THE CHINESE PROVERB “We see what is behind our eyes” captures one of the major dilemmas currently engaging both anthropological scholarship and the broader public. All of us look at the world and, at least partially, see what is inside our own heads. To the extent that we do not recognize this, we remain behind our cultural screens.

The first images of the human body from the European Upper Paleolithic, primarily three-dimensional, palm-sized female statuettes often referred to as Venus figurines, offer a case in point. Though little consensus exists about why the figures were created or what purposes they served, they have generally been interpreted as sex objects made from a male point of view.1 This view assumes women were passive spectators of the creative mental life of prehistory, their bodies relevant only as representative of male concerns and interests. The apparently exaggerated sexual attributes of the figurines have often been seen as magical symbols of fecundity ultimately concerned with the increase of both animal and human populations.2 Whether magical or not, the belief that these figurines reflect a symbolic interest in sex and fertility has been most influential.3 Yet there is another plausible explanation for their creation and purpose: the figurines began as a form of self-representation by women (McDermott 1985, 1996). When examined, this proposal becomes so compelling that the only remaining question is, Why did it take so long to consider the logical possibility that a female point of view was involved?

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Human Figures in the European Upper Paleolithic

Since Édouard Piette (1895) and Salomon Reinach (1898) first described the distinctive small-scale sculptures and engravings of human figures found in the rock shelters and caves of southern France, several hundred more European Upper Paleolithic figures have been identified. The earliest of these, the so-called Stone Age Venuses or Venus figurines, constitute a distinctive class and are among the most widely known of all Paleolithic art objects. As a group they have frequently been described in the professional and popular literature.4 Most of the figures are about 150 millimeters in height and depict nude women usually described as obese.

In spite of many difficulties in dating, there is growing belief that most of these early sculptures were created during the opening millennia of the Upper Paleolithic (circa 27,000–21,000 B.C.) and are stylistically distinct from those of the later Magdalenian.5 These first representations of the human figure are centered in the Gravettian or Upper Perigordian assemblages in France and in related Eastern Gravettian variants, especially the Pavlovian in the former Czechoslovakia, and the Kostenkian in the former Soviet Union.

Most Pavlovian-Kostenkian-Gravettian (PKG) statuettes are carved in stone, bone, and ivory, with a few early examples modeled in a form of fired loess (Vandiver et al. 1989). Carved reliefs are also known from four French Gravettian sites: Laussel, La Mouthe, Abri Pataud, and Termé Pialet. These images show a formal concern with three-dimensional sculpted masses and have the most widespread geographical distribution of any form of prehistoric art. This contrasts sharply with the two-dimensional form and restricted scope of later Magdalenian engraved and painted figures. The unfortunate habit of collapsing
both early PKG and later Magdalenian (circa 13,000–9,000 B.C.) figurines into one category has created much unnecessary confusion about stylistic variability within the Upper Paleolithic. As much as 10,000 years separates these two periods of artistic activity, so they constitute separate, though related, traditions. While considerable variation occurs among PKG figurines, claims of true diversity ignore a central tendency that defines the group as a whole. The overwhelming majority of these images reflect a most unusual anatomical structure, which André Leroi-Gourhan (1968) has labeled the “lozenge composition.” What makes this structural formula so striking is that it consists of a recurring set of apparent departures from anatomical accuracy (see Figures 1–3). The characteristic features include a faceless, usually downturned head; thin arms that either disappear under the breasts or cross over them; an abnormally thin upper torso; voluminous, pendulous breasts; large fatty buttocks and/or thighs; a prominent, presumably pregnant abdomen, sometimes with a large elliptical navel coinciding with the greatest physical width of the figure; and often oddly bent, unnaturally short legs that taper to a rounded point or disproportionately small feet. These deviations produce what M. D. Gvozdover (1989:79) has called “the stylistic deformation of the natural body.” Yet these apparent distortions of the anatomy become apt renderings if we consider the body as seen by a woman looking down on herself. Comparison of the figurines with photographs simulating what a modern woman sees of herself from this perspective reveals striking correspondences. It is possible that since these images were discovered, we have simply been looking at them from the wrong angle of view.

Comparing Modern Bodies and Prehistoric Artifacts

Although it is the center of visual self-awareness, a woman’s face and head are not visible to her without a
spective helps to explain the apparently voluminous size and distinctive pendulous elongation routinely observed in the breasts of the figurines. Viewed in this way, the breasts of the figurines possess the natural proportions of the average modern woman of childbearing age (see Figures 4 and 5). Even pieces such as the one from Lespugue, in which the breasts seem unnaturally large, appear naturalistic when viewed from above.

Other apparent distortions of the upper body undergo similar optical transformations from this perspective. For example, the inability to experience the true thickness of the upper body may account for the apparently abnormal thinness seen in the torsos of many figurines. Several figurines also have what seem to be unnaturally large, elliptical navels located too close to the pubic triangle. In a foreshortened view, however, the circular navel forms just such an ellipse, and when pregnant, a woman cannot easily see the space below the navel. Thus, when viewed as women survey themselves, the apparent anatomical distortions of the upper body in these figurines vanish (see Figures 4 and 5).

Similarly, as a woman looks down at the lower portion of her body, those parts farthest away from the eyes look smallest. A correct representation of the foreshortened lower body would narrow toward the feet, thus explaining the small size of the feet in these figurines. It is also true that, for a pregnant woman, inspection of the upper body terminates at the navel with the curving silhouette of the distended abdomen (see Figure 4). Without bending forward, she cannot see her lower body. Thus for a gravid female, the visual experience of her body involves two separate views whose
shared boundary is the abdomen at the level of the navel, which is also the widest part of the body in the visual field. The apparent misrepresentation of height and width in the figurines results from the visual experience of this anatomical necessity. The location of the eyes means that for an expectant mother the upper half of the body visually expands toward the abdomen, whereas the lower half presents a narrow, tapering form. Efforts to represent the information contained in these two views naturally resulted in the lozenge compositional formulation, which others have seen as anatomically “incorrect” proportions (see Figures 1 and 2).

The perception of distortion is similarly resolved in a woman’s view of the side and back of her own body. When one rotates at the hips and raises an arm to look down the side, one’s field of vision includes an expanding strip of lower torso and then a diminishing view of the leg. The feet may or may not be visible, often being obscured by the intervening body. From above, the forward projecting mass of the thigh and the posterior location of the calf muscle are identical with a similar view of the bent-knee posture seen in numerous figurines (see Figures 6 and 7). The outline of this oblique silhouette coincides not only with the arrangement of muscles seen in these images, but with the buttocks or profile image that dominates the later Upper Paleolithic: Magdalenian III through VI, circa 13,000 to 9,000 B.C. (Leroi-Gourhan 1968:493).

Depending on the effort expended to rotate and look under the arm at one’s backside, a woman’s view will either encompass a lateral segment of the lower back to the tailbone or, with greater exertion, include a strongly foreshortened, silhouetted sliver of the upper buttck. With or without maximal rotation, the view of this region will be dominated by the more proximal lateral bulge of the gluteus medius muscle, while the distal gluteus maximus of the buttocks proper is occluded entirely or reduced to a foreshortened fragment. The structure of the visual information inherent in this point of view explains not only the lateral displacement of adipose tissue or fatty thighs but also the continuum of regional variation. Many Russian pieces have what appear to be unnaturally long loins or flanks and atrophied or disproportionately short buttocks, while figures from the West (Luquet 1934) present supposedly upside-down buttocks (see Figure 3). What have been seen as buttocks in the past are really properly positioned glutei medii muscles. When correctly viewed from above, the backsides of the statuettes from Lespugue, Grimaldi, and Willendorf, which make no anatomical sense from any other point of view, are optically transformed into highly naturalistic, foreshortened images of the lower back above a correctly located tailbone (see Figures 8 and 9).

Other Upper Paleolithic peoples may have preferred the more difficult of the two routes by which the human backside can be directly inspected. In an over-the-shoulder view, the dual masses of the glutei maximus muscles appear to project posteriorly into the visual field exactly as in the rare rearward enlargement of the buttocks identified as steatopygia. Seen in only three pieces from Italy and southern France (“Le Polichinelle,” Savignano, and Monpazier), this condition nevertheless demonstrates that the possibilities for self-inspection echo the actual range of regional and cultural variations encountered. It is possible that cultural differences in feminine self-inspection routines—with some cultures in Italy and southern France preferring to look over the shoulder while other cultures looked under the arm—account for the regional vari-
focus on war and royalty. These Upper Paleolithic figurines were probably made at a time when there was similarly significant population increase along with cultural and economic restructuring. The early to middle Upper Paleolithic was characterized by productive changes that harnessed energy and by reproductive changes that helped make possible the population expansion and technological changes that followed in the later European Upper Paleolithic. Could women have made a recognizable contribution to the fluorescence of art and technology seen in the opening millennia of this era? Anything they did to improve their understanding of reproduction and thereby reduce infant and maternal mortality would clearly have contributed to this productive and reproductive change. Perhaps the figurines served as obstetrical aids, the relative sizes of the abdomens helping women to calculate the progress of their pregnancies.

Arguing for the value of using Darwinian evolution as a framework in cultural anthropology and archaeology, Steven Simms (1987:12) suggests that selection should be examined on the individual as well as the group level. These figurines might have been used to gain greater control of reproduction over time, thus offering an example of natural selection in action. As Roosevelt has pointed out, “The existing information in the ethnographic literature is scattered and cryptic, but women in many preindustrial societies are known to make images of females, children, or genitals to aid in conception” (1988:15). Decreasing depictions of pregnancy over time, which Jean-Pierre Duhard’s (1993b) work shows, would offer some support for this hypothesis. Analyzing these and other Paleolithic figures as a gynecologist, Duhard reports that 68 percent of the

**Population, Reproduction, and Natural Selection**

In interpreting female images in pre-Columbian art, Anna Roosevelt explores the hypothesis that “the figures were specifically related to a cult of human female fertility, a demographic strategy appropriate for the expanding economies of early sedentary agricultural societies” (1988:5). She suggests that the images are characteristic of chiefdoms or early states and that they disappeared shortly after state development, with its extreme encountering. Again, what had been puzzling extremes of human representation become surprisingly realistic when considered from the probable point of view employed by their feminine creators.

The idea that women sought to gain and preserve knowledge about their own bodies provides a direct and parsimonious interpretation for general as well as idiosyncratic features found among female representations from the middle European Upper Paleolithic. The needs of health and hygiene, not to mention coitus and childbirth, ensure that feminine self-inspection actually occurred during the early Upper Paleolithic. Puberty, menses, copulation, conception, pregnancy, childbirth, and lactation are regular events in the female cycle and involve perceptible alterations in bodily function and configuration (Marshack 1972). Mastery and control of these processes continues to be of fundamental importance to women today. It is possible that the emergence and subsequent propagation of these images across Europe occurred precisely because they played a didactic function with actual adaptive consequences for women.
Gravettian figures show evidence of pregnancy as opposed to 36 percent from the Magdalenian, although Patricia Rice (1981), who includes cave art in her analysis, infers a much lower pregnancy rate.

Whether or not McDermott’s hypothesis is ultimately accepted, it suggests a number of directions that might productively be explored by anthropologists. A great deal more needs to be known about patterns of production and reproduction at specific sites and over time. Marcia-Anne Dobres (1992a) points out that the rich finds of PKG figurines in the domestic context at important Russian sites—under floors and in storage pits and niches—could be particularly rewarding in locating meaningful associational patternings, including perhaps the identification of areas where figurines were made and used. Another area of possible research involves exploring stylistic variations by region to see if they support the suggestion that cultural differences in body inspection routines (under the arm versus over the shoulder) may account for the different appearances of figurines from Italy and southern France and those of other areas. Furthermore, in what ways could systematic ethnographic and ethnohistoric work help elucidate possible uses for these figurines? Assessments of the literature, as well as new field observations, could suggest new ethnographic parallels to explore.

Theoretically, if these figurines were used to improve reproductive success, keep more women alive and healthy, and produce healthier children, then natural selection would have been acting directly on the women who made and/or used them. If these Upper Paleolithic figures are naturalistic, accurate self-representations made by women, then it is reasonable to speculate that they might have had such direct, pragmatic purposes.

Notes

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1. See Collins and Onians 1978; Conkey 1983; and Reinach 1903.
2. See Begouen 1929a, 1929b; Breuil 1952; and Reinach 1903.

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