

Women in Human Evolution:

Gendered Divisions of Labor in Illustrative Images Using Google's Image Search



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INTRODUCTION

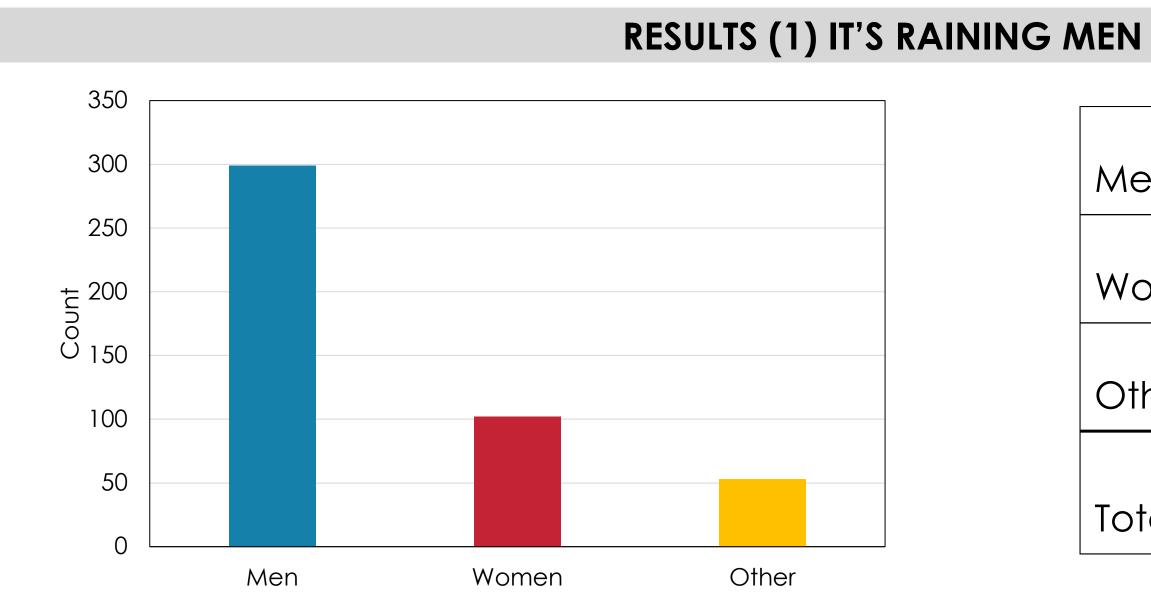
Depictions of prehistoric humans serve as visual reconstruction of the paleoanthropological research for public consumption. The images often portray a particular division of labor along sex and gender lines that are not explicit in the scientific literature. Yet, we continue to participate in these narrative images of "Man the Hunter" and the eternal "Drudge on the Hide." Here we present the results of a preliminary study using images to answer the question: After 50 years of feminist-oriented anthropology research and scholarship (Linton 1971), do public illustrations of human evolution show progress in terms of imaginary gendered division of labor? Or are representations still deeply rooted in bias and classic western archetypes?

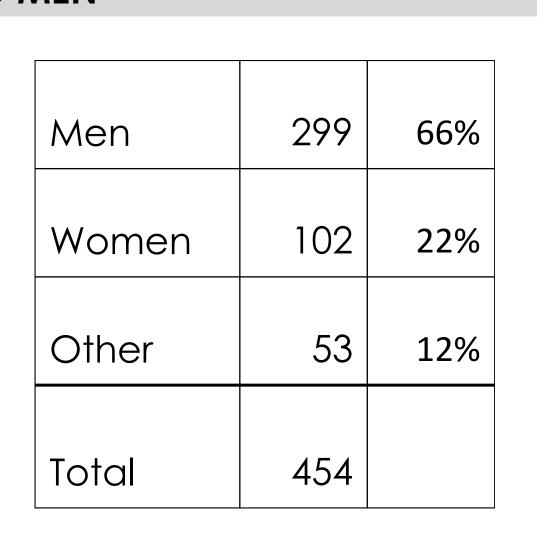
MATERIALS AND METHODS

We analyzed a sample of 92 image sources from a survey of 38 pages of Google image search using the PageRank algorithm (Page 1999). The keyword "prehistoric human" was used over other terms such as "human evolution," because it yielded the most relevant set of images relative to accessibility of jargon and our interests in labor divisions.

Irrelevant images from the original Google search were eliminated from the pool. For example, pictures showing human skeletal remains without context, pictures of real people, satirical cartoons, and erroneous search results were removed. Images in the form of drawings, paintings, or museum displays were kept. The data set included images showing scenes of labor and subsistence activities.

For each image, we collected data on numbers of persons and types of activity depicted. Gender was assigned to individuals based on clear sexual markers (presence of a beard or bare breasts), gendered style of dress, and image context. Unclear figures were designated "other." Children were excluded from the sample. Individuals were further grouped by body position and activity. For each individual depicted, we recorded the general positioning of their body and the labor activity being performed. Labor activities that occur twice or more were assigned a category. Categories were largely determined by the content and context of the images themselves. We expected to find a prevalence of labor activities related to subsistence, material production, and parental investment based on previous works (Gifford-Gonzalez 1993; Wiber 1997).

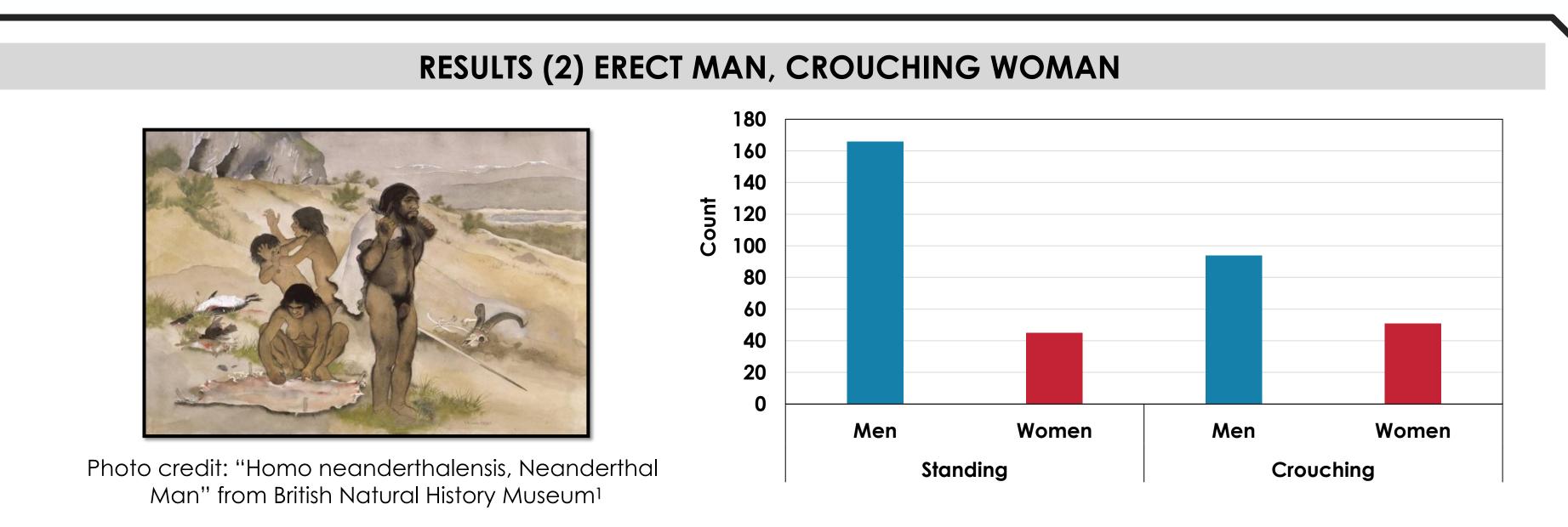




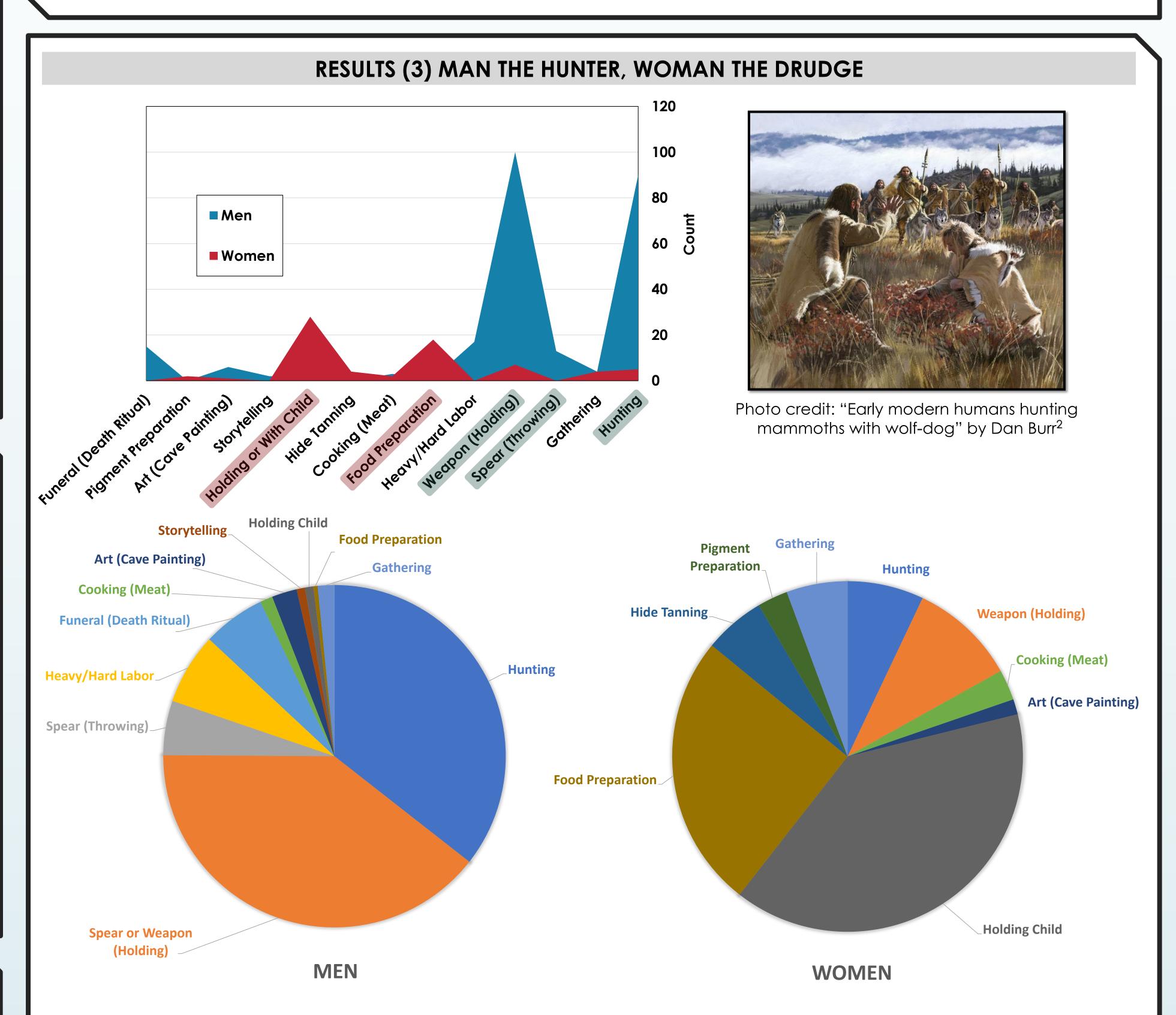
Of the 454 individuals depicted in 92 images, men were overrepresented in the sample. Although we recognized that sex and gender are not equivalent, unfortunately they were often conflated in these images. Because our focus was on societal constructions of gender roles in the past, we decided to use gendered terms to refer to the individuals depicted.

REFERENCES & CITATIONS

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Women and men assumed different body postures and standing positions. Men were more often depicted standing or erect in mid-action, while women were more often shown in lowered postures (bending over, squatting, kneeling or sitting). Over 50% of men were depicted standing, while over 50% of women were shown crouching or in a lowered position.



Labor with a focus on subsistence activities differed by gender. Men were overwhelming depicted in association with different types of hunting activities, while women were predominantly depicted holding or with a child. Women were also more often shown in domestic situations, such as preparing food or tanning hides, but rarely shown hunting or performing 'masculine' tasks. Only one man in the entire sample was shown holding a small baby.

DISCUSSION & CONCLUSION

The "Prehistoric Human" Google image search using PageRank uncovered several motifs of gendered representations, a point made in previous research (Gifford-Gonzalez 1993; Linton 1971; Wiber 1997). Following these works, we found that ancient humans continued to be depicted in a way that replicated archetypal gender roles and labor divisions not substantiated with empirical research.

Results of this preliminary study are compatible with the hypothesis of gender bias: men are depicted in higher frequency, associated with a wide range of activities including hunting; women are depicted in activities traditionally associated with mid-century western ideas of the housewife and appropriate "women's work," such as menial tasks and rearing children. By contrast, men were associated with public space and stereotypical western notions of masculine activities, such as hunting, heavy labor, and holding or throwing spears. Interestingly, while women occasionally held a weapon (club), no woman was ever depicted holding a spear.

The numerical dominance of men in the Google search results exceeded our initial expectations for gender distribution. A full 99% of the images featured adult men or occasionally an unidentifiable figure, but only one image featured a recognizable woman on her own. This is comparable to Gifford-Gonzalez' original findings in 1993, which suggested that 84% of the pictures surveyed contained men and 50% of the images contained men-only, while 7% of the images contained only women. Our study suggests that since Gifford-Gonzalez' landmark publication evaluating gender representations in print, the social imaginary of women's roles in prehistory has declined in esteem. We conclude that the most relative, publicly accessible and public accessible and public accessible and public accessible and public accessible and accessible accessible and accessible and accessible and accessible accessible accessible and accessible accessib PageRank algorithm correspond to a clear gender bias and gendered division of labor in prehistory first critiqued nearly 50 years ago (Linton 1971).