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Furs for Evening, but Cloth Was the Stone Age Standby

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Ah, the poor Stone Age woman of our kitschy imagination. When she isn't getting bonked over the head with a club and dragged across the cave floor by her matted hair, she's hunched over a fire, poking at a roasting mammoth thigh while her husband retreats to his cave studio to immortalize the mammoth hunt in fresco.

Or she's Raquel Welch, saber-toothed sex kitten, or Wilma Flintstone, the original soccer mom. But whatever her form, her garb is the same: some sort of animal pelt, cut nasty, brutish and short.

Now, according to three anthropologists, it is time to toss such hidebound clichés of Paleolithic woman on the midden heap of prehistory.

In a new analysis of the renowned "Venus" figurines, the hand-size statuettes of female bodies carved from 27,000 to 20,000 years ago, the researchers have found evidence that the women of the so-called upper Paleolithic era were far more accomplished, economically powerful and sartorially gifted than previously believed.

As the researchers see it, subtle but intricate details on a number of the figurines offer the most compelling evidence yet that Paleolithic women had already mastered a revolutionary skill long thought to have arisen much later in human history: the ability to weave plant fibers into cloth, rope, nets and baskets.

And with a flair for textile production came a novel approach to adorning and flaunting the human form. Far from being restricted to a wardrobe of what Dr. Olga Soffer, one of the researchers, calls "smelly animal hides," Paleolithic people knew how to create fine fabrics that very likely resembled linen.

They designed string skirts, slung low on the hips or belted up on the waist, which artfully revealed at least as much as they concealed. They wove elaborate caps and snoods for the head, and bandeaux for the chest — a series of straps that amounted to a cupless brassiere.

"Some of the textiles they had must have been incredibly fine, comparable to something from Donna Karan or Calvin Klein," said Dr. Soffer, an archaeologist with the University of Illinois in Urbana-Champaign.

Archaeologists and anthropologists have long been fascinated by the Venus figurines and have theorized endlessly about their origin and purpose.

But nearly all of that speculation has centered on the exaggerated body parts of some of the figurines: the huge breasts, the bulging thighs and bellies, the well-defined vulvas. Hence, researchers have suggested that the figurines were fertility fetishes, or prehistoric erotica, or gynecology primers.

"Because they have emotionally charged thingies like breasts and buttocks, the Venus figurines have been the subject of more spilled ink than anything I know of," Dr. Soffer said.

"There are as many opinions on them as there are people in field."

In their new report, which will be published in the spring in the journal Current Anthropology, Dr. Soffer and her colleagues, Dr. James M. Adovasio and Dr. David C. Hyland of the Mercyhurst Archaeological Institute at Mercyhurst College in Erie, Pa., point out that voluptuous body parts notwithstanding, a number of the figurines are shown wearing items of clothing. And when they zeroed in on the details of those carved garments, the researchers saw proof of considerable textile craftsmanship, an intimate knowledge of how fabric is woven.

"Scholars have been looking at these things for years, but unfortunately, their minds have been elsewhere," Dr. Adovasio said.

"Most of them didn't recognize the clothing as clothing.

If they noticed anything at all, they misinterpreted what they saw, writing off the bandeaux, for example, as tattoos or body art."

Scrutinizing the famed Venus of Willendorf, for example, which was discovered in lower Austria in 1908, the researchers paid particular attention to the statuette's head. The Venus has no face to speak of, but detailed coils surround its scalp.

Most scholars have interpreted the coils as a kind of paleo-coiffure, but Dr. Adovasio, an authority on textiles and basketry, recognized the plaiting as what he called a "radially sewn piece of headgear with vertical stem stitches."

Willendorf's haberdashery "might have looked like one of those woven hats you see on Jamaicans on the streets of New York," he said, adding, "These were cool things."

On the Venus of Lespugue, an approximately 25,000-year-old figurine from southwestern France, the anthropologists noticed a "remarkable" degree of detail lavished on the rendering of a string skirt, with the tightness and angle of each individual twist of the fibers carefully delineated. The skirt is attached to a low-slung hip belt and tapers in the back to a tail, the edges of its hem deliberately frayed.

"That skirt is to die for," said Dr. Soffer, who, before she turned to archaeology, was in the fashion business. "Though maybe it's an acquired taste."

To get an idea of what such an outfit might have looked like, she said, imagine a hula dancer wrapping a 1930's-style beaded curtain around her waist. "We're not talking protection from the elements here," Dr. Soffer said. "This would have been ritual wear, if it was worn at all, a way of communicating with higher powers."

Other anthropologists point out that string skirts, which appear in Bronze-Age artifacts and are mentioned by Homer, may have been worn at the equivalent of a debutantes ball, to advertise a girl's coming of age. In some parts of Eastern Europe, the skirts still survive as lacy elements of folk costumes.

The researchers presented their results earlier this month at a meeting on the importance of perishables in prehistory that was held at the University of Florida in Gainesville.

"One of the most common reactions we heard was, 'How could we have missed that stuff all these years?" Dr. Adovasio said.

Dr. Margaret W. Conkey, a professor of anthropology at the University of California at Berkeley, and co-editor, with Joan Gero, of "Engendering Archaeology" (Blackwell Publishers, 1991) said, "They're helping us to look at old materials in new ways, to which I say brave!"









A portrait of a woman far different from the cavewoman stereotype is emerging from these Stone Age Venuses: Far left is a profile of a woman's head with a plaited-looking hat, discovered in Brassempouy, in France. Left center is the Venus of Willendorf in Austria. Right center, Dr. Olga Soffer, a researcher, examining what has been called the "golf ball" head of the Venus of the Kostenki I site in Russia. Far right, the basket headware was made of plaited starts and coiled basketry.

Not all scholars had been blinded by the Venutian morphology.

Dr. Elizabeth Wayland Barber, a professor of archaeology and linguistics at Occidental College in Los Angeles, included in her 1991 volume "Prehistoric Textiles," a chapter arguing that some of the Venus figurines were wearing string skirts.

The recent work from Dr. Soffer and her colleagues extends and amplifies on the Dr. Barber's original observations.

The new work also underscores the often neglected importance of what Dr. Barber has termed the "string revolution." Archaeologists have long emphasized the invention of stone and metal tools in furthering the evolution of human culture. Even the names given to various periods in human history and prehistory are based on heavyweight tools: the word "Paleolithic"—the period extending from about 750,000 years ago to 15,000 years ago—essentially means "Old Stone Age." And duly thudding and clanking after the Paleolithic period were the Mesolithic and Neolithic, or Middle and New Stone Age, the Bronze Age, the Iron Age, the Industrial Age.

But at least as central to the course of human affairs as the invention of stone tools was the realization that plant products could be exploited for purposes other than eating. The fact that some of the Venus figurines are shown wearing string skirts, said Dr. Barber, "means that the people who made them must also have known how to make twisted string."

With the invention of string and the power to weave, people could construct elaborate yet lightweight containers in which to carry, store and cook food.

They could fashion baby slings to secure an infant snugly against its mother's body, thereby freeing up the woman to work and wander.

They could braid nets, the better to catch prey animals without the risk of hand-to-tooth combat. They could lash together wooden logs or planks to build a boat.

"The string revolution was a profound event in human history," Dr. Adovasio said. "When people started to fool around with plants and plant byproducts, that opened vast new avenues of human progress."

In the new report, the researchers argue that women are likely to have been the primary weavers and textile experts of prehistory, and may have even initiated the string revolution in the first place—although men undoubtedly did their share of weaving when it came to making hunting and fishing nets, for example.

They base that conclusion on modern cross-cultural studies, which have found that women constitute the great bulk of the world's weavers, basketry makers and all-round mistresses of plant goods.

But while vast changes in manufacturing took the luster off the textile business long ago, with the result that such "women's work" is now accorded low status and sweatshop wages, the researchers argue that weaving and other forms of fiber craft once commanded great prestige.

By their estimate, the detailing of the stitches shown on some of the Venus figurines was intended to flaunt the value and beauty of the original spinsters' skills.

Why else would anybody have bothered etching the stitchery in a permanent medium, if not to boast, whoa! Check out these wefts!

"It's made immortal in stone," Dr. Soffer said.

"You don't carve something like this unless it's very important."

The detailing of the Venutian garb also raises the intriguing possibility that the famed little sculptures, which rank right up there with the Lascaux cave paintings in the pantheon of Western art, were hewn by women—moonlighting seamstresses, to be precise. "It's always assumed that the carvers were men, a bunch of guys sitting around making their zaftig Barbie dolls," Dr. Soffer said.

"But maybe that wasn't the case, or not always the case. With some of these figurines, the person carving them clearly knew weaving. So either that person was a weaver herself, or he was living with her. He's got an adviser."

Durable though the Venus figurines are, Dr. Adovasio and his co-workers are far more interested in what their carved detailing says about the role of perishables in prehistory.

"The vast bulk of what humans made was made in media that hasn't survived," Dr. Adovasio said. Experts estimate the ratio of perishable objects to durable objects generated in the average culture is about 20 to 1.

"We're reconstructing the past based on 5 percent of what was used," Dr. Soffer said.

Because many of the items that have endured over the millennia are things like arrowheads and spear points, archaeologists studying the Paleolithic era have generally focused on the ways and means of that noble savage, a k a Man the Hunter, to the exclusion of other members of the tribe.

"To this day, in Paleolithic studies we hear about Man the Hunter doing such bloody wonderful things as thrusting spears into woolly mammoths, or battling it out with other men," Dr. Adovasio said. "We've emphasized the activities of a small segment of the population—healthy young men—at the total absence of females, old people of either sex and children. We've glorified one aspect of Paleolithic life ways at the expense of all the other things that made that life way successful."

Textiles are particularly fleeting. The oldest examples of fabric yet discovered are some carbonate-encrusted swatches from France that are about 18,000 years old, while pieces of cordage and string dating back 19,000 years have been unearthed in the Near East, many thousands of years after the string and textile revolution began.

In an effort to study ancient textiles in the absence of textiles, Dr. Soffer, Dr. Adovasio and Dr. Hyland have sought indirect signs of textile manufacture.

They have pored over thousands of ancient fragments of fired and unfired clay, and have found impressions of early textiles on a number of them, the oldest dating to 29,000 B.C.

But the researchers believe that textile manufacture far predates this time period, for the sophistication of the stitchery rules out it's being, as Dr. Soffer put it, "what you take home from Crafts 101." Dr. Adovasio estimates that weaving and cord-making probably goes back to the year 40,000 B.C. "at a minimum," and possibly much further.

Long before people had settled down into towns with domesticated plants and animals, then, while they were still foragers and wanderers, they had, in a sense, tamed nature.

The likeliest sort of plants from which they extracted fibers were nettles. "Nettle in folk tales and mythology is said to have magic properties," Dr. Soffer said. "In one story by the Brothers Grimm, a girl whose two brothers have been turned into swans has to weave them nettle shirts by midnight to make them human again." The nettles stung her fingers, but she kept on weaving.

But what didn't make it into Grimms' was that when the girl was done with the shirts, she took out a chisel, and carved herself a Venus figurine.





The back (left) and front (right) views of Venus of Kostenki in Russia.