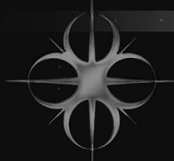
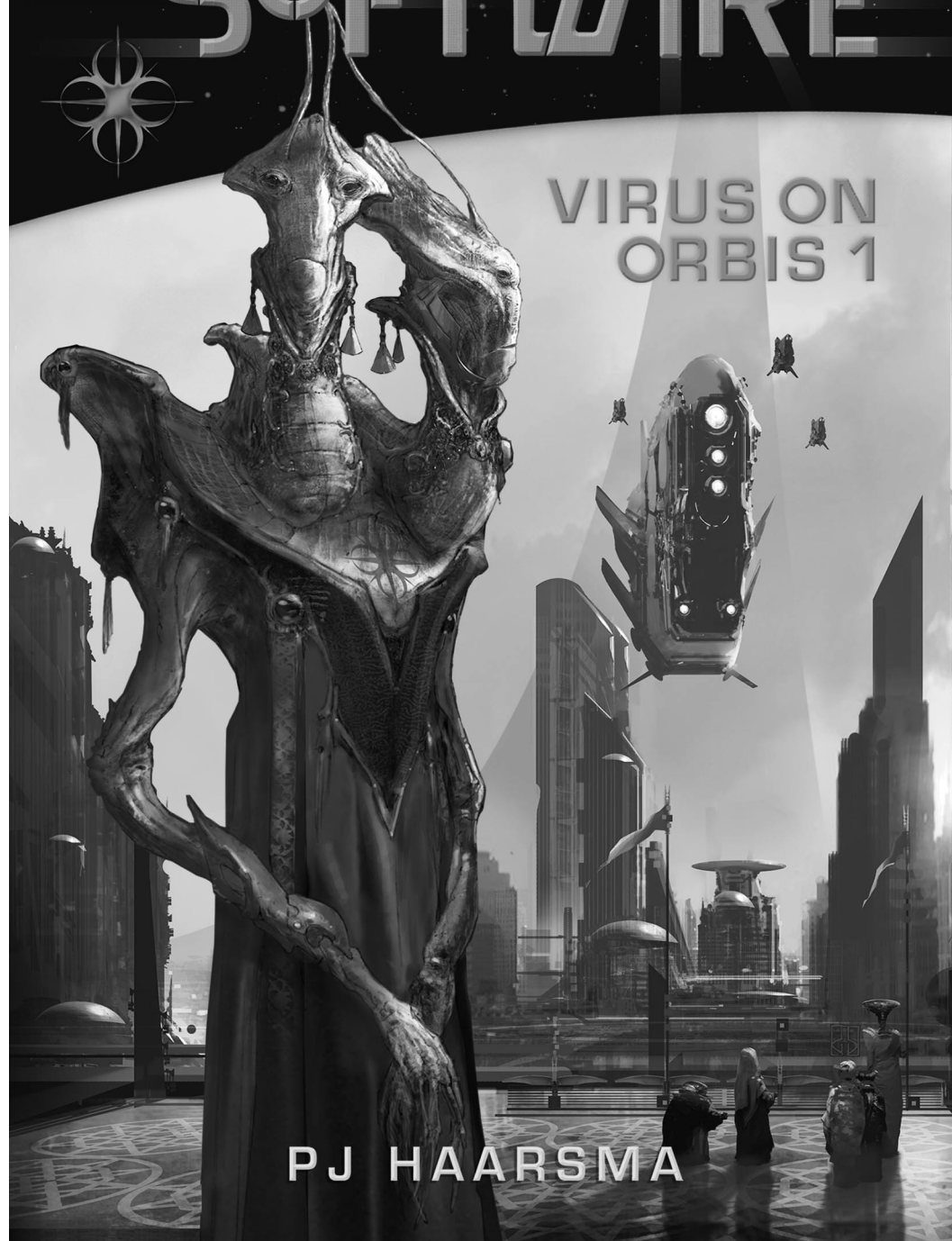


THE SOFTWARE



VIRUS ON
ORBIS 1



PJ HAARSMA

SYNOPSIS

Thirteen-year-old Johnny Turnbull and his sister, Ketheria, are two of many orphans aboard the *Renaissance*, a spacecraft sailing its way toward a legendary system called the Rings of Orbis. Set to call Orbis their new home after being raised by the onboard computer since birth, the orphans aren't sure what to expect, but they hope for a life of happiness.

To their surprise, however, their arrival brings something much different. The orphans quickly discover that they're to be slaves to their new hosts as a result of their parents' unfulfilled contractual obligations. What's more, Johnny learns that he is a softwire—the first human who can enter computers with his mind—and when Orbis's central computer begins to malfunction, Johnny becomes the target of accusations.

Now under control by a Guarantor, Johnny becomes embroiled in a power struggle between the Keepers and the Trading Council, a group that sees Johnny as a threat. As the central computer's glitches grow worse, Johnny discovers that the real cause is a virus that no one thinks exists. Can Johnny prove his innocence and fix the central computer?

After some harrowing turns of events, Johnny uncovers a sinister plot to overtake Orbis, which garners him a bitter enemy. But, with the help of friends and his remarkable talent, Johnny foils the plans and makes a surprising ally within the central computer itself.

DISCUSSION POINTS

Before reading:

1. *The Softwire* is a science fiction novel. Think about the differences and similarities between science fiction and fantasy. What are some classic science fiction novels and authors? What makes them classics? Why do certain science fiction novels have such an impact on our culture?
2. Computers and futuristic technology is virtually its own character in *The Softwire*. Consider what technological advances have been made in our world in the last ten to twenty years. What could our world look like in the future? How has technology made our lives easier and/or more complicated? Be sure to look at technological changes in your local community, at school, on a national scale, and globally.

While reading:

1. Examine the relationship between JT and Switzer. How does Switzer affect JT's life and the plot throughout the book? Do you know or have you known any "Switzers" in your life? What is the best way to handle "Switzers"?
2. In *The Softwire*, Johnny and the other children must acclimate to their new home. Think about the differences between life aboard the *Renaissance* and on Orbis. On page 104, Max says to JT, "We're all gonna find our place and it's going to be like we always lived here." What are ways in which people can be new to a place, situation, or activity? Have you ever been a newcomer and had to get used to it? What are methods to help you become accustomed and make you feel comfortable?
3. The author includes futuristic slang words in the text, including *mal* and *knud-nik*. What do those words mean? How do we know? Look at changes in language over time, especially slang. What are some slang terms we use today? What slang words have had staying power, and what words are out of style?
4. Consider the role of parents in the book. How are the children born and raised? Has any of this already happened in today's world? Think about how JT feels toward "Mother." What would be better, being raised by a computer or real parents? Could this be realistic for future kids' lives?
5. Look at JT's friendship with Max. What does he think of her? What are their similarities and differences, and why do they work well together as friends in the story? Why are friends important? Do you have friends of the opposite sex?

6. Examine the similarities and differences in culture between humans and aliens in *The Softwire*. What are some alien qualities the children have trouble getting used to? Does JT ever feel as if he's part of a community? Then think about stereotypes and first impressions. Why is learning about different cultures important? What important characters in the book are different from their first impressions?
7. Explore the definition of slavery, and then discuss the children's status on Orbis. When does Johnny realize that they are slaves? Do the orphans fit the definition of slavery? Think about instances of child slavery in our world. What are the causes of slavery? How can slavery be stopped?
8. What are ways that characters learn in the book? Do you think it's better to learn in our "slower" method, or instantly, through implanted computer chips (or, in JT's case, by uploading files with one's mind)? Has this kind of instant learning already begun to occur in our world today?
9. JT mentions his choice between two evils on page 27: "For a moment, the situation reminded me of those . . . movies, Mother called them. Someone was always being forced to do something they didn't want to do and to choose between two sides, each as bad as the other." What are instances in the book when JT must choose between two undesirable situations? Have you ever had to make such a decision? How did you know which was right?
10. On page 75, Weegin says, "Children or not, you will behave like adults." Think about the differences between childhood and adulthood in life. What are some turning points? How are JT and the other children forced to grow up in the book? Look at specific examples of when the orphans make transitions and mature decisions.
11. Describe the characters of JT and Ketheria. What do we know about each of them in the beginning, and how have they changed by the end of the book? How has JT's attitude toward his mind-computer talents changed? What might be in store for Ketheria? Do your feelings about them change?
12. Madame Lee says on page 220 that it's Johnny's destiny to be a softwire. Johnny responds, "I don't believe in destiny." How does Johnny's supposed destiny affect the outcome of the book? Do you believe that people have destinies? If so, what do talent and destiny have to do with each other? If not, why is it still important to recognize our own talents?

AN INTERVIEW WITH PJ HAARSMA

- Q.** *What inspired you to write **The Softwire**? Did your photography background play a part?*
- A.** *The Softwire* came to me at a time in my life when I was searching for answers. *What am I doing? Is this it? What could make me happier?* I began journaling to work things out and hopefully fuel my creative life as a photographer/commercial director. To help me relate to JT's predicament working as a knud-nik on Orbis 1, I used my own experience working in my parents' ceramic factory as a teenager. When I was thirteen, I used to pour molds for my father in the back of the shop, where they fired the kilns. It was hot, dirty, and exhausting. I hated it. Most of my free time was spent slugging molds when I wanted to be outside with my friends. Just last Christmas, when I visited my parents in northern Ontario, I found a small picture on the wall of myself at fifteen standing next to my father. We were both wearing light blue T-shirts. His was marked *Master*, and mine was marked *Slave*. I had a lot to draw from.
- Another influence in writing *The Softwire* came from my obsession to live in the United States as a child. It's all I ever talked about. I'm a U.S. citizen now, and I wouldn't have it any other way. Living here, however, I have met many people from other countries who shared a similar dream. But here in the United States, they live and work in situations that seem minimal at best. When I discuss this with them, they speak of their home countries with such love and longing that it makes me wonder what people are sacrificing for a piece of the American Dream. I think a bit of that questioning has crept into my writing about knud-niks.
- One of the largest influences in *The Softwire* is my desire to know why we are here. What does the universe have in store for humans? I try to answer that question by the end of book four. In fact, all the other books lead up to that answer, but you'll have to wait for the final book to find out what it is.
- As for the influence of photography, I really can't find any. Many people have said the book is very visual, and that may come from looking through a camera lens for so many years.
- Q.** ***The Softwire** is filled with such fascinating futuristic technology, such as the way in which the children were born and raised. What are your feelings about the direction that today's technology and genetic engineering advancements are going?*
- A.** We need to be open to new technology and new ways of doing things; in fact it's the only way we are going to survive. There is an undercurrent to demonize science and technology in today's culture, and that is far more frightening to me than any technology I use in *The Softwire*. We tend to fear what we do not know

and then try to kill it. Science is not bad, but bad science is not good for us either. The very root of scientific experimentation offers anyone the chance to disprove any theory through empirical investigation. I believe it's the responsibility of every person on this planet to educate him- or herself as best as possible to understand what science has to offer, then carefully examine all the evidence before blindly abandoning it because he or she listened to some salacious media outlet or money-grubbing zealots.

Q. *One of the themes in **The Softwire** is being different and trying to fit in. Can you explain how JT and the children run into this on Orbis? Why is this important for readers to think about?*

A. JT is singled out and ridiculed on the *Renaissance* before they even arrive on Orbis. He can hold conversations with Mother, and the other kids make fun of him for this claim. But on Orbis, all of the children get a taste of being different, because they are humans and they are labeled knud-niks. At first JT might have even felt relieved that he shared this common bond with the other kids, but it's quickly discovered that JT is a softwire. Once again he is branded different and held apart from everyone else.

One mistake I think we've made as humans is to force ourselves to believe that everyone is the same. We're not. Just look around. Telling us to ignore the differences is simply impossible; in fact, it's unnatural. Our brain stores any question we do not have the answer for. We tuck the question away unconsciously until an answer surfaces. If we don't find that answer and the question persists, we will make it up, and quite often the answer is wrong. I believe we need to examine our differences—hold them up for examination and celebrate them, not make fun of them or denigrate them. As a kid in school, if I didn't cut my hair the same way, wear the same jeans or a T-shirt from an allowable selection, I was picked on. I feel that attitude is learned from adults who know nothing about the other cultures on this earth and make snap judgments about people based on how they look, or talk, or dress. Can you even imagine what it's going to be like if we start running into different aliens? I shudder at the thought.

Q. *Who in **The Softwire** is your favorite character, and why? Who was the most fun to write?*

A. I'm a big fan of the Trefaldoors and Boohral. I've written a lengthy back story on his race and a civil war between the Trefaldoors and the slopcrawlers who live inside them. In fact, I'm considering doing a graphic novel about the conflict. I love that Trefaldoors can't lie. To them that is the ultimate sin. I like that—a lot. I often wonder what our world would be like if we took lying as seriously as some of the other things we put so much emphasis on.

OTHER BOOKS TO COMPARE AND CONTRAST

• *Ender's Game* by Orson Scott Card (Tor, 1985)

Mankind creates a group of genius children to defeat its impending elimination by warfaring, insectlike “buggers.”

• *Feed* by M. T. Anderson (Candlewick, 2002)

This award-winning book follows Titus, a typical teen whose implanted computer chip is shut down for a short time by an anti-chip hacker. Will his life ever be the same?

• *The House of the Scorpion* by Nancy Farmer (Atheneum, 2002)

A young clone struggles to find his place and gain acceptance in this thriller set on fictional drug farms located between the U.S. and Mexico. Winner of the National Book Award for Young People's Literature.

• *The Martian Chronicles* by Ray Bradbury (William Morrow, 1997; originally published 1946)

Written during the 1940s, this classic short-story collection about the colonization of Mars combines nostalgic imagery and a startling, futuristic setting.

• *Maximum Ride: The Angel Experiment* by James Patterson (Little, Brown, 2005)

When their youngest group member is kidnapped by wolflike Erasers, a clan of genetically engineered bird-humans sets out to rescue her.

• *Uglies* by Scott Westerfeld (Simon Pulse, 2005)

As a resident of Uglyville, when Tally turns sixteen, she will get the operation that will turn her from ugly to beautiful. But when Tally's friend decides to run away instead of getting the operation, Tally sees a different side to the pretty world.

WEBSITES

More on *The Softwire*:

www.ringsoforbis.com

On Space:

National Aeronautics and Space Administration (NASA)—www.nasa.gov

The SETI Institute—www.seti.org

On the Human Body and Technology:

Innovation, Life Inspired (PBS)—www.pbs.org/wnet/innovation/

On Children's Rights and Child Slavery:

UNICEF: Convention on the Rights of the Child—www.unicef.org/crc/

AUTHOR BIOGRAPHY



PJ HAARSMA was born and raised outside Toronto, Canada, and moved to the United States in 1989, splitting his time between New York City and Miami as a fashion and commercial photographer. During this time, he garnered hundreds of photography awards, including an honorable mention at the Cannes Lion Awards. After producing an independent film in 2000, PJ tried his hand at “advertainment” but soon realized that his heart wasn’t in it. He began writing and hasn’t stopped since.

Growing up, PJ was a horror fan, often buying horror magazines with short stories and hiding them because he “was afraid the monsters would get out.” Time travel was another genre he enjoyed: “I don’t know why: I think I just liked dreaming about what could be. I didn’t particularly enjoy my childhood, and I always remember wanting to be grown up or somewhere else.”

Now, in his free time, PJ loves working creatively with computers—he owns seven of them and works on at least four every day. PJ is also a self-proclaimed “science nut,” making sure to read *New Scientist* magazine before anything else.

He lives in Los Angeles with his wife, Marisa, and their daughter, Skylar. *The Softwire* is his first book.

The Softwire is available wherever books are sold and through educational distributors nationwide.

Discussion Guide written by Matthew Warner, bookseller and freelance writer

Front cover illustration copyright © 2006 by Stephan Martinieri

This discussion guide contains website addresses to third-party sites for informational purposes. These sites are provided solely as a convenience to you, and the inclusion of any such site does not imply endorsement by Candlewick Press, Inc., of such third-party sites or the contents thereof. Candlewick Press, Inc., is not responsible for the contents of the referenced third-party sites and makes no representations or warranties, express or implied, regarding the contents, accuracy, or functionality of the third-party sites. If you use the third-party sites, you do so at your own risk.

www.candlewick.com



CANDLEWICK PRESS