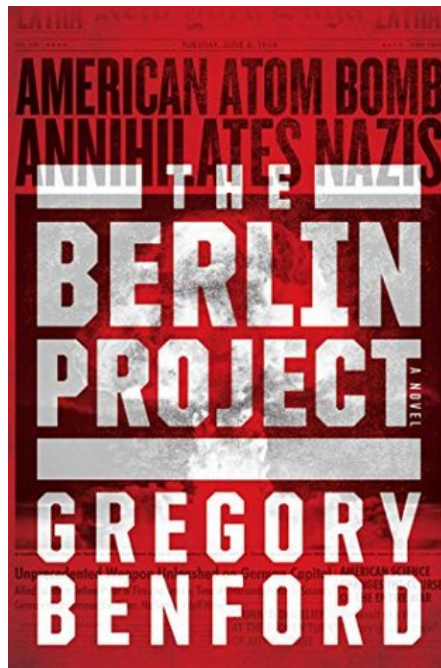




## The Berlin Project

*Gregory Benford*

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# The Berlin Project

*Gregory Benford*

## **The Berlin Project** Gregory Benford

*New York Times* bestselling author Gregory Benford creates an alternate history of the creation of the atom bomb that explores what could have happened if the bomb was ready to be used by June 6, 1944.

Karl Cohen, a chemist and mathematician who is part of The Manhattan Project, has discovered an alternate solution for creating the uranium isotope needed to cause a chain reaction: U-235.

After convincing General Groves of his new method, Cohen and his team of scientists work at Oak Ridge preparing to have a nuclear bomb ready to drop by the summer of 1944 in an effort to stop the war on the western front. What ensues is an altered account of World War II in this taut thriller.

Combining fascinating science with intimate and true accounts of several members of The Manhattan Project, *The Berlin Project* is an astounding novel that reimagines history and what could have happened if the atom bomb was ready in time to stop Hitler from killing millions of people.

## **The Berlin Project Details**

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Author : Gregory Benford

Format : Kindle Edition 528 pages

Genre : Science Fiction, Alternate History, Fiction, Historical, Historical Fiction

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## From Reader Review The Berlin Project for online ebook

### Craig Brown says

My 1st 5 - could not put it down - implementation of real facts & folks - intriguing hypothesis

I had read one of Heisenberg's biographies & he fit right into the story so well

I pulled out my Astounding May 1941 mag to review (thanks for the collection goes to my parents who passed on in their 90s) - it's inclusion is a great anecdote to Campbell's drive to unmask the SciFi genre + Heinlein's, as Anson MacDonald, portent of the "atomic" bomb

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### David Nichols says

(Please note that this review contains some spoilers.)

Gregory Benford's latest and longest foray into alternate history should have sat better with your reviewer. The author writes with elegance and authority, and grounds his counterfactual scenario on solid historical research, interviews, and personal knowledge (from his grad-school days) of some of the principal characters. The physical details Benford provides of wartime discomforts and privations help turn his characters into actual people with whom readers can sympathize. Benford also constructed an original counterfactual: what if the Allies had finished work on the A-Bomb in the spring of 1944, early enough to drop it on Berlin? The explanation for how this came to pass seemed slightly contrived, involving as it did American Jewish investment in a private prewar research program, but the fruit of this investment - the early development of centrifuges (as opposed to the slower calutron) capable of refining U-235 - was something Leslie Groves and co. could have potentially realized without private money. Altogether BERLIN PROJECT comes across as a solid piece of alt-historical craftsmanship, at least up to a point.

The indigestion that the book left behind came mainly from the imagined consequences of Benford's Berlin bombing. The Nazis begin poisoning strategic sites and roadways with pitchblende left over from their failed nuclear program. (That one doesn't surprise me, actually.) Werner Heisenberg and members of the German General Staff meet American envoys in Switzerland, tell them where the Fuhrer is hiding - he escaped the Berlin nuke - and promise to convert post-Hitler Germany into an ally against Stalin. American conventional bombers kill Adolf in his Wolf's Lair. Honorable German general officers, the "Prussians," make peace with the Western Allies while intensifying their war with Stalin's Russia. The Allies give their tacit approval to the new German campaign on the Eastern Front. The Soviets fight to a stalemate and withdraw from central Europe, leaving Poland, Hungary, and Czechoslovakia free of the communist yoke. American A-Bombs bring the war with Japan to an end, and American aid helps the Chinese Kuomintang defeat Mao's communists. China becomes free and prosperous. Germany's honorable "Prussian" government helps the United States establish a Jewish state in Israel. And peaceful nuclear energy makes the postwar world richer as well as happier.

I find all of this improbable, and some of it troubling. Some relevant points:

1)The Western Allies' decision to make a separate peace with Germany and let the new regime there grind down the Red Army would have struck all of the Russians, not just Stalin, as the worst kind of betrayal. Here

the Brits and Americans had spent nearly three years waiting to open a decent Western Front, while millions of Russia's sons and daughters bled and died, and then they almost immediately abandoned the fight and made peace with the enemy! I doubt anyone in the USSR would have regarded the Western imperialists as anything other than blackguards for the next several decades. Indeed, I suspect the Soviets would have sent as much aid as they could to their betrayers' own enemies-in-the-field, like the Greek communists fighting British forces and the Japanese troops fighting Americans.

1a) Speaking of unhappy people, can we quite be sure that the British and American governments would have gladly accepted a separate peace with the "Honorable Germans" and allowed the war with Russia to continue? I seriously doubt Roosevelt would have done so. He at least would have insisted on negotiating with Uncle Joe first.

2)Are we also quite sure the Americans could have defeated Japan without Soviet assistance? Ward Wilson argues that two nuclear bombs were not, in our own timeline, sufficient to break the Imperial military leadership's morale. What proved the last straw was instead Russia's entry in to the Pacific War and its rapid defeat of the army in Manchuria. These two events destroyed Japan's last diplomatic and military bargaining chips. Frank Moraes titles his blog entry on this subject "Stalin, Not the Bomb, Defeated Japan:"  
<http://franklycurious.com/wp/2013/08/...>

With the USSR neutral, perhaps even an ally, and its last large army intact, I doubt the Japanese High Command would have surrendered for many more months - possibly not until the Americans committed to a land war in Asia.

3)On the matter of Asian land wars, the Kuomintang armed forces fared rather badly in their own encounters with the Imperial Japanese army and with the People's Liberation Army, despite (in both cases) receiving arms and advice from the United States. Indeed, the KMT's ineptitude probably helped convince many ordinary Chinese people that only Mao could bring order to their bloodied country. Benford attributes the PLA's 1949 victory to Soviet support, which the dispirited Reds withdrew after our Honorable German BFFs knocked them down. Assuming this were true, the disparity in foreign aid would still not suffice to turn the KMT into a vigorous and popular nationalist movement, and the Maoists into a demoralized mob. The author's scenario would instead (I think) have produced a greatly prolonged civil war and a de facto internal division of the country.

4)Benford, or at least his main characters, seem to think that the Honorable German government's aid in establishing Israel would have sufficed to lay the ghosts of the Holocaust, at least as much as in our world. I consider this unreasonable. In our own timeline the German people had little interest in contemplating, less still in taking responsibility for, their country's mass-murder campaigns. The Allies had to force it upon them, through war-crimes trials and the denazification of the German governments (East and West). An undefeated, "Prussian," military-led German government would almost certainly not have permitted anything like the Nuremberg trials, and would not have conducted its own criminal trials of Nazi genocidaires unless it found some political advantage in doing so. Most likely it would have "denazified" the schools and courts much more imperfectly than did the Allies. Probably it would also have colluded with American anti-communists and the "free" governments of Poland and Hungary to diminish the scale of the Holocaust and "put it behind us." An awful lot of ordinary Jews' suffering would have gone unremembered in this world.

But, then, Gregory Benford isn't writing a book about ordinary people. In his afterword he says that he wanted to explore a moment when a few extraordinary people could have changed, could have improved the outcome of history. The extraordinary people being, in this case, a group of brilliant young scientists hoping to defeat Hitler, and a brotherhood of Prussian officers struggling to break his spell and save their nation. The Second World War, surely the largest "peoples' war" in history, turns in Benford's hands into a problem-solving exercise, seasoned with a little derring-do, on the part of a tiny handful of special people. If this seems, in the end, like a fairy tale, with wizards (Teller and Fermi and their colleagues) and knights (Rommel and his coterie) locked in battle with an evil spellbinder (Hitler), fighting with magical weapons

(the mystical A-Bomb, the Germans' "death dust"), and holding secret meetings in a magical mountain kingdom (Switzerland) - perhaps that is because "Great Man" theories of history require a degree of magical thinking, and once one allows that in the fairytale tends to write itself.

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### **Paul Walker says**

Well-written and extremely plausible—the characteristics of the best alternate history. This story is among the best in the genre that I have read.

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### **Ralph Carlson says**

A facinating alternate world novel. I really enjoyed it. I must add here that I have been a fan of Benford's work since reading his first published story way back in 1964.

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### **Darcy says**

I have not read a lot of alternative history books, but this one caught my eye on an impulse buy and it turned out to be a winner. While not an action story this turned out to be a real page turner for me. Gregory Benford kept the story moving at a brisk pace while keeping the science easily understandable. The turning points led to what, in my mind, was a very plausible change in events with an outcome that felt justified. He even introduced a concept I had not heard of or considered before about what is a war crime. I will not spoil the story for you but once again it drove home the fact that history is written by the winners.

I will be providing the best tribute I can to an author I enjoy and that is I will be purchasing the author's other works as he greatly impressed me.

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### **Steve says**

Such a great, thought-provoking book. Well written, well researched (it helps that the author's father-in-law is the main character), and quite deep in concept.

In the afterward, the author mentioned the possibility of a nuclear conflict between India and Pakistan or in the Middle East. The narrative was very striking to me, and actually brought tears to my eyes when the bomb was dropped on Berlin in the book, as I sit and watch the news of President Trump and Kim Jong Un ratcheting up the rhetoric in a dangerous game of one-ups-manship. It wasn't planned on my part to read a book about nuclear war at this point in time, but it was great timing nonetheless.

This book should not be approached as a quick read. If you choose to read this book, and I highly recommend it, take your time with this one. You won't want to, but you'll appreciate it all that much more.

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## David Hill says

This is a fascinating reimagining of the Manhattan Project, given a change to a few decisions early on. What might have happened had we been able to complete the bomb a year earlier?

Reading it, I thought all the characters were actual historical figures save one, our main character. I learn from the afterword that even he was a real person. The only fictional characters are a few incidental ones, some of whom provide a catalyst for change from actual events.

At times I felt some of the (fictional) events were more frightening than many of the things that actually happened during those dark days, if that is possible. Benford tells us in the afterword that these were actually considered.

After reading this book, I can't help but be interested in reading a biography of Moe Berg, a major league catcher and major character of this book.

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## Rodney Falberg says

Finished this book two days ago. I always enjoy alternate history. I am disappointed that the atomic bomb was created later than it could have been. Had the Allies been able to drop the bomb on Berlin in 1944, we could have prevented the death of possibly over a million lives both civilian and military from the wholesale slaughter the Nazis and their collaborators wrought on the European continent they brought. It certainly would have put the US in a better position post-War against the Soviet Union. The book assumes that Rommel and other anti-Nazi members in the military and the government would have been able to assume control upon the death of Hitler and negotiate with the Allies, but I think this is a mistake as after the meetings in Casablanca Conference it was decided the Allies would not accept anything but a full and complete unconditional German surrender, so that is the writer trying to make a very happy ending. In my mind, we probably would have bombed Berlin and at least one other major German city like Cologne or Munich.

On the topic of the Atomic Bombs, six days away from the anniversary for the Hiroshima and three days away from the Nagasaki bombs has Providence's wrath on the Japanese Empire for the Rape of Nanking, the systematic sex trafficking and rape system of the Comfort Women, the Bataan Death March, the murder and rape of civilians and prisoners of war. The Japanese Army and their collaborators murdered somewhere between 3 million to 14 million prisoners of war and civilians, and the atomic bombs was punishment on the Japanese people for the murder and rape they brought on Asia, just as the Germany was divided up and occupied by the Soviets and by the West and bombed into submission for the murders and rape they brought on Europe.

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## Larry Deaton says

Gregory Benford, in his new novel THE BERLIN PROJECT, has been writing science fiction novels for almost fifty years and has done something really different this time. There are really two novels here. He starts with a novel that--for about the first half of the book--is just a historical novel about the Manhattan Project and not really a science fiction novel at all. The main protagonist is Benford's actual father-in-law, Karl Cohen. Cohen was a chemist involved with the engineering problem of finding the best way of separating out uranium isotopes (U-235 from U-238) so that you could achieve enough of the former to have

a fissionable amount. But he uses the story of Karl to tell both the story of the Manhattan Project as well as a commentary on what it was like as America got involved in World War II. This commentary includes what it was like to be Jewish during those times

Benford does a fantastic time of revealing the personalities of the other scientists involved directly and indirectly in the Manhattan Project. Even Einstein makes a brief appearance, but we get a lot of Harold Urey (whom Cohen worked for), as well as Robert Oppenheimer, Edward Teller, Leo Szilard, Luis Alvarez, and Richard Feynman. And then there is General Leslie Groves running the whole thing like a bulldozer and who really seems to enjoy pushing scientists around, sometimes for no really good reason.

Benford knew most of these people in real life both through his father-in-law and because of his long career as a physics professor. I think I trust his depiction of them ... what they did and even how they felt. Put simply, the book is great for a look at the personalities involved in the Manhattan Project.

But then it gets even better—for essentially the second half of the book—as we head off into a science fiction novel that turns on one event. If a different decision had been made about choosing another isotope separation technology than the technology that was actually used, then a bomb could have been made about one year earlier and might have been used first against Germany and not Japan. So we're off into an alternate world SF novel, with Karl Cohen linking up with Moe Berg, first flying to England and then for a jaunt across France to Switzerland. This is the Moe Berg who was a famous Major League Baseball catcher and who was also a OSS agent assigned (this was true in real life) the job of assassinating the German physicist, Werner Heisenberg, if he thought that Heisenberg was close to developing the atom bomb for Germany. In truth, Berg was always a better spy than he was a catcher, but he may have been the most interesting man to have played the game. All of this is exciting and believable, and that makes it far better for me than most alternate world SF novels.

It's not much a spoiler to say that the atom bomb is indeed used against Germany first instead of Japan (you'll read that in the reviews), but what happens then is a real surprise and again very believable. Benford is just as good in his depictions of the major military leaders as he is earlier in his portrayals of scientists. Eisenhower on the Allied side and Karl Canaris (head of German Military Intelligence) and Field Marshall Erwin Rommel on the German side all play important parts in the second half of the book.

One of the first SF novels I read by Benford was his *TIMESCAPE*, written back in 1980 and winner of the Nebula Award as best SF novel of the year. This new novel is even better than that one.

Finally, Benford closes with a long Appendix in which he summarizes the real world characters found in the novel as well as sharing a great short bibliography that begins with Benford pointing out that Richard Rhodes' *THE MAKING OF THE ATOM BOMB* remains the best work on the Manhattan Project.

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## Mark says

In the alternate history genre, it's commonplace to have historical figures as important characters. It's far less common, however, for the author's characterization of those historical figures to be based upon their firsthand knowledge of them. As a physicist who knew personally some of the leading figures of the Manhattan Project, Gregory Benford is one of the select few for whom such an accomplishment is possible, and he employs it to full effect in this novel exploring the war that might have been.

Benford takes as his point of departure the use of centrifuges to separate the U-235 from uranium hexafluoride. As he explains in the afterword to the novel, this is the primary means most nuclear powers

today obtain the critical isotope for building atomic weapons, yet in 1942 it was abandoned for what proved the far less effective method of gaseous diffusion. Edward Teller was among those who theorized that had the centrifuge process been used, the United States would have obtained sufficient material to build an atomic bomb in 1944 rather than in the following year.

Benford's scientific knowledge gives him the foundation for establishing an extremely plausible premise, yet it is skills as an author which turn this premise into an entertaining work of fiction. Building his novel around the pivotal figure of Karl Cohen, he walks readers through the development of a more efficient atomic bomb program, one that has a bomb ready to use in concert with the Normandy invasion. In a lesser author's hand the reader might get bogged down in the details of the physics and chemistry of nuclear weapons development, yet Benford knows how to interweave intelligible explanations of the science with plot and character development in such a way as to keep the reader engaged. His postulation of the historical effects of the use of such a bomb are a further tribute to his ability, as instead of a Pollyanish outcome he works through some of the likely ramifications of using a weapon upon an advanced industrial power capable of responding in kind. It all makes for an alternate history novel of the first rank, one that deserves to be regarded as one of the finest examples of its kind.

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## **Michael Pryor says**

Fascinating, detailed, thought-provoking.

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## **Peter Tillman says**

### **A tour de force of alternate history**

What if the Manhattan Project had yielded a working bomb a year earlier, in 1944, and had helped to shorten the war in Europe? In our history, the project first went down a blind alley — General Groves, relying on bad advice, chose gaseous diffusion as the main method to separate weapons-grade U-235 from U-238, the dominant, heavier and non-fissile isotope in natural uranium. It turns out that centrifuges work much better, and the enormous, expensive gaseous-diffusion plant at Oak Ridge never worked very well. Most of the U-235 for the first uranium bomb was separated by the “Calutron”, using industrial-scale mass-spectroscopy, an amazing kludge in retrospect.

What if Groves had made the right choice, enrichment by centrifuge?

Something like a million people a month were dying in the last year of the European war, tens of thousands in the Nazi death camps alone. If the Nazis could have been defeated a year earlier, or even six months....

Benford's novel is based on deep historic research, and he turned up all sorts of cool new-to-me anecdotes: the raw uranium for the bombs came from the Shinkolobwe mine in the Belgian Congo, and ran 65% U3O8 — the richest mine in the world. Einstein secured this supply by writing a letter to the Queen Mother of Belgium. The yellowcake was shipped to the US in *\*very sturdy\** suitcases, loaded onto Pan Am airliners. Which worked OK until one crashed at La Guardia, from unbalanced loading....

The electrical wiring at the Oak Ridge plant was (in part) made of silver, borrowed from the US Mint, as copper was in short supply. And a major one: the scientists and engineers were so confident in the gun-type uranium bomb that the first one, Little Boy, was detonated without testing it — the Trinity test in New Mexico was of the plutonium bomb, a *\*much\** trickier explosive. And the plutonium-production project (and

Los Alamos) were started up after the uranium-enrichment program ran into trouble, as a fallback.

Benford was personally acquainted with many of his characters, who were almost all real people. He married a daughter of his protagonist, Karl Cohen, a chemist and self-taught physicist who worked on the centrifuge-enrichment project. Which, Cohen thought, might have succeeded with another \$100,000 in funding — but they couldn't get it.

Benford's choices of "what might have been" are reasonable, and certainly demonstrate the fragility and unpredictability of real history. But we could have done better. And that the devil is always, always in the details....

So the premise, history and what-ifs are great stuff, and resonate with my own background and interests. As a novel, it starts out really well, sags a bit in the European war scenes, but comes back strong for the finish. For me, the fascinating factual background outweighed any failings of writing craft. Highly recommended, especially for war-history and nuclear-weapons buffs.

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### **Mitchell says**

Interesting alternate history. But frankly I think it would have been better as a non-fiction book.

The concept was odd, basically that the author's father-in-law had successfully convinced the Manhattan Project to use the faster method of cooking up the materials, and how things would have played out. All the players were in the book plus some extras including a young Freeman Dyson and Arthur C. Clarke and even the author's dad.

It came across a little bit like wish-fulfillment. And some of it was written a little awkwardly. Definitely not the author's best work. But interesting and readable.

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### **Larry says**

Greg Benford imagines an alternative history where the Manhattan project was more effectively managed, and an different technique was used to separate U235 from U238. Many of the characters in this book were actual people, some of whom still alive. Benford anchors his so solidly in the science and engineering of the time, and the voices and memories of the characters, that it reads more like a biography than a novel. This is old-school Science Fiction where the science gets more attention than the characters. The protagonist does have the initial insight that centrifuges had more promise than gaseous diffusion, but after that initial fork in the time lines, his main roll seems to be a point of view from which the reader can watch events unfold. It is somewhat more effective as alternative history than as fiction, but is a fascinating book, well worth the read.

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### **Mogsy (MMOGC) says**

3 of 5 stars at The BiblioSanctum <https://bibliosanctum.com/2017/05/22/...>

It's hard to be a fan of alternate history fiction these days without running across your fair share of alternate World War II stories, but from the start, it was clear to me that The Berlin Project was a different breed.

With a heavy focus on the historical details and science behind the building of the atom bomb, I confess this would not have been my usual kind of read at all. That said, I'm glad I read it, and as you will soon see, certain revelations eventually came to light that made me see this book—and appreciate it—in a whole new light.

Like many of its genre, *The Berlin Project* offers a fascinating glimpse into a crucial point in our history and asks the question, “What if?” Because of its scope and significant impact, World War II is especially rife with these scenarios, but rather than approach the theme from a conventional standpoint, author Gregory Benford instead asks, “What if the United States developed the atomic bomb a year earlier, in 1944?” As the story unfolds, it becomes clear that this is more than just a tagline for the book; a viable bomb at that time could have potentially set the US on a different path, and changed history in a lot of ways.

Through the eyes of the chemist Karl P. Cohen, a junior partner of the Manhattan Project, *The Berlin Project* tells the story of what might have happened had the Allies developed the first nuclear weapons in time to stop Hitler from killing millions of people. The book begins in 1938, following Karl as he returns from Paris, bringing home his new wife to meet his family. War is brewing in Europe, and the next few years sees Karl becoming more involved with the scientific community at Columbia University where he works. By the time the Manhattan Project is born, a number of famous scientists—many of whom were refugees from Europe—have already graced these pages including Albert Einstein, Enrico Fermi, Harold Urey, Leo Szilard, J. Robert Oppenheimer, Edward Teller and more. With Karl's discovery of an alternate solution for creating U-235, the uranium isotope needed to sustain a fission chain reaction, the atomic bomb known as “Little Boy” became ready by the summer of 1944, and its intended target became Nazi Germany instead of Japan.

The publisher description markets this as a thriller, but in reality, all the gripping elements may be lost among the details. Rather than fast-paced excitement, I found instead an exhaustive narrative on the history of the early years of WWII, followed by an even more intimidating and lengthy account on the development of nuclear fission. The book's first half covered events leading up to the formation of the Manhattan Project and the development of the bomb, a section which read more like a history textbook rather than science fiction novel (and the regular inclusion of historical photos and scientific diagrams did little to dispel this feeling, fascinating as they were). I didn't dislike this part per se, but neither was I getting any sense that *The Berlin Project* was supposed to be a suspenseful thriller. Clearly a lot of research was put into this novel, with compelling pieces of trivia thrown in here and there, but I have a feeling readers with little interest in the historical or scientific subjects will have a rough time of getting into this story.

Fortunately, pacing improves in the second half. Let's just say things don't go nearly as smoothly as the Allies had hoped, following the bomb's deployment in Berlin. Karl leaves the safety of the laboratory for fieldwork as a spy in Europe, and we finally come face-to-face with the horrors of war, which had been a background concern up to this point, happening far away from our protagonist's life in New York. With this development, we are truly in unknown territory, as the war escalates and events spiral out of control. And yet, even with this change in tone, I still felt that there was a muted quality to the espionage and suspenseful elements, holding the story back from being a true thriller.

I did, however, mention in my intro about experiencing a turning point while in the middle of reading this book, and that was when I discovered the author's connection to the protagonist and many of the other characters. As Benford writes in his Afterword, nearly all the people depicted in *The Berlin Project* existed. He met and knew quite a few of them. Karl Cohen was his own father-in-law! Suddenly, many of book's idiosyncrasies which I'd noticed began to make a lot more sense, from its distinct tone of authenticity to certain quirks and habits attributed to the characters which sometimes struck me as too specific or out-of-the-blue to be made up. Every document featured in the novel is also authentic, including letters and other Cohen family correspondence. I found all this information to be extremely cool, and admittedly these revelations do have a way of lending a certain *je ne sais quoi* to this particular alt-history.

To be sure, The Berlin Project is different kind of book among its genre, and I think how you do with it will largely depend on your interest in its topics as well as a willingness to see the plot developments through to the end. All told, your mileage on enjoyment may vary, but it's nevertheless a fascinating novel that I'm glad I got a chance to read.

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