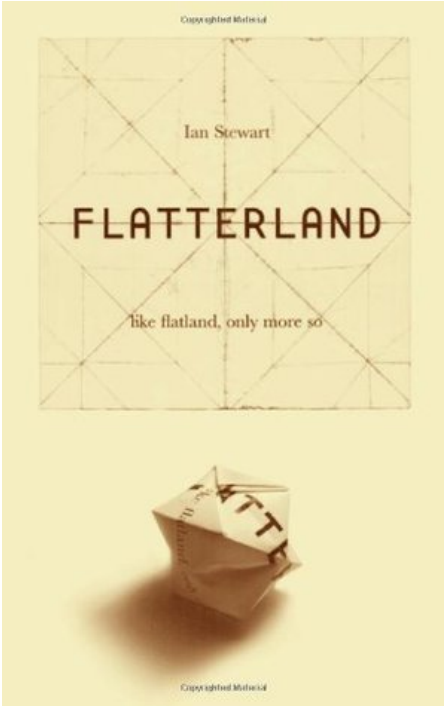

Flatterland: Like Flatland Only More So

Ian Stewart

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Flatterland: Like Flatland Only More So Ian Stewart
First there was Edwin A. Abbott's remarkable Flatland, published in 1884, and one of the all-time classics of popular mathematics. Now, from mathematician and accomplished science writer Ian Stewart, comes what Nature calls "a superb sequel." Through larger-than-life characters and an inspired story line, Flatterland explores our present understanding of the shape and origins of the universe, the nature of space, time, and matter, as well as modern geometries and their applications. The journey begins when our heroine, Victoria Line, comes upon her great-great-grandfather A. Square's diary, hidden in the attic. The writings help her to contact the Space Hopper, who tempts her away from her home and family in Flatland and becomes her guide and mentor through ten dimensions. In the tradition of Alice in Wonderland and The Phantom Toll Booth, this magnificent investigation into the nature of reality is destined to become a modern classic.

Flatterland: Like Flatland Only More So Details

Date	:	Published April 18th 2002 by Basic Books (first published 2001)
ISBN	:	9780738206752
Author	:	Ian Stewart
Format	:	Paperback 320 pages
Genre	:	Science, Mathematics, Nonfiction, Philosophy, Physics, Abandoned, Literature, Speculative Fiction, Humor, Popular Science

From Reader Review Flatterland: Like Flatland Only More So for online ebook

Zana says

I used Flatland and the first few chapters of this book when I taught Calculus. :)

The first half of this book was 4 stars, no question. About the time it got into the theory of general relativity, it started zipping along way too fast and lost the storyline. The fun mathematical playfulness turned into an infodump with reeeeeallly bad math jokes. Really, really bad math jokes. Indescribably bad math jokes.

That said, I loved the first half. The book suffered for having been written almost 12 years ago, and some of the science and a little of the math has changed since then. I'd love to see this updated...

Let's be honest, some of the second half didn't work for me because I was 1) reading it while waiting in the park for a date to show up and being progressively annoyed when he didn't and 2) reading it on the Metro as it inched along because there'd been an earthquake and I *needed* to be home by 10:30 and surely an hour and a half was enough to go 7 measely stops?? So I was a bit distracted

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Kelvin says

I had this one week a while back where I was super into math and science related books and that’s how I stumbled upon Flatterland. I’ve read some of Stewart’s other books and I appreciated how he could make complex math topics more accessible. Flatterland is no different. I’m good at picking up math concepts pretty quickly but some of the topics in this book had me confused the first time I read about them. However, when I read about them in Flatterland, they made much more sense. This, above all, is Stewart’s forte: the ability to make higher math interesting and easy to understand.

Flatterland, like the name suggests, is set in the same world as Edwin Abbot’s Flatland, albeit a century later. We are taken on a tour of the mathverse and all of it’s dimensions with the main character, Victoria-line, who happens to be the great great granddaughter of A-square, the main character of flatland, and a creature called the space-hopper. (view spoiler) The space-hopper has the ability to travel across all of mathverse without any difficulty and lends a hand to Vikki in helping her to see other worlds as well.

I liked how the book was organized like a tour of a safari or a museum and each chapter was another exhibit. This made Flatterland easy to read while still being incredibly informative. But by the 8th chapter or so, the format was starting to feel repetitive since we were just kind of hopping from world to world. I liked that in each world, the characters we met had so much personality and often times had real world counterparts, e.g. Space girls/Spice Girls, the doughmouse and company/doormouse and mad hatter from Alice in wonderland. However, I didn’t like how Vikki loses her sense of 2-dimensionality. By that I mean that for the first couple of chapters she has a lot of difficulty comprehending phenomenon unique to higher dimensions and the space-hopper explains it accordingly, but by the end she doesn’t really have any more comprehension issues and I couldn’t even tell that she was from flatland anymore… I’m not exactly sure if this is intentional, i.e. it is showing that she is a quick learner, or if it is just laziness on Stewart’s part not wanting to explain things so mundane to us but that wouldn’t be to Vikki. This doesn’t really change the comprehensibility of the math since we already understand the things about three dimensions.

And even though we get a very large sampling of mathematical topics, there is a nice flow from chapter to chapter where the current dimension can describe something that couldn’t be described by the last one or was a step up, e.g. upgrading from three dimensions to n dimensions. All of the basic info about the topic in each chapter is there and it was nice that there were “sample problems” that space-hopper would ask and then Vikki would answer, e.g. determining the dimension of a new fractal or determining the signs of living on a torus. And even if I had to reread the section to answer the question, it wasn’t because Stewart’s writing was unclear; it was always that I couldn’t wrap my mind around the concept. The explanations start out succinct in the first couple of chapters but by the time we get to relativity and whatnot, the chapters start to feel a bit endless and space-hopper’s appeal starts to wear off. Still, on the whole the math is nicely incorporated into the story and easily understood.

Okay, so about Flatterland’s story (not the math part): it could have used some help. Like why doesn't her family freak out more about her disappearing? Seriously, your daughter just poofed and was gone and you remain adamant in the belief that she somehow ran away by oh I don’t know punching a hole in the wall? And even at the end, her parents aren’t as emotional as I expected they would be. On the other hand though, there was a nice emphasis on gender equality; it felt forced and way too insistent at times but I get that Stewart was making a point that we have changed since the day when Flatland was published (though even in Flatland, the sexism was being ridiculed).

Overall, all of my complaints about this book basically boil down to the fact that it seems too long and in the final chapters, I just want to speed it up and get to the ending already. However, if you are interested in learning more about dimensionality in math and can stay hooked on the book till the end, I’m sure this will be an amazing read.

Andrew Breslin says

This was entertaining and educational, but it wasn't really a work of fiction. It was a long parable illustrating fascinating ideas about geometry. Very well-written and thought provoking, but there was no actual story.

I've always loved Kurt Vonnegut's succinct and brilliant advice to would-be crafters of fiction: "All your characters must want something, even if it's only a glass of water." The characters here don't want much of anything, other than to be used as tools by the author to illustrate mathematical ideas. And they get what they wish without having to even try.

The characters didn't desire something and face obstacles to the realization of their respective desiderata, with the level of tension steadily increasing as we the readers are swept along in the story, feeling that tension rising, observing those characters as they ultimately either succeed or fail but are, nevertheless changed in some way by their struggle. That's what fiction is all about.

Also: there are puns. But most of these British, so you might not get them. Even more disturbing: you might be British and you will get them.

I don't mean to give the impression that it's a bad book. It's a good book, if you want to learn about some fascinating aspects of modern geometry. But the story was always subservient to the math; it existed solely to illustrate the ideas. Great ideas, cleverly presented, but the story was flat and the characters two dimensional. I'm sorry about that last comment, but really, who could resist?

Paulo Glez Ogando says

In 1884 Edwin Abbott Abbott wrote an awesome classic of scientific divultation called Flatland: A Romance of Many Dimensions. This *Flatterland* is a derivative work from that. The original had a second purpose, to satirize the rigid social structure of Victorian England, with its hierarchies of status and privilege. Stewart doesn't deepen this, though he deals a bit with the status accorded to women and their emancipation in a male-oriented society.

The main character is young Vikki, Albert's great-great-granddaughter, being this Albert the protagonist in Flatland. She finds out about his book and later inprisonment, and so "calls" an entity named The Space Hopper. He is able to hop between differents spaces, and provider her with a VUE (Virtual Unreality Engine), an object which allows her to visualize the most abstract mathematical concepts.

The action occurs in 2099 (Flatand calendar), a century later of the events related in Flatland. The book is written in form a diary, with Vikki constantly addresing to her Diary to explain everything he is learning. Nevertheless, the story is a pretext to offer a serious mathematical divulgation, the true objective of the book. Stewart aims at the ideas and concepts of dimension, space and geometry.

Among others, in the book the author explains us the basics about fractals, topology, projective geometry. plane Euclidean, 3D Euclidean, nD Euclidean, transformations or hyperbolic geometry. Besides, the last chapters are devoted to physics, bury us in the nature of space, time an matter through topics like relativity, black holes or the Doppler effect.

Within all that scientific divulgation, I specially liked the IMAGER, the way to experience the so called Mathiverse: Imagination, Mathematics, Analogy, Generalization, Extrapolation and Recursion. Besides, there isn't a single formula in this book, only word explanations of all the concepts and ideas.

Stewart uses frequently in his writing a lot of puns, for example naming squarrel to a squared squirrel or quoting "2c or not 2c, that is the question"... being 'c' the speed of light.

Laurie says

Absolutely lovely book.
I learned so much at the time.
Don't know what was retained, though.

Amazon.com Review
In 1884, an amiably eccentric clergyman and literary scholar named Edwin Abbott Abbott published an odd philosophical novel called Flatland, in which he explored such things as four-dimensional mathematics and gently satirized some of the orthodoxies of his time. The book went on to be a bestseller in Victorian England, and it has remained in print ever since.
With Flatterland, Ian Stewart, an amiable professor of mathematics at the University of Warwick, updates the science of Flatland, adding literally countless dimensions to Abbott's scheme of things ("Your world has not just four dimensions," one of his characters proclaims, "but five, fifty, a million, or even an infinity of

them! And none of them need be time. Space of a hundred and one dimensions is just as real as a space of three dimensions"). Along his fictional path, Stewart touches on Feynman diagrams, superstring theory, time travel, quantum mechanics, and black holes, among many other topics. And, in Abbott's spirit, Stewart pokes fun at our own assumptions, including our quest for a Theory of Everything.

You can't help but be charmed by a book with characters named Superpaws, the Hawk King, the Projective Lion, and the Space Hopper and dotted with doggerel such as "You ain't nothin' but a hadron / nucleifyin' all the time" and "I can't get no / more momentum." And, best of all, you can learn a thing or two about modern mathematics while being roundly entertained. That's no small accomplishment, and one for which Stewart deserves applause.

David says

I have noticed people putting this on their "to read" shelves and wishlists. I hope they are not as disappointed as I was, but greatly fear that disappointment is likely, almost inevitable. For the reasons in my review below - **"Flatland" is a hilarious romp, wittily and successfully executed. This book, with its oh-so-clunky title, is most emphatically not.**

This book takes as its starting point Abbott's "Flatland", the quirky 19th century mathematical classic which imagines life in a 2-dimensional world, and deepens our intuitions about geometry by imagining how a visitor from a 3D world might be experienced by denizens of the plane. Abbott's book is hilarious, witty, unique. Ian Stewart is a mathematician with a flair for writing well, both technically (his book on Galois theory is a masterpiece of elegant writing), and for a more general audience (e.g. his recent "Letters to a Young Mathematician"). This book is a noble, but deeply flawed, effort to extend the Flatland idea to that of a 3D world, imagining how we would experience a 4th dimension. The conceit is an appealing one - you want him to succeed, but - unfortunately - the whole effort falls pretty, um, flat. The clunky title is a good indicator of the strained attempt to be clever that permeates this whole book, like desperation.

An object lesson in the folly of trying to improve on a classic, this book does nothing to burnish Professor Stewart's reputation as a writer. It should not, however, steer people away from trying some of his other work.

Anna says

Το βιβλ?ο ε?ναι εξαιρετικ? και πολ? καλογραμμ?νο. Το θ?μα ε?ναι σε ποιον απευθ?νεται: αναφ?ρεται στις διαστ?σεις, το χ?ρο, το χρ?νο, τις εναλλακτικ?ς γεωμετρ?ες... Για να το καταλ?βει κ?ποιος νομ?ζω ?τι χρει?ζεται σ?γουρα να ε?ναι τελει?φοιτος - στην αντ?στοιχη κατε?θυνση - μιας σχολ?ς που ασχολε?ται με τ?τοιες σπουδ?ς. Β?βαια θα μου πε?τε οποισδ?ποτε ?λλος γιατ? να το διαβ?σει;

Koen Crolla says

Stewart is far too pleased with his own jokes and can't write dialogue for shit, even allowing for the limits

the subject matter places on the narrative. That narrative often obscures that subject matter unnecessarily, as well; if I hadn't already been familiar with pretty much everything covered, I doubt I would have had the patience to tease meaning from his prose.
If you have more patience than I do, though, I guess *Flatterland* is a fine enough introduction to non-Euclidian geometries, the various meanings of ``dimension", and their applications to modern physics, if not feminism. If you enjoyed *Flatland*, you'll probably enjoy this sequel, at least, and that's a nice (and rare) feature for a sequel — especially a third-party sequel — to have.

Morgan says

Based off of the Book "Flatland" written by Edward A. Abbott, one of my all-time favorites, i stumbled upon this book scavenging the library. Curious, i checked it out and began to read. The main character, Victoria Line, is the great great granddaughter of the main character of the original book, Albert Square. A main difference between the two books is the obvious time-periods in which the books were written. "Flatland" was written in 1884 and the language was often difficult, but this book, having been publish in 2001, is much easier to read. It also uses many modern theories of multidimensional space only recently thought about and makes references to things such as the "Interline" (internet). Flatland was more of a reference to the era - the way people were treated and the basics of society/monarchy. Flatterland reserves much of this, but allows some progression to be shown, although not to the point where the different people are treated as equally as today.

Paul Sánchez Keighley says

Alas, a decent follow-up to Flatland: A Romance of Many Dimensions, it is not. I know I shouldn’t be comparing it to the original, I know, but I just can’t help it. Every time I picked up this book, all it did was make me feel like reading Flatland again. Flatterland presents itself as a sequel while still managing to pretty much be its own thing. And yet, it lacked that bottled-lightning quality that made Flatland timeless and unique.

Flatland wasn’t really about the math; it was an overly-elaborate way of poking fun at the rigidity of Victorian society. It was the perfect marriage of science and literature, insofar as the science (or math) was always at the service of the story. The fact that the math was solid made it all the better. In a way, it’s something like a hard mathpunk masterpiece.

In Flatterland, the comedy of manners is present, targeting late-20th-century quirks and tropes, but is quaint to the point of being harmless, a very safe nudge-nudge-wink-wink kind of humour which has little to do with Flatland’s subtle satire of Victorian mores. Then again, Flatterland's heart isn't set on social satire. What this book really comes down to is little more than a humorous exposition of abstract geometry.

The tone feels confused. Its ceaseless referring to humans as 'Peoples' (or worse, 'Planiturthians'… ugh), not separating mathematician’s names (e.g., Isaacnewton, Euclidthegreek...), and other such baffling choices all feel like the kind of thing you’d expect to find in a book intended to get kids or (oy) teenagers into math by making it look hip and cool.

And at first, the concepts explored are innocent enough. So much so that about 30 pages in I decided I was

reading a children's book and went to make myself a glass of chocolate milk. But when I picked it up again, the level of abstraction had cranked up to eleven and the characters were expounding heady theories on hyperspheres, n-dimensionality and (oh no) binary codes.
I spurted out my milk faster than you can say ‘tesseract’.

And all the while, while tackling these abstract monstrosities, the book kept employing the ludicrous goofy tone of a sex-ed video. It’s enough to make you lay the book down on your lap, stare silently into the middle-distance, and reconsider every life choice you made that lead up to your purchasing of Flatterland.

When I saw that this was neither going to be Engaging or Enlightening but merely Mildly Entertaining, I relegated it to the bathroom reading basket and it continues there still.

Richard says

I heard about this book from a friend who is a freelance proof reader. She'd read it and admitted that most of it had gone straight over her head. However she did recommend it highly.

I picked up a copy at the same time as Flatland and read the two books one after the other.

Whereas the first book was about a flat being being shown life in three dimensions, Flatterland shows the adventures of a person being taken into a world of many non-euclidian dimensions. The space it talks about is often well understood by mathematicians, but because they bear no resemblance to normal space they are completely mysterious to the uninitiated. And they have strange properties! A flat plane where parallel lines converge (despite the definition of a pair of parallel lines is that they don't do that!) and a myriad of other oddities.

In reality the stories told in this book are not as striking as those of Flatland. This is at least in part because as people in a three dimensional universe we understand almost instinctively the nature of that reality. That means we understand the original story more strongly than those strange worlds that this book talks of. But it is still a magnificent book, and the ideal thought provoker for those interested in geometry and maths.

MTK says

Η "συν?χεια" του "Flatland", μιας βικτοριαν?ς νουβ?λας με μαθηματικ? περιεχ?μενο. Το αρχικ? βιβλ?ο ?ταν εξαιρετικ?, αλλ? βοηθο?σε το μικρ? του μ?γεθος και οι πιο απλ?ς μαθηματικ?ς ?ννοιες με τις οπο?ες καταπιαν?ταν. Η συν?χεια ε?ναι αρκετ? κουραστικ? στην αν?γνωση και προσωπικ? κ?που με ?χασε (ομολογ? ?τι δεν ?χω ιδια?τερη σχ?ση με τις θετικ?ς επιστ?μες).

Maurizio Codogno says

Non so quanti di voi abbiano letto Flatland, il testo scritto da Edwin Abbott alla fine del XIX secolo che con la scusa di raccontare la storia di una figura bidimensionale che scopre le meraviglie del mondo a tre dimensioni fa una feroce satira dell'epoca vittoriana. Ian Stewart riprende l'idea e la espande, per così dire, tanto che persino il titolo del libro è un comparativo: "Flatterland" significa letteralmente "terra più piatta".

Stewart non è interessato tanto alla satira sociale, anche se ne lascia qualcosina, quanto alla divulgazione matematico-fisica, arrivando anche alla spiegazione del Big Bang e alla teoria delle stringhe e della supersimmetria. La parte divulgativa è fatta indubbiamente bene ed è alla portata di tutti; bisogna però che il lettore apprezzi lo stile umoristico di Stewart che alla lunga può risultare stucchevole, visto che è sempre alla caccia del bieco gioco di parole. A questo riguardo, onore al merito di Filippo Demonte-Barbera per la sua perfetta traduzione in italiano: nella prefazione spiega anche alcune delle scelte da lui fatte, permettendo al lettore di vedere anche l'originale inglese. Il libro termina con una postfazione di Michele Emmer, che colloca Flatterlandia (e Flatlandia) nel contesto storico e visivo di quello che è capitato negli ultimi centoventi anni.

Becca says

I almost didn't get through this. It starts off well, but then it turns into a dialogue. That would be fine, if not for the fact that the author periodically tries and fails to connect it back to the characters and the world of Flatland. Flatland the book is a political satire in addition to a scientific text; this book abandoned all but a shell of the politics while pretending it was still there. I would have rather had a book which didn't try to have a plot or characters, and did a better job at the science.

Zoha Trabelsi says

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