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A review of: *Fallout: Disasters, Lies, and the Legacy of the Nuclear Age*

**Introduction**

 Written by Fred Pearce in 2017 and published in 2018, *Fallout: Disasters, Lies, and the Legacy of the Nuclear Age* is a piece of reporter-esque writing that recounts the history of the nuclear age. Primarily, the book focuses on the details of the nuclear age that were hidden behind a veil of secrecy, because of war time, lack of concern, or a simple lack of knowledge. However, the major events that characterize the nuclear age—Chernobyl, Hiroshima, Nagasaki, Hanford—are also all covered because it would be borderline ridiculous to discuss the nuclear age without discussing the poster children.

 These events that are reported are global, ranging from the Bikini Atoll of the Marshall Islands to Hanford, Washington to the Ural Plains in Russia. All of these locations are connected with a general theme: nuclear tragedy. Primarily, issues of nuclear waste or testing causing immense harm to locals or anyone who was misfortune (or deceived) enough to get caught in the fallout. These issues arose from the general theme of war that was repeated from the 1910’s through the 1950’s and forward, with organizations doing their best to keep their nuclear program a secret, even at the expense of citizens or locals. Ranging from the early 1910’s to 2017, the timeline that is covered is essentially the birth of the idea of splitting the atom to create immense power to the conclusion of the 2016 presidential election in the United States, which was ending just as Pearce was finishing his writing.

 Pearce concludes the book with a somber note about the future of nuclear power, weapons, and all of the pros and cons that come with them. He seems to suggest that nuclear is doomed to failure because of the public opinion, the general risks associated with nuclear, and the plethora of other options that Pearce seems to believe are better. However, it is worth noting that there also is a bit of fear-mongering that I was picking up on in his writing. Whether intentional, a projection of his personal feelings, or none of the above, Pearce heavily discusses the negative implications of nuclear power but rarely the positives. This idea will be developed further below.

 To wrap up this lengthy introduction, I chose this book because of a YouTube video by the channel called Veritasium, a video published in 2014 titled “The Most Radioactive Places On Earth.” This video sparked my curiosity in the general topic of radiation and nuclear power, strengthened by my academic life as a physics student. These two reasons were what got me into looking into nuclear-related books but the reviews of this book were what truly cemented my decision, and these reviews will be discussed later.

**Review of *Fallout: Disasters, Lies, and the Legacy of the Nuclear Age***

 While I did discuss a bit of fear mongering in the above paragraphs, I would first like to discuss the plethora of positives I have found in this book. More than anything, what stands out to me is the efficiency and density of information. Pearce does not pull this information out of nowhere and even has a catalog of references in the last 17 pages of the book. These references are, as far as I can tell, all reputable scientific sources that are cited whenever he pulls out a number or statistic with a superscript. Each chapter has its own numerical superscript system, so it is incredibly easy to find what article is being referenced simply by looking at the superscript and the chapter. This then leads into what I think is the strongest aspect of the book: the information is communicated in a borderline flawless manner.

 Pearce has a history as a reporter and it truly shines in this book. The amount of information, the density of it all, and the absolute magnitude of the amount that he uses is nothing that would be easy to deal with in any capacity, let alone in a book that is targeted at a general audience. Pearce absolutely nails it on the head, demonstrating a masterclass in reader-friendly science. He focuses solely on the important aspects, like how a shocking 6,300 of the 8,400 children in Hiroshima that were working on firebreaks the day of the bomb dropping died (Pearce, 13). The sheer magnitude of the deaths and the fact that they were just *children* were what was important about that statistic. He condenses the reference material down into this highly digestible and manageable data while still retaining all of the depth, intensity, and shock of the information.

 However, this can also be seen in a negative light, which brings me to my above-stated qualm: there is a slight to intense feeling of fear-mongering throughout the book. Especially in his conclusion, Pearce suggests that the fear of nuclear power hasn’t been calmed in over half a century, so it probably “never will” (Pearc, 212). This opinion is not without validation though. The book itself follows the tragedies that have occured because people trusted too much or simply weren’t told, like the people that survived off of the Techa River and washed their clothes in a river that had radioactive waste unceremoniously dumped in it by the nearby plutonium factory.These people were never warned and were hardly even evacuated. Even today, the story of the Techa River and the people hurt because of the nuclear waste in said river is hardly known. So, this fear of nuclear power is not unfounded. This fear of people never again trusting nuclear power is also completely rational. However, there are still so many benefits that can be gained from nuclear-related power and facilities. The sheer scope of the power that can be generated with an array of nuclear power plants could be world changing, but the fear and history that nuclear power has been drenched in handicaps this progress. I do wish that Pearce had spent a little more time on the positives, but I completely recognize that this book is supposed to focus on the negatives, being titled with words like “disasters” and “lies.” He does fully accomplish the goal of communicating the pain, the strife, and the poisonous history of the nuclear age, but a little ray of sunshine certainly wouldn’t have hurt or removed from his point in my opinion.

 The only other small “complaint,” and it can honestly be construed to be a strength, that I can make is towards the density of the writing. The writing is *not* for someone below college level. Looking at the density of the writing itself being easier than reading a raw scientific paper, it still is nothing to scoff at. The vocabulary used even necessitated a glossary at the back to give definition to some of the more niche words. In fact, the very first few pages are spent on describing the difference between the units that are going to be used, which alone confused me slightly. The content itself is heavy, death and destruction are described in fairly vivid detail, leading to me feeling that a college level reader is important. However, these critiques could also be described as positives, since only someone with an education that is college level or higher would benefit from reading this novel I would think. The information is borderline meaningless to someone without a general understanding of science, politics, and human nature. Further, the numbers themselves can lose meaning extremely quickly if treated in a detached manner, so a reader that is able to engage with the information is crucial.

**Conclusion**

 Overall, I would rate this book at a solid 4.5. While I did spend a decent amount of words above describing a dislike that I had regarding this book, it was really the only one that I could fairly dictate as an issue. The book, as a whole, was absolutely fantastic. The detail, the density, the volume of information was absolutely something that I enjoyed. Furthermore, keeping the focus away from well-known events like Chernobyl, Hiroshima, Fukushima, etc, really reinforced the book in my opinion. Everyone has at least heard about those issues, but shining light on smaller issues like the bomb tests done near/on the Marshall Islands or the nuclear waste that polluted the Techa River was absolutely worth the time and read. Recognizing the scale of the problem and communicating that in writing was the greatest strength. Beyond that, the sheer fact that Pearce cited *everything* and has an entire glossary for difficult words and a 17 page notes section referencing the information he used cemented my opinions. It would have been a perfect 5/5 if not for the ever-lingering sense of fear-mongering I had.

 As stated above, I would recommend this to readers that are college level or higher. However, more specifically, I would *not* suggest that anyone with fear of nuclear weapons or pollution should read this if they are genuinely terrified. It would only reinforce those fears and, because of the way that Pearce doesn’t sugar coat, could be mentally harmful if left to run unchecked. That being said, I do think it is important that everyone read this book. The magnitude of the scars left on this planet and its people by the nuclear age is not something to bury. Recognizing the failures of our past and becoming a better version of ourselves in the future is crucial.

**Reviews**

 I was unable to find any “official,” long-form written reviews. However, the general consensus of the Good Reads (where I purchased this book) comments section, average to a 4.02/5 rating. The reviewers also recognize the scope and volume of the topic and appreciate the way that Pearce was able to communicate it so effectively. I’ve also pasted two reviews from “official” sources below, but they are simply short-form reviews.

"Pearce insightfully dissects the profound psychological and political impact nuclear technology has had on humankind and unflinchingly questions whether it might be time to acknowledge that its promises for both energy and defense have been largely unfulfilled."

--Booklist

"In Fallout, Mr. Pearce, a veteran science journalist, travels the world to pin down what he calls 'the radioactive legacies of the nuclear age.' He moves between weaponry and energy, cataloging mistakes, dishonesty and irrational fears. The result is a panorama of atomic grotesquery that is at once troubling, surprising and ruthlessly entertaining."

--The Economist

**Sources**

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