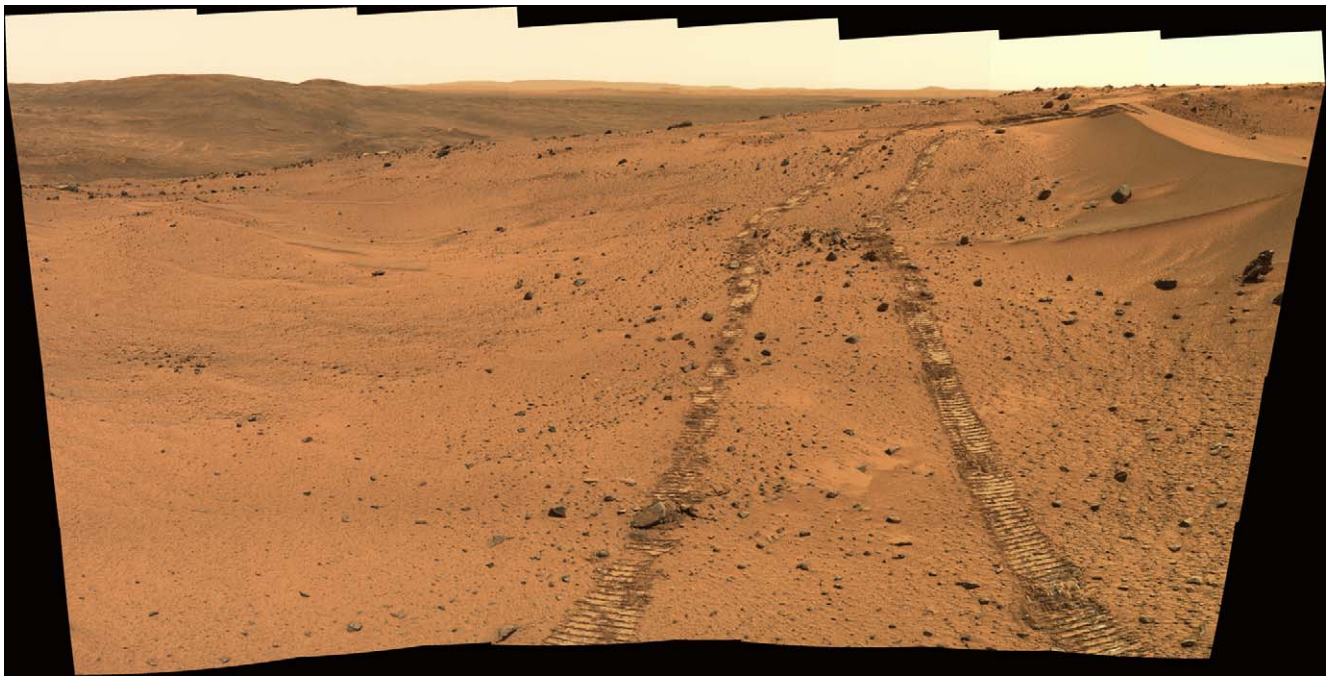

The Martian picturesque as captured by Spirit, featuring Approximate True Color (ATC) with just the right balance of red and equalized sky color, with tracks receding across a gentle landscape near the Home Plate region. Mosaic by the Cornell Pancam Team. Photographs courtesy of NASA/JPL/Cornell.

BOOM STAFF

The *Boom* List

A short list of essential new science books for fall and winter reading

In ***Seeing Like a Rover: How Robots, Teams, and Images Craft Knowledge of Mars***, Janet Vertesi, a sociologist of science and technology at Princeton University, goes inside the NASA Jet Propulsion Laboratory, managed by Caltech in Pasadena, and other Mars rover research labs to craft a detailed ethnography of how our understanding of a distant planet is "drawn" from data. By "drawing," Vertesi doesn't just mean extracted objectively, but crafted by people working in teams to come to a collective vision. In this fascinating new entry into the field of science studies, Vertesi crafts her own portrait of scientists bending their minds and throwing their whole bodies into visualizing what the Mars rovers see. In the process, as one says, "You kind of learn to see like a Rover."

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The five "essential principles of surf science" are among the take-to-the-beach insights in ***Surf, Sand, and Stone: How Waves, Earthquakes, and Other Forces Shape the Southern California Coast***, a new book by Keith Heyer Meldahl, a professor of geology and oceanography at MiraCosta College in San Diego. "If sand grains fall from the binding and saltwater stains the pages—or crystallizes on the face of your tablet—you know you're using it right," Meldahl writes of his book. There is a terrific appendix on "Seeing for Yourself" that is a guide to key sites, down to the latitude and longitude, where you can witness the forces Meldahl explains at work . . . while you play.

Summer Brennan bravely wades into a messy ongoing feud in her own small-town community in ***The Oyster Wars: The True Story of a Small Farm, Big Politics, and the Future of Wilderness in America***. Brennan grew up in the villages that border Point Reyes National Seashore just north of San Francisco. For the last few years, a battle royal has riven these communities. The fate of the Drakes Bay Oyster Company, which operated inside a proposed wilderness area in the park, was at the center of the controversy. Brennan chronicles the wars waged over this small patch of enormously symbolic California coastline as the National Park Service moved to shut down the oyster farm. In the end, in Brennan's account, the truth—right and wrong—proved elusive. And, indeed, her book is now part of the controversy, which wages on in the pages of the *Point Reyes Light*, the local newspaper where the author first began her quest to understand her own community.

The Rise and Fall of Urban Economies: Lessons from San Francisco and Los Angeles might easily be headlined simply "Beat L.A.," or, with a little more nuance, "How San Francisco Beat L.A., for Now Anyway." This is a very serious new book about economics and policy written by a team of academics led by Michael Storper, a professor of urban planning, economic geography, and economic sociology with joint appointments at UCLA, the London School of Economics and Political Science, and Sciences Po in Paris. But it is written in a very accessible style, using the structure of a scientific detective story. The mystery is why the Los Angeles and San Francisco Bay Area metropolitan areas, which were essentially similar by many important economic measures in 1970—especially household incomes, but also innovation and creative jobs—diverged so dramatically in the years since. While San Francisco continued to rise in the top rank of metropolitan areas and now enjoys average household incomes 50 percent higher than Los Angeles, along with higher educational attainment, more creative jobs, innovation, and more, Los Angeles has stagnated or declined by many of the same measures and is at risk of falling into the rank of middling cities. Like forensic detectives, Storper and his coauthors systematically examine the usual suspects—the decline of aerospace in L.A., the rise of Silicon Valley, different immigration patterns—and dismiss them. They come to the provocative conclusion that the answer is the zeitgeist, or shared culture in business, policy, and governance. While the San Francisco Bay Area enabled more open paths of movement and trade of people and ideas and capital between firms, and between business and academia, the Los Angeles metropolitan area has been characterized by the more top-down, closed firms, and management systems that historically characterized big Hollywood studios, big aerospace, and big pharma. And that's made all the difference in the world, for now. While this is a story about what has made the Bay Area successful, Storper and colleagues also caution that the "one-horse town" quality of Silicon Valley may prove a potential weakness in the future. This is a must read for anyone who cares about the future of California.

C. P. Snow thought that the humanities and the sciences have a hard time communicating. But what about religion and science? Now *there* are two cultures that often seem to have a failure to communicate. "Is good public debate between religion and science possible?" Michael S. Evans asks in his intriguing forthcoming book, ***Seeking Good Debate: Religion, Science, and Conflict in American Public Life***. For his dissertation in sociology at UC San Diego, Evans used computer-aided text analysis to comb through thousands of articles from major national and regional newspapers on religious and scientific debates regarding environmental policy, homosexuality, stem cell research, and evolution. Then he interviewed dozens of Americans across a wide spectrum of beliefs. His surprising conclusion—that the problem is not that religion and science cannot engage in a good public debate, but that we don't have good forums and good representatives for carrying on those debates—is subtle but important. It just might provoke a good debate. **B**

Surf off the coast of Malibu. Photograph by Flickr user Kelly Verdeck.