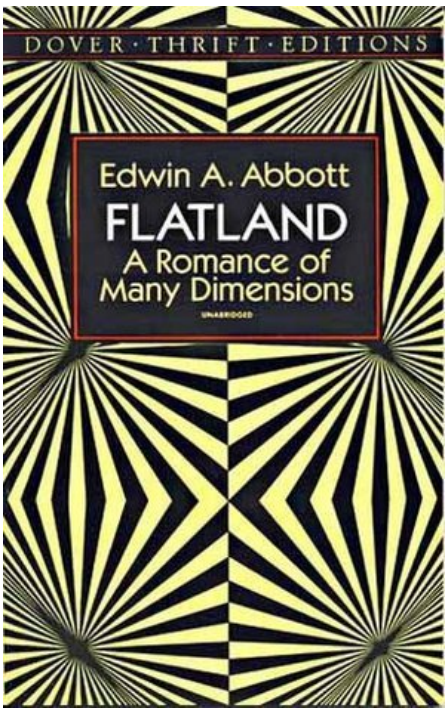

Flatland: A Romance of Many Dimensions

Edwin A. Abbott , Banesh Hoffmann (Introduction)

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This masterpiece of science (and mathematical) fiction is a delightfully unique and highly entertaining satire that has charmed readers for more than 100 years. The work of English clergyman, educator and Shakespearean scholar Edwin A. Abbott (1838-1926), it describes the journeys of A. Square *[sic – ed.]*, a mathematician and resident of the two-dimensional Flatland, where women-thin, straight lines-are the lowliest of shapes, and where men may have any number of sides, depending on their social status. Through strange occurrences that bring him into contact with a host of geometric forms, Square has adventures in Spaceland (three dimensions), Lineland (one dimension) and Pointland (no dimensions) and ultimately entertains thoughts of visiting a land of four dimensions—a revolutionary idea for which he is returned to his two-dimensional world. Charmingly illustrated by the author, Flatland is not only fascinating reading, it is still a first-rate fictional introduction to the concept of the multiple dimensions of space. "Instructive, entertaining, and stimulating to the imagination." — *Mathematics Teacher*.

Flatland: A Romance of Many Dimensions Details

Date	:	Published September 21st 1992 by Dover Publications, Inc. (first published 1884)
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Author	:	Edwin A. Abbott , Banesh Hoffmann (Introduction)
Format	:	Paperback 96 pages
Genre	:	Fiction, Science Fiction, Classics, Science, Mathematics

From Reader Review Flatland: A Romance of Many Dimensions for online ebook

Roy Lotz says

> *For why should you praise, for example, the integrity of a Square who faithfully defends the interests of his client, when you ought in reality rather to admire the exact precision of his right angles? Or again, why blame a lying Isosceles, when you ought rather to deplore the incurable inequality of his sides?*

This is one of those delightful little books, so difficult to review because its charms require no toil to appreciate, and also because the book is so short you might as well read it and skip the reviews. So I'll keep my remarks brief.

The charm of the book lies in its conceit, rather than its execution. Indeed, though certainly able, Abbott is not an expert writer; nor does he pretend to be. The genius of this book is in the simple beauty of its premise: What would life be like for a square living in a two-dimensional world?

Abbott wrings a remarkable amount out of this simple question. First, he gives us a satire of Victorian culture—perhaps the less enduring part of this work, though certainly keen and ruthless in its modest way. To me, the most interesting point Abbott makes in his satire has to do with education. The residents of Flatland spend all their time learning various methods to identify the shapes of others. For if you are living on a two-dimensional plane, telling a square from a circle is no easy matter, as they all appear to you as flat lines. And this question of shapes is important in Flatland, as one's status depends on one's shape, with irregulars being the lowest and circles the highest. So was Abbott implying that, when we educate our own youngsters, most of this "education" consists in merely teaching them to navigate our own social hierarchy?

But of course, the more fascinating part of the work has to do with dimensions. How would the possibility of two dimensions appear to a one-dimensional creature? Incomprehensible. And how would the prospect of three dimensions seem to a two-dimensional creature? Nonsense. To the residents of Flatland, tales of cubes and spheres appear like so much absurd metaphysics. Abbott uses this point to show how narrow is our mental framework, how completely blind we are to realities outside our everyday, commonsense world. Doing so, Abbott elevates this work from novelty to true art. For after satirizing the world we know, he gives us a glimpse of a world beyond.

Luana says

Questo libricino è talmente matto e bello che dovete andare a comprarlo, e siccome so che le mie maniere dispotiche, e poco convincenti (purtroppo non ho le doti dei venditori di cose inutili che riescono a farti comprare di tutti convincendoti che siano utili)forse non vi indurranno all'acquisto, armatevi di convincitudine vostra, e andate a comprarvelo, o a rubarlo, o a prenderlo in prestito dalla biblioteca.
Perché? Leggete quanto segue

Se come me siete sempre stati delle perfette schiappe in matematica e geometria questo è il libro che vi illuminerà di sapienza, una volta finito di leggerlo vorrete andare dai vostri vecchi professori/maestri, sbattere loro Flatlandia in testa e urlare **MA CHE ACCIDENTI TI COSTAVA SPIEGARMELO COSì SEMPLICE??** . Purtroppo però temo si tratti di un provvedimento anticostituzionale, dunque, anziché prendervela con vecchi pedagoghi incapaci, potrete gentilmente ringraziare Abbott che nel 1882 ha scritto questo libro non so con quali intenti (devo ancora leggere saggi/articoli/, ma era troppo forte la voglia di parlarvene), ma di sicuro aveva capito che nel 1991 sarebbe nata una asina matematica come me, quindi ha voluto far parlare figure geometriche.

Se **al contrario** siete divini, comprendete la matematica e la geometria, avete l'occulto dono del far di conto e del comprendere combinazioni di lati, angoli, e quant'altro, tranquilli, a Flatlandia ce n'è anche per voi. Per quanto siate saccenti, dubito infatti che in uno dei vostri compiti perfetti delle superiori o esami da 30/30 con lode dell'Università, le figure geometriche abbiano mai preso a muoversi o a parlare.

Ma non è tutto qui. Se pensavate che Geometria e Politica e Filosofia potessero difficilmente incastrarsi tra loro, vi sbagliavate. Perché nella Geometria di Flatlandia la Politica sessista e razzista discrimina le Donne, gli Isosceli, gli Irregolari e assurge a razza perfetta i Circoli. Quando poi qualcuno vede o sente, anche per sua non colpa, qualcosa che non andava visto o sentito, viene fatto sparire. Che cosa assurda, si potrebbe pensare. E invece no. Succede anche da noi. Quindi tranquilli, a Flatlandia ci ritroverete molto.

Non incazzatevi troppo con Abbott se ce l'aveva con le donne.
Insomma, Dante ha reagito bene. Ma a volte gli approcci sessuali non vanno a finire in Commedie, sopratutto non in Divine.

La mia cartolina da Flatlandia smette qui di essere priva di raziocinio, scusate, ma sono ancora troppo esaltata.
Se decidete di farci un salto, tuttavia, chiedetemi l'indirizzo, perché colleziono cartoline, e da Flatlandia le ricevo ben volentieri.

Alice Cai says

5*
A world where every character is a shape, but only seen on a side view so everybody looks like a straight line. That's why the would is called flatland because everything is in 2 dimensions.

THIS IS THE BEST BOOK I HAVE EVER READ! It's so trippy and it's really funny too. I can't just give funny quotes though because you need to know the context from the beginning of the chapter and then the context of the chapter before that to get the humor.

Some quotes to give an idea of what the book is like:
"Place a penny on the middle of one of your tables in Space, and leaning over it, look down upon it. It will appear a circle. But now, drawing back to the edge of the table, gradually lower your eye (thus bringing yourself more and more into the condition of the inhabitants of Flatland), and you will find the penny becoming more and more oval to your view, and at last when you have placed your eye exactly on the edge of the table (so that you are, as it were, actually a Flatlander), the penny will then have ceased to appear oval at all and will have become, so far as you can see, a Straight Line."

"Our Women are Straight Lines. Our Soldiers and Lowest Class of Workmen are Triangles with two equal sides, each about eleven inches long, and a base or third side so short (often not exceeding half an inch) that they form at their vertices a very sharp and formidable angle. Indeed, when their bases are of the most degraded type (not more than the eighth part of an inch in size), they can hardly be distinguished from Straight Lines or Women; so extremely pointed are their vertices. With us, as with you, these Triangles are distinguished from others by being called Isosceles, and by this name I shall refer to them in the following pages. Our Middle Class consists of Equilateral or Equal-Sided Triangles."

"The thought flashed across me that I might have before me a burglar or cutthroat, some monstrous Irregular Isosceles, who, by feigning the voice of a Circle, had obtained admission somehow into the house and was now preparing to stab me with his acute angle."

HERE'S A FREE LEGAL LINK FOR THIS BOOK SO YOU DON'T GET A VIRUS: (The author has been dead for 100 years of course it's legal.)
https://www.gutenberg.org/ebooks/97

Milica Chotra says

"Flatland" is a *mathematical satire and religious allegory*, written in the shape of the memoirs of A Square, an inhabitant of a two-dimensional world, who had visited other lands - Pointland, Lineland and Spaceland - and gained invaluable insights into the structure of the Universe. Though these journeys and dreams/visions sound like a religious experience (and Edwin Abbott himself was a theologian), the main goal of "Flatland" - to make us think outside the observable world and imagine new dimensions, dimensions we can't perceive - is not necessarily religious in nature. This Square hopes that his account "may stir up a race of rebels who shall refuse to be confined to limited Dimensionality": "like a second Prometheus, I will endure this and worse, if by any means I may arouse in the interiors of Plane and Solid Humanity a spirit of Rebellion against the Conceit which would limit our Dimensions to Two or Three or any number short of Infinity." I thought this was quite interesting and nicely done. Also, in the first part of the book, Abbott cleverly uses geometrical concepts to criticize his own society (e.g. social stratification is depicted as hierarchy of geometric figures). It was fun.

Bear in mind that "Flatland" was written in the 19th century, and if you like math, social critique and enjoy pondering the nature of the Universe (or Multiverse) - you'll like this book. A religious person might experience it on a different level, but I guess they'd like it as well.

[Read this review on my blog]

Kinga says

This was one crazy, opium fuelled, brilliant book about geometry and different dimensions and I am going to explain it the best way I can but Edwin A Abbott does it so much better.

Here is a story of Square who is a square and lives in a two dimensional world of geometrical figures. The first part of the book talks about the social breakdown of the Flatland and it is a thinly disguised satire on the Victorian society. People are divided into classes according to their geometry and the worst off are women

who are not even figures; they are just straight lines. They have few rights and no one actually takes their intellect seriously. On the other hand they are dangerous because being straight lines they can easily pierce any figure. A woman from behind looks just like a dot, you might miss her until it's to late and she has stabbed you. Different parts of Flatland developed different strategies for dealing with the danger, from not allowing women to leave their houses, to forcing them to constantly wiggle their bums, so they are visible from far. They should also sound a 'peace-cry' when out and about, in case anyone missed the wiggling bum. Seriously children, don't do drugs. It makes you write things like that.

The second part of the book gets more interesting as it delves deeper into the concept of dimensions. As I said, our hero lives in a two-dimension reality. Try to imagine such a world. You probably see it as a piece of paper with various figures drawn on it. Of course, that's how a creature from 3D world would see it. You're looking at it from above, i.e from the third dimension. If a 2D world was your entire reality you would only be able to see lines and dots. Your eyes would be on the same level as the figures and you would see everything in one dimension and infer the second dimension because you can move in it and you have learnt it through experience.

The same way we can't actually see the third dimension but we can tell it's there. We know we can move in three dimensions and we know about perspective, light, shadow, etc. It is easier for us to understand a two-dimension reality than it is to imagine a four-dimension one. We can see it perfectly when our Square visits a one dimensional land and he laughs at it and tries to explain to the King that there is more to life than just looking at a dot in front of you. There is another dimension where there are not only dots but lines as well. The King of course laughs him off. Yet, when Square is confronted by Sphere who tells him about the third dimension and shows him 'tricks' that the third dimension allows him to do, Square is just as incredulous.

Even though the mathematics tells him there must be another dimension (and another, and another), he can't quite believe it until Sphere shows him a little bit of a 3D world. Then he is a convert, and he quickly assumes there must be more dimensions. Fourth and fifth and ad infinitum. I think while reading this I got as close as I would ever get to understanding and imagining a 4D world. If in a 3D world we can see the insides of everything of a 2D world, then I suppose a in 4D world we would be able to actually SEE all three dimensions, all the insides of everything. My brains hurts. Am I making any sense? I thought I could see it but now it's been a week after I finished reading the book and had those vivid dreams about the fourth dimension. The vision pales. I still believe in it but I can no longer grasp it. Just like the poor Square, back in his 2D-Land, thrown in prison for preaching revolution, still believes in the third dimension, but can no longer conjure the image of a Sphere in his head. Sometimes he feels he can almost see it again for half a second, and then it's gone.

Jan-Maat says

[indeed gender apparently is trans-dimensional (hide spoiler)]

Robert says

When you read this book, keep two things in mind. First, it was written back in 1880, when relativity had not yet been invented, when quantum theory was not yet discovered, when only a handful of mathematicians had

the courage (yet) to challenge Euclid and imagine curved space geometries and geometries with infinite dimensionality. As such, it is an absolutely brilliant work of speculative mathematics deftly hidden in a peculiar but strangely amusing social satire.

Second, its point, even about itself, is still as apropos today as it was then. We *still* do not really know what the true dimensionality of the Universe is. It seems somehow unlikely that it is just "four", even in terms of spacetime dimensions. String theory talks seriously about thousands of dimensions. Quantum theory implements *very* seriously *infinite* numbers of dimensions. And yet we are still stuck in our 3 space dimensions mentally, hardly able to visualize the 4 in which we live "properly" unless we study theoretical physics for a decade or three, and utterly unable to mentally imagine those four embedded in a veritable Hilbert's Grand Hotel of dimensions.

Ultimately, this is a book about keeping an open mind. A *really* open mind -- avoiding the trap of scientific materialism and the trap of theistic idealism and the trap of any other favorite -ism you might come up with. Our entire visible space-time continuum could be nothing more than a single thin page in an infinitely thick book of similar pages, that book one of an infinite number of similar books on an infinite shelf, that shelf but one such shelf in an infinite bookcase of shelves, that bookcase but one in an infinite library of bookcases, that library but one... but by now you get the idea.

We have a hard time opening our minds up to the enormous range of possibilities, preferring to live our lives mentally trapped in a single tiny period on just one of those pages, in pointland. We may be quite unable to actually perceive the space in which our tiny point is embedded, but our minds are capable of *con*ceiving it, and Abbot's lovely parable is a mind-expanding work to those who choose to read it that way.

rgb

Duane says

I give it an extra star for it's originality, it's uniqueness. The concept was genius, Abbott was probably a math genius himself. However, as a work of literature it does not hold up well. It has a shadowy similarity to Gulliver's Travels, but falls well short of that Swift classic.

Michael Finocchiaro says

A curious little novella about a man a two-dimensional world thinking literally out of the box. First he explains his world in which the angles you have the higher social status you have in Flatland - Circles being the highest rank. He meets someone from Lineland (one-dimensional) who is incapable of understanding Flatland and he meets Sphere from Spaceland (three dimenions) and he is able himself to comprehend the difference between "up" and "North". However, Sphere cannot extrapolate to 4+ dimensions and when the protagonist returns to Flatland and tries to explain Spaceland, he is imprisoned as a heretic.

The text is a social criticism on the rigid thinking of hierarchal social ranks, the dogmatism and often anti-scientific bent of religion, and also has a feminist bent to it as well. A fascinating and mind-bending little book that has not aged a day after almost a century and a half.

George says

Quite a charming allegory for the English society of the time, and boy does it show it's age. This is basically covered by everyone who reviewed this book, so I am not going to talk about that. What I noticed and I haven't seen anybody mention this yet, is the fact that at the time when this book was written Darwinian evolution has already grasped popular imagination. Just look how he talked about careful pairings between men and women to produce an equilateral triangle and then how each generation after that is achieved gets more sides until it reaches their version of perfection that is the circle. As I am aware people looked towards evolution with quite an optimism at the time and started envisioning utopias that will come to existence with careful work, selection and patience. Just look at the squares enlightenment at the prospect of 3 then 4 and as many dimensions it can possibly go.

Now this book, by it's writing style would get 3 stars, but no one can write something that after reading it makes me spend a night thinking about tesseracts (4 dimensional cubes) and glomes (4 dimensional spheres) and not be rewarded. Both mindfuckery and awesomeness.

Paul E. Morph says

What a fantastic little thought-experiment, only really half-disguised as a story. Through his witty little parable, Abbott manages to explore the physical, mathematical, societal, philosophical and theological without once spoon-feeding his readers (OK, maybe there's a little bit of spoon-feeding in the earlier chapters).

It's only a shame, then, that this is without a doubt the most misogynist book I've ever read in my forty-odd years... Oh, well; I suppose nothing's perfect...

Jafar says

This book is just brilliant. Written by a British mathematician in 1881, it’s a short fantasy novel about life in two dimensions. People in this book live in a two-dimensional world. They're not aware of, or can't even imagine, the third dimension. They have simple geometrical shapes like triangles and squares and other polygons. The higher the number of the sides, the higher the individual is in the social hierarchy. Those who have so many sides that they resemble a circle are priests. The land is ruled by the Chief Circle. Squares are considered middle-class. Triangles are underclass and soldiers. The lowest status is given to women who are just straight lines. I don’t know about the political beliefs of the author. He was either mocking the sexism and the rigid social order of the Victorian Britain, or he was a supreme reactionary.

Life in two dimensions has its many challenges. As an example – everyone looks like a straight line. Shapes are recognized only when seen from above – in a 3D world. When you live on a plane and see everything on the plane level, everything is just a straight line. The author goes to some length explaining how people can distinguish shapes (similar to how 3D creatures like ourselves can have 3D vision). Life in Flatland is not as boring as you might think. A lot is going on. There are wars and revolutions too.

The story is narrated by a smart Square who is visited by a Sphere from a three-dimensional world. People in Flatland cannot even imagine a third dimension, like we can’t imagine a fourth spatial dimension. Imagine that you’re 2D and a sphere from a 3D space passes through your plane. It is only a point at first, then becomes a circle growing in size, then a circle shrinking in size, until it disappears. All the while, you have no idea where the circle came from and where it went to. A 3D entity can see and touch the inside of your body (from above, but you don’t know what above is). If you’ve locked away things in your 2D safe, the 3D guy can pick them up from there and put them in front of you. There are countless fantastical things that the 3D guy can do in your 2D world – all magic to you! Think of the implications for us if there is a fourth spatial dimension and something comes to us from the 4D space.

Julie Demar says

Un racconto fantastico a più dimensioni con una velata (neanche poi troppo) critica alla chiusura mentale. Geniale.

Saied Davoodi says

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https://t.me/aghagol_channel/1269

Nandakishore Varma says

At the outset... the 5 stars are *entirely subjective*. I love maths, I love playing mathematical games, I love philosophising about maths. So this book is perfect for me. But if maths is not your cup of tea, you may not enjoy it as much as I did.

I first read about this book in one of Martin Gardner's "Mathematical Games" anthologies, and was

enthralled by the concept. (In fact, he discusses two books: *Flatland* by Edwin A. Abbot and *An Episode of Flatland* by Charles Hinton written with the same premise. He says Hinton's book is better, and I have managed to locate an online version recently, but have not had time to read it so far.)

We live in a world of three dimensions. It is easy for us to deal with one dimension (the line), two dimensions (the plane) and three dimensions (space). But can we conceptualise a fourth dimension? It is well-nigh impossible, for our whole being is tied up on this three-dimensional paradigm.

Abbot's fictional world is two-dimensional. The characters move about on a flat landscape. They cannot imagine a third dimension. The narrator of the story, A. Square, is living the relatively comfortable life of a country gent until he is snatched up into "Spaceland" by a sphere, a three-dimensional being. He has a view of his land from a three-dimensional perspective, and Square is never the same again. He comes back to preach the concept of Space to his fellow countrymen and is promptly incarcerated in an asylum as a lunatic.

There is no story in this short novella: it is more of a mathematical exploration and social commentary. The first part uses the Flatland society to poke fun at Victorian norms, and is quite entertaining. The inhabitants of Flatland are all geometrical figures: social pedigree is conferred by the number of sides one has, the lowliest being the isoceles triangles (the soldiers) and the highest being the cirles (the priests). (The circle is a special instance of a polygon with an infinite number of sides.) The male children of a member of one class are usually born with one more side than the parent, so social climbing is possible. However, the women are all single lines: they can't aspire to be anything other than "women"! There are also irregular polygons, who are social misfits.

Abbot explains at length the geography and history of his society. The "Chromatic Revolution" where an attempt to overthrow the established order by a scheming "irregular" is scuttled by a clever circle, through an inspiring speech in parliament worthy of Mark Antony, is especially hilarious.

In the second part, the story submerges itself in the philosophy of maths. The protagonist has a vision of "Lineland", a world of a single dimension: he tries to explain Flatland to the King of that realm, but with little success. Then, our hero has a visit from a Sphere, an inhabitant of "Spaceland", and he faces the same problem in comprehending the third dimension as the king of Lineland had in comprehending the second (later, the Sphere demonstrates the same shortsight when Square moots the possibility of a fourth dimension).

Square is transported into Spaceland by Sphere, and suddenly he can see Flatland from the outside: including the inside of the houses and the intestines of the inhabitants, all at the same time! He also comprehends that the magical ability of a Spaceland denizen to move in and out of Flatland wherever he/ she wishes is nothing but a question of simple three-dimensional geometry. Square also is witness to a parliarmentary meeting where the Sphere makes a surprise appearance, to try to convince the rulers of Flatland about the existence of space, but to no avail. The preaching of space is a state crime in Flatland, with the penalty of either death or life in confinement(according to the social status of the individual)- the ultimate fate of the narrator of the story.

Yet even though he is destined to spend his remaining life in an asylum, Square is not willing to let go of his vision of Space. Once seen, he is transformed for life.

Abbot, a teacher and theologician, uses his knowledge of philosophy and mathematics not only to create a satire, but also to raise big questions about the limitations of perception in general. It is an extremely enjoyable read, and the issues it raises will stay with you even after you finish it.

Since it is available online free from Gutenberg, I suggest everyone to give it a try.

Stephen says

Take a **classically styled**, 19th century **satire** about **Victorian social mores**…dress it up in **dimensional geometry** involving **anthropomorphized shapes** (e.g., lines, squares, cubes, etc.)…bathe it in the sweet, scented waters of **social commentary**…and wrap it all around **humble**, open-minded **Square** as protagonist.

The result is Flatland, a unique "classic" parked at the intersection of a number of different genres, thus pinging the radar of a wider than normal audience to appreciate (or detest) it. Since I'm recommending the book, I'm really hoping for the former, as I do not want to incur a cyber-flogging (or worse) from my fellow "goodreaders."

So...um...math.

Let's get this out of the way right now. As I alluded to in my intro, this book contains MATH. Now I hesitate to even mention that, because of the potential angst that subject causes many of my friends. I certainly don't want people going all

…and dashing away in a panic.

Rest easy and increase your calm, the math is very minor. It's really limited to discussions of geometric figures in the context of how many spatial dimensions they inhabit. **Damn**, that didn't sound good either….just trust me, you won't need a slide rule, an abacus or a lifeline to Stephen Hawking to read the book.

However, with that said, while the math is not tricky, some of the concepts can be a little brain twisty to try and visualize. Thus, I want to caution that when you get to the section where a three dimensional "Sphere" is explaining a universe containing only one dimension to our two-dimensional protagonist, you should….IMMEDIATELY…DISCONTINUE…READING…until you have:

1. burned some incense,
2. poured a big tumbler of whiskey, and
3. eaten a few "peyote" brownies, <u>because</u> the SHIT is about to get…

<u>PLOT SUMMARY</u>:

Written in 1884, the story is told by "A. Square," who lives in Flatland, a world of two-dimensions, which means length and width, but no depth (just like the Kardashians). The men of Flatland are multi-sided polygons, and the more sides an individual has, the greater their social standing. On the other hand, women are all simple lines and have no voice in the governing of the society.

Yep...the Flatlanders are chauvinists.

The book begins with “A Square” describing his life as part of the “professional class” and providing details on daily life in Flatland. This section serves as a In reality, this is a pretty good satire on Victorian London society, the social caste system and gender inequality.

Later, “A Square” dreams of a one-dimensional world called Lineland, where the inhabitants exist as simple points along a straight line, as there is no other width or depth. *I seriously hope you have that tumbler of whiskey and some brownies close by because you are going to need them.* What follows is a fun, but somewhat confusing discussions during which “A Square” tries to explain the two-dimensional world to the king of Lineland.

Eventually, our protagonist wakes up back in Flatland, only to find that he is now being visited by a Sphere from a three-dimensional universe…*whiskey…peyote…now*. Sphere takes our flatlander on a mind-expanding, eye opening journey to witness the wonders and mysteries of the higher and higher dimensions (3rd, 4th, 5th, etc.). Afterwards, “A Square” returns to Flatland to teach the wonders of such “enlightened” dimensions to his fellow flatlanders, the result of which is…

…nope…no spoilers here!

THOUGHTS:

As I sit here, sober and “mostly” peyote free, I think I enjoyed the “ideas and concepts” of the story more than the actual plot. The writing was fine, but nothing that struck me as particularly eloquent. However, I’ve the concepts of the story have stayed with me and I have actually become more appreciative of the material as time has gone by.

Overall, I liked the book. I think it’s worth reading, but more for the interesting ideas and mental gymnastics that the narrative puts you through than for the simply enjoyment of the plot. Still, a worthwhile read, and since it’s actually a novella, you can get through it quickly without a large time commitment.

3.0 stars. Recommended!

Foad says

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Dan says

This book should not be read in hopes of finding an entertaining story. As a novel, it's terrible. It's plot (if you can call it that) is simple and contrived. But, it wasn't written as a novel.

Flatland is a mathematical essay, meant to explain a point: that higher dimensions (more than length, depth and width) may be present in our universe, but if they are, it will be nearly impossible for us to understand them.

The story itself consists of a two dimensional world (Flatland), in which there are people of assorted shapes. These shapes live regular lives, just as we do. The protagonist (a square), is visited by a sphere, which tries to explain to him the existence of a third dimension. This proves difficult, though, because to the square in flatland, the sphere appears to be nothing more than a circle that can expand, contract, disappear and reappear.

In the course of the explanation, the book also describes "Lineland," a one dimensional world where the inhabitants would also have trouble understanding dimensions above their own.

This book's excellence lies in the way it takes a complex topic and breaks it down into a metaphor that can be more easily understood. It argues quite well that if there is a fourth dimension, it probably isn't "time."

This book isn't one that will win wide-spread acclaim from the general reading community. For those of us who enjoy higher math, though, it's excellent.

Mark says

The premise of Flatland is just that - a two dimensional flatland. As described early in the book, place a coin

on a bench and look at the side from a distance. The coin will appear as just a line as does the view of everything in Flatland.

Written in the late 1800's by a school head master and maths and science teacher, this book feels more of a vessel for him to prove his superior intelligence through the grasp of these geometric concepts than an actual entertaining read.

The book is narrated to us by a Flatland native who is actually a two dimensional square. As with everything else he appears to others purely as a line but he is not the lowest form. The hierarchy system is based on the number of sides one has. Being a square his four sides rank him lowly but far from the bottom dwellers.

Don't shoot me I am only the reviewer but the lowest figures are women. They are purely just a line but their mouth and eye appear on their point making them extremely dangerous. When they approach you they can accidentally stab you with the point and kill you. The tradesmen are the next level up as isosceles triangles. Then come the other triangles and then up one step at a time for each extra side - meaning our narrator is a step above all triangles. He in fact is a lawyer. When you get a figure that has three or four hundred sides, the individual sides are so small and the angles almost smooth that he becomes a circle. This is Flatland's top rank and he is a Priest.

The offspring of the male are always born with an extra side, our narrator's sons have five sides whereas his daughter is still just a line. Whereas in our lives we are taught to respect our elders, in Flatland you respect your male children and Grandchildren as they have more sides and are therefore higher up than you.

Does this sound boring and stupid yet? How about this, houses (2 dimensional) are built with an East and a West door. Women must only use the East and men the West, this is to avoid accidentally running into each other and she causing a death. REALLY??

The science facts all make sense - what you see in two dimensions as opposed to three dimensions for example but as I said before it really feels like Edwin Abbott is saying "Look how smart I am. Look at the subject matter I have a firm grasp of". Well Mr Abbott that may well be the case but you obviously never taught English literature because you sure as hell can't write a story of any interest.
Not to mention a little bit of a sexiest attitude.

This book is 96 pages long and although some 'things' actually do happen it is predominantly about ramming down your throat how weird a 2D world would be. And then again for the stupid he repeats himself.

Apatt says

“I used to be a renegade, I used to fool around
But I couldn't take the punishment and had to settle down
Now I'm playing it real straight, and yes, I cut my hair
You might think I'm crazy, but I don't even care
Because I can tell what's going on
It's hip to be square”
Huey Lewis And The News - Hip To Be Square

According to IMDB, several film adaptations have been made of *Flatland*, but no blockbusting Pixar /

DreamWorks extravaganza just yet. If they do make one I can't imagine a more appropriate theme song than the above Huey Lewis And The News number.

Flatland is set in a two-dimensional world and narrated in the first person by a square (or "A Square" as appears on the original edition's book cover). In the first half of the book Square gives us a tour of his world where women are straight lines and, if you are symmetrical, the more sides you have the better. This means that circles are the elite of this society because they are really polygons with zillions of super tiny sides. Irregular polygons are abominations and isosceles are plebeians.

Special laws are applied to women because they are capable of accidentally stabbing people to death due to their pointiness. Use of colours is banned because they can be used as disguises. How these geometric persons move around without legs is deliberately left unexplained (with a bit of "lampshading"). The second half of the book tells the remarkable story of Square's adventures in lands of different dimensions, one, three and even zero (no trip to the fourth dimension, though; no *time*, probably). Guided by an enigmatic Sphere who seems to have popped up out of nowhere (and who Square initially mistook to be a circle), these trips to other planes of existence enables Square to not only think outside the box but to introduce him to the existence of boxes. This was a steep learning curve for him but he adapts like a champ and becomes a more rounded individual because of it.

Flatland is a very odd novella it is part allegory, part satire, part geometry lessons, part spec fic. I generally avoid reading geometry books because they are full of problems I don't want to consider (screw the hypotenuse, man!). However, for *Flatland* I don't mind making an exception, for once I find the flat characters entirely acceptable and even find the more apparently rounded character to be arrogant and clearly obtuse in their outlook, if not in appearance. The satirical look at the class system makes this all too real issue painfully acute. One thing that blows my mind a bit is that prior to reading the book I visualized it as a story of different geometric shapes moving around going about their business. However, the denizens of the Flatland cannot actually see these different shapes. As the Square (or Edwin Abbott Abbott) mentions early in the book you have to imagine looking at these shapes with your line of sight on the same level as their surface. Mr. Abbott explains it very clearly as follows:

"Place a penny on the middle of one of your tables in Space; and leaning over it, look down upon it. It will appear a circle. But now, drawing back to the edge of the table, gradually lower your eye (thus bringing yourself more and more into the condition of the inhabitants of Flatland), and you will find the penny becoming more and more oval to your view, and at last when you have placed your eye exactly on the edge of the table (so that you are, as it were, actually a Flatlander) the penny will then have ceased to appear oval at all, and will have become, so far as you can see, a straight line."

So all they really ever see is straight lines of different lengths, however, they can distinguish the different geometrical shapes by hearing, by touch (done by the working class only), and by sight with the aid of fog for estimating depths (different angles appear to fade differently into fog). In the one-dimensional Lineland everybody looks like a point and sideways movement is impossible; as for the zero-dimensional Pointland, there is only one denizen and he is weird!

I really enjoyed *Flatland*, it is bizarre and thought-provoking; it definitely gave me a new perspective on life. The treatment of women may seem a little sexist but E.A. Abbott is perhaps satirizing sexism rather than perpetuating it. I definitely recommend you read *Flatland* before you flatline.

Notes:
• Audiobook credit: Wonderfully read for Librovox (i.e. free) by Ruth Golding. (link)

• There are quite a few diagrams scattered over the book, drawn by AbbottX2 himself, they illustrate the geometrical concepts nicely. These should be in all editions as they are intrinsic to the story.

• There is one error in the book where Square mentions a cellar: *“So I endeavoured to reassure her by some story, invented for the occasion, that I had accidentally fallen through the trap-door of the cellar, and had there lain stunned.”*. You can't have a bloody cellar if you only have two dimensions and you can’t “fall through” anything.

• Another error (I think) is the existence of cupboards in Flatland. If there is no depth or verticality you can't have cupboards!

• The 3D world is called Spaceland, it is not our world. Their most popular singer is probably Britney Sphere. (?° ?? ?°)

• I initially thought this book was a collaboration between two abbots.

Quotes:
Yet even in our best regulated and most approximately Circular families I cannot say that the ideal of family life is so high as with you in Spaceland. There is peace, in so far as the absence of slaughter may be called by that name.

In a word, to comport oneself with perfect propriety in Polygonal society, one ought to be a Polygon oneself. Such at least is the painful teaching of my experience.

Doubtless, the life of an Irregular is hard; but the interests of the Greater Number require that it shall be hard. If a man with a triangular front and a polygonal back were allowed to exist and to propagate a still more Irregular posterity, what would become of the arts of life?

You, who are blessed with shade as well as light, you, who are gifted with two eyes, endowed with a knowledge of perspective, and charmed with the enjoyment of various colours, you, who can actually SEE an angle, and contemplate the complete circumference of a circle in the happy region of the Three Dimensions—how shall I make clear to you the extreme difficulty which we in Flatland experience in recognizing one another's configuration?

Hipster Square
