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Islamic, etc.) in their approach to the God question," Cere notes, but those traditions "must engage in dialectical encounter." The dialectic, Newman believed, moved toward universality. That these claims might ultimately compete with one another was no excuse for a retreat into exclusive reliance on faith or into relativism. "No traditions have a claim upon us which shrink

from criticism, and dare not look a rival in the face," Newman wrote—a challenge he might well have hurled at the champions of the modern university, from which theology has been banished. Restoring theology to its place alongside its sister sciences, Cere writes, could do much to revive "the shriveled and cramped soul of modern academic discourse."

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## SCIENCE, TECHNOLOGY & ENVIRONMENT

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### ***Creationism's Design Flaws***

"Life's Grand Design" by Kenneth R. Miller, in *Technology Review* (Feb.–Mar. 1994), Bldg. W59, MIT, Cambridge, Mass. 02139.

Creationists today tout "intelligent-design theory" as an alternative to evolution. They contend that living organisms have features that are so perfect that they cannot be the result of the random workings of evolution but must be the product of conscious design. However, says Miller, a biologist at Brown University, scientists argue "that complex organisms not only *could* have evolved through evolution's trial-and-error mechanisms, but *must* have done so." And it is the errors that constitute the best evidence.

Take the human eye. It is indeed a marvel, Miller notes. "The eye, like a top-of-the-line modern camera, contains a self-adjusting aperture, an automatic focus system, and inner surfaces surrounded by a dark pigment to minimize the scattering of stray light. [The] sensitivity range of the eye, which gives us excellent vision in bright sunlight as well as in the dimmest moonlight, far surpasses that of any film. Its neural circuitry enables the eye to automatically enhance contrast. And its color-analysis system enables it to quickly adjust to lighting conditions . . . that would require a photographer to change filters and films. Finally, the eye-brain combination produces depth perception that is beyond the range of any camera."

Evolutionary theory can explain such developments in terms of natural selection over thousands of years, along with other factors. The

most persuasive argument for evolution, however, may be the imperfections in nature. Consider the neural wiring for the human eye's light-sensing retinal photoreceptor cells. The wiring is placed not behind the retina but in front of the photoreceptors, thus blocking out some light. That also means that the wiring carrying nerve impulses from the photoreceptors to the brain must go directly through the wall of the retina. As a result, there is a blind spot in the retina, about a millimeter in diameter.

Evolution, which works by repeatedly modifying existing structures, can explain such design "mistakes"; intelligent-design theory cannot. Which is not to say, Miller hastens to add, that evolution and a belief in God are incompatible.

### ***Farewell, Arcadia!***

"Ecological Collapses of Ancient Civilizations: The Golden Age That Never Was" by Jared M. Diamond, in *The Bulletin of the American Academy of Arts and Sciences* (Feb. 1994), Norton's Woods, 136 Irving St., Cambridge, Mass. 02138.

Environmentalists often speak of living in harmony with nature, harking back to an idyllic pre-industrial past. Recent discoveries by archaeologists and paleontologists, however, tell a very different story about this imagined golden age, writes Diamond, a professor of physiology at the medical school of the University of California, Los Angeles.

Consider New Zealand, where the Polynesian settlers known as Maoris arrived around