

# OMNIBUS

## THE EVOLUTION OF AN ISSUE:

Our editor at large goes to summer school and returns with our anniversary theme

Last year *Omni* editor at large Pamela Weintraub went to the Marine Biological Laboratory in Woods Hole, Massachusetts, on a science writer's fellowship. Although she spent a great deal of time learning the techniques of cell and marine biology in the lab, her main focus was the field of molecular evolution. While attending one lecture, she came upon an unusual idea that, if correct, will shake the roots of evolutionary biology. According to the modern followers of Charles Darwin and his theory of evolution, organisms evolve through random genetic mutations. But Weintraub reports in "Natural Direction" (page 34) that mutations may not be random at all. In fact, organisms may actually orchestrate their own ev-

olution. "I discussed the idea with leading molecular biologists at the workshops and was really shocked that they didn't look down on the possibility of directed mutation," Weintraub says.

Weintraub's participation in the fellowship was the genesis of our special anniversary issue on evolution, which she developed and coordinated. The result is vintage *Omni* and includes an exclusive game that illustrates planetary evolution and the Gaia hypothesis.

"Environmental activists may have latched on to the Gaia hypothesis, but scientists have been reluctant to embrace the idea that a symbiotic relationship exists between the physical world and life itself," says *Omni* contributing editor Jane Bosveld ("Life According to Gaia," page 66). Bosveld has written for *Mademoiselle* and other publications and is the coauthor of *Control Your Dreams* (Harper & Row).

Originating the idea for our game, Weintraub offered a truly unique challenge to game designers Tom Braunlich and Rollie Tesh of Technical Game Services in Bainbridge Island, Washington. "All we had to do was simulate the four-billion-year history of the planet, using nothing but a few pages in the magazine and some common household objects," Braunlich says. The result: Planit: The *Omni* Evolution Game (page 73), featured along with this month's special section "The Whole Evolution Almanac" (page 87). Braunlich and Tesh work with Milton Bradley and other game and toy manufacturers and also represent independent toy and game inventors.

Planit gave Wein-

traub and her son Jason the rare opportunity to contribute ideas in the creation of a game. "We'd play the game and then call the designers with suggestions; they'd send back an improved version and we'd repeat the process," she says.

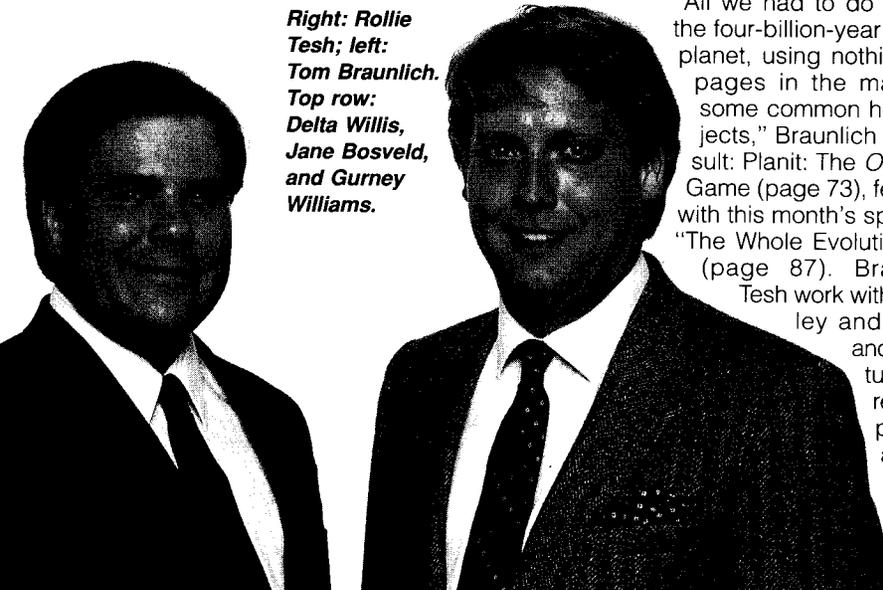
Weintraub took her idea for the almanac's "Do-It-Yourself Mutation Kit" to Hemant Chikarmane, the molecular biologist with whom she worked at Woods Hole. He thought it was a great idea and, in fact, says Chikarmane, a specialist in DNA fingerprinting, "depending on how well the evolution kit does, I would like to create similar educational projects for use in schools."

"The Whole Evolution Almanac" also provides some visions of future humans in "Evolution's Child" by former *Omni* editor Gurney Williams, who lectures about the future when not writing for such publications as *Redbook* and *American Health*. And you can achieve lower consciousness in "The Devolution Program" by Keith Harary, research director of San Francisco's Institute for Advanced Psychology and coauthor, with Weintraub, of *Right Brain Learning in 30 Days* and *Memory Enhancement in 30 Days* (St. Martin's Press).

Delta Willis (Digs, page 22) is the author of *The Hominid Gang: Behind the Scenes in the Search for Human Origins* (Penguin). Ed Regis (Interview, page 98) is the author of *Great Mambo Chicken and the Transhuman Condition* and *Who Got Einstein's Office? Eccentricity and Genius at the Institute for Advanced Study*, both published by Addison-Wesley. *Omni* contributing editor Shari Rudavsky ("The Secret Life of the Neanderthal," page 42) is currently a graduate student in the history of science at the University of Pennsylvania. **DD**



Right: Rollie Tesh; left: Tom Braunlich. Top row: Delta Willis, Jane Bosveld, and Gurney Williams.



# OMNI

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Archaeological evidence indicates that modern humans and Neanderthals lived side by side for thousands of years. The author wonders whether we will someday share the earth with a superior type of *Homo sapiens*.

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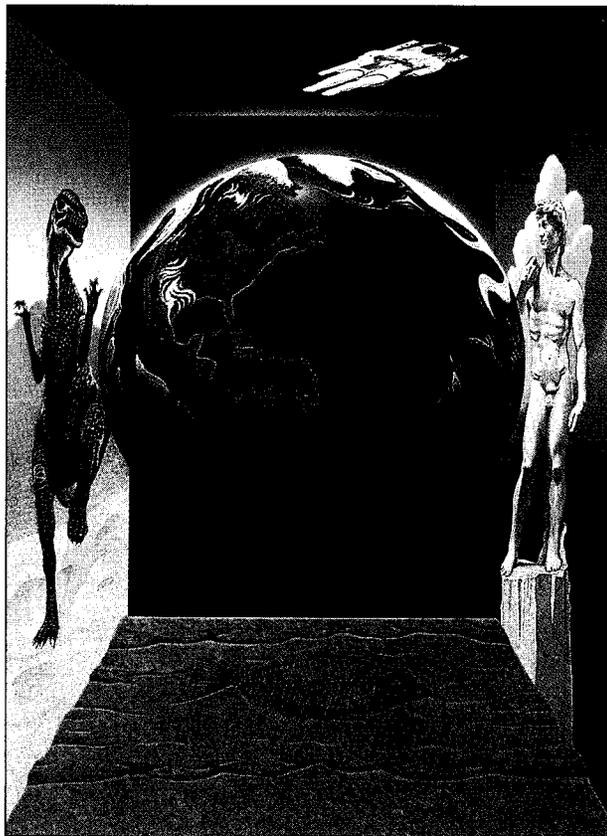
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Nature carved in stone distinct records of time's vast changes. Modern man, however, has left more ambiguous traces, suggests the illustration by Randy Nelsen (Earthbooks). He found his own uses for stone, first for tools and shelter, then for art. Man still evolves, slowly and subtly. (Additional art and photo credits, page 55)

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They've shown that bacteria can mutate in response to environmental stresses, rather than at random.

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By Shari Rudavsky  
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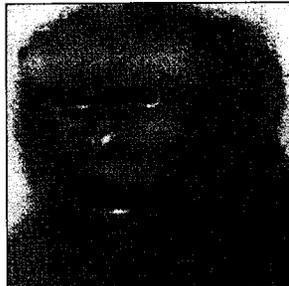
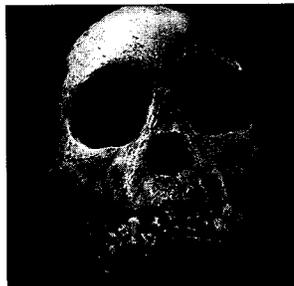
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### The Whole Evolution Almanac

Here's evolution in a nutshell. Our time line, compiled by Delta Willis, summarizes its history, and Gurney Williams III surveys some prominent scientists about its future. Try your hand at mutation with Hemant Chikarmane's tabletop kit. And return to your primitive roots with Keith Harary's devolution program.