OFF THE BEAT

Creative Approach to Genesis

Writers have been known to put themselves into peculiar positions in the attempt to find just the right conditions for creativity. William Day, a chemist who spent some fruitful if frustrating years in research, recently deserted the academic world to become a science writer and, incidentally, the chief dishwasher at a motel in East Lansing, Mich. He has just written, designed, published and now is distributing by mail a book on evolution, entitled *Genesis on Planet Earth* (see p. 322).

"Washing dishes isn't illogical," Day said in a recent interview in his spartanly outfitted basement apartment, which also serves as warehouse to his limited first edition. "The idea was to write the book but not have to answer to anyone." Besides this advantage of independence, dishwashing afforded Day a way to "keep the budget balanced to outlast this thing ... with a job that would not distract my thoughts," he says. "I also had to keep myself in a position where I stayed motivated to write. You can't have a good paying job that gives you too much a feeling of worth." Dishwashing, he contends, also provides a bit of physical exercise without being exhausting — just the sort of thing some writers need.

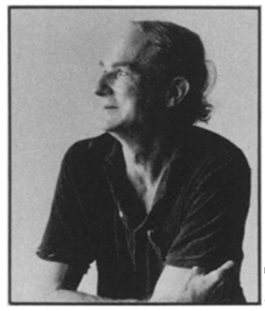
More important than all of that for writing a book, Day says, is that "you have to have something to say." In *Genesis on Planet Earth*, Day says plenty. He decided "to give a comprehensive yet technically complete account of how biological systems came into being." The book ties together the prebiological chemical events on earth with the ensuing early biological gasps. In doing so, it provides a fairly broad treatise, from cosmology and geology at one end to much of modern biochemistry at the other. And the book is, on the whole, well written and occasionally outright lyrical.

Throughout the book, Day clearly and critically delineates fact and opinon. In places, he outlines his own hunches and judgments. For instance, in the chapter "To splint a gene" he speculates as to how the first genes formed, writing: "They grew, segment by segment, in a double-stranded molecule by a reaction repeated over and over again until they crossed over the threshold of functionality for a replicating cell." Thus, he argues that the first genes made on earth grew stepwise, much in the manner that Nobel Laureate Ghobind Khorana and his colleagues followed when they successfully made a gene chemically about a decade ago.

Day has a scientific background in chemistry, having majored in the subject as an undergraduate at the University of Indiana. After a stint in the pharmaceutical industry, he earned a Ph.D. in chemistry at McGill University in Montreal. Since then, he's roamed the United States and Canada while working on a variety of research projects, the most recent concerning chemical evolution at the Institute for Molecular and Cellular Evolution in Miami.

Before writing *Genesis*, Day wrote a novel, based on anecdotes and family stories, set in a small town in Indiana. Neither he nor the publishers who saw his manuscript were satisfied with the effort. But it gave Day the confidence to start assembling a large book and added to his determination to do something unusual. "I feel most science books are horrible things in style," he says, adding "it's a lot harder to write one that's easy to read."

Thus, there's a bit of the novel couched in *Genesis*. Chapters are intended to lead from one to the next in a story line, and the book even has a surprise ending. Writing each chapter was "a bit like writing a sonata," Day says. "I tried to write a beginning, a theme and ending." His unorthodox route to publishing unfortunately generated a flurry of typographical flaws. "I thought I had all of them," Day says regretfully. "Now I can't see how I could have missed so many." Still, they represent a minor defect when measured against what the book accomplishes.



J.L. Fox

William Day

Though *Genesis* is a serious book, Day was not above including some high-handed humor. Perhaps the most charming touch is that the book is bound in black with gold lettering and comes with a red ribbon page marker. At first glance, this hard-core book on evolution resembles a hymnal. The joke almost backfired, Day says, when a noted biologist passed over the book — judging it by the cover and thinking it a vitalist's refutation of evolutionary science. That biologist has since repented and is using the book in an undergraduate course on the subject.

Day decided to publish the book himself, in part to keep its price within the "reasonable" range. One suspects, however, that once he got going on "this thing," as he calls it, the appeal to his midwestern sense of independence became too great to do anything else. Day has named his improvised publishing venture House of Talos, after the mechanical man that defended ancient Crete against the Argonauts. Like Achilles, Talos was not well heeled, and so he was defeated when Jason snuck behind him to loosen a screw at the back of his foot, letting out "whatever it was he needed," according to Day. Just how far this mythology applies to the daily activities of the modern House of Talos, Day does not venture to guess.

Being one's own publisher also accords certain rights and responsibilities that writers seldom enjoy. For example, Day and his sister, who has helped with some of the publisher's duties, like to go over the mail orders as they trickle in. Recently, Day decided to absorb the cost of mailing envelopes, thereby lowering shipping costs to customers by 15¢. "When you are the author, publisher and shipping clerk all in one, you have to be able to make these top-level decisions," Day says.

Though East Lansing seems an unlikely spot for a prospective writer to settle, it fits neatly into Day's regimen. For one thing, the town is next to the sprawling campus of Michigan State University that, with its strong agricultural programs, houses much archival material pertinent to evolution. For another, when Day came to East Lansing, he had an additional resource at his disposal — friends and former colleagues, who also had moved there. One of them Day credits as being an "unmerciful" critic who greatly helped shape *Genesis* through its several rewritings. Another friend (at a different university) tried to repeat some of the classical experiments that Day dug out of the archives. Though such efforts weren't particularly successful, they add to a sense of authenticity in Day's commitment to write a thorough book.

Before he came to Michigan, Day worked on a variety of research projects. He claims that he often came up with an answer opposite to the one everyone wanted. While trying to develop a birth control pill, for instance, he helped discover a fertility pill. Eventually his research interests turned to biochemical evolution where, once again, his findings didn't fit well with established theories. Ultimately, he left the field because of disappointment at the scientists' tendency to believe one another's theories without sufficiently serious, critical scrutiny.

As Bill Day continues to wash dishes in East Lansing, he's already assembling material for a second book. It will take up somewhere beyond where *Genesis* leaves off, albeit with a leap of faith: The book will be about the brain. "I want to analyze how we interpret reality," Day says. "The brain's a jungle but fascinating." Meanwhile, he also is toying with the idea of writing some science fiction. "It's nice," he says, "because you don't have to justify all the results, and it's fun to weave anecdotes into the story."

He also might go to Australia to hunt for opals and, one suspects, anecdotes.

—Jeffrey L. Fox

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