

## ETCHING A NEW ROSETTA STONE

THE HIEROGLYPHIC LANGUAGE of ancient Egyptians was lost until Napoleon's troops discovered a 1,000-year-old slab of basalt in the Nile village of Rosetta. Etched into its black face were three copies of the same text: one in demotic, one in Greek and one in hieroglyphic Egyptian. With that key, scholars were able at last to unlock millennia of hidden history.

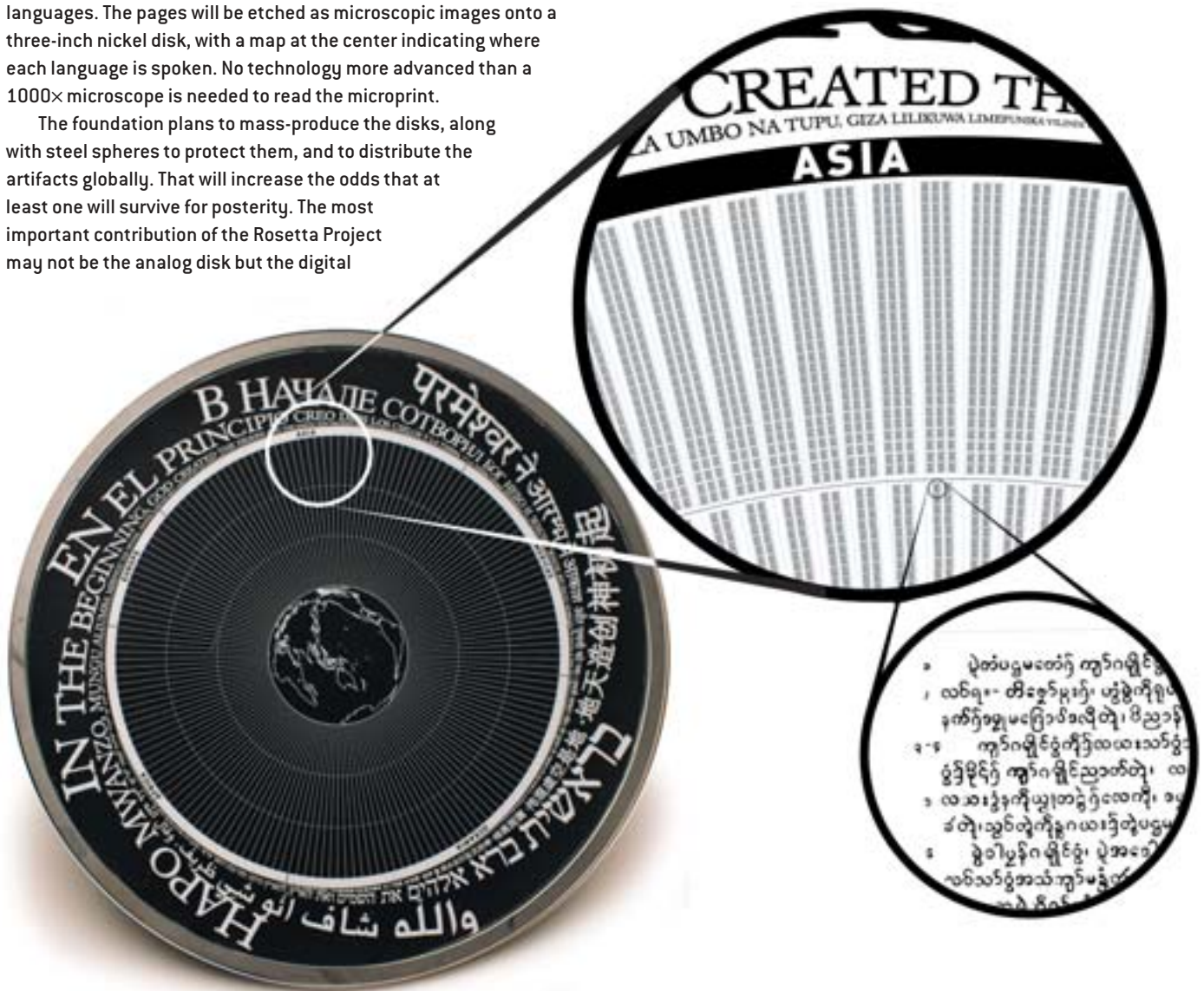
The Rosetta stone survived by chance, but it has inspired a small group of engineers and scientists to deliberately fashion a new artifact that could preserve some basic knowledge of the world's languages for anthropologists of the distant future. Jim Mason, who directs the Rosetta Project for the Long Now Foundation in San Francisco, says the group is on schedule to complete its first "stone" this autumn.

Like the original, this new Rosetta stone will carry parallel texts (the first chapter of Genesis), transliterated if the language has no native script. But its design allows it to hold much more detail—27 pages of glossed text and English description for each of 1,000 languages. The pages will be etched as microscopic images onto a three-inch nickel disk, with a map at the center indicating where each language is spoken. No technology more advanced than a 1000× microscope is needed to read the microprint.

The foundation plans to mass-produce the disks, along with steel spheres to protect them, and to distribute the artifacts globally. That will increase the odds that at least one will survive for posterity. The most important contribution of the Rosetta Project may not be the analog disk but the digital

database of word lists for 4,000 to 5,000 languages that the group wants to complete next. "We already have word lists in digital form for 2,000 languages," Mason says. Scientists at the Santa Fe Institute, he adds, are keen to use the database to refine the picture of language evolution and human migration.

To fill in gaps in the database, the Rosetta team last year set up a collaborative Web site ([rosettaproject.org](http://rosettaproject.org)) through which scholars and native speakers of rare languages can submit and peer-review word lists, audio recordings, grammars and other kinds of documentation. By June, 664 volunteers (25 to 30 percent of them professional linguists, Mason estimates) had contributed material. In principle, the last speakers of moribund languages could upload their knowledge for the benefit of future generations. In practice, unfortunately, last speakers are typically old, poor and computer illiterate. Few have e-mail addresses. —W.W.G.



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