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MONTAGE

**Boston-based filmmaker
Julie Mallozzi '92**

ups. The filmmaker intercuts certain scenes of her subject at home, tending to her garden or doing yoga, with startling images of x-rays and medical tests. Much of the content alternates between ideas and images, rather than following a conventional story line.

Mallozzi, whose work focuses mainly on themes of historical memory and cultural identity, has also produced, directed, written, and filmed *Once Removed*, the story of meeting her mother's family in China and learning about their involvement in that country's complicated political history, and *Monkey Dance*, which reveals how three Cambodian-American teens in Lowell, Massachusetts, navigate a difficult adolescence and unite through traditional Cambodian dance. A visual and environmental studies concentrator, she studied with Arnheim lecturer on filmmaking Rob Moss and subsequently taught in the department for 13 years.

A major reward of making *Indelible Lalita*, she says, was getting to know someone she now considers "like an auntie and a men-



MINHAE SHIM

tor." The women are 20 years apart in age, but Mallozzi—who is half Chinese and half Italian—says they share a blended background and a combination of Eastern and Western philosophies on life. Bhavani, she explains, "has a very interesting combination of this carpe diem Western mentality—like, you have to 'go for it' and take good care of your

body and do everything you can to be healthy and follow your dreams—and, on the other hand, this kind of Eastern acceptance of everything, like the cycles of life, reincarnation, and understanding of your small place in a larger world."



Visit harvardmagazine.com/extras to view a clip from the film.

A Scientist in Full

The fruitful, flawed Louis Agassiz

by JAMES HANKEN

ON January 15, 1873, Joseph Henry, secretary of the Smithsonian Institution, recounted in his diary a "long conversation" he'd had that morning with Louis Agassiz, founding director of Harvard's Museum of Comparative Zoology. The MCZ had been founded in 1859, and the Smithsonian itself only 13 years earlier, and it was important to Agassiz that the two up-and-coming powerhouses agree on their respective roles in nineteenth-century science. Agassiz, who was rarely able to conceal his grand ambition, informed Henry that the MCZ "is now the first zoological museum of the world.

[Its] object is to form general collections of the whole world..." adding that "the Smithsonian and the Cambridge museums ought not to duplicate specimens...that the aim of the Smithsonian is the preservation of every thing american..." In effect, Agassiz was telling Henry that the Smithsonian should confine its activities to North America and leave the rest of the world to Harvard!

This was audacious, to be sure, but quite in character for the man who, as a 21-year-old student at the University of Munich, declared in a letter to his parents his desire to be "the first naturalist" of his time: "I feel within myself the strength of

a whole generation to work toward this end, and I will reach it if the means are not wanting.” A highly skilled paleontologist and geologist (often credited with having discovered the Ice Age), renowned lecturer, tremendous popularizer of biology, and founder of institutes (he lobbied President Abraham Lincoln and others in the federal government to establish the National Academy of Sciences), he was named professor of zoology and geology at Harvard in 1847, soon after his arrival in America, and awarded an honorary degree a year later. His influence and renown in the mid nineteenth century for a time eclipsed even that of his longtime intellectual foe, Charles Darwin (whose “transmutation theory” Agassiz would never accept). Christoph Irmscher’s important new biography of this outsize figure provides a fresh evaluation of Agassiz’s professional and personal life, of his disproportionate

influence on the development and professionalization of science in America, and of his abuse of scientific authority in support of false claims regarding race and social inequality. And to the end he held tightly and uncompromisingly to his views of special creation—despite increasing empirical evidence for organic evolution (including work by his Harvard colleague, the renowned botanist Asa Gray) and a rebellion by his students and assistants, nearly all of whom defected to the Darwinian cause. Everywhere Agassiz looked, he saw divine purpose in nature; biological species were “a thought of God.”

Yet human personality and personal accomplishments are complex—and Agassiz was perhaps more complicated than most. He espoused racist views but denounced slavery as “a moral disease.” In collaboration with his second wife, the former Elizabeth Cabot Cary, he pioneered advanced education

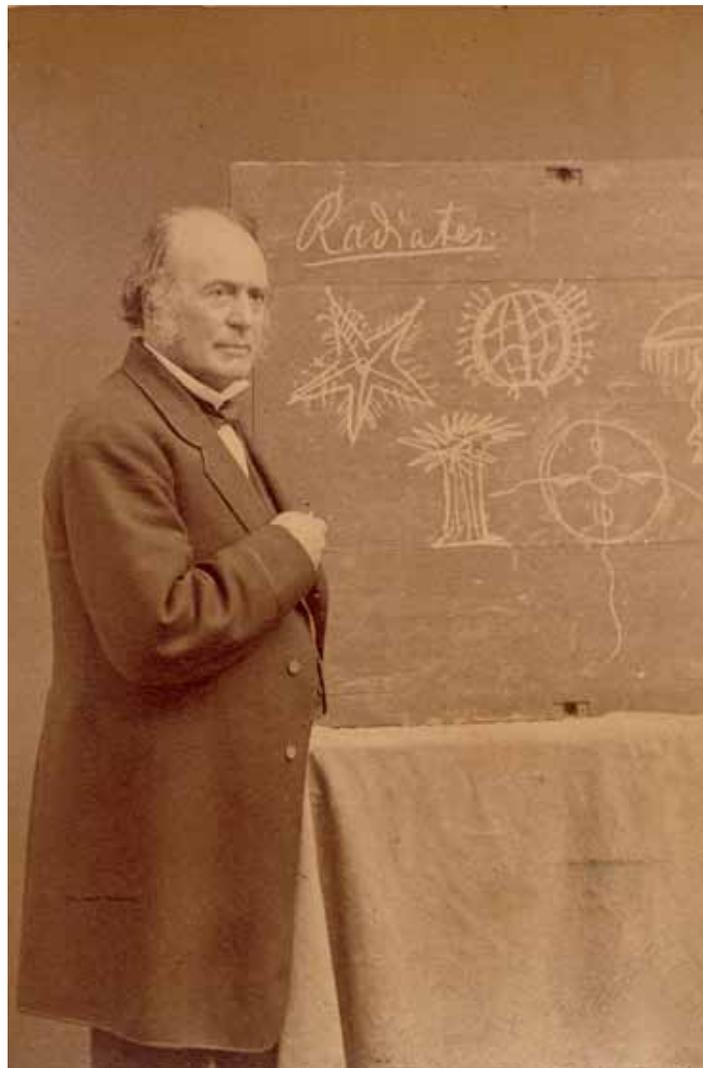
for women (including founding a coeducational summer school for teachers of natural history on Penikese Island, in Buzzards Bay), declaring, “in a country where only half the nation is educated, there can be no complete intellectual progress.” (Elizabeth Agassiz would become a co-founder and the first president of what became Radcliffe College.)

Can we forgive Agassiz in any way or to any extent for his extreme racial views, even if only by acknowledging that, in the mid to late nineteenth century, questions of racial identity and equality were not nearly as well resolved as they are today? (Similar views were held by many of his contemporaries; even Abraham Lincoln, before issuing the Emancipation Proclamation, had favored “colonization”—the idea of compensating slaveholders and

Christoph Irmscher, *Louis Agassiz: Creator of American Science* (Houghton Mifflin Harcourt, \$35)

influence on the development and professionalization of science in America, and of his abuse of scientific authority in support of false claims regarding race and social inequality.

There is much about Agassiz to disagree with, to dislike, even to decry, and Irmscher does not shy away from such episodes and ideas; his extensively sourced book provides a more critical evaluation of his subject’s life and professional impact—both good and bad—than do many earlier biographies, whose authors had a close personal relationship with the Agassiz family or a longstanding professional affiliation with Harvard. Agassiz treated his first wife poorly. Early in 1845, the former Cécile Braun left their home in Neuchâtel, Switzerland, with their two daughters to live with her brother in Carlsruhe, Germany. The following year, Agassiz sailed to America alone. (He brought the girls and their older brother to live with him after their mother’s death



Distinguished couple: Professor Louis Agassiz, ever the scientist, ever the creationist, despite the evidence for Darwinian evolution, and Elizabeth (Cary) Agassiz, who emerges impressively from the last chapter of this new biography



On the Hassler expedition, 1871-1872. Far left, Louis Agassiz; third from left, Elizabeth Agassiz

and Bass professor of English Louis Menand (*The Metaphysical Club: A Story of Ideas in America*).

Irmscher's final chapter presents a poignant account of the *Hassler* expedition to South America, on which Louis, Elizabeth, and the rest of their field party embarked in December 1871, returning the following summer, slightly more than a year before Louis died following a stroke. The expedition is significant in several

most impressively from the *Hassler* expedition, and from this last chapter of Irmscher's biography, is Elizabeth Agassiz. Possessed of her own keen powers of observation of the natural world, she was a talented, indeed prolific, writer who transcribed many of her husband's lectures into (his) published articles and wrote her own books on natural history for the general public. Her many accomplishments, at a time when most educational and professional opportunities were restricted to men, are a testament to her intelligence, energy, organization, and drive, and the considerable attention paid to her by Irmscher (a former lecturer in English and in history and literature at Harvard) is a particularly attractive feature of his book.

Irmscher's treatment offers many lessons for today. There is no denying that Louis Agassiz was an exceptional naturalist who brought keen powers of observation to his studies of Earth's history and biological diversity. He introduced to American science the tradition of field biology, which extends to the present day. Yet many of his supposedly empirically based conclusions were deeply flawed. The history of science is replete with examples of theory driving observation. In the extreme, these underscore the fallacy of pure objectivity in science, a message that was as important in Agassiz's time as it is in ours. ♡

James Hanken, professor of biology, is director of the Museum of Comparative Zoology and Alexander Agassiz professor of zoology and curator of herpetology in the museum.

returning freed slaves to Africa or Central America—as the most practical and realistic solution for slavery.)

Irmscher says no. Agassiz's scientific studies betray little if any interest in the biological meaning and significance of race before he arrived in North America, or, indeed, afterward, at least as applied to nonhumans—yet he must have recognized quickly the preoccupation with race prevailing in the United States, especially Boston, in the years leading up to the Civil War. The situation, Irmscher argues, provided an irresistible opportunity for the charismatic and confident Agassiz to assume the mantle of scientific authority in his extreme pronouncements about human race, which could only enhance his professional standing and help him achieve his ambitious goals. Not all biographers of Agassiz are as unforgiving. To Edward Lurie, for example, in *Louis Agassiz: A Life in Science*, “Agassiz, just arrived in America, was hardly aware of the use to which his ideas might be put by defenders of slavery,” but that claim seems hard to reconcile with Agassiz's sharp mind and repeated, extended visits to antebellum Charleston, South Carolina, where he was feted by the Southern aristocracy. Irmscher's detailed scrutiny of Agassiz's racial views is in keeping with other recent analyses by Adrian Desmond and James Moore (in *Darwin's Sacred Cause: How a Hatred of Slavery Shaped Darwin's Views on Human Evolution*)

respects, not least in retracing to a considerable extent the route of Darwin's own voyage to South America on the *Beagle* more than 35 years earlier, including a visit to the Galápagos Islands. By 1871, 12 years after the initial publication of *Origin of Species*, the inadequacy of Agassiz's creationist views was widely accepted by most of the scientific establishment on both sides of the Atlantic, but Agassiz, it seems, still hoped that field-based observations and new collections would yield the evidence required to disprove Darwin and his supporters.

Agassiz would, once again, be proved wrong. Instead, the person who emerges

Chapter & Verse

Correspondence on not-so-famous lost words

Leslie Gillis requests title and author for a book that ends, “I don't know. I'm just a city boy myself”—in response to a question about whether flowers popping up through the snow are crocuses.

“iron filings” (March-April). Alison Harris recalled this fable about steel filings and a magnet from *Extraordinary Tales* by Jorge Luis Borges and Adolfo Bioy Casares (1971, edited and translated by Anthony Kerrigan; page 96). Their source, Hesketh Pearson's *The Life of Oscar Wilde* (1946;

page 212), credits Richard Le Gallienne's *The Romantic '90s* (1926; pages 254ff).

“thoughts of great men” (March-April). Mary Ann Brewin found no citation for this alleged Mark Twain remark, but recommended www.twainquotes.com for many other sourced comments.

Send inquiries and answers to “Chapter and Verse,” *Harvard Magazine*, 7 Ware Street, Cambridge 02138, or via e-mail to chapterandverse@harvardmag.com.