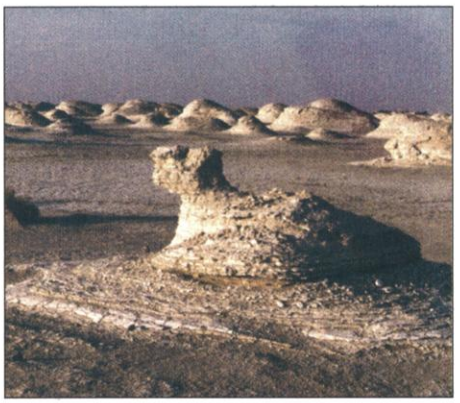
Natural Inspiration?

The sudden rise of Egyptian civilization about 5000 years ago is the result of a confluence of two cultures, scholars say—farmers living on the Nile, and nomads from the desert who moved to the Nile Valley in response to an increasingly dry climate. Boston University (BU) geologist Farouk El-Baz says the people from the west brought not only "desert wisdom" but an intimate knowledge of arid landforms that may well have inspired designs of the pyramids and the sphinx.



Sphinxlike form is aerodynamically stable enough to last for centuries.

Writing in the March-April issue of *Archaeology* magazine, El-Baz, head of BU's Center for Remote Sensing, notes that solid rocks are hewn by desert winds into pyramid shapes that are uniquely able to withstand wind erosion. Similarly, the winds also carve sphinxlike forms, called yardangs, which are sculpted to resemble overturned boat hulls. El-Baz says the headlike protrusion always faces the prevailing winds and is formed by vortices created when the wind loops up from the base.

Engineering Honor Roll

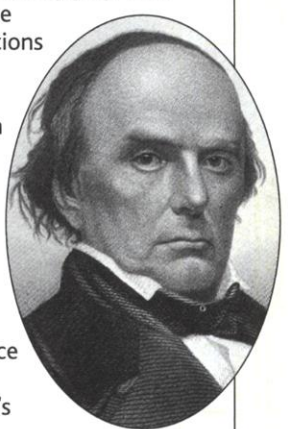
The National Academy of Engineering (NAE) has elected 74 U.S. engineers and eight foreign associates to membership. The U.S. total is now 2061 and the foreign total 154. New members include a record seven women, who now make up 2.8% of NAE membership. For names, go to www.nae.edu.

A House Divided

Of all the uses of the U.S. census, the most important—to politicians—is the apportionment of congressional seats. Since 1941, Congress has assigned seats by a complicated formula that replaced a simpler approach designed in 1832 by the American statesman Daniel Webster.

But Peyton Young, a senior fellow at the Brookings Institution in Washington, D.C., says Webster's system was actually better. The current method is biased, giving less populous states 3% to 4% more seats than they deserve, Young reported at the AAAS (publisher of *Science*) meeting in San Francisco last month.

Assigning House seats might seem simple: Calculate each state's fraction of the population, multiply by 435, round up the largest fractions to achieve 435, and round down the rest. But this can cause states to lose a seat when they gain population or vice versa.



Webster knew best?

Webster's method avoided these paradoxes with a formula that scales up fractions, then rounds them to the nearest whole number. Its successor was supposed to be even better, because it minimized differences in states' per capita representation. But it also introduced a bias, says Young, because small numbers are rounded up more often than large numbers are: 1.45 gets rounded up, for example, whereas 54.45 gets rounded down.

Because every state gets two senators regardless of population, "the whole system is now rigged toward small states," Young says. He thinks it's time for Congress to switch back to Webster's method. Steven Brams, an expert on voting systems at New York University, doesn't foresee any surge of support for a change. But he agrees that Webster's scheme—or even the older method—"would be superior" to what's in place today.

Of the Genome We Sing

After an intense day of press conferences and scientific symposia surrounding the announcement on 12 February of the publication of the human genome sequence, members of the publicly funded project let loose at *Nature*'s party at the National Building Museum in Washington, D.C. Entertainment was provided by The Directors, including lead guitarists (left to right) National Institutes of Health genome chief Francis Collins, arthritis institute head Steve Katz, and cancer institute honcho Rick Klausner.

Several songs to commemorate the accomplishment (and to chide Celera Genomics for not depositing its version in GenBank) made their debut. Sample lyrics (set to the tune of "You've Really Got a Hold on Me"):

We Really Got the Code on You

Mendel had all his wrinkled peas,
And Darwin had all his finches' beaks.

Watson, Crick, and Franklin too,
Figured out just how you groove.

I love you and all I want to do
Is just read you, read you, read you, read you.

They didn't know you, but now we know you,
Just wanna know you, don't wanna own you.

Sulston, Waterston, Branscomb, Gibbs, and Lander,
Then Craig Venter got up their dander.

Chorus:

Oh, oh, oh, we really got you now, you can't stop us now,

We really got the code on you, really got the code on you,

We really got the code on you, we really got the code on you, baby.

CREDITS: (TOP) FAROUK EL-BAZ; (MIDDLE, RIGHT) BETTMANN ARCHIVE; (LOWER LEFT) NHGRI