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This Week

Research Notes

Articles

Cover: Reconstruction of *Paranthropus* in southern Africa 1.8 million years ago shows tool use suggested by recent fossil finds. If, as one scientist contends, *Paranthropus* had the "precision grip" needed to make and use tools and also spent most of its time on the ground, new questions arise about why this line of creatures died out while ancestors of modern humans prospered. (Illustration: Lucille Betti/SUNY, Stony Brook)

Departments

Letters

Off base?

We should all offer our encouragement to Yasumasa Kanada in his effort to calculate pi to 400 million decimal places ("Following pi down the decimal trail," SN: 4/2/88, p.215). But why do projects of this kind always concentrate on decimal expansions? The decimal system is familiar to us only because of a biological accident. Neither is any other base to be preferred; they are all equally arbitrary. Mathematicians should always seek a canonical form. Why not expand pi as a simple continued fraction? The terms would then be integers, whose intrinsic properties would be quite independent of the number-base in which they might be printed out. There would be more chance of finding some interesting irregularity, as patterns often appear in the simple continued fraction expansion of real numbers whose decimal form is unpatterned (this is the case with quadratic surds, for example, and with *e*).

For a start, once a few million of the denominators had been extracted, they could be put through some straightforward statistical tests to see whether they are freakish in any way. The "expected" frequency of any integer in any position of a "random" simple continued fraction can easily be determined.

John Derbyshire
New York, N.Y.

If truth be known

On art forgeries, Stefi Weisburd quotes Lambertus van Zelst ("The Art Detectives," SN: 4/23/88, p. 264) as saying that art collectors were taken in by the forgeries of van Meegeren. That's nearly half the truth.

Abraham Bredius, the famous and supposedly the greatest expert on Dutch art, pronounced van Meegeren's first forgery, "Christ and His Disciples at Emmaus," as "a genuine Vermeer." Nearly all the other "experts" agreed with Bredius. There was the exception of Johan Huizinga at Leiden, who refused to accept the "experts'" verdict, saying the painting was un-Vermeer and lacking in soul. But the "experts" in Rotterdam bought it for over a quarter million dollars for their museum, believing Bredius and "expert" followers. This sale was in the summer of 1937 (not during WWII. Van Meegeren forged others in the late '30s and early '40s).

There is another statement of Weisburd's which is not wholly true: "Van Meegeren . . . settled the issue by creating a new painting while in jail." Van Meegeren *started* a new painting for authorities as proof of non-collaboration with the enemy, but when, after several weeks, the collaboration charges were being changed to forgery ones he balked. The painting was left unfinished. Van Meegeren usually took about six months to finish one.

John J. Griggs
Prineville, Ore.