

Beethoven Lost & Found

While on vacation late last summer, music professor **Jeffrey Kallberg** received an e-mail asking if he could authenticate the manuscript of a composition that had been found in a cabinet of missionary files at the Palmer Theological Seminary. “Do you have any idea who you think it’s by?” he asked over the phone. “We think it’s Beethoven,” was the reply.

It wasn’t just a single-page sketch, the kind that turns up now and then, but a beefy, 80-page composition. “Most of these big manuscripts, people know where they are,” Kallberg says. “They just don’t appear out of the blue like this.” Kallberg is an expert in music of the 19th

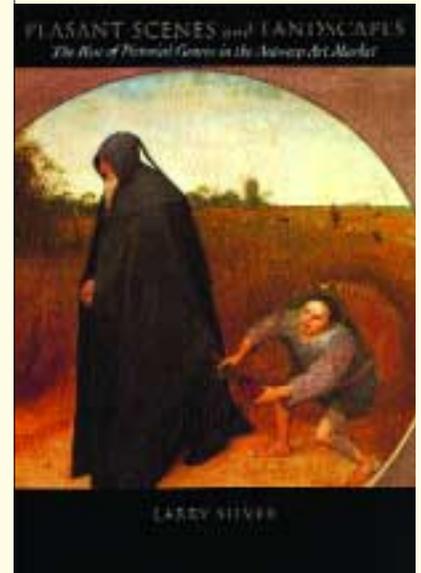
and 20th centuries and says he knows Beethoven’s hand “like the face of my own son.” He recognized the composer’s original work at once. Further study confirmed his initial impression.

The work turned out to be the *Grosse Fuge*, not the well-known string quartet but an arrangement for the piano (four hands), a work from the end of Beethoven’s life when he was exploring new directions in his music. What makes the manuscript interesting, Kallberg points out, is that the pages are marked with erasures and cross-outs in red pencil, suggesting that Beethoven was still composing as he copied the music. “It has all of these kinds of things that give you a real visceral sense of what he was doing, moment to moment, as he was creating this piece.” In December, the manuscript sold for \$1.9 million at Sotheby’s.

Art of Change

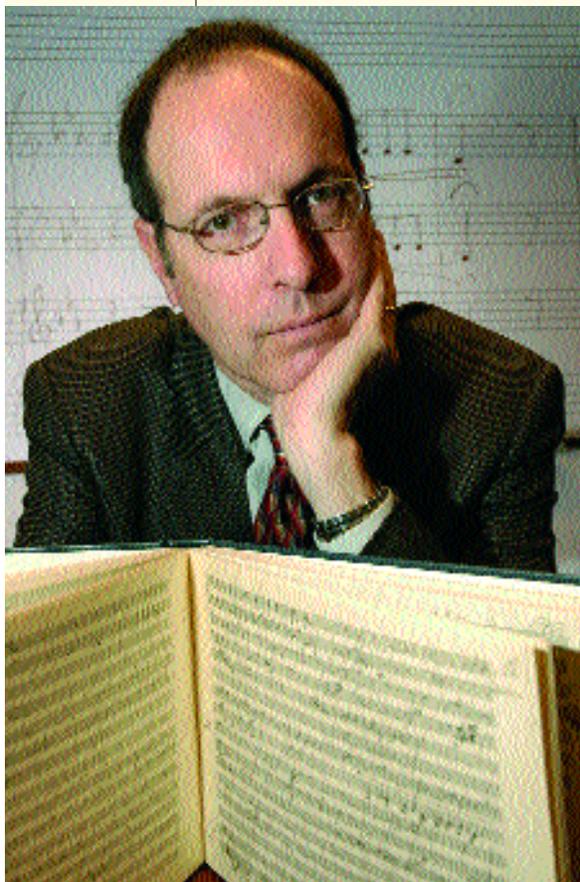
To most viewers of paintings by Hieronymus Bosch or Pieter Bruegel, the first association is probably not with Darwin or Hollywood. Yet to **Larry Silver**, the James and Nan Wagner Farquhar Professor of History of Art, such analogies are apt. In his newest book, *Peasant Scenes and Landscapes: The Rise of Pictorial Genres in the Antwerp Art Market*, Silver re-envisioned conventional notions about the impetus behind images produced in 16th-century Netherlands. His book debunks reductive labeling of these works as “landscapes” or “peasant scenes” and considers them “as the product of their social and economic setting.”

The city of Antwerp, which Silver deems “a major, international center at a decisive moment of change,” takes center stage. He contends that conditions there helped establish an art market



based on public demand rather than commission. That led to one of the first moments in art history when artists became “brand names,” desired by collectors and the general public. This back-and-forth between artist and consumer is similar to the film industry’s response to audience demand, Silver argues. “[W]hat a genre can be at any moment results from this ... negotiation, of an object with both its previous models and its contemporary examples, reinforced by the tastes of purchasers and aficionados.” He frames the period as a demand-driven continuum of styles, the artistic counterpart to the selective pressures of nature in the preservation and elimination of traits and species based on their “fitness” to the environment. In his view of “art as an evolving system,” Silver makes the subject relevant in this highly readable and thought-provoking study.

—JANINE CATALANO



Candice ElCarib

Global Warming Counterpoint

Echoing the growing alarm of scientists, the April 3 cover of *Time* carried a special report on global warming that urged readers to “Be worried. Be very worried.” NASA meteorologists tell us that 19 of the hottest 20 years on record occurred after 1980, the magazine reported, along with other signs.

That might seem like evidence of global warming, but geology professor **Robert Giegengack** takes the long view. “Here’s what we know,” he told listeners who came to one of last spring’s Penn Science Cafés. “Is the globe warming?” he asked. “Yes.” What we’re not sure of, he said, is why.

Giegengack called the popular idea of global warming — the suggestion that burning fossil fuels has increased the concentration of carbon dioxide, which has warmed up the atmosphere, which has led to melting ice sheets, which has raised sea levels — a “simplistic hypothesis.”

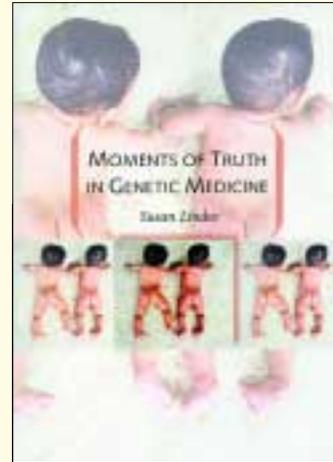
“There’s a very well-documented history of climate now that goes back many millions of years,” he told the crowd. Earth scientists have collected piles of data from ice cores, seabed samples and other “natural archives” to reconstruct ancient climates. The data show there were periods when the carbon-dioxide concentration in the atmosphere was much higher than today and the Earth was warmer, but there were also times when the Earth was glaciated despite vastly higher levels of carbon dioxide. That record seems to violate the one-to-one correspondence between more greenhouse gases and higher temperatures.

“Over 600 million years there’s been lots and lots of dramatic climate change and in most cases we don’t really have a mechanism to explain what happened,” Giegengack observed. For much of Earth’s history, the globe has been warmer than any of the warm-up projections for this century, he said, and the natural archives document eras of climate change — warming and cooling — far more drastic than the warming trend underway now. “Those of us who study the long-term variation of climate are impressed by the enormous complexity of the climate system and the probability that the cause-and-effect relationship is not as starkly simple as the anthropogenic-greenhouse-gas-global-warming enthusiasts would have us believe.”

The real short-term environmental issues, Giegengack argued, include threats like tobacco, stored nuclear weapons, land mines left behind in war zones and more. “We’re killing off all the fish; we’re damaging the soil; we’re poisoning our water. Biodiversity is plummeting; ancient bacterial diseases are burgeoning. We’re not paying attention to the real problems. Global warming doesn’t even make it into my top 10.”



Nicole Wang/Dreamstime.com



Gene Machine

Most everyone has heard of the Human Genome Project and has some notion of what DNA is. “In a very real sense,” **Susan Lindee** writes in *Moments of Truth in Genetic Medicine*, “at the dawn of the twenty-first century we live in bodies understood to be readouts of a master text that is a guide to personal health, success, talent, intelligence, and risk.” Lindee is a professor in the Department of History and Sociology of Science. In her new book, she traces the key intellectual and institutional innovations in human genetics, mostly from the mid 1950s to the 1970s, that transformed how medical researchers understand disease. “The idea is that all human disease is a genetic phenomenon subject to technological control,” she asserts. But human genetics is far more than a revolution in science and medicine. It is there in our language, legal decisions, business initiatives, resource allocations, popular culture, public policy, even in our most intimate relationships. “It has become an idea with social force,” she argues. In addition to cancer, obesity and other maladies, scientists have been tracking genes for intelligence, personality, athletic ability and other traits. “It is the way we assess fetuses, discuss cloning, or explain our own life narratives,” writes Lindee. DNA, heredity and genes are the “moment of truth” that tell us the truth about what’s wrong with us, what’s right and who we are.