tional frameworks for historical scholarship, it also offers resolutions of such historiographical difficulties in a variety of projects. In the past, the Edison National Historic Site, through the National Park Service, has commissioned specialized historical studies of Edison and his laboratory at West Orange, New Jersey. This public history approach has produced some valuable histories.

If this practice were encouraged and funding set aside to underwrite public historical research and writing based on the Edison National Historic Site archives, a greater variety of Edison interpretations and studies examining the man in various contexts (perhaps even ones in which he does not loom larger than life) could be achieved. The publications resulting from such research could be designed for a variety of audiences, including business historians and the general public.

Reorganizing the book edition as a public history project overseen by the National Park Service also could allow funding of research proposed by scholars, and bidding on contract proposals, in the manner of the NSF and NEH, which would make research funding competitive. Scholars from outside history could bring fresh eyes to Edison research with the knowledge and methodology of their disciplines, and public historians, with their wide range of skills and archival, museum, outreach, and educational approaches, could bring to life the Edison archives. Making the archival database (not just the documents selected for the microfilm edition) available to scholars in a user-friendly form would constitute an important preliminary step into opening up the Edison papers to scholars and public historians. The bottom line is that public history offers a potentially wider and multifaceted approach to promoting scholarly use of the Edison archives than the publication of a book edition.

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*NASA Engineers and the Age of Apollo* by SYLVIA DOUGHTY FRIES.


This is a remarkable and noteworthy book by distinguished American historian of science who also works for NASA as a senior policy planner and advisor, following an extremely productive stint as the director of the NASA History Program. As such, it is fully in the traditions of previous NASA histories—a thoroughly documented, incisive, and readable account of a significant topic in NASA history. It is even more remarkable for its commendable brevity.

Where this book differs, however, from many previous NASA works, is that it is not about technology or policy, but people—the people who brought off the Apollo moon landing in 1969 and then, for better or worse, continued with the agency into the doldrums of the 1970s and the tumultuous and tragic 1980s. It is more a work of sociology than history, but it is a work critical to an understanding of the agency in the post-Apollo years.

NASA was a product of the Cold War, and, particularly, the post-Sputnik
era. It was intended to address the alleged failures of its predecessor, the (in retrospect) immensely successful National Advisory Committee for Aeronautics (NACA), and rapidly soared to budgetary and publicity heights never dreamed of by the more staid and allegedly conservative NACA. (There is a bitter irony in NASA's current situation, for now it is NASA that is seen—sometimes rightly, more often wrongly—as staid, conservative, and increasingly anachronistic. The difference, allegedly, was as follows: NACA vs. NASA.

Fries has chosen not to emphasize the "generals" of the space program. Rather, she picked 51 representative engineers of diverse backgrounds (including diverse ethnic, racial, and religious backgrounds) to form a picture of the agency as seen through its people. This is not done in the sense of a public affairs presentation, but rather as an effort to explore what they wanted to achieve, why they joined the agency, what they felt about their work, whether their expectations were met, what they did after Apollo—then and now, still the agency's highlight—and what they think of it all.

Historically, aside from a few nineteenth-century "heroic" examples, engineers have generally fared badly at the hands of historians. They are seen as prototypically middle class, "bourgeois" in the eyes of some, boring in the eyes of many. Like most stereotypes, this one is false, and Fries's book shows us her 51 subjects in an illuminating and always fascinating way. While most had conventional political and religious views, nearly all were driven by a sense of mission and purpose—they were "cutting edge," they were "expanding the envelope," they were creating a literal new world of opportunity. For virtually all, the Apollo landing was a delirious triumph that made all their work and sacrifice meaningful.

Afterwards, however, came the problems. Many were puzzled, confused, and, ultimately, not a little hurt by the decline of public support for space exploration in the 1970s. This decline in interest puzzles them to this day. As they rose through their organizations to join the ranks of management, they increasingly became critical of what they saw as a decline of mission and standards in the performance of junior employees. Now, this is not particularly surprising, but it took on more and more bitter significance for the Apollo generation as the voyage to the moon receded further into the past, and as the disappointments of the 1970s—for example, the truncation of Apollo, the cancellation of the space station, and the prolonged gestation of the Space Shuttle—led to the problems of the 1980s—an agency overwhelmed by the support for the Space Shuttle, the resurgence of interest in a space station, the Challenger accident, and the myopic Hubble Telescope. Now, with the sun well up on the 1990s, the agency confronts a very uncertain future, with its "big ticket" program, the space station, undergoing serious revision. Apollo engineers increasingly reflect that the highpoint of their careers came at their beginnings, not their endings.

Fries's insightful book sets their work into a solidly researched context, supported by excellent notes. It is at times a moving book, for one senses the pride and, indeed, wistfulness, of many of the individuals she writes about. (To protect their privacy, she cloaks them in anonymity). One
Jandl is often at pains to describe the builders and architects as benevolent designers who wanted to solve the country's housing dilemma. No market forces in American culture during the mid-twentieth century. These twelve homes mirror expanding consumerism and the role of mass production in innovative ways. Most of the twelve examples were advanced technologically, rather than socially. For example, none contemplated the rejection or even alteration of the gender and class relationships represented by the traditional single-family, detached dwelling.

The twelve examples represent mostly the middle decades of the twentieth century, with only three case studies (Catharine Beecher, Orson Fowler, and William Ward) from the nineteenth century. Edison's experiments with poured concrete happened during the first two decades of the new century, while John Earley's Polychrome concrete house serves as a bridge to the many new design ideas associated with the Great Depression era. The authors explore six famous houses from that period, including the Dymaxion Dwelling Machine of Buckminster Fuller, the Aluminaire of Kocher and Frey, the Usonian house of Frank Lloyd Wright, the House of Tomorrow by George F. Keck, the Motohome of McLaughlin and Gunnison, and the prefabricated General Houses of Howard T. Fisher. Only one post-World War II house—the amply documented all-metal Lustron House—is included.

Except for Fowler's Octagon and the Lustron House, these designs were rarely produced, or not at all. Catharine Beecher never designed a complete house, and William Ward only built his Concrete Castle. The modernistic dwellings of Fuller, Kocher & Frey, and Keck never got beyond the prototype stage. These authors are mostly interested in the technological advances that the houses represented. Jandl concludes that these "Houses of Tomorrow" shaped the postwar explosion of American domestic architecture because they sought answers to the prefabrication of housing and strove to make the "American dream" of owning a home a reality for the American middle class.

Indeed, an unexplored but potentially fruitful avenue of inquiry is how these twelve homes mirror expanding consumerism and the role of mass market forces in American culture during the mid-twentieth century. Jandl is often at pains to describe the builders and architects as benevolent designers who wanted to solve the country's housing dilemma. No