuate stereotypes?

Uncertainty, along with hidden political agendas, gave life to the original stereotype, and various socio-political aspects continue to influence its perpetuation today; however, there are other aspects involved in the perpetuation. A significant part of creating illustrations involves judgments on behalf of the illustrator, which are based on different forms of heuristics: availability and intuitive heuristics. Illustrators use availability heuristics when they call upon their own experiences, and the experiences dominant in society. This availability is based on how quickly instances come to mind, and not the sum total; it is therefore prone to be very superficial (Kahneman 2011; Lafky *et al*. 1996, 382). Intuition involves the substitution of a hard question for an easier one (Kahneman 2011). Intuition will be based, not on serious reflection, but on what has been said. The social world of the prehistoric will more reflect the social world and popular discussions of the present.

The present social world has constrained practices and views on gender. In Western society gender means a division of work, and a division in which men are ranked higher than women (Lorber 1994, 32). This constrained view on gender is present in everyone, to varying degrees. Illustrators populate the past with a social group, based on assumptions (Wiber 1990, 79-80). Archaeologists are

concerned with biological sex and artifacts, and as long as the social group is not extreme the archaeologist may not even choose to reflect upon it (Wiber 1997, 76; James 1997, 34). The viewers are the receivers of this product, bound in a one way form of communication (Stocchetti 2011, 32). Their constrained view of gender is aided by popular culture renditions of cavemen. Regardless if archaeologists and illustrators work to break this stereotyped genre, the viewers still expect to see these iconic scenes represented. Change is slow due to the retention of prior establishments (Charon 2009, 166; Jones 2012).

The genre of prehistoric reconstructions has been established. A genre provides a set of codes which allow successful communication, and while they may be stereotypical they are helpful (Hall 2012, 154-158). Illustrators, archaeologists, and viewers have come to expect the various codes that go along with prehistoric reconstructions. All three agents have perceptual systems which are self-tuning, picking up reinforcing information from complex stimuli, aided by expectations, which increase efficiency of perception (Gibson 1966, 271-286). The illustrator cannot remove the iconic stereotype (Bottigheimer 2010, 143), archaeologists do not want their contracted images to deviate too far from established codes for fear of unfamiliarity (James 1997, 34), and viewers accept these images because of the texts and persuasion tactics which accompany them (Champton 1997, 225; Kukkonen 2011, 58). Through this acceptance, viewers ultimately dictate the commercial quality for which the illustrator and archaeologist abide by.

Question 6: how do the images effect viewers – both archaeologically trained viewers, and non-archaeologically trained viewers?

The survey has shown that images affect both the archaeologically trained and non-archaeologically trained students, with the latter being more affected. For the archaeologically trained students, the answers to their surveys appeared to be either influenced by the image they had chosen, or lightly influenced by the history of images in general. All these students had selected the two academic images available as fitting their mental image of the paleolithic best. Additionally, information about the paleolithic was gained mainly from academic literature, as it was indicated in 95.8% of the surveys. This foundation of information alone will not make the images less influential. Images are less influential to archaeologically trained students because they are invested within this field; and considering that all participants are current students, they are endowed with an internal 'critical theory' which bids them to question, and asks them to call upon secondary sources aside from the history of

images. Perception is learned to the extent of what information is available (Gibson 1966, 269). Archaeologically trained students have more information available to them; however, this does not mean that they are exempt from the general bias seen in archaeology (i.e. history of male influenced texts). Hunting and making tools was circled in the majority of surveys, and these activities were seen as primarily male. Overall though, the archaeology students exhibited more gender neutrality when attaching gender to activities.

For the non-archaeologically trained students, answers to the surveys were more influenced by the history of images than the individual image they chose. While the academic image from the 1960's was favored, the choice of images varied for what best fit their mental picture of the paleolithic. Information about the paleolithic was mainly gained from movies/television (64.3%), with the Flintstones being written with the greatest frequency. With movies and TV as a primary source of information means that the stereotypical, popular culture renditions of the prehistoric period will be most salient. Hunting was seen as an all male activity, and making tools was seen as primarily male. Males who took the survey had a strict dichotomy of gender in mind when engendering activities; females, on the other hand, showed more gender neutrality (although not as much as the archaeologically trained students). Circling the activity of 'eating rituals' was something unique to the non-archaeologically trained students, making Figuier's original set of prehistoric scenes most salient in this group.

Images play a part in affecting both groups, albeit with different magnitudes. Images of the prehistoric, whether they come from an academic or popular culture setting, leave an imprint. Images, academic or not, reinforce the male bias texts of earlier paradigms and maintain male bias today. This reinforcement makes males and stereotypical activities more salient in students' minds. A few participants in both groups even validated the stereotypes and gender roles, either through a narration which justified them, or by claiming it as an image of a time long ago, and that's how it must have been.

While this thesis only used a small sample of images available concerning prehistory, the amount of stereotypical representations for the stone age are overwhelming. While the illustration sample may have been small, the examination of the three paradigms was extensive. In highlighting socio-politics and the male bias behind the practice of archaeology, and society in general, shows the reader how these aspects have impacted the images I chose for my sample; and can also reflect how these factors

will affect other images. This thesis also brought attention to the various conscious and unconscious efforts that go into creating any type of illustration. These psychological processes are unique to my thesis, and can be applied to a wide range of scientific reconstructions. So, while the actual sample size of my illustrations is small, the aspects discussed in this thesis can be applied to other stone age reconstructions.

Chapter 6 - Summary

Visual communication is a vital part of archaeology, and has been employed since the start of the profession. Visual communication is used to communicate between archaeologists, as well as used to communicate with the general public. Recently, with gender archaeology, images that represent a social group have been criticized for their male bias nature. Beyond this male bias we also begin to recognize that images of prehistory exhibit static scenes and stereotypical attributes. These static scenes and stereotypical attributes have been perpetuated through history since their creation in the 1800's, despite the advances that archaeology underwent as a profession. This thesis aimed to track the perpetuation of the male stereotype and static scenes from their creation to their use today using gender theory, visual perspective theory, agency theory, and critical theory. The methods involved four different parts: the acquisition of illustrations, comparative iconographic analysis, critical discourse analysis, and the survey.

The creation and perpetuation of stereotypes has to do, in part, with the nature of archaeology at varying times. For this reason a general overview of archaeology was given to highlight how archaeology was being practiced in three different paradigms: the late 1800's, the 1960's, and the modern era. The late 1800's paradigm of archaeology was a romantic investigation into human antiquity (Trigger 2006, 164), and witness to the birth of the stereotype. This was a tenuous time when hard scientific facts had to be reconciled with Biblical accounts (Moser 1998, Ch 5). The images of prehistory had masked political agendas, meant to validate the working class and maintain control for an elite class (Trigger 2006, 146; Fiske 1989, 66). In the 1960's there is a shift within archaeology, to processualism. Processual archaeology, while associated with anthropology, is more concerned with systems and processes than the individual (Flannery, quoted in Trigger 2006, 410); and this is a reason associated with the perpetuation of the stereotype. The modern era marks the shift to post-processual archaeology. Post-processual archaeology became concerned with archaeology's poetics (Moser,

Gamble 1997, 185), among other things. Despite concern with how archaeology was being discussed, images are increasingly disregarded through archaeologists open disdain for this form of information communication (James 1997, 39; Molyneaux 1997, 1; Moser, Gamble 1997, 185). Gender archaeology voices concern with knowledge hegemony, being in favor of males, and launched a movement within archaeology to correct this bias.

The comparative iconographic analysis (CIA), through the help of Panofsky (1972[1939]), was done to analyze each image. The images were compared to each other in a circular form of comparison. Images were compared in three different categories: paleolithic, paleolithic-neolithic transition, and popular culture/non-academic images. Using Panofsky's three strata of meaning I aimed to be as objective as possible; however, the third stratum of meaning (intrinsic) involved situating common place icons and themes into their historical circumstances, which is where my own opinions are most salient.

The critical discourse analysis (CDA) takes elements from the CIA and discusses them in terms of the socio-political factors present in each paradigm. The CDA is organized in three ways: a general over view of archaeology, the artist/author/publisher, and Western aesthetics/male dominance. The general over view expands upon the previous discussions about paradigms. The artist/author/publisher provides a background for those associated with the images. Discussing artists is something that is often bypassed in other research on archaeological images (Wiber 1997, 205), and something unique to my thesis. Through researching artists it becomes apparent that many are not trained in archaeological illustrations, and that they are left mainly unsupervised when creating these images. This lack of supervision means that the artist's personal effects are transplanted onto images. In addition to the artist's personal effects are aspects of Western aesthetics, which are employed to make images visually pleasing. Commercial quality has played a part in archaeological reconstructions since the beginning (Moser 1998, 121; James 1997, 39). Discussing values of Western aesthetics and male dominance for each paradigm allows the reader to see what factors are behind commercial quality. For the late 1800's and the 1960's archaeological images conformed to Western aesthetic ideals and male dominance; however, in the modern paradigm we see a shift in Western aesthetics in regards to the representations of gender and identity, as well as a shift within archaeology in terms of bias awareness. This shift does not seem to affect the images, as they conform more to previous ideals.

Socio-political factors are not the sole reason for the perpetuation of stereotypes and static scenes of prehistory. Mentioned above is the idea of the illustrator's personal effects being transplanted

onto prehistoric scenes; however, the illustrators are not the only ones who let their personal attributes affect reconstructions. The modern era of archaeological reconstructions has had a long history of previous work behind it; a genre for prehistoric reconstructions has been established with artists such as Zdeněk Burian making a profession out of scientific reconstructions. The long standing nature of archaeological reconstructions has bound the archaeologist, illustrator, and viewer into a habitus which expects the stereotypical. All three are responsible for this perpetuation, through conscious and unconscious actions.

I conducted a survey, which consisted of six questions pertaining to students views upon the paleolithic, in order to understand how affected they are by the history of images. I gave the survey to both an archaeology and psychology department to demonstrate that images effect both the archaeologically trained and non-archaeologically trained, albeit with different frequencies. Archaeologically trained students proved to be less affected by the history of images than non-archaeologically trained students.

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