Chapter 8

Viewpoints

We all see the world in a different way. One man's depravity is another man's freedom; one woman's dream is another woman's nightmare. Oftentimes we fall out about it... sometimes we are right, sometimes we are wrong, a lot just comes down to opinion. Of course, sometimes we actually *know* we are wrong but won't back down (another name for this phenomenon is marriage) but mostly there are just two, three, or seven billion sides to an argument. How we see things is often the result of where we're looking from – our vantage point. Without the benefit of satellite imaging, for example, how should we have known the full extent of the caldera that is Yellowstone National Park?

The thing we have to remember about a dimensional structure is that, if it exists, we are all living inside it. Not only are we in it, but it is in us! There is no aspect of human experience that could be said to lie outside it[a]. As quoted in the introduction, English mathematician Sir Roger Penrose writes,

> *'Whatever it is that controls or describes the mind must indeed be an integral part of the same grand scheme which governs, also, all the **material** attributes of our universe.'* [b]

As a result, if we try to visualise the dimensional structure's shape we can never have the luxury of viewing it from the outside.

And, to make matters worse, the *Principle of Extension*[c] combined with the *Principle of Stacking*[d] renders each successive dimension vastly more complex than the last. A crude analogy for the dimensionality of the world around us might be an upside down wedding cake, because, in terms of complexity, dimensional reality is an inverted pyramidal structure, with the whole lot perfectly balanced on a single vanishing point. If this is related to the singularity which cosmologists believe lies at the origin of the universe, it might suggest that dimensions had some sort of chronological unfolding, but since in our experience time itself is 4D this cannot be the whole story. In such a scenario the singularity forms (of all things) a foundation – with the whole lot balanced with turtle-like precision on the finger of God!

We will look into this apparent paradox in more depth later.

The Big Three

The new Library of the University of Aberdeen, Scotland, is a beautiful fiery-glass structure, all open plan and built on seven floors, with a wide open centre running all the way up. Any floor may be viewed from any other, all from the inside. This illustrates very well that there are three ways in which we might attempt to view any dimension within the dimensional structure. These are from above, level, or below. Laying this out in 'principle' form:

The Principle of Viewpoints:

Any dimension may be viewed from three vantage points: from above (complete), level ('edge-on'), or below (in cross-section).

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[a] With perhaps the single theoretical exception of a transcendent God.

[b] Roger Penrose, *Shadows of the Mind*, Vintage Books 2005, P213

[c] *The Principle of Extension:* Each dimension is an extension in a new direction of the one below.

[d] *The Principle of Stacking:* Each dimension is composed of an indefinitely high number of cross-sections (slices) of the dimension below, stacked together and fused into a single entity.

Obviously you can't view the bottom from below or the very top of a finite dimensional structure from above, but you get the idea. In theological terms the Revelation of John records God as saying on no less than four occasions that he is *"the First and the Last"* so – all turtles aside – those book-ending dimensional viewpoints may already have been laid claim to!

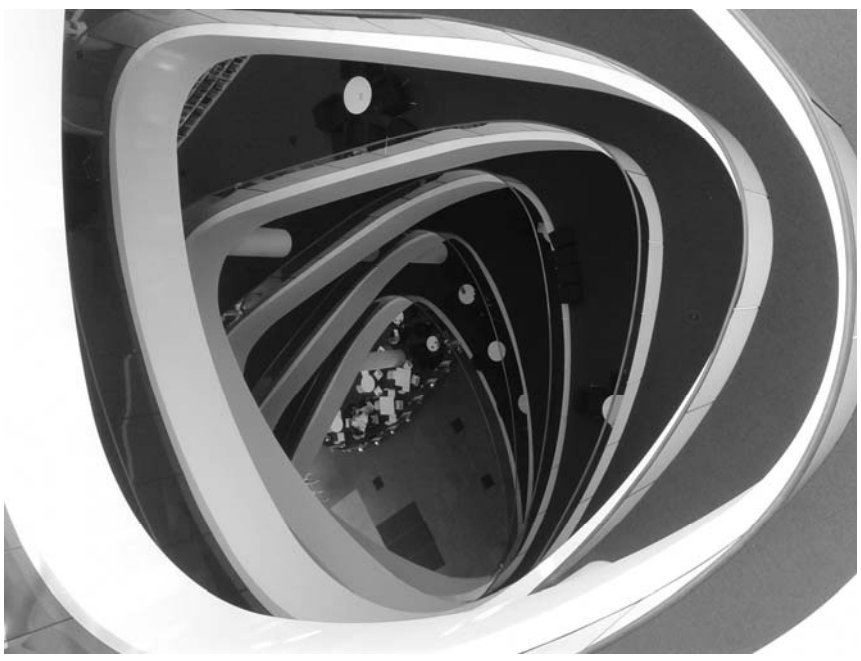
Briefly now, let's consider each of the three viewpoints...

Reflection… If you ever find your head in a knot trying to visualise any dimensional problem at all – no matter how complex – simply refer back to *Sphere* and *A Square*, where the solution is gifted to us in simple geometrical representations. They had all the answers in 1884 and they still have them now. Nothing in this book is new, in principle. All I am doing is *applying* the principles to this grand mystery we call the world.

From Above

Sphere could see Flatland in all its 2D glory. As in our own world, looking down from above is always the best vantage point from which to take in any situation. Here are a few everyday examples of this principle in action:

- *A letter.* You would not lay your head on the desk to read a letter. You must look down upon it in order to take in whatever you are trying to read.
- *Snooker.* Players assess the position of the balls from above before taking their eye-level shot.
- *Police helicopters.* We've all watched aerial film of some desperado trying to jump over garden walls and hide in a wheelie bin. They are fun to watch (am I sad?) because we all know with a touch of real life dramatic irony that they are about to get nicked.
- *A battle-plan.* Always better conducted with an overall knowledge of what is going on. Any commander on the ground with only an immediate visual on a situation is at a disadvantage, which explains the importance of military communications; I've heard it said that Hitler was like Genghis Khan with a telephone!
- *A debate.* The audience must weigh up the intellectual credibility of the arguments presented, and gain an overview before arriving at a decision.
- *A courtroom.* Emotions run high, but it is the Judge's job to remain above them. He or she must somehow retain a detached and impartial viewpoint to give justice a chance.
- *A playgroup.* Say no more!!



View from the top…
The interior of Aberdeen University Library.

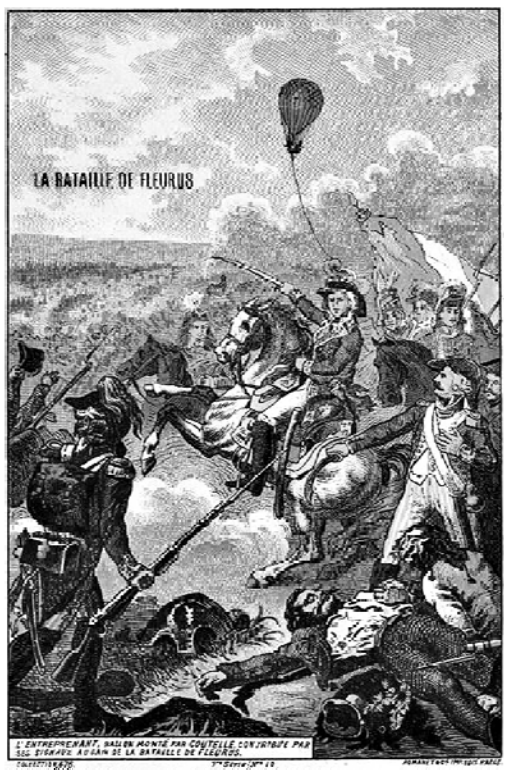
You will notice that not all these examples are of a *physical* bird's eye view. They include the moral, the emotional and the intellectual. Of course we might consider the debate or the Judge to be overviews in metaphor only, but as the book progresses we will see that if the pattern of the structure rules reality, *everything* must exist within and as an aspect of the dimensional structure, including the mind and emotions, obeying all the same basic *Flatland* principles.

On the Level

This is not so easy. Edwin Abbott Abbott had to equip *A Square* with all manner of a-geometrical superfluity (such as fog and shiny edges) to help him cope with his world around him. Although Flatland was 2D, *Square's* viewpoint reduced it to a 1D line with no depth of field, surrounding him like a closed circle.

Viewing anything at ground level seriously restricts the amount of information we can access. Examples of this are harder to find because no-one ever *chooses* an eye-level view over an aerial one. Normally we would have to be restricted by the situation, as in the case of:

- *Kids*. Small children only just big enough to reach a table-top are inclined to knock things on the floor.
- *Tennis*. If you've ever played the game and, like me, have been seriously dismayed by how hard it is, your respect for the professionals will probably have increased. Not only is the court about five times the size it looks on TV, but it's almost impossible to see over the net!
- *Students*. In terms of knowledge the student is on a fairly level playing field with all his or her fellow students (whereas the lecturer has an intellectual bird's-eye view).
- *Ancient maps*. Let's face it, they weren't great, but the first cartographers produced incredible work in difficult circumstances; maps which represent mankind's earliest efforts to piece together a theoretically aerial view of an exclusively ground-level world.
- *Reconnaissance*. The US Cavalry famously used the natives as scouts because their thorough familiarity with the terrain gave the closest thing to an overview. However, as soon as they could, military intelligence began taking to the air with tethered balloons – which are still used to this day – first deployed by the French at the Battle of Fleurus in 1794.



The Battle of Fleurus, 1794

So we see that an eye-level view is an extremely restricted view, whether it be physical or mental. Although much of this may seem like stating the obvious my purpose here is to try and show two things about the role of viewpoints as they relate to our perception:

1) They are very much part of life and, taken for granted, they extend virtually unnoticed into realms that are not merely physical

And,

2) Our everyday experience of viewpoints obeys the same rules in principle as EA Abbott demonstrated apply between geometrical dimensions.

From Below

Extremely tall people may consider height a bit of a curse, but at the end of the day no-one *wants* to be short (I'm not that tall myself). Unless you happened to be located in the grating under the sidewalk where Marilyn Monroe swirled her skirt, or down a kerbside drain in Dallas where JFK's true killer may have been lurking, there is usually little advantage to looking up. Dimensionally, as *Flatland* shows, viewing something from below is a complete non-starter. The fact is – as we saw with *A Square's* doomed efforts to figure out where *Sphere's* voice was coming from – there is simply nothing to see, because a truly flat 2-Dimensional surface (length and width) has *no third dimension* (height). The higher dimension is therefore *completely invisible to the lower*. This is simple geometry and we must permit it to inform our worldview.

The logic is clear: from a purely geometrical point of view, 'higher dimensions', 'spiritual planes' etc would be physically invisible *by geometrical definition*. This is not an esoteric statement, requiring one to believe or disbelieve anything. It's a simple question of mathematics which, unlike religion, is not a discipline noted for its subjectivity. Personally I do not think science need be quite so touchy about the subject of spirituality, blest as we are with geometry.

Reflection… The basic geometry of viewpoints reveals materialism to be a faith position[a], as one cannot geometrically – i.e. scientifically – prove the non-existence of a higher dimension from a lower. Of course one cannot prove its existence either. This is in keeping with the view of astrophysicist Alex Filippenko of UC Berkeley who maintains, *"I don't think you can use science to either prove or disprove the existence of God."* [b]

As *Flatland* demonstrates, there is only one way for a lower dimension to experience a higher and that is by the *Principle of Cross-Sections*[c]. When *Square* experienced *Sphere's* presence it was within his own flat 2D world, in cross-section. The part of *Sphere* that he witnessed was a circle, or disk, having no 3rd Dimension of height, and yet paradoxically, *in character the 2D slice was fully Sphere.*

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[a] The materialist worldview boils down to: 'I *believe* that all that exists is what I can see'. This, in light of the fact that magnetic and gravitational fields are invisible, must be further refined to, 'I *believe* that all that exists is what I and others whose judgment I trust have quantified'. Any rational person should be able to see that we all live by faith – the only difference is how wide we cast the net.

[b] http://www.space.com/16281-big-bang-god-intervention-science.html - Accessed 18th Feb 2017

[c] *The Principle of Cross-Sections:* A lower dimension can experience higher dimensions only in cross-section as they pass through in consecutive slices.

There is a complex interplay going on here at the place where dimensions meet and intersect. This is where it gets interesting. This is the place where the shell cracks to reveal the nut... and we have a whole bag of them in store as our quest unfolds…

I just hope you're not allergic!