The Outsider

Across the universe

For Von Bruenchenhein, architecture and nature help bring order to the chaos Traveling man

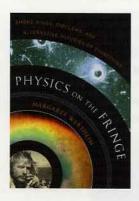
A fascination with flight fueled the colorful airships of Charles A.A. Dellschau Doubleheader

Intuit teams up with LUMA to present artists' depictions of heaven and hell



PHYSICS ON THE FRINGE: SMOKE RINGS, CIRCLONS, AND ALTERNATIVE THEORIES OF EVERYTHING

By Margaret Wertheim, Walker & Company, 336 pages, 16page color insert, 2011. ISBN: 978-802715135 (hardcover)



Physics on the Fringe is a compelling study of independent theorist-seekers who challenge the gates of official science with impassioned theories exploring the structure and nature of the universe. The book chronicles the results of author Margaret Wertheim's 15 years of collecting works by uncredentialed physicists. Rescuing them would be more apt, as many of the works were orphaned, having been sent to and summarily discarded by universities and

research facilities. Among these, she became particularly interested in The Other Theory of Physics, self-published by Jim Carter, a kind of Renaissance outsider physicist in Enumclaw, Washington. Wertheim befriended Carter in 1993, and has followed the elliptical arc of his independent career ever since. Carter's inexhaustible attempts to test and prove his own theories of physics take him into enviable zones of sheer tenacity and belief that few of us could hope to achieve. Carter rejects the existence of gravity as we know it, replacing it with the hypothesis that the universe operates according to a principle of continually expanding matter. This throws a spin on the clichéd jacket blurb "couldn't put it down," since, according to Carter, your hands would be pushing themselves up into the book. Wertheim unfolds a fascinating chronicle of such "down the rabbit hole" thinking, but far from taking the ironic high ground, the tone is respectful and sympathetic. Wertheim shadowed Carter's path for many years, and has gathered, archived and carefully considered many other "outsider" theorists. resulting in a deeply humanistic study that celebrates the independent investigations of historical and contemporary selfmade scientists. She validates their integrity, and the collective yearning for a more accessible language with which to elucidate what makes the universe whirl, tick or continually expand, on a fundamental, physical level. Wertheim's isn't the first such collection. She follows in the footsteps of the 19th Century's Augustus De Morgan, whose extensive collection of alternative scientific theories. was published posthumously in the book A Budget of Paradoxes. This provides an important historical backdrop, and a welcome overview of the evolution of physics and mathematics is woven throughout the study for the science/mathchallenged who need a brush-up.

Book and Movie Reviews (continued)

In Physics on the Fringe, Wertheim examines the central question, whose theories are sublime and whose are ridiculous? from a fresh perspective, recalibrating the "insider/outsider" paradigm in the process. For readers of The Outsider, the outsider theorists in this study are analogous to artists working on the fringes of or beyond the academic mainstream. Thankfully Wertheim addresses this parallel near the end of the book. She asks, "What happens to the republic of culture if only people with MFAs, at roughly a cost of \$50,000 per degree, can hope to get published in major magazines or exhibited in major museums? One thing certain is that culture does not cease outside the academic sphere, and lots of people with no qualifications will carry on writing and making art despite being ignored by the mainstream." She cites artists such as Ramírez, Wölfli, Darger and others whose works take us to places that official culture can't teach or even accurately define. She brushes on the subject lightly and I hope she develops this into a sequel, examining Emery Blagdon's Healing Machine, James Tilly Matthews' Air Loom and a host of other artists whose works imagine, diagram or otherwise express scientific theories and cosmological convictions in ineluctably original ways. It's interesting to learn that the corollary between outsider physicists and artists diverges in one significant aspect. Where artists working beyond the mainstream for the most part don't direct their work or energies to the centrist mainstream-if they're even aware of it-physicists on the fringe have created an alternative professional universe, complete with websites, conferences and peer reviewers, and they continue to storm the gates of official science.

Wertheim isn't your ordinary science writer. As founder and director of The Institute for Figuring (www.theiff.org), "an organization dedicated to the poetic and aesthetic dimensions of science, mathematics and the technical arts," she's also deeply involved in the visual arts—especially the unofficial visual arts—and is a great believer in blurring the line between art and science, viewing inspired examples of both as thoughtful ways of exploring the magic in the workings of the universe. Wertheim and her sister Christine's major project, the Hyperbolic Crochet Coral Reef, "an ongoing celebration of geometry, handicraft and marine biology," has traveled the world in a succession of installations of impassioned, collaborative DIY crochet work-what some might consider "craft abuse," but many appreciate as a gorgeous, contemporary expression of fancy work taking on environmental Armageddon.

- LISA STONE