

Mind and Iron

A Collection inspired by Isaac Asimov's Positronic Robots

by Jacqueline Cast

We live in a technologically driven world. Many of my classmates could never imagine living without their mobile devices- I am no exception. We live in a world that gets more and more connected thanks to machines. Last year I used a computer to communicate with a robot in Chile which took pictures of the night sky according to coordinates that I gave it, and then it emailed those photos back to me. I think robots and outer space are amazing, and I am so lucky to live in a time when I, personally, can interface with them in such a profound and simultaneously casual way. That's what makes the work of earlier science fiction writers so inspiring, and that is part of the reason I have fallen in love with this genre. I was raised in a house where *Star Trek* was often on the television in the living room after dinner, so sci-fi was nothing new to me, but it was not until high school that I started reading a lot of the classics.

I remember the first work I ever read by Isaac Asimov. In my 10th grade English class, during a unit where we also read selections from *The Martian Chronicles*, I was assigned his essay "Dial Versus Digital." It is an essay that explains, in the classic elegance and simplicity of Asimov's style that I would later grow to love, the cultural significance of analog clocks, most notably in their importance in describing direction. I remember this work clearly because it was the first time that I was genuinely amused and captured by an essay. I had long loved reading, but I read fantasy and history novels, or science fiction stories- I was already a Ray Bradbury fan. But essays? No. As a fifteen-year-old I associated essays with homework. I had written stacks in the form of book reports, or short research papers, or projects for class. And yet this quirky little essay about a seemingly minor advancement in technology left an impression on me. I did not immediately seek out some of his other pieces; it took years for me to revisit him. And once I started, I couldn't stop.

When I really started consciously collecting, I found myself focusing on Asimov's stories about robots and interplanetary/interstellar/intergalactic travel and conflict. His robot series, simply titled "Robot Series," featuring the Earthman Elijah Baley and his humanoid robot partner R. Daneel Olivaw soon became my favorites. Asimov's robots have a "positronic brain" which follows

The Three Laws of Robots

1. A robot may not injure a human being or, through inaction, allow a human being to come to harm.
2. A robot must obey orders given it by human beings except where such orders would conflict with the First Law.
3. A robot must protect its own existence as long as such protection does not conflict with the First or Second Law.

These laws confine robots in all of his books. This raises all sorts of questions about the "humanity" of robots, and their ability to consent. One character in particular, Giskard from *The Naked Sun*, struggles with this issue because he has the ability to sense human emotion and therefore understands the implications of his actions better than many humans, including his "masters," can. He is a robot that can understand ethics, an idea that may seem paradox. More importantly, he is a being that has the intelligence and sophistication to make decisions, yet lacks the agency to follow through. Asimov has a brilliant way of using robots to discuss humans. These questions reappear in later science fiction, but find their origin with him. His universe is so well developed that I continually want more pieces from it. There is a rational order to them that I find appealing.

I did not limit myself to the work of Asimov, of course. My collection includes some of his influences, like the Czech playwright Karel Capek, who actually coined the term "robot" in his

1923 play *R.U.R.* Another notable influence is the German silent film *Metropolis*, which featured the first on screen robot, played by Brigitte Helm in 1927. These early robots, like R. Daneel Olivaw, could be mistaken for human, and therefore address some of the same social concerns. For my purposes, I include some of Asimov's contemporaries, such as Ray Bradbury who also wrote some of his most well-known pieces in the 1950s. The style of *The Martian Chronicles*, a series of short stories on a common theme, is very similar to that of *I, Robot*. Of course, I have a number of Arthur C Clark and Frank Herbert novels as well, but I felt that their themes, aside from space travel, varied too far from Asimov's optimistic view of the future to be included here.

Today a science fiction fan can find evidences of Isaac Asimov's oeuvre in many media, which explains the variety in my collection. I have included a few examples here, most notably a dvd box set of *Star Trek* episodes featuring the Borg, a cyborg race which are usually the villains in the plot. An episode titled "I, Borg" pays direct homage to *I, Robot*. The series *Star Trek : the Next Generation* also has an android character named Data who is stated to have a positronic brain and is purposefully modelled after Asimov's robots. Contemporary books featuring robots, such as *The Hitchhiker's Guide to the Galaxy*, or video game and comic series such as *Mass Effect*, are forced to address the same questions as *I, Robot*. At what point do robots become sentient? Can they feel emotions? Can they die? Or are they simply machines? As our civilization advances and we create more sophisticated robots, we will be forced to face these same questions. I feel fairly certain that the robot in Chile that took images for me did not have any thoughts about it, but the possibility that it did fascinates me.

Annotated Bibliography

Adams, Douglas. *The Hitchhiker's Guide to the Galaxy*. New York: Ballantine Books, 2005. Print.

First written in 1979, this book is a bit later than most of Asimov's robot stories, yet still written within his lifetime. I include it here for the character Marvin, a "paranoid, brilliant, and chronically depressed robot" inspired by Asimov's robots. He bridges the gap between robot and human in his emotional quality.

Asimov, Isaac. *The Bicentennial Man and Other Stories*. Garden City, New York: Doubleday & Company, 1976. Print.

Although he has also written textbooks, essays, and poems, Asimov is best known for his novels and short stories, and as my collection suggests, especially those about robots. This anthology is my favorite of his, including "The Bicentennial Man," a story about a robot as he becomes a man through a process of surgeries and 200 years. This book is special in that it includes a foreword, written by Asimov himself, before each story telling a bit about where he was at that point in his life, and often an amusing anecdote as well. Each of the works included in this collection are from the 1960s and 1970s.

***The Caves of Steel*. New York: Bantam Books, 1991. Print.**

Originally published in 1954, *The Caves of Steel* is a part of "The Robot Series," a series including the iconic *I, Robot*. This is the first book to feature detective Elijah Baley and his robot sidekick R. Daneel Olivaw. These sci-fi mystery books deal with some of the seminal questions surrounding Asimov's positronic robots, as he called them, including his "Three Laws of Robotics," which appear as a common theme in his work.

***The Currents of Space*. New York: Bantam Books, 1992. Print.**

Originally published in 1952, *The Currents of Space* was written as taking part in the same universe and continuity as his Foundation Trilogy, his novel trilogy that is arguably as well-known as *I, Robot*. This book is about humanity's first civilizing attempts in outer space beyond the planets settled in the Robot Series. Although it deals less directly with robots, I believe this book has a place in my collection because it recounts a bit of what happens with humankind after *Robots and Empire*. It is still in the same vein of space travel as well.

***The End of Eternity*. New York: Bantam Books, 1990. Print.**

The End of Eternity, first released in 1955, is not about humanoid robots, but instead another type of machine, called "Eternity." Eternity is a timetravel device which lets the protagonist

Andrew Harlan explore the vast reaches of time. Full of this and other wonderful computers and devices, *The End of Eternity* is a novel which truly displays Asimov's classic mid 20th century sci-fi style.

***The Foundation Trilogy*. Garden City, New York: Doubleday & Company, 1951. Print.**

A book which contains all three of the Foundation stories, I think no Asimov collection is complete without it. The Foundation stories are about interplanetary travel and war, much like *Robots and Empire* of the Robot series. Including invented sciences like his "psychohistory," this book deals with questions and intrigue, almost like his mystery books. The strong relationship

between the Foundation books and the Robot series make me feel that they belong in a collection together.

***I, Robot.* New York: Bantam Books, 1991. Print.**

I, Robot is truly a masterpiece. It is made of a series of short stories which had been published individually throughout the 1940s and 1950. They were published together in 1950 under the title *I, Robot*. Asimov carefully selected the stories he'd use, and their order so that the final product serves as a history of robotics (a term Asimov himself coined). His "Three Laws of Robots" first appear here, as well the roboticist Susan Calvin. Both would reappear in a number of his other works as intertextual references, most notably in the Robot series where the laws are often a central point of the conflict. This work is so seminal in Asimov's world, and I feel like it is the heart of my little collection.

***The Naked Sun.* New York: Ballantine Books, 1989. Print.**

A sequel to *The Caves of Steel*, this book in the robot series was first published in 1956. Once again starring Elijah Baley and R. Daneel Olivaw, this robot mystery deals with a murder under paradoxical terms, it seems a robot must have murdered a human, but that is something the Three Laws of Robotics would never allow. An intellectual thriller, *The Naked Sun* forces the reader to think within the confines of the welldeveloped world of positronic robots in order to figure out the mystery.

***Nemesis.* New York: Bantam Books, 1990. Print.**

First being printed in 1989, *Nemesis* is one of Asimov's most contemporary pieces. Although taking place on a world unaddressed in any of his other books, *Nemesis* still deals with space travel and interplanetary conflict, which is what makes me feel like it deserves a spot in the collection.

***Nightfall and Other Stories.* Garden City, New York: Doubleday & Company, 1969. Print.**

A collection of short stories ranging from the 1940s through the 1960s, this book contains Asimov's first hit, "Nightfall," which would go on to be published many more times in many more languages. It is lauded among his fans as being his best story. While I don't know if I'd agree, it is certainly worthy of praise and inclusion in my collection. It also contains "Green Patches," one of his scarier stories, and a number of tales featuring space and marvelous machines.

***The Robots of Dawn.* New York: Ballantine Books, 1984. Print.**

A republic just one year after its initial release, this book is a muchanticipated continuation of the story of Elijah Baley and R. Daneel Olivaw from *The Caves of Steel* and *The Naked Sun*. As yet another positronic robot mystery, it is vital for my collection.

***Robots and Empire.* New York: Ballantine Books, 1986. Print.**

First coming out in 1985, this is the final book of Asimov's Robot series. It features R. Daneel Olivaw nearly 200 years after the death of his partner Elijah Baley. As it finishes off my complete set of the Robot series, it is obviously an important inclusion.

***The Stars, Like Dust.* New York: Bantam Books, 1992. Print.**

A book in the same series as *The Currents of Space*, this book also is in the same universe and continuity as the Foundation trilogy. A heroic story of interplanetary conflict, this novel seemed an obvious choice for my collection.

Asimov, Isaac and Robert Silverberg. *The Ugly Little Boy*. New York: Bantam Books, 1993. Print.

This coauthored

novel is based on a short story of the same name written by Asimov in 1958.

Silverberg and Asimov had also worked together on "Nightfall." Another timetravel story, in this

book the protagonist travels far from the past, nearly 40,000 years. Asimov died in 1992 just after the completion of this work. I feel this book is significant not only for its reoccurring "Laws of Robotics" theme, but also for the fact the Silverberg is himself a decorated science fiction author, having received more Hugo and Nebula awards than any other author.

Capek, Karel. *R.U.R.* New York: Dover Publications, 2001. Print.

A Czech play written in 1923, *R.U.R.* or *Rossum's Universal Robots* is by far the most important book in my collection written by someone other than Isaac Asimov. It is this piece that introduced the word "robot" into the language, and served as an inspiration for a plenitude of robot books coming after, including Asimov of course. Its humanoid robots are indistinguishable from humans a wonderful idea that would be repeated in classics such as Fritz Lang's film *Metropolis*.

***The Complete Metropolis*. Dir. Fritz Lang. 1927. Kino Lorber, 2010. Film.**

Possibly the very first scifi movie, and definitely the first to have a robot, *Metropolis* is a classic that was very influential to the genre. Brigitte Helm's portrayal of a dangerous robot being controlled by a mad scientist may not follow the "Three Laws," but she certainly must have inspired some of the more frightening scenes in *I, Robot* when robots go out of control. I have multiple copies of this movie in my collection because initially much of it was lost, and this version has the most restored and rediscovered film.

Dick, Philip K. *Do Androids Dream of Electric Sheep?* New York: Ballantine Books, 1968. Print.

This book, although stylistically unique, comes from the same tradition of 1960s scifi. As the name suggests, it contains androids, or humanoid robots. The fact that they are visually indistinguishable from human beings is a key plot point, much like it is in Asimov's *The Caves of Steel*. This wellloved classic is a natural part of my robot book collection.

***Mass Effect 2*. Bioware. 2010. Video Game.**

Although tons of video games contain robots, I included only two in my collection. The *Mass Effect* games deserve special treatment because of the complex roles played by robots, or as they are called in this series "Geth." The geth appear at first as unfeeling robots who kill sentient life forms for their own purposes. They are clearly antagonists. However, through the course of the storyline, the player learns their history. They were created, and as they gained sentience the race that created them grew fearful and tried to wipe them all out. Eventually we grow to understand the geth as a "people" who are victims of genocide. They have reasoning capacities. One memorable moment includes a geth asking his creator, "Does this unit have a soul?" The reappearance of these classic themes introduced by Asimov make the *Mass Effect* games an important part of my collection.

***Mass Effect 3.* Bioware. 2012. Video Game.**

The sequel to the other *Mass Effect* game in my collection, it continues the story of the robot race, geth. In much the same way, it belongs in my collection. Who can forget the final emotional transformation of one of the geth when he refers to himself as "I" for the first time, and seems to gain his humanity just before he dies? I immediately thought of Asimov's *The Bicentennial Man* where a robot slowly becomes a human man. It is for that reason that I felt this game needed to be included.

***Metropolis.* Dir. Fritz Lang. 1927. DVD Tee, 2010. Film.**

As I mentioned before, I have several copies of *Metropolis* because new footage was only found in 2008, nearly 80 years after its production. This version of the film is a bit older, and does not contain these additional 30 minutes.

***Osamu Tezuka's Metropolis.* Dir. Osamu Tezuka. TriStar, 2001. Film.**

A reimagining of Fritz Lang's *Metropolis*, this movie also stars a robot girl. Although the storyline is not exactly the same, it addresses some of the same questions. The robot is sentient, and in a monologue she asks who created her, and for what purpose. *Osamu Tezuka's Metropolis* is a continuation of both Fritz Lang's, and Isaac Asimov's robots.

Star Trek Fan Collective Borg.

Various Directors. Paramount, 2006. Film.

The *Star Trek* franchise is huge, and having created original works since the 1960s, it has covered hundreds of themes. However, I have included this particular boxset because it deals directly with the borg, a cyborg/robotic race. The borg are usually the villains, because they attempt to assimilate people into their collectives by force, but in the episode "I, Borg," a nodding of the hat to *I, Robot*, a borg named Hugh fights on the side of the protagonists. This dvd set contains many episodes featuring the borg, and some of the same questions of consent and personal agency are addressed. Although the style is a bit darker than Asimov's robot series, the *Star Trek* writers have stated that they have taken a lot of inspiration from him.

Wish List

Ray Bradbury. *The Martian Chronicles*. 1950.

Although I've already read this book more than once, I think it would be a valuable addition to my collection for its similarity to *I, Robot*, and the fact that it comes from the same time period.

Isaac Asimov. *Pebble in the Sky*. 1951.

It is technically not part of the Robot Series, but this book comes chronologically after *Robots and Empire*, the last book of said series. It would also complete my set of the "Galactic Empire" books.

Michael P. KubeMcDowell

et al. *Isaac Asimov's Robot City*. 1988.

This book by various authors contains a collection of short stories inspired by Asimov's Robot Series, each with positronic robots.

Stephen Leigh et al. *Isaac Asimov's Robots and Aliens*. 1990.

Much like the last book on my wish list this book in collection of positronic robot stories written by different authors.

William F. Wu. *Isaac Asimov's Robots in Time*. 1994.

Another collection of stories using Asimov's universe, but the first one to do so after his death in 1992.

Barrington J. Baley. *Soul of a Robot*. 1974.

This is one of the few books on my wish list where I don't know the author or the series, but the focus on the "soul" or humanity of a robot is what makes me want to add this book to my collection.

Ekaterina Sedia. *The Alchemy of Stone*. 2008.

Much like Asimov used his robots to question society and concerns of consent and agency, Sedia uses her automatons to address issues in classism, sexism, and industrialization. I also notice the lack of diversity of authors in my collection, so it would be beneficial to include some women writers.

John Sladek. *The Complete Roderick*. 2001.

A more humorous book about robots, this novel uses the education of a robot to satirize Western civilization. Originally published separate stories in the 1980s, *The Complete Roderick* combines them all into one book.

Rodney Brooks. *Flesh and Machines: How Robots Will Change Us*. 2002.

This nonfiction book takes a look at robots that we already have, the development of robots, and the social and cultural impact of robots.

Isaac Asimov. *I, Asimov*. 1994.

The last item on my wishlist is Asimov's own memoir, published after his death. I always greatly enjoyed the anecdotes he told in his forwards, and I think his memoirs would be a wonderful addition to my collection.