The Borderland of Sol Short Guide

The Borderland of Sol by Larry Niven

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Overview

In "The Borderland of Sol," from the collection Tales of Known Space, Beowulf Shaeffer finds himself marooned on Jinx, a bizarre egg-shaped planet with an ocean around its middle. He wants to go to earth, where his wife and children await him.

Spaceships have been disappearing for no discernable reason when entering or leaving the solar system, and therefore all flights to earth have been suspended. Beowulf's one hope lies with a "freighter" that is actually a disguised warship belonging to Sigmund Ausfaller, a government agent who had previously tried to blow up Beowulf. This history makes for a tense relationship that becomes even more complex with the addition of Carlos Wu, the biological father of Beowulf's children. These three men embark on a perilous journey, facing hyperspace monsters, space pirates, uncharted black holes, or worse as they try to uncover the reason ships are disappearing—and Beowulf tries to go home.



About the Author

Laurence Van Cott Niven (Larry Niven) was born in Los Angeles on April 30, 1938, to a lawyer, Waldemar Van Cott Niven and Lucy Estelle (nee Doheny) Niven. He was educated near Beverly Hills and went to California Institute of Technology, from 1956 to 1958. He says that after he discovered a bookstore full of used science fiction magazines, he flunked out of college. He later finished his degree in mathematics at Washburn University in Topeka in 1962.

After attending graduate school from 1962 to 1963 at UCLA, he lived off of a trust fund set up by his great-grandfather while he worked at becoming a professional writer, selling his first story "The Coldest Place" to Worlds of If, then one of the leading science fiction magazines. He later redid a science fiction story into his first novel, World of Ptavvs, published in 1966.

Niven married Marilyn Joyce Wisowaty on September 6, 1969. By this time, his work was already the subject of much discussion.

In an era in which soft science fiction (speculations of social changes or outright fantasies imitating The Lord of the Rings but set on alien planets) seemed to be subsuming hard science fiction (speculations emphasizing technological developments and their effects on people), Niven was writing popular, much-admired works in which technology was a powerful, beneficial force for humanity. He is sometimes credited with keeping hard science fiction respectable during the 1970s and with laying the foundations for new writers about technology such as Tom Clancy and Greg Bear, who emerged in the late 1970s and in the 1980s.

Niven is aware of the appeal much of his work has for young people. In N-Space, he suggests that in stories such as "All the Myriad Ways," and in works by such writers as Keith Laumer, Poul Anderson, and Fritz Leiber, it is "the dance of ideas that hooks us before our teens." As with many other writers of science fiction, the phrase "What if" sparks his imagination, and the ideas stirred up form the basis of tales that appeal mightily to young adults and captivate grownups, as well.

Niven has won several awards for his fiction. "The Borderland of Sol" received the 1976 Hugo award for best novelette.

The Hugo award is chosen annually by a vote of the attendees of the World Science Fiction Convention. Many, probably most, of the attendees are young adults, and thus the awards frequently reflect their favorite works.



Setting

The major events in "The Borderland of Sol" take place in the outer reaches of the solar system. In the era of "The Borderland of Sol," a "major singularity," meaning black hole, has been discovered orbiting the sun, and the people of that time count twelve planets around the sun. "And not including Pluto?" asks Beowulf. "No, we think of Pluto as a loose moon of Neptune," replies Carlos. "It runs Neptune, Persephone, Caina, Antenora, Ptolemea, in order of distance from the sun. And the orbits aren't flat to the plane of the system. Persephone is tilted at a hundred and twenty degrees to the plane of the system, and retrograde." In these cold outer reaches, or borderland, of the solar system, spaceships have been mysteriously disappearing without a trace.

Beowulf and his compatriots journey to a large asteroid that is riddled with corridors left by miners, where they discover a sinister scheme.



Social Sensitivity

"The Borderland of Sol" presents a future Earth whose government regulates who may be parents and how many children they may have. The idea is to reproduce strong genes as much as possible in a population with too many of what are perceived to be genetic defects. Carlos Wu is a genius whose genes are considered desirable for reproduction; thus he has a license for unlimited reproduction, meaning that he may father as many children as he wishes. He and others like him are much in demand.

Beowulf Shaeffer is grateful that Carlos has fathered two children for Shaeffer and his wife to raise as if they were their own. This vision of a future in which human reproduction is controlled is somewhat unsettling, and government control of people's reproductive lives is presently a hotly debated topic. In "The Borderland of Sol," the issue is not debated. It is treated as a fact of life in a future culture with attitudes very different from our own.



Literary Qualities

Niven uses an edgy banter among his main characters to lighten his novelette's tone. For example, after Sigmund has provided Beowulf and Carlos with some James Bond-like gadgets (including buttons with, as Sigmund explains, a "Sinclair molecule chain," strung between them— "It will cut through any normal matter, if you pull hard enough"), Carlos asks Beowulf: "Have you thought of anyone you'd like to use that magicwire on?"

"I've been making a list. You're at the top."

"Well, watch it. Sigmund knows you've got it, even if nobody else does."

"He's second."

The humor helps ease the effect passages explaining the science of the novelette can have on the pace of the narrative. In this case, the banter sets up an explanation of black holes: The theory of the black hole wasn't new to me, though the math was over my head. If a star is massive enough, then after it has burned its nuclear fuel and started to cool, no possible internal force can hold it from collapsing inward past its own Swartzchild radius. At that point the escape velocity from the star becomes greater than light speed: and beyond that deponent sayeth not, because nothing can leave the star, not information, not matter, not radiation.

Nothing—except gravity.

The humorous banter has kept the narrative moving at a swift pace before this expository passage, and the passage itself is constructed so that the key detail, the gravity, is highlighted at the end. Further, the passage shows that Niven sees his audience as larger than just people who are scientifically inclined: he offers information for those who are unacquainted with physics and astronomy. The suspenseful adventure, the interesting characters, and the careful explanations make learning the novelette's scientific concepts painless, even fun.

The craftsmanship of "The Borderland of Sol" is marvelous, with each detail serving a purpose in the plot. Sometimes the detail seems trivial at first—just a bit of added characterization, such as Beowulf's unusual limberness stemming from his having been raised on a low gravity world. He can reach his feet up to his mouth. This fact pops up again later as a key to Carlos's and his escape. The big elements of the novelette also fit together, making the work a satisfying whole. For instance, the careful description of Jinx early in "The Borderland of Sol" serves to create a sense of place and situation for Beowulf. Certainly a world on which he can only move with a mechanical chair would not appeal to him, making him all the more eager to leave it and head for earth. Yet, the description of Jinx and its environs turns out to mean more when Julian Forward, a Jinxian, appears. It turns out that Jinx is a source of motivation for him, as well as for Beowulf.



Themes and Characters

"I am an albino," Beowulf Shaeffer, the narrator of the novelette, says of himself.

"An underground civilization and point six gravities have made of me a pale stickfigure of a man, tall and attenuated," he says. He does not look much like a daring adventurer, and he does not think of himself as one. He just does what he thinks he must. In the case of "The Borderland of Sol," he pilots Sigmund Ausfaller's ship as a way to get to earth to be with his wife and children. He is an entertaining narrator, focusing on the action and speaking with a dry, understated wit, as when Julian Forward asks: "Shaeffer, what does a professional pilot think when his hyperdrive motor disappears?" Replies Beowulf, "He gets very upset."

Beowulf is also very good at explaining why some possible solutions to the mystery of the disappearing ships are significant, and even why some are rejected: "I'd never believed pirates. Space pirates have existed, but they died without successors.

Intercepting a spacecraft was too difficult.

They couldn't make it pay."

Beowulf meets his first companion for the adventure while on Jinx, a man from earth, Carlos Wu. "A dark, slender man with narrow shoulders and straight black hair, Carlos was as lithe as a monkey in any normal gravity; but on Jinx he used a travel couch exactly like mine," Beowulf says.

Later the effect of the gravity of Jinx has on people will be used to contrast Julian Forward with Carlos and his companions.

Niven wastes nothing in "The Borderland of Sol."

Carlos has genes that are considered very valuable on earth, and he has been given a license to father as many children as he wishes, a privilege denied to Beowulf, and possibly Sigmund, too. Carlos has, in fact, fathered Beowulf's children and is embarrassed about it—something Beowulf notices but does not fully understand because he, like many others, is entirely grateful to Carlos for giving him the children that would otherwise be denied him. Carlos's discomfort gives an edge to his conversations with Beowulf that underlines much of the humor of the banter between them. Carlos is also the source of much of the scientific information in "The Borderland of Sol."

Beowulf admits to having ordinary intelligence, making him an audience for Carlos's explanations and thereby enabling Carlos to tell readers the information they need to understand the plot.

The character without whom nothing happens is Sigmund Ausfaller: "This ship belongs to a government man.



Ever heard of a Sigmund Ausfaller?"

"That sounds vaguely .. . Wait! Stop! The last time I saw Sigmund Ausfaller, he had just put a bomb aboard my ship!"

Carlos blinked at me. "You're kidding.

"I'm not."

"Sigmund Ausfaller is in the Bureau of Alien Affairs. Bombing spacecraft isn't one of his functions."

"Maybe he was off duty," I said viciously.

Sigmund does seem to be more than he appears to be. When he describes his ship, it, too, is more than it appears: "The Hobo Kelly is deceptive. It seems to be a cargo and passenger ship, but it is a warship, armed and capable of thirty gees acceleration," he declares. When Beowulf jettisons the ship's outer covering, which makes it appear to be a freighter, the ship is revealed to be sleek and heavily armed. Sigmund's own outer pudginess, like that of the Hobo Kelly, belies what resides within. When Beowulf gets a look at some of Sigmund's personal weaponry, he admits that his first impression of him was wrong: "This man [Sigmund] did not have the soul of a pudgy bureaucrat."

It is Sigmund who is determined to find out why the ships in the outer solar system have been vanishing, and it is he who takes on Beowulf as a skilled pilot whose experience could be very helpful if the Hobo Kelly is attacked. He also has a very practical nature. He says he had put a bomb on Beowulf's ship in order to prevent Beowulf from flying off with it, figuring that Beowulf would discover the bomb and stay away from the ship. That Beowulf might be angry with him does not seem to bother him. He is focused on his current mission.

A novelette with talk of hyperspace, shipeating monsters, and space pirates could use a good mad scientist, and Niven provides one in Julian Forward: "Julian Forward was a Jinxian, short and wide, with arms as thick as legs and legs as thick as pillars. His skin was almost as black as his hair: a Sirius suntan, probably maintained by sunlights." With Forward, Niven ties together elements introduced at the start of "The Borderland of Sol." The descriptions of Jinx at the beginning pay off in the form of Forward and in his motives for harnessing a quantum singularity, a small black hole created at the start of the universe.

Forward cleverly draws out of Carlos enough information to learn what he and Beowulf are probably up to. Then follows the traditional victims-tied-to-a-pillar-so-villain-explains-everything routine. This cliche seems not to bother anyone who reads the novelette, perhaps because the idea of using a small black hole to capture spaceships is such a strong idea, and perhaps because the characterization in the novelette is deep enough that Forward's bragging is in character. He is a scientist who wants to be appreciated for his achievement. This characteristic also provides his motivation for giving oxygen to his escaping prisoners just before he is swallowed up.



Topics for Discussion

- 1. Is how Forward has made the quantum singularity moveable clear? What questions do you have about it?
- 2. Why does Beowulf suggest hyperspace monsters feeding on ships as an answer for why ships are disappearing?
- 3. Why does Beowulf agree to pilot the ship of someone who planted a bomb on one of his ships?
- 4. Why is Carlos allowed to breed without restrictions, while Beowulf is not allowed to breed?
- 5. What is Sigmund Ausfaller's job? What are his duties?
- 6. Does the humor in the novelette enhance it or distract from the plot?
- 7. How do Sigmund's looks contradict the sort of person he really is? Why would he not be like what Beowulf would expect?
- 8. How well does the novelette help you to visualize the characters? What details best help you? Are there any details missing?
- 9. In "The Borderland of Sol," what are 4. What is superconductivity? What applications would it have for transferring power?
- 5. Why do some astronomers think that there are more planets around our sun that have yet to be discovered? What evidence do they have to support the existence of more planets?
- 6. Who invented the term hyperspace? Why was the concept of hyperspace invented?

How have writers used the concept?

7. What are the other stories about Beowulf Shaeffer? Is he always getting into tough situations the way he does in "The Borderland of Sol"? Why would Niven write so much about one character in his Tales of Known Space?

collapsars? Why are they called collapsars?

8.

10. How well developed is the character of Julian Forward? Is he just a stereotypical villain, or is he more?



11. Which are more important to the success of "The Borderland of Sol," the scientific ideas or the characters?



Ideas for Reports and Papers

1. The kind of black hole referred to in "The Borderland of Sol" is a quantum black hole, a special kind of black hole.

What do physicists say a quantum black hole is? Where do they come from?

Could it be handled the way it is in "The Borderland of Sol"?

- 2. What is eugenics? Why is it a very controversial topic? How does it affect the relationship between Shaeffer and Wu?
- 3. Beowulf Shaeffer is an albino. What is an albino? Why are some human beings born albinos? Why is Beowulf an albino?

Niven uses a great deal of foreshadowing to help unify "The Borderland of Sol." Identify all the instances of foreshadowing and explain where they later influence events.

- 9. How does Niven try to make "The Borderland of Sol" appealing to people who are not scientifically oriented?
- 10. Would people raised on low-gravity worlds actually end up being tall like Beowulf? Would people raised on highgravity worlds end up being thick and short like Forward? What do scientists say about this?



For Further Reference

Bernardo, Anthony. "Larry Niven."

Beacham's Encyclopedia of Popular Fiction: Biography Series. Volume 2. Ed. Kirk H. Beetz. Osprey, FL: Beacham Publishing, 1996, pp. 1355-58. Bernardo presents an account of Niven's life and career, as well as primary and secondary bibliographies.

Clute, John. "Niven, Larry." The Encyclopedia of Science Fiction. Ed. John Clute and Peter Nicholls, et al. New York: St. Martin's Griffin, 1993, pp. 873-75. Discusses Niven as an important exponent of hard science fiction.

Hartmann, William K. "A What-If World Comes to Life in Los Angeles." Smithsonian 12 (March 1982): 86â□□94. Niven, artists, and scientists jointly create an imaginary but scientifically possible world.

Of interest for its insights into Niven's creative methods.

Jonas, Gerald. New York Times Book Review (October 26, 1975): 49. After suggesting that "hard science" science fiction is stupid, Jonas places Niven's Tales of Known Space in the middle of it.

Niven, Larry. "The Words in Science Fiction." The Craft of Science Fiction. Ed.

Reginald Bretnor. New York: Harper and Row, 1976, pp. 178-94. Niven often invents slang for his futuristic characters to use; here he explains how he uses invented words. His invented terminology (for example stasis field) has had a broad influence on literature, making this article especially interesting.

Platt, Charles. "Larry Niven." Dream Makers: Volume II. New York: Berkley Books, 1983, pp. 15-24. Platt provides some biographical background on Niven and in an interview with Niven discusses his development as a writer and his view of the status of science fiction as literature.

Stein, Kevin. The Guide to Larry Niven's Ringworld. Riverdale, NY: Baen (Paramount), 1994. A dictionary of the elements, such as characters and places, of Niven's Ringworld fiction.



Related Titles

The stories about Beowulf Shaeffer are part of Niven's Tales of Known Space, a vast series of stories and novels that tell of humanity's expansion into the galaxy. The stories of Beowulf Shaeffer take place during the early period of contact with the mysterious, and very cowardly, Puppeteers. One of Niven's most popular stories, "Neutron Star," involves the Puppeteers blackmailing Shaeffer into uncovering what is killing crews near a neutron star. Each of Shaeffer's adventures is humorous, each usually has a scientific concept at its center, and each involves reluctant derring-do by Shaeffer. As "The Borderland of Sol" indicates, in the time of Beowulf Shaeffer, humanity has colonized only a small number of worlds but has already defeated the Kzin in war.



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Beacham's Encyclopedia of Popular Fiction

Editor Kirk H. Beetz, Ph.D.

Cover Design Amanda Mott

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Library of Congress Cataloging-in-Publication Data Beacham's Encyclopedia of Popular Fiction

Includes bibliographical references and index

Summary: A multi-volume compilation of analytical essays on and study activities for the works of authors of popular fiction. Includes biography data, publishing history, and resources for the author of each analyzed work.

ISBN 0-933833-41-5 (Volumes 1-3, Biography Series) ISBN 0-933833-42-3 (Volumes 1-8, Analyses Series) ISBN 0-933833-38-5 (Entire set, 11 volumes)

1. Popular literature ☐ Bio-bibliography. 2. Fiction ☐ 19th century ☐ Bio-bibliography. 3. Fiction ☐ 20th century ☐ Bio-bibliography. I. Beetz, Kirk H., 1952-

Z6514.P7B43 1996[PN56.P55]809.3 dc20 96-20771 CIP

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Printed in the United States of America First Printing, November 1996