

CURRENT BOOKS

Reviews of new and noteworthy nonfiction

In the Beginning

BEFORE DARWIN:
Reconciling God and Nature.

By Keith Thomson. Yale Univ. Press. 314 pp. \$27

Reviewed by David Lindley

Strict creationism may not have gone away altogether, but for now it's mostly in abeyance. These days, school districts in Kansas, Pennsylvania, and elsewhere are treating us to a debate on the "intelligent design" theory of life. Whether for sincere or merely tactical reasons, proponents of this latest anti-Darwinian ruse are willing to allow that *some* evolution occurs. The increasing prevalence of antibiotic-resistant bacteria is an urgent example that's hard to ignore. So, yes, change happens. But that's as much ground as the intelligent design crowd is willing to cede. The complexity of life, they say, is too great to be explicable by the spontaneous and purposeless actions of nature. The marvelously fine-tuned architecture of living organisms indicates a design, and design implies a designer. Ask who or what this designer might be, and you tend to get an innocent smile and a soothing assurance that this is a question—a *scientific* question, mind you—that only continued research can answer.

If nothing else, this latest installment of a long-running saga illustrates the old saw that those who don't know history are condemned

to repeat it. The apparently irresistible proposition that the earth and all it carries must have been put together deliberately has ancient roots, but intelligent design in its modern form is most usually traced to William Paley, archdeacon of Carlisle, who in an 1802 book titled *Natural Theology* came up with a famous argument about a watch. If,

Paley said, you were wandering across a heath, tripped on something, and looked down to discover a watch lying in the grass, you would hardly imagine it got there of its own accord. Nor would you think such a clever little machine had sprung into existence spontaneously. No: Complex mechanisms cannot arise unaided. They must be designed and constructed. And so it is with life itself, Paley asserted.

But as Keith Thomson, a professor emeritus of natural history at the University of Oxford, shows in this engrossing and rewarding book, vapid summaries of this sort do enormous injustice to Paley, and to the profound and tortured arguments over the origin of life that swirled about in the century and a half preceding the publication of *Origin of Species* in 1859. For Paley was not some narrow-minded defender of bib-



William Paley

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lical literalism, but a man of reason, a creature of the Enlightenment. His aim was not to vanquish science by means of religion, but quite the opposite. The nascent ideas and principles of science, he thought, would serve to bolster faith by demonstrating the inescapability of God's hand in our world. The great irony of Paley's failure, Thomson makes clear, was that many of the crucial issues he wrestled with were precisely those that led Charles Darwin to a quite different conclusion.

In earlier times, faith in God rested on biblical authority, augmented by the occasional miracle to show that he was still paying attention. Creation happened all of a piece, on Sunday, October 23, 4004 B.C., as Bishop James Ussher had calculated in 1650. But in a world increasingly devoted to reason, such thinking began to seem ludicrously primitive. Naturalists (a term encompassing what we now call geologists, botanists, and zoologists) began first to classify the world around them, then to make sense of it. They discerned function and mechanism in what they saw; the cliché of the world as a great, interconnected machine took root. The argument for God's existence changed: The very fact that the world worked in such beautiful harmony was proof of his creating and guiding power.

But the naturalists also saw that the world was changing. Rocks built up and eroded away. Fossils betrayed the former existence of creatures that were no longer to be seen. Change posed a problem, especially when coupled with the conviction that the world was designed for human happiness. Was the Creation, then, less than perfect?

This, in a nutshell, was the tension that Paley hoped to resolve. To get to this point, Thomson reaches back into history and delivers a rich narrative of observers and thinkers who, starting in the late 17th century, began to see how evidence of evolution—a word that means, neutrally, that the world is not constant—challenged theological dogma. Unusually for a writer on the side of the scientists, Thomson knows his religious history, and displays a warm sympathy for the efforts of those who sought strenuously and sincerely to adapt their faith to the growing body of scientific argument about the world's origins. The early naturalists were pious men, but modernists too. They left biblical literalism quietly be-

hind. The Flood, for example, became a metaphorical episode, standing in for all the disruption and geological upheaval that scientists now adduced as the explanation for the world's present form.

Some skeptics saw which way the wind was blowing. In the 18th century, David Hume offered an argument against design, observing that organisms lacking some minimal aptitude for life in their environment wouldn't be around for us to notice. This, as Thomson points out, foreshadowed Darwin's essential idea of natural selection—fitness determines survival.

Paley's *Natural Theology*, in Thomson's fascinating and persuasive presentation, emerges as the last desperate effort of a man determined to keep religion, science, and reason together. Unlike many who repeat it today, Paley knew that his watch argument by itself proved nothing. For one thing, watches don't usually shower forth litters of tiny new watches, whereas living creatures generate new versions of themselves. But if animals and plants, unlike watches, create their own offspring, what differentiates the original act of creation from all the subsequent ones that took place on their own?

By the time Paley composed his argument, the notion of a world generated through cumulative small change, both organic and inorganic, was already stirring. Erasmus Darwin (grandfather of Charles), Hume, the Comte de Buffon, and others had all made suggestions along these lines. The sticking point, as Paley shrewdly saw, was tied up with the evident suitability of life to the world in which it lived. It's not simply that you have to produce lungs, for example. Those lungs have to work effectively in the atmosphere in which they have appeared—and it was this harmonization of internal function to external purpose that Paley seized on as proof of the necessity of design. How could blind processes of nature create such coherence?

That, of course, is precisely what Charles Darwin explained. Darwin's theory has two ingredients. Organisms change a little from one generation to the next. Natural selection then weeds out harmful changes and promotes helpful ones. Evolution is not, as some of its critics even now insist on thinking, a process

of pure chance, but an elaborate form of trial and error that creates harmony, yet does so without advance planning.

Most impressive in Thomson's artfully told tale is his evenhanded respect for the losers as well as the winners. All wanted to get at the truth, but in the shift from religious to scientific understanding, the meaning of truth itself became the subject of contesting philosophies. The debate nowadays, with both sides lobbing

slogans back and forth, seems paltry by comparison. Thomson's spirited book brings to mind another adage about the repetition of history—how it comes first as tragedy, then as farce.

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High Ground, Low Life

TOULOUSE-LAUTREC AND MONTMARTRE.

By Richard Thomson, Phillip Dennis Cate, and Mary Weaver Chapin.

Princeton Univ. Press. 294 pp. \$60

Reviewed by Jeffrey Meyers

Perched on a 500-foot butte, the Montmartre quarter of Paris, with its windmills, empty fields, and quaint cobblestone streets through which herds of animals were driven, still seemed like a village in the late 19th century. Yet it also offered a bustling nightlife. The cheap wine and entertainment in the Moulin Rouge, Moulin de la Galette, and other dance halls and bars attracted many artists. They lived among ordinary workers, circus performers, tramps, and petty criminals, in decrepit tenements and rough studios made of wood and corrugated iron, and they often painted their Montmartre. Auguste Renoir's *At the Moulin de la Galette* (1876) portrayed a sunny, congenial evening of drinking, dancing, and joie de vivre. By contrast, Maurice Utrillo, a hopeless alcoholic, depicted a Montmartre of dreary urban landscapes with fly-specked walls and leprous streets confined by endless rows of iron railings.

One of Montmartre's artists was especially conspicuous. Four feet, 11 inches in Cuban heels, Henri de Toulouse-Lautrec (1864–1901) lurched along on crutches and sniffled, drooled, and lisped. The singer Yvette Guilbert, whom he befriended and often portrayed, was shocked upon first encountering his “enormous dark head, . . . red face, and very black beard; oily, greasy skin; a nose that could cover two faces; and a mouth . . .

like a gash from ear to ear, looking almost like an open wound!” But his fine draftsmanship, psychological insight, and biting wit made him “court artist to the superstars,” writes Mary Weaver Chapin, a curator at the Art Institute of Chicago.

This handsomely illustrated catalog—for an exhibition this year at the Art Institute, as well as the National Gallery of Art in Washington, D.C.—is factual and clearly written, with sound and convincing analyses and no theoretical or ideological obfuscations. Between them, Chapin and Richard Thomson, a professor of fine art at the University of Edinburgh, describe the settings of Lautrec's work in six quite useful chapters, on the history of Montmartre, cabarets (restaurants with floor shows), dance halls, “cafés-concerts” (offering everything from shadow plays to boxing kangaroos), whorehouses, and the circus.

Three additional essays are more substantial. In “Depicting Decadence in Fin-de-Siècle Paris,” Thomson focuses on 1885–95, Lautrec's greatest decade, and seeks to “explore the aspects of contemporary society with which Lautrec's work interacted, examine the visual culture of Montmartre, and assess Lautrec's images alongside those of others.” He successfully explains “the modernity of Lautrec and how it was formed by social and cultural circumstances.” In “The Social Menagerie of