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Book Review - Energy Futures

Stephen E. Kaczmarek

Bridgewater State University, skaczmarek@bridgew.edu

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BOOK REVIEW

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Russell Gold, *The Boom: How Fracking Ignited the American Energy Revolution and Changed the World* (New York: Simon & Schuster, 2014).

Unless you have been living under a rock for the past decade, there is probably no need to introduce you to the public dispute over the process of hydraulic fracturing, aka “fracking.” Countless newspaper columns, a handful of anger-inspiring documentaries, and plenty of internet hyperbole have been devoted to convincing us that fracking is either the very best solution to America’s energy problems, or the single greatest threat to our environment, our health and our global climate.

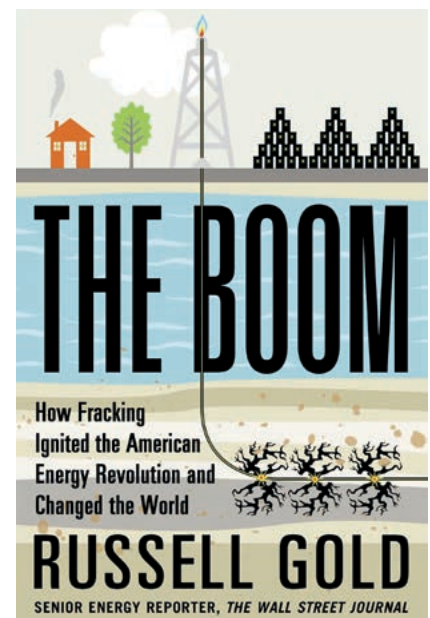
With that said, it would be easy to begin reading *The Boom* by Russell Gold, senior energy reporter for the *Wall Street Journal*, with your mind already made up about whether the benefits of fracking outweigh the costs. Unfortunately, in this respect, Gold’s story about the pros and cons of fracking probably won’t offer much to change your mind. That is to say, if you are in search of a data-dense analysis about whether the images of flames coming out of the water faucets of Pennsylvanian homeowners can be blamed on fracking, you should look elsewhere because that is not the author’s intent. However, if it is a level-headed, well-balanced story about the history of the political, economic, social and environmental aspects of this game-changing technology that appeals to you, consider *The Boom* an adequate primer on the subject. *The Boom* is an easy read and the book’s author takes an even-handed position concerning the process of fracking and the major players in its long and interesting history. From a detailed explanation about how

hydrocarbons form from ancient, tiny water-dwelling organisms to how the process of fracking differs from conventional hydrocarbon production, from the enormous costs associated with drilling and fracking a single well to the global economics of energy industry, Russell Gold covers his bases.

Throughout the book, Gold focuses on the science and technology of fracking by expertly providing the reader with both facts and context. For example, he tells us that an astonishing 100 wells per day are drilled in the U.S. and nearly all of them are fracked. Gold also explains how this oilfield technique is used to release the hydrocarbons locked within deep shale formation by injecting tons of sand, millions of gallons of water and often dangerous chemicals at high pressure to induce man-made fractures in the rock. These fractures, in turn, provide fast pathways for hydrocarbons to move more freely and flow into the well and increase hydrocarbon production. Unfortunately, as Gold notes, these fractures may also provide direct pathways for hydrocarbons to travel

into nearby aquifers, thus polluting drinking water sources. The process has critics and defenders, but no one debates that fracking has become an increasingly important fixture on the domestic and global energy landscape. In fact, cleaner-burning natural gas produced by fracking is now overtaking coal as the dominant fuel used to generate electricity in the United States.

Somewhere near the midpoint of the book, Gold summarizes the secondary focus of his 300-plus page primer: the major players in the world of fracking. In the opening lines of Chapter 8, Gold states: we “Americans like our abundant energy, but not the men who provide it.” In addition to a story about the process of fracking, this book is about the people who make a living in the fracking industry; the ones responsible for the technology and strategy for producing America’s enormous



supply of natural gas; the ones arguably responsible for lower energy costs, reduced carbon emissions in the U.S., and perhaps a resurgence of American manufacturing. This book is also about how some of those industry leaders, in a rush for money and market dominance, may have risked the environment and public health to produce hydrocarbons as quickly and cheaply as possible.

Gold introduces us to Edward Roberts, the Civil War veteran who observed that shell explosions during battle cracked the sides of trenches and explains how he parlayed that into the first down-hole frack of a tight oil well. He presents George Mitchell, the modern “father of fracking,” who by most accounts is an extremely environmentally conscious billionaire. He also gives a significant amount of space to the audacious Aubrey McClendon, the former CEO of Chesapeake Oil, arguably the biggest player in the modern natural gas boom, and, for a few years at least, the largest single monetary contributor to the Sierra Club. Gold notes after first meeting with McClendon: “Is he a huckster, a dynamic salesman, a visionary, a fool? I can’t tell.” The stories of these men are as much the story of fracking as is the process itself, and they offer an interesting lens through which Russell Gold narrates the history of fracking.

Gold also introduces us to the everyday men and women who work in the oil-fields and traces how the fracking boom has provided a good, honest way to make a living. He also introduces us to the people living in fracking communities and shows how fracking has caused both problems—such as noise pollution and bad drinking water—as well

as benefits, such as steady income and economically revitalized communities.

There is no disagreement that modern societies run on fossil fuels. There is also no dispute about the strong correlation between a country’s affluence and its energy consumption. Americans, the most affluent people on Earth, have the most voracious appetite of any nation in the world, consuming as they do nearly 20% of all oil produced annually. Over much of the last five or six decades, Americans have imported a great majority of their hydrocarbons. *The Boom* is the story of how this is now changing due to fracking and the production of a cheap, domestic sources of energy. Fracking may be the single biggest game changer on the American economic landscape since the dawn of the internet. Gold takes us through fracking’s destiny in the global energy landscape by explaining: (1) a favorable legal framework that incentivizes development of natural resources; (2) the surprisingly lucrative financial incentives; (3) the ever-degrading environmental attitudes toward coal-powered power plants; and (4) the deteriorating political attitudes toward importing foreign oil.

The Boom is certainly not the last word on fracking, but is it a comprehensive introduction. As we know, this important debate will continue because it

poses questions that are complicated and nuanced. Is fracking good for our communities because it brings money and jobs that help revitalize struggling communities? Is fracking bad because of the noise pollution and environmental destruction associated with drilling oil wells? Is the story of fracking one of reduced carbon emissions and cheap, abundant energy production, or one in which our landscape is drastically compromised, our drinking-water aquifers poisoned and global climate change advanced? Is this another of our society’s mistakes, or is it the beginning of a more environmentally friendly energy era? Like most debates, it is all about perspective. What is clear is that fracking has become a fixture on the American landscape and the global economy, and the people living in communities where fracking is prevalent are having their lives drastically changed.



Stephen E. Kaczmarek is Assistant Professor in the Department of Geological Sciences.

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Articles should be 1700-2200 words in length, though shorter articles will also be considered. Creative writing can be submitted at lengths briefer than 2200 words. Those wishing to submit are asked to consult the *Bridgewater Review* submission guidelines (available from the Editor). In keeping with the founding spirit of our faculty magazine, the editors are equally interested in unfinished pieces of writing that may need

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