



THE SYNTHESIZER

By Amanda Leigh Haag • Photographs by Mark Mahaney

EDWARD O. WILSON BELIEVES ALL BRANCHES OF KNOWLEDGE ARE INTRINSICALLY RELATED—A CONVICTION THAT DROVE HIS GROUNDBREAKING WORK, *CONSILIENCE*. NOW THE ONE-TIME BAPTIST AIMS TO RECONCILE SCIENCE AND RELIGION OVER THE CAUSE OF BIODIVERSITY. IS WILSON LAYING THE GROUNDWORK FOR A CONSILIENCE BETWEEN THE TWO MOST POWERFUL SOCIAL FORCES OF OUR TIME?

“Let the waters teem with countless living creatures, and let birds fly above the earth across the vault of heaven.” E.O. Wilson is quoting from the biblical account of the fifth day of creation. “Isn’t that lovely?” he asks, his voice lilting with pleasure. “Whether you believe that there is a god who touched the universe with a magic wand or not, it’s a command—[one] I think scientists could respond to as well as religious folk.”

Wilson sits in his office on the fourth floor of the Museum of Comparative Zoology at Harvard, across the hall from the university’s world-famous ant collection. His hands move in ani-

Robert MacArthur on island biogeography is a seminal text in ecology. He’s been recognized internationally for contributions to science and the humanities and has received numerous awards including the National Medal of Science and Japan’s International Prize for Biology. He’s won two Pulitzers. And if Rachel Carson is the mother of the modern-day environmental movement, Edward O. Wilson is quite arguably its father. Indeed, those who know him call this work his mission.

Even with these considerable accomplishments, 60 years of research and more than 400 published papers, it is not a work of scientific

ing on the work of Robert Trivers and William D. Hamilton, released in 1975. This pioneering work ignited a controversy that raged from the quads of Harvard to the pages of *Time* magazine. Three years later came *On Human Nature*, which further developed the inchoate concept (and won a Pulitzer). “So I just kept expanding it,” Wilson says. “And finally decided by the ’90s to try to write a book on the whole panorama.” As he writes in the first chapter of *Consilience*: “When we have unified enough certain knowledge, we will understand who we are and why we are here.”

Certainly, as the information age presents us with an unprecedented influx of data—from the mapping of the human genome to the collection of solar particles—and as the frontiers of knowledge continue to narrow, a skill for synthesis is invaluable. The ability to identify where different domains cross paths, and to blaze new trails from their dimly lit intersections, is increasingly the enterprise of the intellectual vanguard. For Wilson, it’s inevitable that consilience will direct the advancement of all fields and disciplines. “I think consilience is the only way to go,” he says. “Continuously splitting into narrow search domains, each with their own vocabulary and experts, is a recipe for chaos. But, increasingly, whenever scientists and scholars make an effort to put these splintering disciplines together, they succeed—they’re actually joining fields together.” The paradox is prescient for Wilson. “Our dinner conversation is getting more interesting. This is an approach to knowledge which is catching on, and more and more scientists see this as the future,” he says. “Philosophers are beginning to like it—it’s something for them to do. They’ve been sort of flopping around since the failure of positivism.”

Wilson seems poised to incite a revolution in understanding, and in doing so, usher in a modern-day renaissance. But at 77, he has to consider his priorities. Offering the “hand of friendship” to evangelical Christians as he tours the country with his new book, beseeching fundamentalists to join his crusade to save the earth, Wilson seems intent on realizing a more short-term, pragmatic goal. One that he feels can have more of an immediate impact. This isn’t to say such an alliance won’t eventually facilitate what is perhaps the greatest consilience imaginable—the unity of science and religion—but rather, for Wilson, there is a time for theory and a time for practice.

Edward Osborne Wilson was born in 1929 in Birmingham, Alabama, to parents who would divorce by the time he was seven. His childhood was steeped in religious tradition; as a teenager, he answered the altar call

NEARLY EVERY FLAT SURFACE IS AWASH IN ANT PARAPHERNALIA: METAL ANT SCULPTURES, POSTERS OF LEAF-CUTTER ANTS, EVEN A MOSAIC PORTRAIT OF WILSON COMPOSED OF THOUSANDS OF SQUARES OF TINY ANTS.

mated gestures, his shoulders falling forward into a natural hunch—the “lifetime posture” he developed by his late teens from stooping low to the ground to inspect small creatures.

The reference to biodiversity in the seminal text of Judeo-Christian culture resonates deeply with Wilson. Raised a Baptist and “born again” as a teenager, he has championed biodiversity as an academic and a writer for more than 50 years. His new book, *The Creation*, is an appeal to the religious right to “consider forming an alliance to do something that science and religion, the most powerful social forces in the world, are uniquely prepared to do: save the creation.”

Wilson, who is Harvard’s Pellegrino University Professor Emeritus, has built a legacy so elaborate that it’s difficult to identify which field of science he has most influenced. His achievements in science are staggering. Monikers such as “modern-day Darwin” and “guide for humanity” are frequently used to describe him. At his core, however, he is an entomologist. In the late 1950s, Wilson discovered pheromones as the basis of chemical communication in ants. He identified 624 ant species in one genus and named 337 of them (19 percent of all ant species in the Western hemisphere). He established evolutionary biology as an esteemed pursuit in the late 1950s and early 1960s, a time when the discovery of the double helix and the molecular revolution it unleashed were eclipsing more traditional scientific disciplines. His work with

discovery for which Wilson will be best remembered in 100 years. In 1998, Wilson came out with *Consilience: The Unity of Knowledge*, an attempt to demonstrate that all knowledge is intrinsically linked, both within the sciences and between science and the humanities. Reduced to such a summary it can seem obvious, but the idea of consilience is radical. Wilson’s vision imagines absolute unity through a glorious and harmonious logic between fields as seemingly dissociated as musicology and neuroscience, physics and consciousness, genetics and culture. Wilson calls this intellectual linkage “the greatest enterprise of the mind,” not yet a science but rather an emerging and visionary ethos. It’s at the intersection of these domains where most real-world problems exist, writes Wilson, yet “few concepts serve to guide us.”

In the late 1940s, after reading Ernst Mayr’s *Systematics and the Origin of Species*, Wilson became enthralled with the notion that “the world is orderly and can be explained by a small number of natural laws,” thereby attaining “a unity of the sciences.” Over the several decades following, Wilson says, “I kept expanding my own thoughts, and by the 70s I had begun to see in my own mind whether there could be connections between biology and the social sciences and humanities.” The “expansion” continued through Wilson’s book *Sociobiology: The New Synthesis*, an inquiry into biological explanations for animal behavior that Wilson, draw-



A jar of ants Wilson collected from Puerto Rico preserved in alcohol.

and was baptized into his faith. “I had the epiphany,” he explains. “I had an authentic experience of being born again. And I stayed faithful for a couple years longer, but...” He trails off. “I was a bit like Darwin. You know, he left on The Beagle a devout Christian and quoted the Bible to solve all ethical problems and had no doubts. But as he said—it was almost unconsciously on his part—he began to drift away. It was a painless transition because he just found eventually that he didn’t believe anymore. That was what happened to me.” Wilson pauses, then grins. “And add a dash of adolescent rebellion.”

A nomadic youth and an unstable home life—his father was an alcoholic who committed suicide when Wilson was 21—led him to find refuge in the natural world. A haphazard accident determined early on what kind of biologist he would become: While fishing from a dock in

ers of leaf-cutter ants, even a mosaic portrait of Wilson composed of thousands of squares of tiny ants. Journals line one wall, and an alphabetized library of books spans the others.

Wilson’s assistant of 40 years, Kathy Horton, sits in her office adjacent to Wilson’s, typing at a furious speed. Wilson, author of 21 books, doesn’t type and doesn’t use e-mail. “I write by hand on yellow, lined paper,” he says. “I’ve never written any other way, and I never will write any other way.” Wilson appears amused by his own quaintness. “I’m the quickest draw on the plane,” he quips. “I can be out and writing, long before these others have got their laptops powered up.”

Wilson’s genuine nature is at once apparent—a combination of southern genteel charm, boyish candor and a sophisticated manner. He has a flair for banter and a talent for putting people at

he harbors any wish for deeper reconciliation or that he longs to embrace his religious roots. “No,” he answers firmly. “I feel that the future of humanity lies not in returning to the past.”

Wilson’s idea of consilience—a term first coined in 1840 by British polymath William Whewell—is that many truths can be brought together under a single umbrella of cause and effect explanation. It’s driven by logical process. Ironically, a rise in the modern sciences, predicated on this very process, increasingly split knowledge into smaller fragments, undoing much of the former unity that existed between disciplines in the Renaissance and the Enlightenment—a trend that has been accelerating ever since.

“In recent decades,” Wilson explains, “it’s become fashionable in the intellectual world to believe there are many truths, each particular to a subject of human concern—which are not connected to each other—that exist independently.” But this splintered knowledge base, Wilson contends, is misrepresentative. For example, he says, “There is a truth that is expressed at the level of biochemistry, which is different from the truth expressed by Mendelian heredity, or elementary genetics. But the two truths are understandable with reference to one another through cause and effect explanation.” For instance, the understanding of molecules has its roots in the laws of physics and chemistry, and the molecular properties underlying biochemical pathways are the same ones that form the principles of genetics and heredity. And while the disciplines may demand their own specialized vocabularies and expert knowledge, the flow of information from genes to proteins to metabolic pathways form the building blocks of the field of medicine. However, he adds, “we’ve been slow...in connecting the natural sciences, especially biology, to the social sciences and humanity.”

Consilience opens with Wilson’s description of the “Ionian Enchantment,” a belief in the world’s natural and singular order, the roots of which reach as far back as the sixth century B.C., to Thales of Miletus. This thinking, Wilson writes, has pervaded scientific inquiry and thought ever since. “Einstein, the architect of grand unification in physics, was Ionian to the core,” he writes. This “spell of the Enchantment” girded the sciences, but only in rare cases has such daring intellectual ambition extended to the social sciences and humanities. Wilson credits the Enlightenment thinkers of the 17th and 18th centuries as having had it “mostly right the first time.”

In the chapters that follow he lays out his vision, beginning with the biological basis of consciousness, then turns to the genetic basis

“OUR DINNER CONVERSATION IS GETTING MORE INTERESTING. THIS IS AN APPROACH TO KNOWLEDGE WHICH IS CATCHING ON, AND MORE AND MORE SCIENTISTS SEE THIS AS THE FUTURE.”

Paradise Beach, near Pensacola, when he was seven, Wilson pulled his catch from the water with such force that the fish flew into his face, its dorsal spine piercing his right eye. The damage resulted in a traumatic cataract that left him essentially blind in that eye. But the visual acuity in his surviving eye turned out to be better than average at close range. “I would thereafter celebrate the little things of the world,” Wilson writes in his autobiography. “The animals that can be picked up between thumb and forefinger and brought close for inspection.”

Wilson became the first member of his family on either side to attend college. In three years, he earned a B.S. from the University of Alabama. After a short stay at the University of Tennessee, he entered Harvard as a Ph.D. student in the fall of 1951—his first trip from Mobile took three days and nights on a Greyhound bus—to be near what was and still is the world’s largest collection of ants, of which he would become honorary curator. He has made Harvard his intellectual home ever since.

There is so much visual stimuli in Wilson’s office that it’s hard to focus on any one thing. Nearly every flat surface is awash in ant paraphernalia: metal ant sculptures, ants peering down on leaves in freeze-frame, post-

ease. There is a simplicity about him that would seem to stand at odds with the intricacies of his mind. “It seems fully in keeping with his history that he remains a consummately nuanced and sensitive social being,” says Brian Farrell, a beetle expert just down the hall from Wilson. “He’s not a casual person, by any means, but he does have a casual manner.”

Naomi Pierce, who studies ant/butterfly associations and has been at Harvard for 23 years, agrees. “Everything he says has some content to it,” she says. “You can chitchat with him—but it’s chitchat you remember forever.”

Still, one can detect a certain ring of stentorian authority and religious fervor in Wilson’s speech and writing. Even he admits it. “If I sound like a Baptist preacher, it’s sincere,” he says. “I know how it’s done.” And he often uses teasers of religious imagery, particularly in his autobiography *Naturalist*. He writes of being “haunted by the cadences of the King James Bible and evangelical sermons of my childhood.”

“When I came to Harvard as a very young man, I turned my back on religion,” Wilson says. “But I understand it. I have an ability to imbibe those emotions, so I can talk with evangelicals. We may not be right on the same plane but I can summon those feelings and respect them.” However, Wilson bristles at the suggestion that

of human nature and cultural experience, and draws to a close in discussion of how the arts and humanities, ethics and religion will eventually be understood through the biological rules that shaped their development in the first place. For instance, Wilson draws upon studies of the early work of 20th-century Dutch painter Piet Mondrian; brain-function monitoring indicates that the spacing of tree trunks and repetition of the canopy lacework in Mondrian’s art are in the arrangement that is most arousing and pleasing to the brain. “It stays true to the ancient hereditary ground rules that define the human aesthetic,” Wilson writes.

Wilson’s tendency toward synthesis becomes even more intriguing in light of his admission that he has a near-zero capacity to commit certain things to memory—like the national anthem. In high school, he says, he lived in fear of being called on to participate in school plays. “I knew I couldn’t do anything better than holding a spear and even then I’d probably forget where to stand,” he says matter-of-factly. It’s perhaps not surprising then that Wilson is so intent on eliciting meaning from information, on imbuing it with a sense of logic and attributing to it cause and effect. In elucidating the relationships between phenomena Wilson may well be creating the world’s most profound version of connect-the-dots.

Still, the enormity of such a venture takes on an air of humility when set against the small and seemingly inconsequential creature that started it all—ants.

E. O. Wilson adores ants. He visibly beams with fatherly pride showing off the monstrous volume, *Pheidole in the New World*. The book is 818 pages, includes over 5000 of Wilson’s illustrations and represents the work of 20 years of collecting, identifying and drawing in fine detail the features that differentiate one barely visible speck of ant matter from another.

This lifelong devotion to ants is largely a product of happenstance. Wilson might have settled on flies, but it was the fall of 1945, and the long, black insect pins produced overseas were not available in wartime. The old-fashioned glass prescription bottles from the local drugstore—perfect for preserving ants in alcohol—were, however, in ample supply. So ants it was. And this wasn’t insignificant. Wilson acknowledges as much by retracing his steps from *Consilience*. Indeed, the only way back is to follow the trail of the ants—if not for these tiny industrious creatures he so admires, he likely would never have evolved the idea or written the book. “It’s possible, but less likely,” he muses. “I would have done a lot of work in behavior and evolution and biogeography, but very likely I wouldn’t

have gotten into the study of social behavior if I’d been working away from ants.” Wilson leans down to inspect a tray filled with perfectly symmetrical rows of “thief” ants, which are among the smallest ants in the world and can barely be seen by the naked eye. “It just happens that ants are marvelous, highly social animals, from which you can learn a large part of what there is to learn about biology,” he says. “The more I learned, the more I knew, the more I found I could discover whenever I entered the natural world. I would just walk into a woodlot [or] go into a field and there was the familiarity of the life forms I understood so well.” In this intellectual crucible Wilson developed an expertise on thousands of ants, and slowly gained insights that led him to make associations with other fields. “When you know a lot about one organism, you can pick up on a number of fields just

in the *New York Review of Books*; Richard Lewontin, by his own description, was nasty in *The Sciences*,” Wilson writes in *Naturalist*.

Wilson was, and still is, baffled at the cool reception that gene-culture coevolution received. In those days, he puzzled over how the work languished, even in the hands of other talented scientists who ventured into it. Today, looking back, he says that there’s been very little attention given to the question of how genes and culture coevolved. “They’re connected, no doubt about it,” Wilson says. “But for some reason I haven’t fully fathomed, this most promising frontier of scientific research has attracted very few people and very little effort.” However, Lumsden points out that their work revealed evolutionary tempos and rates inherent to the human gene-culture history that now, in light of the human genome project, are open to testing.

WILSON’S WORK QUICKLY BECAME STAMPED WITH THE SCARLET LETTER OF GENETIC DETERMINISM: CRITICS DECLARED IT POLITICALLY DANGEROUS, YOKING IT TO RACIST EUGENICS.

by moving laterally a little bit,” he says. “And you often see connections that way—which is what happened to me with ants. I just gradually picked up the idea of putting population biology together with sociobiology.”

Such audacious acts of consilience resulted in the books *Genes, Mind and Culture*, in 1981, and *Promethean Fire*, in 1983, which Wilson co-wrote with Charles Lumsden, a theoretical physicist and professor of medicine in the University of Toronto’s Department of Medicine. Wilson and Lumsden were intrigued with the process by which the human mind evolves—and likewise how human behavior and cultural values may have developed. They drew on techniques of mathematical modeling and current literature in social psychology and mental development. Wilson and Lumsden concluded that a complex dance between genes and culture dictates certain individual characteristics such as color vision, how odors are perceived, and the facial expressions that one develops. They made similar associations between human nature, marital customs and creation myths.

Parts of the scientific community responded favorably to this work, while others were less genial, an admission that Wilson made in his autobiography: “Edmund Leach was enraged in *Nature*; Peter Medawar was contemptuous

Wilson again took giant steps across disciplinary boundaries in his work on “biophilia,” a term that he invented in 1979 which refers to an innate affinity for natural environments. Wilson posited that the tendency of a well-to-do New Yorker to choose a penthouse suite overlooking the lush green life blanketing Central Park can be traced back to the primal behaviors that equipped early humans for survival in the African savannah. A later study done by Texas A & M researcher Robert Ulrich found that hospital patients who were able to see trees from their window healed from surgery quicker and needed lower doses of painkillers than those who had only a brick wall to stare at. Wilson admits that the scientific body of evidence for biophilia is still slim, but he believes it is “too important to neglect,” especially as it may translate into a deep-abiding conservation ethic.

Other endeavors have been more readily rewarded. Brian Farrell, the beetle expert, recounts a trip three years ago to the Dominican Republic, where Farrell does a large share of his fieldwork. On the ride from the airport, Wilson linked his knowledge of West Indies ants with national and local history and solved an age-old mystery involving a 16th-century ant invasion that’s a core element of the Dominican national identity. “He put it all together within three

In the M.W. Wheeler Ant Collection Room, which houses Wilson's ant lab.



minutes of our picking him up," Farrell says. Wilson was there to be awarded the nation's highest civilian honor for his work in conservation and West Indies biogeography. "The next day he gave a talk entitled, 'The Invasive Ant Mystery Solved,'" Farrell adds. "The audience went wild."

Charles Lumsden has known Wilson for 30 years. "Every generation there are a relatively sparse number of brilliant people who are able to see how things fit into larger patterns," he says from his University of Toronto office. "They see further than the rest of us and are able to pull together these ideas into maps of possibilities. And Ed's creation of sociobiology is of that kind."

Wilson's early conception of the field—as established in his book *Sociobiology: The New Synthesis*—grew out of conversations in the late 1950s with Stuart Altmann, a graduate student of Wilson's who was doing research on social behavior in rhesus monkeys. Altmann was using the term "sociobiology" to describe his primate research. It wasn't until 1971, however, that Wilson first proposed sociobiology as a unifying discipline, based on principles of population biology, in his book *The Insect Societies*. Soon after, he began to recognize the need for an encyclopedic synthesis of social behavior throughout the animal kingdom. He reviewed what was known of social behavior and advanced societies, and interpreted it within the principles of evolutionary biology. *Sociobiology: The New Synthesis* set off a lightning storm of politically charged ideological debate, its nucleus forming around Wilson's building at Harvard.

It was the last 29 pages, the chapter called "Man: From Sociobiology to Sociology," that made enemies for Wilson. In that final chapter, he tied the biological basis of human behavior to the social sciences, suggesting that human nature is largely defined by a hereditary predisposition to develop one form of social behavior over another. As Wilson notes in his autobiography, many others had explored the fringes of these ideas for decades; even Darwin "cautiously advanced theories of genetic change in aggression and intelligence." But Wilson did so more resolutely, employing models of population genetics for his analysis. The age-old nature-vs.-nurture debate was at a point in history where nurture, or the idea that human nature is determined by environment and experience, was the favored ideology. Wilson's work quickly became stamped with the scarlet letter of genetic determinism: Critics declared it politically dangerous, yoking it to Nazi policies and racist eugenics. Leading the charge against Wilson were two colleagues, Stephen Jay Gould and

Richard Lewontin, who also occupied offices in the Museum of Comparative Zoology building.

Wilson was caught off guard by the lambasting and friends were shocked by the way Wilson's detractors assailed him. "They might—as is their right—disagree with Ed's chapter in *Sociobiology*," says Bert Hölldobler, Wilson's longtime friend and co-author. "But they should have come up, knocked on his door, and said 'Look, Ed, we totally disagree with you and we will write a rebuttal.' But what I couldn't forgive them is sitting one floor below us designing this obnoxious letter to the *New York Review of Books*, where they put Ed Wilson on the same line with Hitler's concentration camps."

WILSON'S TENDENCY TOWARD SYNTHESIS BECOMES EVEN MORE INTRIGUING IN LIGHT OF HIS ADMISSION THAT HE HAS A NEAR-ZERO CAPACITY TO COMMIT CERTAIN THINGS TO MEMORY—LIKE THE NATIONAL ANTHEM.

At the height of the controversy, Wilson had a pitcher of ice water dumped on his head by activists at the 1978 meeting of the AAAS and faced several days of hearing a bullhorn call for his dismissal in Harvard Square. Wilson denies the controversy affected him personally. "I was certain that I was right. I mean, I had the evidence." But friends tell a different story. "It was very hard on him," Simberloff, a former graduate student of Wilson's recalls. "He was vilified, and it hurt him deeply."

Today Wilson prefers to put it all in broader context: "Any discomfort I felt shrinks to nothing when I think of how it was for scientists who ran against the prevailing political current in Nazi Germany and the Soviet Union." His heavy brows furrow. "I got a few unfavorable reviews. They got killed." Wilson rests on his convictions—though others still disagree with him. "The firm belief in the 1970s...that culture arises only from learning and circumstances and the environment was clearly false then, and it's totally dismissed now," he says. "When it was finally decided that human nature does have a genetic basis and there is such a thing as human nature, the sky didn't fall after all. But in the eyes of many it seemed to say that we don't have any free will; that our genes tell us what to do. Well that's a caricature, and a misconception."

Lewontin and Richard Levins, a mathematical ecologist and a professor of population sci-

ences at Harvard, are among the prestigious members of the camp who would still disagree with much of Wilson's sociobiology, as was the late Stephen Jay Gould. Wendell Berry, American essayist, novelist and poet and a fervent defender of conservationist and agrarian values, is another. He's written a scathing critique of Wilson's materialist ideals, calling Wilson a "militant materialist" and his book *Consilience* "an exercise in a sort of academic hubris." In his book *Life Is a Miracle: An Essay Against Modern Superstition*, Berry writes, "Believing that whatever is intangible does not exist, Mr. Wilson like many materialists, atheists, rationalists, realists, etc., thinks he has struck a killing blow

against religious faith when he has asked to see its evidence. But of course religious faith begins with the discovery that there is no 'evidence.'"

"That's well and good," answers Wilson. "But whose faith? Are we to cord the absolute verity of Lord Shiva, of Buddha, of the higher realm of the Mohammedan god?" he asks. "And what of the countless religions that don't get much of a seat at the table of religious discussion...most of which have competing mythologies, many of which have arrived at different moral codes? I say, it all has the look of tribalism."

With *The Creation: An Appeal to Save Life on Earth*, Wilson is again poised to be on the front lines of a movement that pushes disciplinary and ideological boundaries. This time, though, the other side isn't necessarily an adversary. Since 2000, a growing number of evangelical scientists have been campaigning to urge policy makers into mandatory action to reduce the threat of climate change. This past February, prominent US evangelicals signed the "Evangelical Climate Initiative," a unified statement that called for restrictions on greenhouse-gas emissions. Since the initiative was released, more and more members of the scientific and religious communities have been corresponding regularly, planning ad campaigns and scheduling conferences. "The book is just the right kind of incentive for evangelicals to

respond with a similar 'spirit of dialogue' this winter," says Richard Cizik, of the National Association of Evangelicals.

Wilson uses the words "the creation" rather nonchalantly, which seems a bit odd coming from the lips of a self-professed "secular humanist." Wilson says he hopes to engage as large an audience as possible with his use of the term, and his fluid use of it is a conscious effort to reinstate it into everyday language.

Calvin DeWitt, a professor of environmental studies at the University of Wisconsin, and an evangelical, says it was the very loss of the words "the creation" and their replacement with "the environment" that led to people seeing themselves as separate from the environment. DeWitt has written at length on the concept of

Dawkins, head of the human genome project Francis Collins, philosopher Sam Harris, biologist Lee Silver and many others who published books broaching the science/religion divide.

"Generally speaking, the scientists who've been writing on religion and science have taken one of two tracks," Wilson says. "One is to continue a critique from science of religious belief—in other words, essentially a hostile approach. And the other has been an account of how the scientist can combine the [religious worldview] with what is understood to be scientific evidence. I've taken an entirely different approach, which is to ask for a truce; to put aside the metaphysical issues that have made up the culture wars and address the great issue of the decline of the creation in a mutually respectful way."

"IF THE NATURALISTIC VIEW OF THE WORLD INCLUDING RELIGIOUS BELIEF IS CONSILIENT, THEN ESSENTIALLY RELIGIONS WOULD BE HOLLOWED OUT OF THEIR MYTHOLOGIES."

"evangelical environmentalism." "For the first time, we were able to say, what's more important, me—human beings—or the environment?" he says. "The idea of the creation is that we are part and parcel of it. So we're asking, how can we build this bridge again [between] theological people and science people?"

Wilson believes language can help. Because of his religious background, he says he holds a "literary tool kit" that includes authentic utilization of prayer and apostrophic appeals to ministers to lend his prose more literary power.

But is *The Creation* an act of consilience? "The consilient view," Wilson says, "would be that the emotional intensity of religious belief and the satisfaction attained from it is due to the evolution of the emotional response at the genetic level." This is territory explored by Daniel Dennett in his recent book *Breaking the Spell*. "I see Ed's book in some ways similar," Dennett, a philosopher based at Tufts University, says. "We're both assuming that religious people share our respect for truth and reasonableness, and our curiosity about the natural world, and we're both trying to build from that to a new appreciation of the way science in general and evolution in particular can deepen everybody's understanding of the moral world."

The culture is certainly ripe for the discussion. So far 2006 has seen the culture wars intensify, fueled by scientists such as Dennett, Richard

Ultimately Wilson recognizes the power of numbers. "In order to get a response from political leaders, and of course a response from the media," he says, "you have to have enough people who are interested and who care." Certainly harnessing the political sway of the Christian right is not an insignificant achievement. This approach may be more than just a good deed, well-intentioned and exemplary of the power of cooperation. It may be political genius.

But can cooperation ultimately yield consilience? Wilson believes that science and religion are in a struggle that can and will be reconciled. "If the naturalistic view of the world including religious belief is consilient, then essentially religions would be hollowed out of their mythologies," he says. Religion would "remain as religion, observing rights of passage, exploring depths of spiritual feeling, but would not depend upon supernatural explanation. In that sense they could be compatible."

Yet, *The Creation*, Wilson says, isn't about consilience. "I think that [consilience] eventually will occur," he says. "But that's not what concerns me in approaching the religious community about the living world to save the creation."

Rather, Wilson is asking believers to put aside any contentions with science for the time being. Instead, he says, "What I would hope, and I think many scientists would feel the same way, is that we could simply postpone this metaphys-

ical discussion until we solve some big problems together in alliance, as a more practical aim."

Colleagues of Wilson's are optimistic about the impact *The Creation* will have. Michael Ruse, a philosopher of ethics at Florida State University who has authored several books on Darwinism and knows Wilson well, says that there are always going to be those who can't be reached. "If you ask how fruitful it would be to reach out to Pat Robertson, the answer is not at all." But, he says, "There are an awful lot of people in the middle who are basically confused."

"With many people telling us not to even try, we're trying to speak openly and candidly and honestly to people who are deeply religious in the hopes of starting a conversation," Daniel Dennett says. "The world is in pretty rocky shape right now," he adds, "and we need to join forces as best we can and set aside whatever differences we can and find common ground."

So far, Wilson is pleased with the response. "Of course we might get flak too," he concedes. "Falwell hasn't been heard from yet!" If the attempt to build an alliance between the two communities comes under fire, Wilson says, it would likely be from an "outright rejection of any contact with scientists and secularists, a circling of the wagons that could occur with some fundamentalists—that is, they don't want to hear about it." But, he maintains, he's certain that many sincere religious people, including evangelicals, will be willing to listen.

A successful outcome of the ongoing efforts to reach the religious community, as Wilson defines it, would be a steep rise in the level of public awareness of environmental issues—he cites a recent poll indicating that 70 percent of Americans don't even know what biodiversity is—and a demand that this country take a responsible position towards its living resources. "I would hope that the alliance brings so many people to common action that it has a considerable effect on what actions and what policies our political leaders think should have priority. I want to see conservation of life forms moved way up—it's low now in the popular consciousness...It's almost dropped out of the American political arena. The whole point is saving the creation. I mean, this is Waterloo. They're General Blücher, bringing the Prussians."

In *Naturalist*, Wilson wrote that he is "always prone to closing and repeating circles" in his life. Wilson has grappled with the issues of religious faith that so moved him as a boy, and he says that *The Creation*, as he approaches the final chapters of his own life, closes that circle for him. True to his sentimental tendencies and his fondness for literary metaphor, Wilson offers, "Like most southern writers who move north, I want to see if I can go home."



Outside the Harvard Museum of Comparative Zoology where Wilson's office has been for the last 55 years.