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This Week

Research Notes

Articles

Cover: Raw cotton makes a superior mop for spilled oil. Texas researchers are exploring cotton fibers and other nontoxic agents as bases for products that not only sop up oil but also facilitate the breakdown of that oil. (Photo: Jane K. Dever/International Center for Textile R&D, Texas Tech University)

Departments

Science Service, which publishes SCIENCE NEWS, is a nonprofit corporation founded in 1921. It gratefully accepts tax-deductible contributions and bequests to assist its efforts to increase the public understanding of science, with special emphasis on young people. More recently, it has included in its mission increasing scientific literacy among members of underrepresented groups. Through its Youth Programs it administers the International Science and Engineering Fair, the Science Talent Search for the Westinghouse Science Scholarships, and publishes and distributes the *Directory of Student Science Training Programs for Precollege Students.*

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Letters

Quantum nature of space and time?

I would like to suggest a model of reality where, in addition to particles ("Strings and Mirrors," SN: 2/27/93, p.136), space-time is quantum in nature; it consists of particles and is not a continuous fabric. Some early mystics had a similar conception of space and time. This approach would account for some of the paradoxes of quantum physics, for example, an electron being in only one of a discrete number of energy shells and crossing from one shell to another in "zero time."

This may also illuminate one of the fundamental constants of nature, namely, *c,* the speed of light (approximately 186,000 miles per second). In this model, *c* would represent the ratio of the space quanta to the time quanta. Light would travel across the smallest unit of distance in the smallest unit of time. Any greater speed would be impossible because it would imply that a photon has crossed a space particle in *less* than an indivisible unit of time.

String theory, with its bunched-up six dimensions in an area only 10^{-33} centimeter wide, may be pointing in the same direction.

Simcha Z. Pollack
Associate Professor
Department of Quantitative Analysis
St. John's University
Jamaica, N.Y.

Putting right writing stuff

In "The Write Stuff" (SN: 3/6/93, p.152), you describe the Sumerians as having lived "in what is now Iran." You ought to have said Iraq.

Ean Roby
Walnut Creek, Calif.

The Greeks are credited with the invention of the alphabet "around the fifth century B.C."

In fact, the alphabet predates the Greeks by at least a thousand years. An alphabet using 30 cuneiform signs was in use at Ugarit (Ras Shamra) on the Phoenician coast of the eastern Mediterranean circa 1500-1400 B.C. A full-fledged "North Semitic" alphabet was in use in ancient Canaan (Palestine) by 1700 B.C., and a "Proto-Sinaitic" alphabet was used in inscriptions found in the Sinai Peninsula dated to early in the second millennium B.C.

The Greek alphabet was no more than a mirror-image adaptation of the Semitic one.

Zecharia Sitchin
New York, N.Y.

Much debate surrounds the date of the "invention" of the alphabet, according to Piotr Michalowski of the University of Michigan in Ann Arbor. Researchers generally agree that the eastern Greeks adapted a form of the Phoenician or Canaanite writing systems and added a consistent notation for vowel signs, he says. This may have occurred as early as the 12th century B.C. or as late as the eighth century B.C. Alphabetic writing first achieved widespread use in fifth century B.C. Greece, a point I should have emphasized in the article. — B. Bower

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