Archimedes Comes to America

One of the major science historical discoveries of this century, a 1000-year-old palimpsest containing copies of seven treatises by Archimedes, went on public display for the first time this week at The Walters Art Gallery in Baltimore (www.thewalters.org). Included is a copy of Archimedes' "On Floating Bodies," which has never been publicly available in the original Greek. "It's like being able to read Shakespeare in English rather than in French," says Walters curator William Noel.

Archimedes, a Renaissance man 1600 years before the Renaissance, is best remembered (apocryphally) for running down the street yelling "Eureka" after finding that a floating body will displace its own weight in water. But his real contribution was being the first "to engage systematically in the mathematization of the physical universe," says science historian Reviel Netz of the Massachusetts Institute of Technology.

Digitally enhanced photo of manuscript "On Floating Bodies" showing written-over material.

The seven treatises were copied onto goatskin by scribes in Constantinople in the 10th century A.D. But the writing was in large part rubbed out 2 centuries later by a Greek Orthodox monk in parchment-short Constantinople to transcribe religious rites (palimpsest means "scraped over" in Greek). The palimpsest was discovered in an Istanbul library in 1906. Bought by a French family in the 1920s, it lay in obscurity until offered at auction at Christie's last October, where it fetched $2 million from an anonymous bidder.

The Walters will have it on show until 5 September, but plans to study and conserve the work afterward. Noel says that effort, to be led by Netz and Oxford University Greek manuscript expert Nigel Wilson, will involve taking the book apart to photograph the entire text, some of which is hidden under the binding. Ultrahigh-resolution photography with light of various wavelengths may reveal new details; computer-enhanced imaging will bring out the Archimedes text while soft-pedaling the overlying writing. Meanwhile conservationists will be figuring out how to preserve the moldy and fire-scorched goatskin pages.

Clone Rangers

Odd cultural developments have followed in the hoof steps of Dolly. Take Clonaid. Billing itself as "the first company in the world to offer human cloning," Clonaid hosted a confab in Montreal last week featuring a who's who in human cloning—a rather short list that includes Richard Seed, the retired physicist who last year announced his intentions to set up a cloning clinic. At the conference, Seed and Clonaid announced that they would merge their efforts, sharing financial resources and customer lists.

Clonaid was started in 1997 by former sports journalist Claude Vorilhon, the leader of the Raëlians, who believe aliens whipped up Earth's life, including humans, in a laboratory. The company is still hustling for investors, says scientific director Brigitte Boisselier. That hasn't stopped it from advertising its services, including human clone jobs (for as little as $200,000) and pet cloning. "We've had so many letters from people saying 'My cat just died, it's in the fridge right now, can I send you cells?' " says Boisselier.

On its Web site, Clonaid says cloning will allow people to jump into new bodies when they die and "reach eternal life." No money-back guarantees, however.

'Extinct' Oregon Flower Reappears

Extinction is forever—an ironclad law of life, one might think. But plants can sometimes break the rules. Such is the case with Oregon's vernal pool monkey flower, thought to have vanished in 1991.

Monkey flower pokes out of dried mud.

This spring amateur botanists were thrilled to discover the low-lying, trumpet-shaped flower (*Mimulus tricolor*) growing in a former rye grass field on the outskirts of Corvallis, Oregon. The flower once speckled Oregon's Willamette Valley with showy splashes of color, until plowing and stream engineering put it out of business.

The seeds may have survived because they come in hard, nutlike capsules, says Steve Northway, a chemist and amateur botanist. The seeds, he says, must have been revived when a flood last winter stripped away the grass and left muddy puddles, the kind of habitat in which monkey flowers once thrived.

This year's flowers may just be a flash in the pan—the channels are temporary, unlike the vernal pools that used to form every spring when the water table peaked. To save the flower, Northway and coworkers are collecting seeds and seeking ways to emulate the flood's effects. One possibility, he says, is to use heavy equipment to break up patches of surface soil, encouraging puddle formation.

Ecologist Peter Chesson of the University of California, Davis, notes that the serendipitous return of the monkey flower demonstrates that plants don't always need to be reintroduced where people are trying to restore an ecosystem: "The seed bank [in the soil] can be quite rich." So, he says, it can often be more efficient to create conditions favorable to the germination of old seeds lying dormant.

Remember You're OK

"Women must have complete confidence in themselves. Believe that you're dead right, and pursue your science and your goals with that inner assurance."

—Advice from IBM's Frances Allen, quoted in "Women Scientists in Industry," a study by Catalyst, a New York–based nonprofit, which says they still face an uphill struggle.

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