CHAPTER 16: Dimensions and Flatland

The last proceeding of reason is to recognize that there is an infinity of things which are beyond it.\textsuperscript{42}

Most of what we discussed in the chapter on Euclidean geometry concerned geometry done in the plane, a two-dimensional flat surface. We extended our results about area and perimeter of rectangles to the three-dimensional concepts of volume and surface area, but only informally and intuitively. While we have no need to discuss such specific concepts in detail, I am interested in exploring the general notion of dimensions in some depth (pardon the pun). Rather than proceed through the usual mathematical approach, we will introduce the basic ideas through literature, the book \textit{Flatland}. Then we will consider some of the general theological issues I believe are raised by \textit{Flatland}. Finally, we will take a brief look at the use C. S. Lewis made of the dimension-related ideas in \textit{Flatland}.

But before embarking on that agenda, I want to deal with \textit{Flatland} as a literary work. Since the book starts rather slowly, and some people find the first section of the book difficult (sometimes even offensive) to read, I want to begin by discussing something of the book's general nature and purpose, as best as I understand it.

\textit{Flatland} is a novel written by Edwin Abbott in 1884, with a second edition including a new preface following later the same year. There are several reasons why we are reading this book in this class. The first is simply because it is so novel (pardon the pun); a novel in which mathematics plays a significant part and in which I hope the story will help you to learn some mathematics. The second reason is that it serves as another illustration of integration, in this case the integration of mathematics and literature. Integration of faith and learning is a third reason for reading the book, because Abbott's primary intention was not to write an entertaining story, or to teach mathematics (although I hope you agree he has done both). His subtitle, "A Romance of Many Dimensions" refers in part to the fact of several geometric dimensions, but also to Abbott's various purposes in telling the story. I believe an important purpose of the book was to serve as an apologetic for Christian theological doctrines and ethical principles.

One of the first things to understand about \textit{Flatland} is that it is a social satire. When Abbott describes life in Flatland, please don't immediately conclude that Flatland is Abbott's Utopia, a world in which things operate just the way Abbott always wished they would be. Nor should you think Abbott was simply exporting the values of his time to his make-believe world. Rather, I think that Abbott took some aspects of life in Victorian England in the 1880's and exaggerated them in the society of Flatland, not because he agreed with them, but because he wanted to criticize them.

Principles of Flatland society

1. A person's character and worth is determined by the person's shape.

For instance, a common saying in Flatland is "Configuration makes the man."\textsuperscript{43} Sounds like our, "Clothes make the man," doesn't it? But in Flatland, there are no clothes to affect what you look like. Shape is all there is that matters. There is a "...necessary connection between geometrical and moral Irregularity."\textsuperscript{44} So if you have an irregular shape, you are morally inferior; it is a rule of nature. This was also the personal experience of Square, who said, "I for my part have never known an Irregular who was

\textsuperscript{42}Pascal, \textit{Pensees}, p. 96.
\textsuperscript{43}Edwin A. Abbott, \textit{Flatland}, p. 37.
\textsuperscript{44}\textit{Flatland}, p. 24
not also what Nature evidently intended him to be -- a hypocrite, a misanthropist, and, up to the limits of his power, a perpetrator of all manner of mischief.45

Now this may sound like an entirely crazy idea. However, it is an abstraction and extension of some very real ideas with which Abbott was familiar. "It was thought (in Victorian England) that you could measure a prisoner's forearm bone to determine his base tendencies."46 That is, physical characteristics that could be measured were thought to correlate to moral character. Lombroso (1836-1909) was a physician and criminologist who developed phrenology, which attempted to relate moral character to the shapes of regions of the brain. It was believed that the criminal class could be identified by skull and facial features, i.e., shape. Flatland is simply a world in which such ideas are carried to the extreme.

2. A person's position in society is fixed at birth, based on one's ancestry.

Refer to the social structure presented on page 7 of Flatland. The social strata are very clear: Women, Soldiers and Workmen, Middle Class, Professional Men, Nobility, and at the top, Priests. Also, what class you are in is determined solely by your shape. And shape (for males) is determined by who your father is, with only rare exceptions. It is also clear that there was very little chance of upward mobility from the Lower Class to the Middle Class, and upward mobility from the Middle Class followed strict rules.47

Again, this may seem quite extreme. Certainly there are some societies which have some similar rules, however. I'll leave it to you to draw parallels to any societies today. What about Abbott's time? "The social system in Victorian England was more rigid than in England now or in the United States. The state of life into which you were born determined what opportunities were open to you."48 Abbott simply took some general patterns of his time and made them into the hard and fast rules in Flatland.

3. Women are the lowest of the low.

We have already noted above that women as a class are at the bottom of the social ladder in Flatland. In Flatland, women are "...wholly devoid of brain power, and have neither reflection, judgment or forethought, and hardly any memory."49 Women are "little better than 'mindless organisms'"50 And "...since women are deficient in Reason but abundant in Emotion, they ought no longer to be treated as rational, nor receive any mental education."51 But the fact that they are "abundant in Emotion" and are shaped like lines suggests that women are very dangerous: "a creature by no means to be trifled with".52 Once again, Abbott has taken the position of women in his time and pictured it in the extreme in his book.

Now just in case you might think that Abbott would certainly be expressing his personal views in his book, and so he must believe the three principles listed above, let us note that there is a second set of principles which appear in Flatland. They are not the views of Flatland society, but the views expressed by the enlightened Square. Granted he may not express all of the following ideas in their fullest form. (Even the Apostle Paul, who believed that slaves and free men were equal in the Church, did not command masters to free their slaves.) Contrast the following principles with those above.

45Flatland, p. 25.
47Flatland, p. 8.
48Banchoff, ibid., p. 5.
49Flatland, p. 12.
50Flatland, p. 40
51Flatland, p. 39
52Flatland, p. 10
Principles of the Enlightened Square

1. Shape does not completely determine character.

While the issue of shape and character are not discussed by A. Square in general, it should suffice to note one extreme example. The President of the High Council of Circles, a priest who by shape should be the most moral of all, is judged to be dishonest and ruthless.\(^{53}\)

2. Class should not determine opportunity.

Again, one specific example must suffice. Square is convinced that "even to Women and Soldiers should the Gospel of Three Dimensions be proclaimed."\(^{54}\) In particular, he tries to explain it to his wife. This attempt went against all the customs of Flatland.

3. Women are quite significant.

Of course, the previous example implies that women are important enough to be told about the third dimension. But there is much more evidence in the book that women should have more significance in Flatland than they do. Consider the statement of the Sphere, who represents a better view than is common in Flatland: "Yet many of the best and wisest in Spaceland think more of the affections than of the understanding, more of your despised Straight Lines [women] than of your belauded Circles [priests]."\(^{55}\) For Abbott, Spaceland is close to his own real world; and Spaceland is certainly closer to his Utopia than is Flatland. Therefore when the Sphere reports that Women in Spaceland are important, we are hearing something closer to Abbott's true view. In the sharply dichotomized world of Flatland, where reason is the sole property of men, and emotion the sole property of women, the Sphere expresses Abbott's belief in the importance of the affective side of life.

A careful reading of the Preface to the Second Edition seems to make clear Abbott's intentions in writing this book. He writes: "It has been objected [by readers] that [A. Square] is a woman-hater.....Personally, he now inclines to the opinion of the Sphere that the Straight Lines are in many important respects superior to the Circles. But, writing as a Historian, he has identified himself (perhaps too closely) with the views generally adopted by Flatland, and (as he has been informed) even by Spaceland."\(^{56}\) Remember, the story is being told by A Square, but Abbott is supportive of the changes which occur in A. Square's life.

There is additional evidence for the above interpretation of the themes of Flatland. Consider the following aspects of Edwin Abbott's life. Abbott was not a professional writer of literature nor was he a professional mathematician. He was an educator, with a specialty in New Testament exegesis. He did write a number of books, but many of them were in the area of Biblical studies. "Abbott devoted a great deal of his life to education, which he saw as the key to breaking the barriers of the class system. Abbott was in a school which made scholarships available for either career- or university-oriented boys, regardless of race, color, or creed."\(^{57}\) Now the careful reader could immediately cry "discrimination!" because the school only admitted boys. But the real point is that the school did not discriminate by race, color, or creed, a relatively radical idea at the time.

\(^{53}\)Flatland, p. 68.  
^{54}\)Flatland, p. 77.  
^{55}\)Flatland, p. 67.  
^{56}\)Flatland, p. ix.  
^{57}\)Banchoff, p. 6.
But that's not all. "Abbott was one of the leaders of the Women's Education Movement in Victorian England. He was regarded by the feminists of the day as an invaluable aid in their work to bring equal educational opportunity to women.... He was a champion of women's rights.... Abbott used satire to describe his society, which pained him so much, a society which treated women as though they were only one-dimensional."\(^58\)

If you read Flatland and get angry at the author, let me suggest you reorient your emotions. I believe Abbott was angry, too. I believe Abbott was appealing to your affective side. Perhaps if you are a man, you might even laugh a little at the satirical description of women. If so, Abbott has at least engaged your feelings. But I think his real goal was to make you cry for the women (and men!) of Flatland, whose society had kept them from being fully human, fully alive. And if the book made you angry with righteous, productive indignation, so much the better. I believe Abbott longed for a world in which the Gospel had had its full effect, and "there is neither ... male nor female, for [we] are all one in Christ Jesus."\(^59\)

What has been discussed above has addressed Abbott's concern to say something about Christian ethical concerns or the implications of the Gospel for society. Abbott's apologetic also addresses more philosophical or theological issues of world view. We will discuss these after dealing with the specific mathematical treatment of the concept of "dimensions".

**Mathematical Issues**

What is a dimension? We shall allow the Sphere from Flatland have the honor of introducing the concept. Here's how he attempted to explain it to A. Square:

\(\text{Sphere.}\) Tell me, Mr. Mathematician; if a Point moves Northward, and leaves a luminous wake, what name would you give to the wake?

1. A straight line.

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\(\text{Sphere.}\) Now conceive the Northward straight Line moving parallel to itself, East and West, so that every point in it leaves behind it the wake of a straight Line. What name will you give to the Figure thereby formed? We will suppose that it moves through a distance equal to the original straight Line. -- What name, I say?

1. A Square.

......

\(\text{Sphere.}\) Now stretch your imagination a little, and conceive a Square in Flatland, moving parallel to itself upward.

1. What? Northward?

\(\text{Sphere.}\) No, not Northward; upward; out of Flatland altogether.

\(^58\)Banchoff, p. 6.

\(^59\)Galatians 3:28, NIV.
If it moved Northward, the Southern points in the Square would have to move through the positions previously occupied by the Northern points. But that is not my meaning.

I mean that every Point in you -- for you are a Square and will serve the purpose of my illustration -- every Point in you, that is to say in what you call your inside, is to pass upwards through Space in such a way that no Point shall pass through the position previously occupied by any other Point; but each Point shall describe a straight Line of its own. This is all in accordance with Analogy; surely it must be clear to you.\footnote{Flatland, p. 60.}

The following chart summarizes some of the information related to the comments of the Sphere and A. Square in their discussions about dimensions. For instance, in the first column you see the line and the square that existed in Flatland, and the cube that the Sphere showed A. Square in Spaceland. In the second column is the number "3" raised to various powers. There is no algebraic reason why this column should not contain $3^4$, or even 3 to higher powers.

\begin{center}
\begin{tabular}{lcl}
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  \text{EXPO\-NENTS AND DIMENSION} \footnote{Flatland, p. 53.} \\
  \text{3}^1 & \text{length} \\
  \text{3}^2 & \text{area} \\
  \text{3}^3 & \text{volume} \\
  \hline
\end{tabular}
\end{center}

Notice that I did not include a picture corresponding to $3^4$. Actually, the picture I included of a cube isn't in the book Flatland either. So let's think about this more carefully. Could Square have drawn the picture of a cube that I drew? Yes, he could; the picture is completely in the plane. What he couldn't have done in Flatland is see what you and I see when we look at the picture. Remember, we are looking at it from "Spaceland". We can imagine how this two-dimensional picture represents a three-dimensional reality. And we can imagine how this picture in the plane could be "transformed" into a real cube. Here's how. The picture consists of two squares whose vertices are joined by four slanted lines. Imagine grabbing...
one of the squares and pulling it toward you until it was directly in front of the other square. Of course to do this you would need to take it out of the plane it was in.

Now why is there no picture corresponding to $3^4$? Because that would require a two-dimensional leap in our imagination, and that's more than we could do. What we did in the previous paragraph was a leap of one dimension. Perhaps you could do that for the hyper-cube. But the leap will need to be from three dimensions to four, so you would need a three-dimensional model [not included with this coursepack!]. Let's use our imaginations. We need two identical cubes, and their corresponding vertices need to be joined by edges that are the same length as the edges of the cubes. The cubes will be "overlapping", just like the squares are in the two-dimensional picture of the cube. Now here comes the fun part for those of you who think you are really creative and have great imaginations. Imagine you are a four-dimensional being looking at these connected cubes in three-dimensional space from a four-dimensional world in which our world is only a part (like Flatland is only a part of Spaceland). Grab one of the cubes, and pull it out of this three-dimensional world until it is directly "in front" of the other cube.

If you had trouble imaging how to actually "make" a hyper-cube, don't worry about it - I can't do it either. But here's the point: it doesn't matter. Even though our "geometric" imagination may be limited in its ability to work with higher dimensions, our "algebraic" reasoning will work just fine.

For instance, consider the second chart below. We can use algebraic reasoning with numerical patterns to determine the geometric features of the hyper-cube. For instance, since vertices double with each increase in dimension, it follows that a hyper-cube will have 16 vertices (corners). Since the number of faces increases by 2 with each increase in dimension, the hyper cube will have 8 faces, each of which will be a cube.

<table>
<thead>
<tr>
<th>FIGURE</th>
<th>DIMENSIONS</th>
<th>VERTICES</th>
<th>FACES</th>
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<tbody>
<tr>
<td>line</td>
<td>1</td>
<td>2</td>
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<td>square</td>
<td>2</td>
<td>4</td>
<td>4 lines</td>
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<tr>
<td>cube</td>
<td>3</td>
<td>8</td>
<td>6 squares</td>
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<tr>
<td>hyper-cube</td>
<td>4</td>
<td>16</td>
<td>8 cubes</td>
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<td>5</td>
<td>32</td>
<td>10 hyper-cubes</td>
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The point is that there is really nothing stopping us from making rational statements about higher dimensional spaces. From the point of view of mathematics, such things are entirely reasonable.

### Theological Issues

1. **The supernatural exists and is the true reality.**

Abbott is confronting a culture of people who dismiss a spiritual realm or heaven the same way the Sphere dismissed the fourth dimension when he said: "There is no such land. The very idea of it is utterly inconceivable." In Abbott's time, many people would not accept a reality that was not material or physical. On the opening page of *Flatland*, Abbott describes his purpose this way: "To the Enlargement of the IMAGINATION" Now what he means is not that he is trying to help his readers be better pretenders. Rather, he wants them to realize the reasonableness of another (spiritual) very real world by telling a story in which the readers see the foolishness of not believing.

Consider the view Abbott gives us of Lineland: "this poor ignorant Monarch...was persuaded that the Straight Line which he called his Kingdom, and in which he passed his existence, constituted the whole of the world...he had no conception of anything out of

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63 *Flatland*, p. vi.
Outside his World... all was non-existent." The reader rightly shakes her head at such ignorance. But this is the very state of people who do not believe in a spiritual realm. Abbott uses language reminiscent of the description of Saul on the road to Damascus as he was about to be converted: the Monarch of Lineland was, "seeing no man and hearing a voice..." I suspect nothing would please Abbott more than if someone was led closer to such an encounter through reading his book.

Not only is there another real world; it is the "higher" one. A. Square talks to the Monarch of Lineland about "the true Space, where I can see things as they are." This suggests that seeing things only as they can be seen in one's natural world is to miss something significant. Later in the story, the Sphere says to A. Square: "What you call Solid things are really superficial." Here the word "solid" has both a geometric meaning and a metaphorical meaning. Geometrically, a triangle in the plane is "solid" in the sense that you can't get from the outside to the inside if you are restricted to moving in the plane. Metaphorically, "solid" things are things that are substantial, things that are of lasting importance. The Sphere's comment reminds me of Hebrews 11 in which people of faith are commended for looking beyond the "realities" of this world to see by faith the much more "solid" realities of the promises of God.

2. "The reason that Abbott wrote Flatland was to answer the question, 'What properties does a being have that makes that being worthy of worship? Why do we worship Christ?'"

This suggestion, made by contemporary mathematician Thomas Banchoff, focuses on the experience of A. Square when he is lifted out of Flatland. He immediately feels like a god because he can see "all things" and "...to see all things...is the attribute of God alone." The Sphere responds scornfully, "...Then the very pick-pockets and cut-throats of my country are to be worshipped...as being Gods..." since as three-dimensional beings they can see just what the Sphere sees. The Sphere then asks this probing question: "does [seeing all things] make you more merciful, less selfish, more loving? Not in the least. Then how does it make you more divine?" The point seems to be similar to the one James makes when he says, "You believe that there is one God. Good! Even the demons believe that-- and shudder." There is some sense in which it seems possible to know the truth about God while living a life which denies His character. Paul makes a related point about knowledge and love when he writes, "If I have the gift of prophecy and can fathom all mysteries and all knowledge, and if I have a faith that can move mountains, but have not love, I am nothing."

3. The Incarnation is not only believable, but actually rational.

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64 Flatland, pp. 44-45.
65 Flatland, p. 45.
66 Flatland, p. 50
67 Flatland, p. 63
68 Banchoff, op. cit., p. 9
69 Flatland, p. 66.
70 Flatland, p. 66.
71 James 2:19
72 1 Corinthians 13:2
First, a word of caution. Any analogy is intended to be similar to the real thing in some ways, but not in all ways. Recall Jesus’s parable in which he told a story about a persistent widow and an unjust judge. The point of the story was that His disciples should persist in prayer. In the analogy, the unjust judge corresponds to God -- but this doesn’t mean that Jesus taught that God was unjust! In a similar way, we need to be careful not to push Abbott’s story too far.

With this caution in mind, let me suggest that the Sphere corresponds to Jesus Christ in the Incarnation. The Sphere descends into Flatland from his own world just like Jesus came from heaven to live on the earth. Jesus was perfect, and combined two natures, human and divine, in one person. The Sphere was "a more perfect Circle than any in Flatland"; in fact, he was "many Circles in one."73

The Sphere has a mission. As he descends into the High Council of Circles, he cries, "I come to proclaim that there is a land of Three Dimensions."74 His intent in revealing himself to A. Square was to make him "a fit apostle for the Gospel of the Third Dimension".75 This is analogous to Jesus coming to preach the Gospel of the Kingdom of God, and choosing twelve apostles to help him.

Recall how Jesus was able to join His disciples in a locked room after His resurrection.76 A. Square alludes to this event when he says to the Sphere, "I ask, therefore, is it, or is it not, the fact, that ere now your countrymen also have witnessed the descent of Beings of a higher order than their own, entering closed rooms, even as your Lordship entered mine, without the opening of doors or windows, and appearing and vanishing at will?"77 After the Sphere ascends out of the Council meeting, everyone present is killed, imprisoned or sworn to secrecy about the event. This is similar to the way the chief priests acted after the resurrection of Jesus.

Abbott lived at a time when many people rejected the bodily resurrection of Jesus. There were various explanations for the New Testament "stories". The Sphere admits as much when he states, "But men are divided in opinion as to the facts. And even granting the facts, they explain them in different ways..."78 Exactly what explanations Abbott would have been willing to accept is not the issue here; what is at issue is that Abbott was defending the fact of the Resurrection.

A. Square wrote a book to explain Three Dimensions called "Through Flatland to Thoughtland".79 It was his written attempt to convince others to believe what he had come to know throughout his own experience. Perhaps it is merely a coincidence, but Edwin Abbott wrote an apologetics book called Through Nature to Christ. In it, he tried to convince the readers of his society that they should believe in Christianity using reasoning about the world around them. Flatland would seem to be a different way of bringing people closer to faith in Christ.

4. We are called to spread the Gospel.

73 Flatland, p. 54.
74 Flatland, p. 68.
75 Flatland, p. 62.
76 John 20:19
77 Flatland, p. 73.
78 Flatland, p. 73.
79 Flatland, p. 80.
The Sphere is very explicit about his mission: he came to "preach" the Gospel of Three Dimensions. His plan is to "evangelize the whole of Flatland." In enlisting the Square in this task, he represents Jesus as He calls each of us to preach the gospel of the Kingdom of God. We should be inspired by his dedication: "I would have been willing to sacrifice my life for the Cause, if thereby I could have produced conviction." p. 80

The Use of Dimensions by C. S. Lewis

Let's begin with the following extended quote from Lewis's Mere Christianity. I've included the early part of the quote for the sake of review and so that you can benefit from Lewis's attempt to explain mathematics to his audience. It is, however, his application of the mathematics which is my primary concern.

I warned you that Theology is practical. The whole purpose for which we exist is to be taken thus into the life of God. Wrong ideas about what that life is, will make it harder. And now, for a few minutes, I must ask you to follow rather carefully.

You know that in space you can move in three ways - to left or right, backwards or forwards, up or down. Every direction is either one of these three or a compromise between them. They are called the three Dimensions. Now notice this. If you are using only one dimension, you could draw only a straight line. If you are using two, you could draw a figure: say, a square. And a square is made up of four straight lines. Now a step further. If you have three dimensions, you can then build what we call a solid body: say, a cube - a thing like a dice or a lump of sugar. And a cube is made up of six squares.

Do you see the point? A world of one dimension would be a straight line. In a two-dimensional world, you still get straight lines, but many lines make one figure. In a three-dimensional world, you still get figures but many figures make one solid body. In other words, as you advance to more real and more complicated levels, you do not leave behind you the things you found on the simpler levels: you still have them, but combined in new ways - in ways you could not imagine if you knew only the simpler levels.

Now the Christian account of God involves just the same principle. The human level is a simple and rather empty level. On the human level one person is one being, and any two persons are two separate beings - just as, in two dimensions (say on a flat sheet of paper) one square is one figure and any two squares are two separate figures. On the Divine level you still find personalities; but up there you find them combined in new ways which we, who do not live on that level, cannot imagine. In God's dimension, so to speak, you find a being who is three Persons while remaining one Being, just as a cube is six squares while remaining one cube. Of course we cannot fully conceive a Being like that: just as, if we were so made that we perceived only two dimensions in space [like Flatlanders -- ed.] we could never properly imagine a cube. But we can get a sort of faint notion of it. And when we do, we are then, for the first time in our lives, getting some positive idea, however faint, of something super-personal --something more than a person....

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80 Flatland, p. 62.
81 Flatland, p. 77.
82 Flatland, p. 80.
83 Lewis, Mere Christianity, New York: Macmillan, pp. 141-142.
So Lewis is arguing here that the mathematics of dimensions, being a subject which has been reasonably and rationally developed, gives us insight into how God in His triune nature could be reasonable and rational as well. The point is more than that the doctrine of the Trinity is not irrational. Lewis puts a positive twist on the argument, claiming that the Triune nature of God is actually super-rational. The problem in making sense of it is our problem, the problem of our limited perspective, not a problem with the reality of the Trinity. Our doctrine, our attempt with our limited concepts, to comprehend the reality of God may not make complete sense, but that should not surprise us. God’s reality is of a “higher dimension.”

While Lewis uses the dimensions analogy in the preceding passage, he doesn’t explicitly refer to Flatland. However, in two shorter passages in which he is making similar points about the Trinity, he casually compares us to the inhabitants of Flatland. In one passage, his point is specifically to help us understand why we should expect to have trouble understanding the nature of the Triune God. He writes, "At this point we must remind ourselves that Christian theology does not believe God to be a person. It believes Him to be such that in Him a trinity of persons is consistent with a unity of Deity. In that sense it believes Him to be something very different from a person, just as a cube, in which six squares are consistent with unity of the body, is different from a square. (Flatlanders, attempting to imagine a cube, would either imagine the six squares coinciding, and thus destroy their distinctness, or else imagine them set out side by side, and thus destroy the unity. Our difficulties about the Trinity are of much the same kind.)" 84

In his book Miracles, Lewis argues that the Christian God is more complex than the god of the pantheists. By pantheists, Lewis is referring generally to people who think of God in terms of an impersonal spiritual force related to beauty, truth and goodness. This quote is part of a larger apologetical argument which we will not consider. He writes, "Pantheist and Christian also agree that God is super-personal. The Christian means by this that God has a positive structure which we could never have guessed in advance, any more than a knowledge of squares would have enabled us to guess at a cube. He contains "persons" (three of them) while remaining one God, as a cube combines six squares while remaining one solid body. We cannot comprehend such a structure any more than the Flatlanders could comprehend a cube. But we can at least comprehend our incomprehension, and see that if there is something beyond personality it ought to be incomprehensible in that sort of way. The Pantheist, on the other hand, though he may say "super personal" really conceives God in terms of what is sub personal -- as though the Flatlanders thought a cube existed in fewer dimensions than a square." 85

(No homework due for this chapter. Check syllabus for “Flatland” paper details.)

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