



The Darwinian



Charles Darwin

Just the name stirs controversy among true believers on either side who have cast the scientist in the role of heretic or hero.

As twin anniversaries rekindle the evolution controversy, researchers discover the real Charles Darwin in the stacks of OU's History of Science Collections.

But tucked away on a cool, quiet floor of Bizzell Memorial Library is the real Charles Darwin, revealed through his own words in a rare collection of books and letters that brings scholars from around the world to the University of Oklahoma.

"If there's something I'd like to get across, it's the beauty of Darwin's work and the breadth of it," says Kerry Magruder, curator of the History of Science Collections. "People have heard of *The Origin of Species* and *The Descent of Man*, but they don't realize the breadth and variety of topics Darwin worked on."

As curator, Magruder oversees an internationally known resource for the history of science, featuring 94,000 volumes by such luminaries as Copernicus and Galileo. Among the library's proudest possessions is the Darwin Collection, more than 440 volumes that include every Darwin first edition and subsequent editions in English and multiple other languages. There also are four manuscript letters, written in Darwin's hand, as well as countless books about Darwin that any researcher might need.

This year marks the 200th anniversary of Darwin's birth and the 150th anniversary of the publication of *The Origin of Species*, the work that forever changed science as we know it. Most people do not know, however, that Darwin began changing science long before his groundbreaking ideas on evolution were unveiled.

During this "Year of Darwin," the History of Science Collections is doing its part to help educate the public. During spring of 2009, the Collections lobby was filled with a special exhibit of all of Darwin's books published before *The Origin of Species*.

"Darwin wrote on a staggering number of topics and fields," Magruder says, proudly pointing out the genesis of Darwin's career and the jewel of the Darwin collection, the *Zoology of the Voyage of H.M.S. Beagle* (1838-1843).

continued

Dilemma

BY ANNE BARAJAS HARP

Darwin illustrations
courtesy OU History
of Science Collections

Darwin was an unknown when he signed on for a five-year, around-the-world journey funded by the British admiralty in 1831. The purpose of the voyage was primarily to explore and map parts of South America, and Darwin made keen scientific observations and sent natural history specimens back to England. Upon returning, he headed a team of leading naturalists who described the specimens in a 19-part work, purchased by readers over a six-year period like a magazine subscription. Its pages were crammed with new species—wild cats and dolphins, field mice and birds—all lushly illustrated and each painstakingly hand-painted. The bird section alone was cause for celebration, as it was illustrated and painted by noted ornithologist and artist John Gould, the British equivalent of John James Audubon.

“Darwin would be famous if he’d never written another word,” Magruder says, citing the *Zoology* as among the most important works of color natural history illustration in the 19th century and a major milestone in the natural history of South America.

More than 170 years later, the *Zoology* still is vivid and wondrous as Magruder shows it off. The book is Darwin’s rarest work, and having the complete 19 parts together after all this time is considered something of a minor miracle.

“Most existing copies of the *Zoology* are incomplete,” he explains. “With serial publications, it was easy to lose an issue here or there or damage a page. The OU copy, bound in three volumes, is complete, with every plate intact, and not a page missing.”

Displayed alongside the *Zoology* is Darwin’s first bestseller, *The Journal of Researches*, more commonly known as



Robert Taylor

Kerry Magruder, curator of the History of Science Collections, examines the three volumes of Darwin’s magnificent *Zoology of the Voyage of H.M.S. Beagle* (London, 1838-1843).

The Voyage of H.M.S. Beagle. This richly illustrated travel narrative made Darwin famous throughout much of Europe and was read by more people during his lifetime than any of his other works. It has been in print since 1839.

Darwin drew readers into the adventure of science with tales of sailing rough seas around Cape Horn, climbing treacherous mountain passes, crossing swinging bridges that spanned the Andes. “This characterized the scientist as the explorer, the one who, with great courage and determination, encountered the exotic and sublime in nature,” Magruder says admiringly. “It’s a page-turner. It gives us a sense of how people first came to think of Darwin—a picture of the scientist as a global voyager.”

Darwin’s world travels and curiosity about all natural life led him to write three substantial monographs on geology. Magruder calls attention to these rare volumes, complete with maps and geological sections, in a glass-topped display case. These beautiful works made major contri-

butions to geology, won Darwin prestigious awards and established his reputation as an elite scientist.

Soon after, Magruder says, Darwin “turned to some thoughts that had been nagging him about species change,” a problem that scientists of the day called “the mystery of mysteries.” Oddly enough, Darwin spent the next eight years exploring that mystery by studying barnacles.

Standing in the History of Science Collections’ climate-controlled vault—kept at a book-friendly 55 degrees—and surrounded by the aroma of old, leather-bound volumes, Magruder gently flips through page after page of colored barnacle drawings. “Because of all the variations that barnacles showed, they allowed Darwin to begin

honing his ideas on the transformation of the species. He was trying to make sense of both the living and fossil forms.”

Darwin brought his observations together in a theory called “descent with modification by means of natural selection” in the 1859 book, *The Origin of Species*. Unexpectedly, evolution is only referred to once, as “evolved” is the last word of the book.

Later, Darwin would turn his focus to humans in *The Descent of Man and Selection in Relation to Sex*. Humans were hardly singled out: Darwin also explored descent with modification in further works devoted to orchids, domesticated animals and climbing plants. Before his death in 1881, he delved into plant fertilization, similarities in how humans and animals express emotions, and even a book on vegetable mold and earthworms.

Darwin, Magruder says, was fascinated with every aspect of natural life, a fact documented in all its splendor and variety in the History of Science Collections.

“People are surprised by that; they’re

Birds Pl. 34



John Gould

Even the bindings of Darwin's first editions were works of art, as evidenced by *On the Various Contrivances by which British and Foreign Orchids are Fertilised by Insects* (London, 1862). British ornithologist and artist John Gould provided equal beauty on the inside with colorful illustrations, like this finch from *The Voyage of H.M.S. Beagle*.



Meticulous attention to detail brings realism to the 180 color plates of specimens like this field mouse that Darwin collected on his voyage to South America on the *Beagle*.

floored by that. When people have an opportunity to see all of the first editions as they actually are, they gain a whole new perspective on Darwin as a person.”

Discovering what Darwin means to our world today is the work of scholars from across the world. Their research often leads them to OU, with good reason.

“It’s highly unusual for a single institution to have every printed Darwin first edition,” Magruder says. “But we’re not just about collecting first editions—we’re about supporting research.”

Research is advanced by the wide range of materials in the Darwin collection, which is so comprehensive that Cambridge University—acknowledged as the central source for all things Darwin—has asked OU to scan 40 later Darwin editions for their online resources.

Magruder says the collection’s thoroughness is important because significant changes were made to Darwin’s writings in each English-language edition. When foreign languages—including even Norwegian and Yiddish—come into play, researchers must consider that Darwin’s ideas were being viewed through cultural filters.

“Darwinism means different things in different settings, so scholars need original versions in each time and



place,” Magruder adds.

All of the many different versions of Darwin are available to scholars in one time and place at the History of Science Collections. While other universities with Darwin collections may spread their books across many branch libraries, OU has brought the entire world of Darwin to one location in the University Libraries through its History of Science Collections. Researchers can hold a first edition of *The Origin of Species* in their hands and then walk only a few feet away to read what a 21st-century writer has discovered about Darwin.

Though security in the Collections is understandably tight, Magruder says researchers are treated with hospitality that is remarkable in the academic world. Just in the past year, scholars from as far away as Australia, Brazil and Slovenia have taken advantage of travel fellowships made possible by a generous endowment from the Mellon Foundation. These fellowships

provide travel expenses, student housing, a per diem and even a private study carrel in the History of Science Collections near the books.

“We provide access for research that is unparalleled in other rare book collections,” he says. “The combination of the breadth of the research collection and the convenience for researchers makes OU distinctive.”

That same sense of hospitality also is extended to students. Magruder encourages OU instructors to bring their students to visit the History of Science Collections. For instance, students in a Darwinian Revolution class recently toured the Collections and were able to see in person the books they had been discussing all semester.

“These old books make history tangible. They awaken a historical sensibility in people that they might not have recognized before,” Magruder says. “We’re determined to enable students at the University of Oklahoma to come into contact with these books during their time here.”

He is equally determined to share all the riches of the History of Science Collections—including Charles Darwin—with the people of Oklahoma.

“In most circles of the history of science, OU is known as an international center for research. We have a very high reputation; the Darwin collection illustrates why. Our real challenge is to enable Oklahomans to understand what they have here,” Magruder says with a smile. “And we’re happy to do that.”

(The History of Science Collections offers public, rotating exhibits in its lobby on the fifth floor of Bizzell Memorial Library. During football season, exhibits change monthly and can be viewed until one hour before kickoff.)

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