Multi-Dimensions in the Millennium

'Behold, what manner of love the Father hath bestowed upon us, that we should be called the sons of God: therefore the world knoweth us not, because it knew him not.
Beloved, now are we the sons of God, and it doth not yet appear what we shall be: but we know that, when he shall appear, we shall be like him; for we shall see him as he is.'
1 John 3:1-2 KJV

'Sons of God' (Hebrew: *Bnei Elohim*) meaning direct creations of God - a specific phrase used in the Old Testament to refer to angels – see Genesis 6: 1-4. The startling truth is that when a person comes to faith, and is 'born again, they too are a direct creation of God – see John 1: 12.

In 1 John 3: 1-2; verse 1 tells us what we are, verse 2 tells us what we shall be. What does it mean "When he shall appear, we shall be like him"?

To fully understand this verse requires some understanding of hyperspaces – that is spaces of more than 3 dimensions. The scripture speaks of God who alone stretches out the heavens (see Job 9: 8; Psalm 104: 2; Isaiah 42: 5, 44: 24, 45: 12, 51: 13; Jeremiah 51: 15; Zechariah 12:1); this is not just a poetical phrase or a metaphor but an insight into the physics of the universe.

We know today that space is not an empty vacuum – and the Bible gives us insights into this newly discovered fact:

- Space can be 'torn' – Isaiah 64: 1
- Space can be 'worn out like a garment' – Psalm 102: 25
- Space can be 'shaken' – Hebrews 12: 26; Haggai. 2: 6; Isaiah. 13: 13
- Space can be burnt up – 2 Peter 3: 12
- Space can 'split apart like a scroll' – Revelation 6: 14
- Space can be 'rolled up like a mantle (or a scroll)' – Isaiah 34: 4, Hebrews 1: 12

If space can be 'rolled up' there must be some dimension in which space must be 'thin' in order to be capable of being 'rolled up'. Our science today acknowledges that space can be bent – Einstein discovered this – gravity bends space!

These things in both the Bible and science imply that there must be more dimensions than the ones we directly experience. Paul tells us that in Ephesians 3: 17-19
'That Christ may dwell in your hearts by faith; that ye, being rooted and grounded in love, may be able to comprehend with all saints what is *the <u>breadth, and length, and depth, and height</u>; and to know the love of Christ, which passeth knowledge, that ye might be filled with all the fullness of God.'*
Paul, writing in the first century AD speaks of four dimensions! The word for used for breadth (Greek: *platos*) can be understood to mean time. It was only in the 20th century scientists began to speak out the fourth dimension as 'time-space'.

Hyperspace is a term used by mathematicians to describe spaces of more than 3 dimensions. Commonly only two types of people have no difficulty understanding hyperspaces – scientists and small children.

Euclid & Trigonometry
A triangle has angles that add up to 180 degrees
If a very large triangle were mapped out on the earth – we would find that the angles added up to more than 180 degrees – because of the curvature of the earth.

Euclidean geometry is more properly known as 'plane geometry' because its rules hold good for a plane of two dimensions. When a third dimension is introduced the rules of plane geometry no longer apply.

Einstein's Theories of Relativity

To grapple with the physical rules which apply for more than two dimensions Einstein developed his Theories of Relativity:-

Special Relativity (1905): Length, mass, velocity and time are relative to the velocity of the observers

General Relativity (1915): No distinction between time and space – we live in a four dimensional continuum – scientists speak of space-time

Hyperspaces

Einstein – 3 spatial dimensions + time (time itself being a physical property)

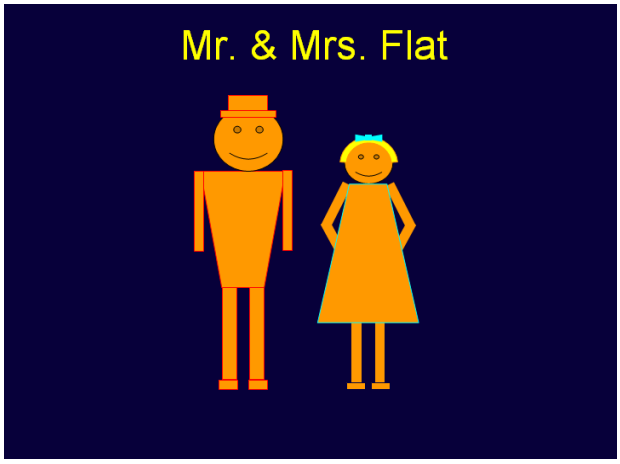
Particle Physics – modern research suggests there are 10 dimensions - 10 dimensional superstrings *

Thus, maybe, UFO's are from another dimension?

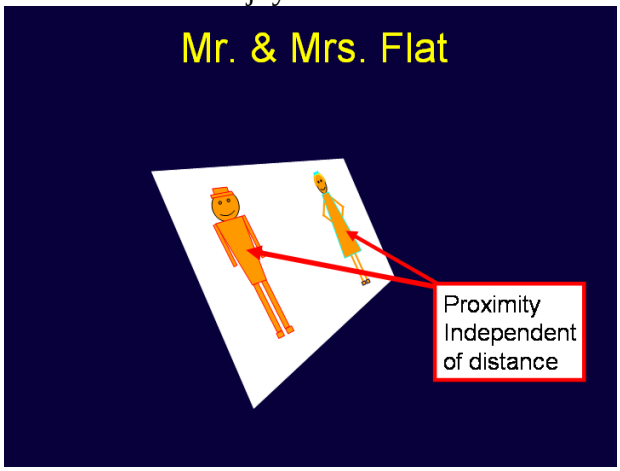
Nachmanides (a 13th century Jewish scholar) concluded that there were 10 dimensions simply from his study of Genesis 1

Another way to consider Multi-Dimensions

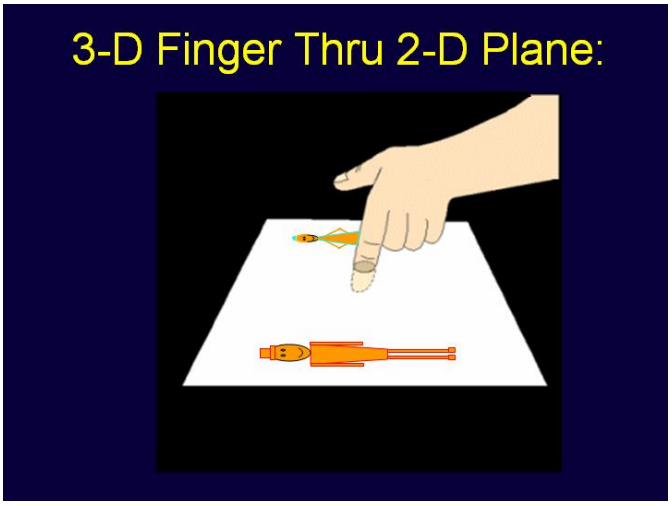
To gain some insights - consider a 2 dimensional universe – Mr & Mrs Flat



As a three dimensional being we can put our fingers on both Mr & Mrs Flat, irrespective of where they both are - and we can be intimate with both of them independent of what they are doing with each other – because we enjoy an additional dimensionality.

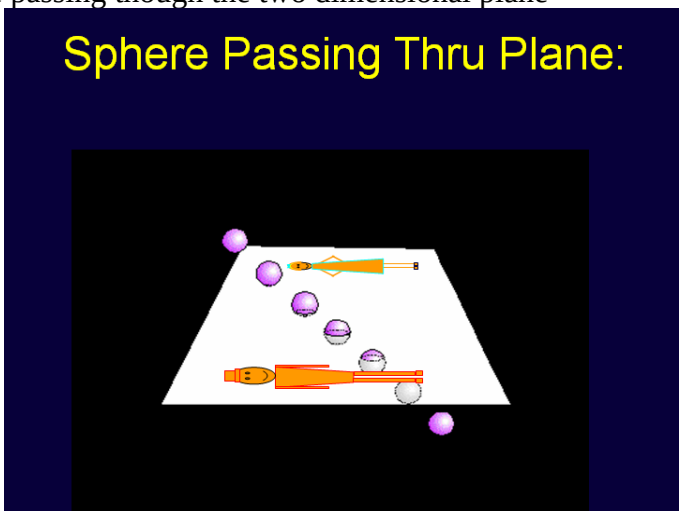


Imagine that we, as a three dimensional person, entered their two dimensional world and put our finger through their two dimensional world



What would Mr & Mrs Flat perceive? A hole or a circle!

Imagine a sphere passing though the two dimensional plane

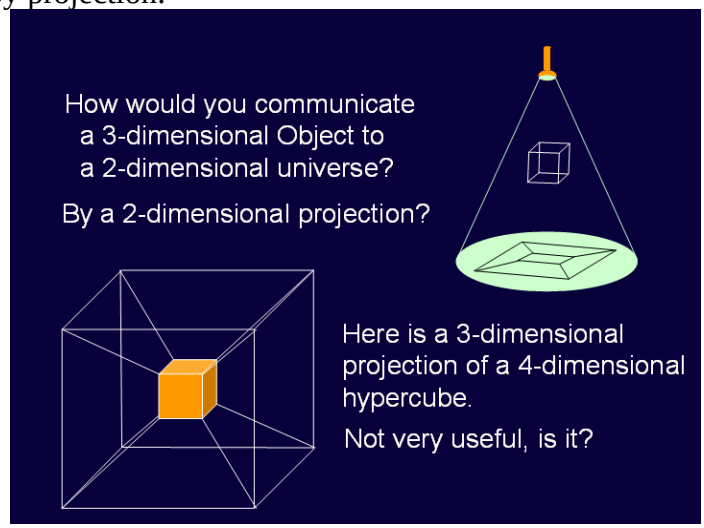


What would Mr & Mrs Flat perceive? A point that enlarges to a circle – and then reduces back to a point and disappears!

A cube passing through would be similar to a sphere – but it would seem, to Mr & Mrs Flat, to change shape!

How would one communicate a three dimensional object to Mr & Mrs Flat in their two dimensional world?

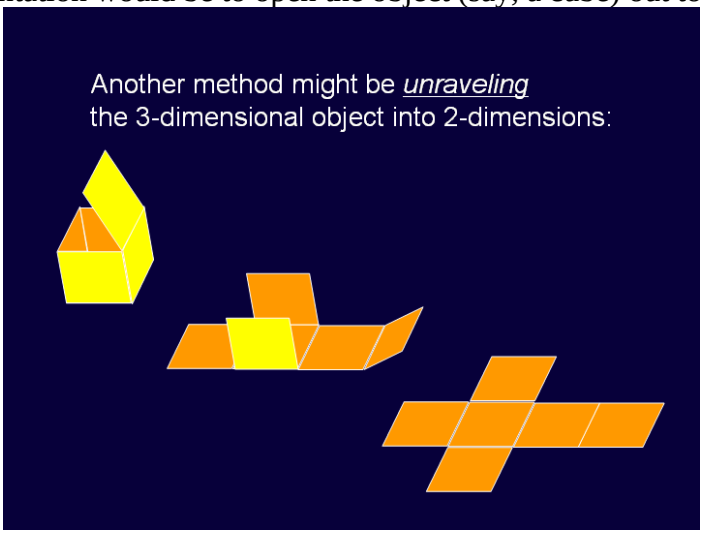
One answer is by projection:-



This would seem to Mr & Mrs Flat as bizarre – and not very helpful

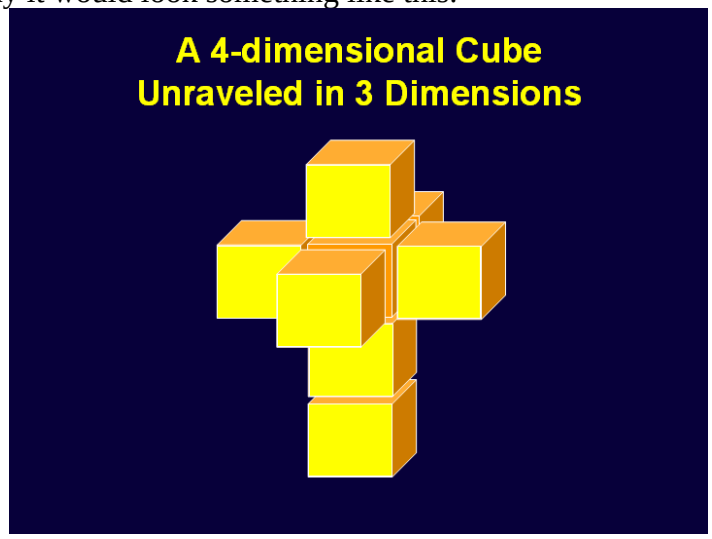
There is one of these 4 dimensional cubes on the internet which one can manipulate – the more you manipulate it the more you realise you have no idea what is going on

Another representation would be to open the object (say, a cube) out to 2 dimensions:-

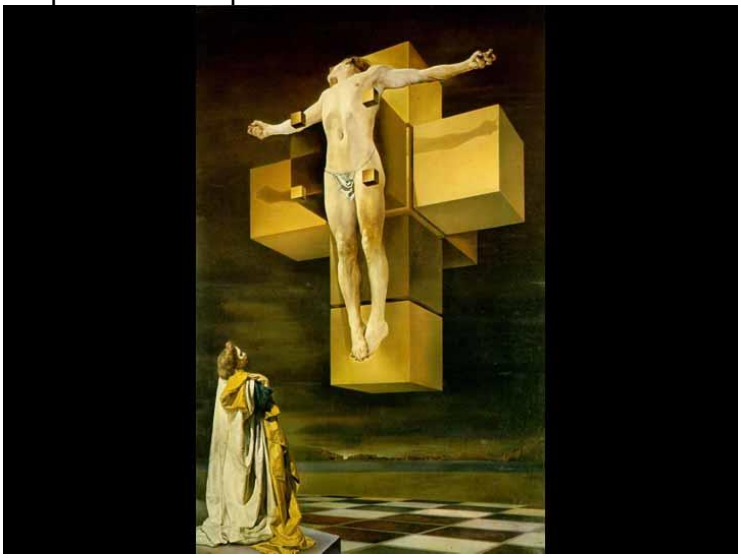


This again is not really helpful to Mr & Mrs Flat to understand a 3 dimensional object

An example for us…there are mathematical hypercubes – a Hinton Cube is a four dimensional analogue of a cube – unravelled it is a called a tesseract, expressed in a three dimensional way it would look something like this:-



We have difficulty in relating to this as a four dimensional cube
Interestingly, Salvador Dali used this four dimensional representation in his painting of the crucifixion, the implications are profound:-



Beyond Euclid (3+ dimensions)

1854 Georg Reimann's 'Metric Tensors' – the most important lecture given about hyperspaces, and was a key to Einstein's later work

1915 Einstein's 4 dimensional space time – but he was frustrated at being unable to relate gravity and light into his theory

1953 Kaluza & Klein developed a theory for 4+n dimensions, incorporating light and supergravity into their model

1963 Yang & Mills Fields theory extended the model to incorporate the electromagnetic and the two nuclear forces (strong and weak):

Basic Forces in the Universe:	Gravity
	Electromagnetic
	'Strong' Nuclear force
	'Weak' Nuclear force

1984 Superstrings, 10 dimensions - current thinking is that the universe actually consists of what mathematicians call 'superstrings' – which suggests the universe exists in 10 dimensions – four we perceive (length, breadth, height and time) and 6 more which are not normally perceivable

The 10 Dimensional Universe

Some Bible scholars think that at the Fall, when God pronounced curses on the earth and on the man and the woman – that at that point the 10 dimensional universe in which Adam and Eve lived was fractured into 2 parts – 4 physical dimensions which we experience today (length, breadth, height and time) and 6 other dimensions which we might call spiritual.

Particle physicists today, by experiments using atomic accelerators, have discovered that we live in 10 dimensions – 4 directly knowable and measurable, and 6 more inferable only by indirect means (they are curled in less than 10^{-33} cm [less than the wavelength of light]). By spending millions on atomic accelerators today, we have discovered what Nachmanides did by studying Genesis in the 13th century.

At the Fall the created order of the physical universe became subject to entropy (disorder) – what Paul in Romans calls the bondage of decay which he associates with the Fall.

> *'For the creation was subjected to futility, not willingly, but because of Him who subjected it in hope; because the creation itself also will be delivered from the bondage of corruption into the glorious liberty of the children of God.' Romans 8: 20-21*

Note that redemption in scripture relates to more than just mankind. Hence the restoration process of the Millennium and the creation, at the end of time, of a new heaven and a new earth.

Stretching Out The Heavens

This is more than a metaphor - we now know that space is not an empty vacuum – it is filled with matter.

Stretching out the heavens is a much used idiom in scripture:

- It is God 'who alone stretches out the heavens' Job 9: 8
- God is 'stretching out the heaven like a tent curtain' Psalm 104: 2
- It is God 'who stretches out the heavens like a curtain, and spreads them out like a tent to dwell in' Isaiah 40: 22
- 'He has stretched out the heavens' Jeremiah 10: 12
- 'The Lord who stretches out the heavens' Zechariah 12: 1
- Stretching the heavens – also in 2 Samuel 22: 10; Job 26: 7, 37: 18; Psalm 18: 9, 144: 5: Isaiah 42: 5, 44: 24, 45: 12, 48: 13, 51: 13: Jeremiah 51: 15; Ezekiel 1: 22

The fact that space can be 'rolled up', as scripture says in (Isaiah 34: 4 and Hebrews 1: 12; implies more than one (or three, or four) dimension(s) - there must be a dimension(s) in which space must be 'thin'. Space can be 'bent', thus there must be a direction it can be bent toward – there must be additional spatial dimensions which we do not physically perceive. These verses are insights in the Bible into the reality of our universe, and a clue to multi-dimensions.

The New Jerusalem

There are aspects of the description of the New Jerusalem in chapters 21 and 22 of Revelation that are mindboggling even in three dimensions – but some aspects of the description do not really make sense (three dimensionally) at all – and are only rational if one considers that this city is, in actuality, multi-dimensional.

Time

We tend to think that time is linear and absolute - but eternity is not like a timeline from infinity to infinity – time is, as Einstein discovered, a physical property which varies with mass, acceleration and gravity:

> An atomic clock raised by one meter would speed up by $1/10^{16}$ – measurable and predictable
> An astronaut travelling to Alpha Centauri (4½ light years away) and back at ½ the speed of light would take 18 earth years, but on his return he would actually be 2 years and 9 months younger than his twin brother who remained on earth!!!

God is not a person with lots of time – He is outside of time – He has more dimensionality than just our four dimensions.

So it should be no surprise that the eternal kingdom, the New Jerusalem, exists - like her creator – in more than four…and probably in 10…dimensions.

> *"People like us, who believe in physics, know that the distinction between the past, the present and the future is only a stubbornly persistent illusion."* *Albert Einstein*

The Bible is an extra-terrestrial message from outside of our time-space continuum. It is an integrated message system – in 66 books penned by 40 different writers over thousands of years – yet it is provably one whole message, consistent in itself, and from outside our time domain. It describes things which happened before they came to be – sometimes by many centuries – and it describes those things that we see happening today and prophesies those things yet to be. This is true of our physical universe and of the New Jerusalem.

> *Remember the former things of old, for I am God, and there is no other;*
> *I am God, and there is none like Me, declaring the end from the beginning,*
> *And from ancient times things that are not* yet *done,*
> *Saying, 'My counsel shall stand, and I will do all My pleasure,'"* *Isaiah 46: 9-10*

> *'For thus says the High and Lofty One who inhabits eternity, whose name* is *Holy'*
> *Isaiah 57: 15*

Multi-Dimensions make sense of Scripture:

- They explain how Yeshua could appear inside a locked room (John 20: 19-20)
- They explain the reality of the New Jerusalem, which in 4 dimensions makes no sense (Revelation 21: 9-21)
- They explain the believer's home in the Millennium will be in the New Jerusalem (Revelation 21: 2-3), yet they will have earthly responsibilities (Revelation 2: 26-27, 5: 9-10, 21: 4-5; Matthew 25: 23; 1 Corinthians 6: 2-3)