

The Urantia Book

Introducing a bigger frame in which to think

Part 1: Universe Frames

Part 2: the Personal Universe

Part 3: a Family Affair

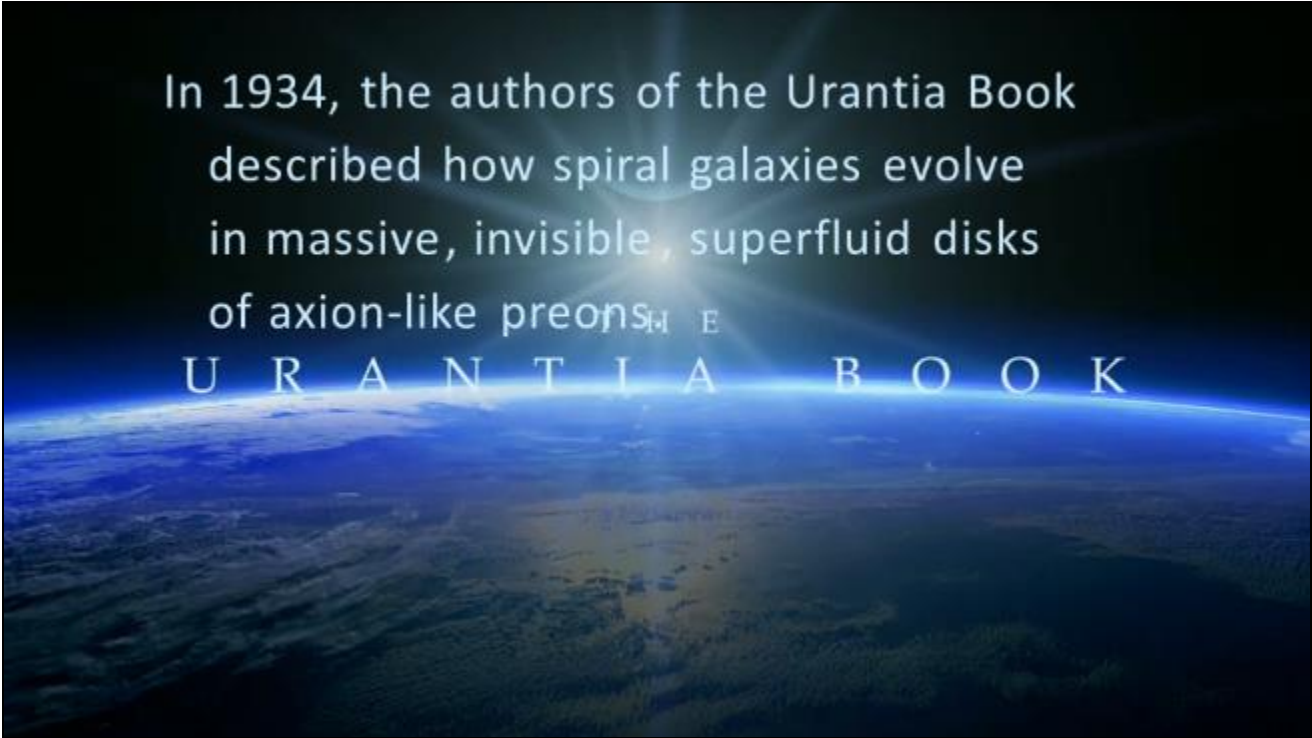
Part 4: Cosmology

A – Foundations

B – Mass & Matter

C – Exploding Dark Islands

D – Ancient Orvonton (and a young cosmic web)

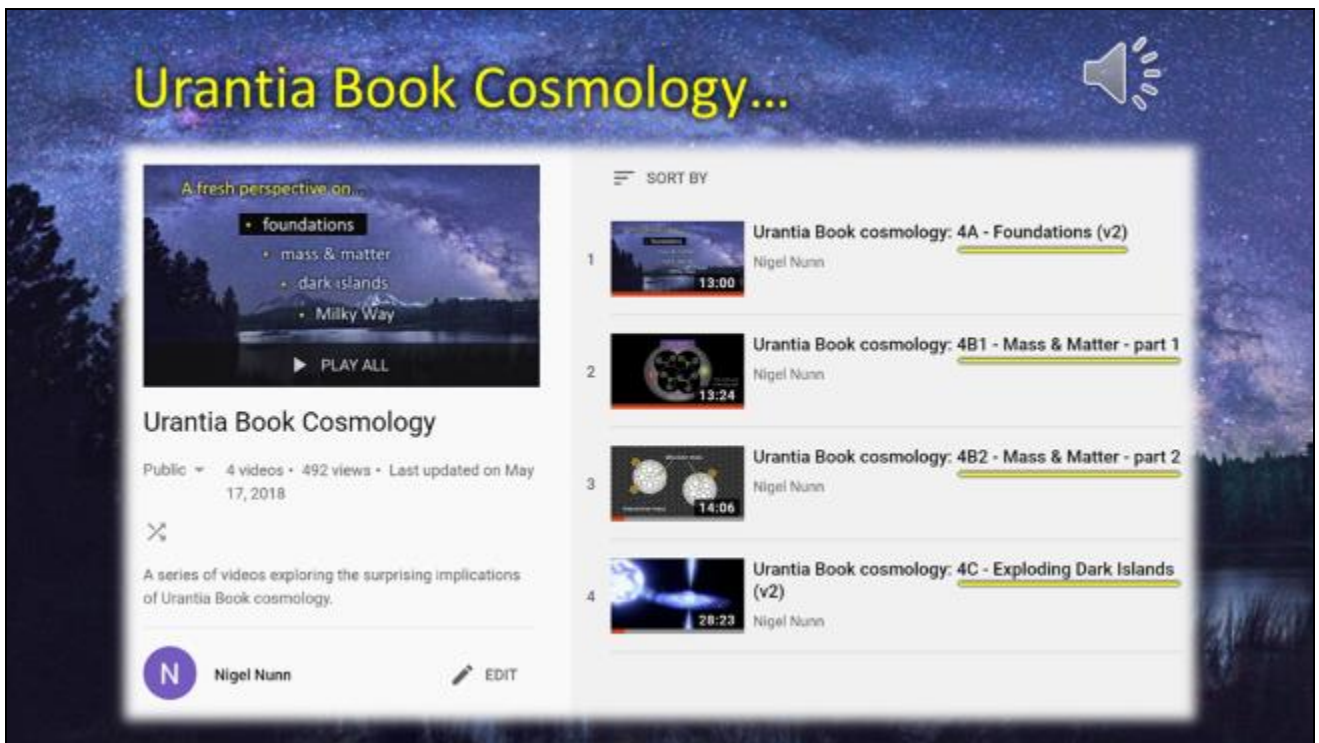


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described how spiral galaxies evolve
in massive, invisible, superfluid disks
of axion-like preons

U R A N T I A B O O K

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[The Urantia Book presents a cosmology that stirs the soul: a central and perfect universe, fringed by spacetime shallows in which finaliters are born; finaliters, destined to launch from this cosmic continental shelf into oceanic depths, seeding the light and life of personality throughout nested levels of outer space.]



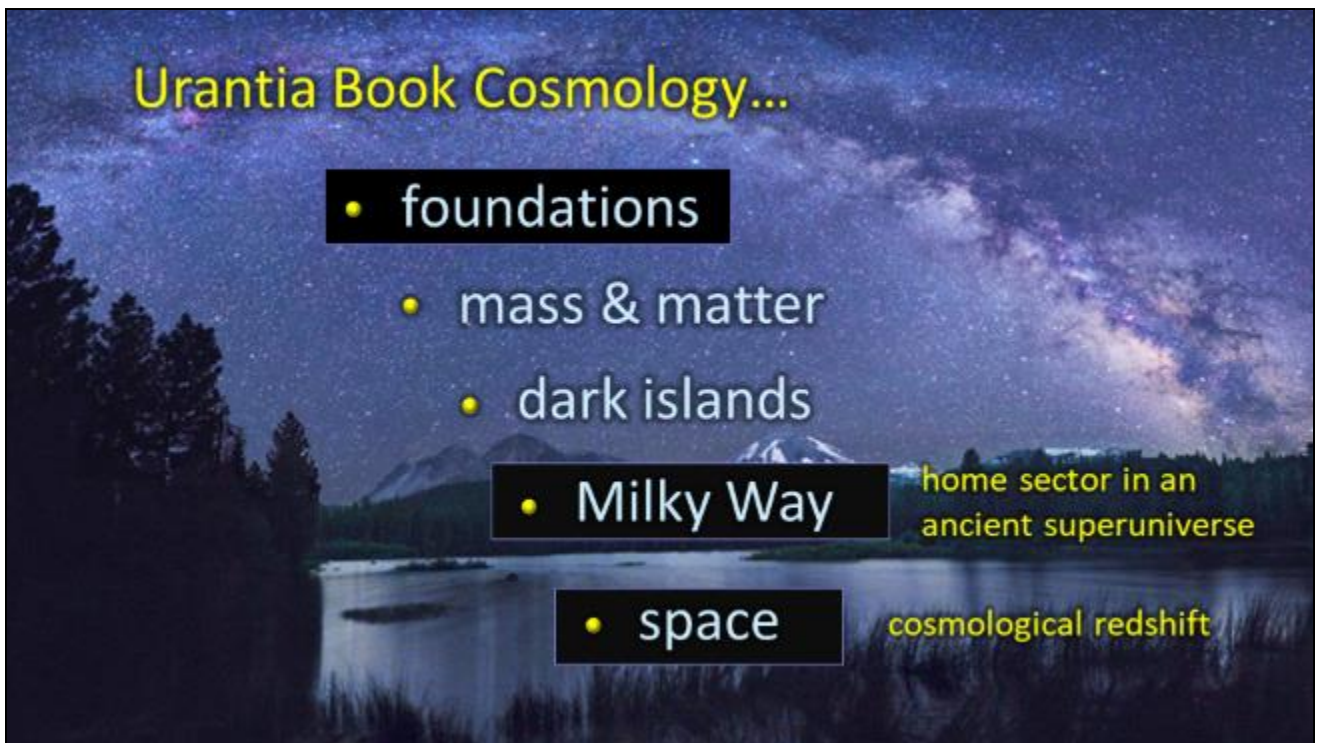
This is the 4th and final part in a series of videos that introduce the Urantia Book’s unorthodox – and unexpected – cosmology.

For those who haven’t seen the previous parts,

- In the first, we look at the Urantia Book’s unique, and completely new, **foundations for physics**, and see how so-called “**dark mass**” emerges from condensates of space potency.
- In the second, we put ultimatic (**axionic?**) foundations **under** the standard model for particle physics; and see why Dirac’s model for the electron – and a Higgs-type mechanism – work so well.
- In the third, we look closely at what happens when the neutrons in a neutron star start to melt;

... and why so-called **dark islands** (or “Planck stars”), eventually, tend to explode.

For those who’ve seen these videos, I think you’d agree that the Urantia Book ...



... tells quite a tale about mass and matter, and dark islands that explode.

Central to this story are these new foundations – for reservoirs of **energy** and **invisible mass** – that science currently can measure, but can't explain.

This is especially relevant for astronomy; so in this final part I'd like to explore what these new foundations might mean for the "**Milky Way**", our home sector in an ancient superuniverse.

We'll also see how these papers use cosmological redshift to tell a surprising story about the history and motions of space.

However. Before we begin I should mention that...

Urantia Book Cosmology...

From Paper 101 section 4: **The Limitations of Revelation**

“We full well know that, while the historic facts and religious truths of this series of revelatory presentations will stand on the records of the ages to come, **within a few short years many of our statements regarding the physical sciences will stand in need of revision** in consequence of additional scientific developments and new discoveries.” [Paper 101:4.2]

... the authors themselves throw cold water over our expectations.
From Paper 101 section 4 [quote]:

“within a few short years many of our statements regarding the physical sciences will stand in need of revision [...]” (101:4.2)

[end quote]

“Will stand in need of revision.” These papers were written in 1934, and clearly, many of their [quote]

“statements regarding the physical sciences”

simply echo scientific ideas of the day.

But later in that same section the author...

Urantia Book Cosmology...

From Paper 101 section 4: **The Limitations of Revelation**

- 1: The reduction of confusion by the authoritative elimination of error.
- 2: The co-ordination of known or about-to-be-known facts [...].
- 3: The restoration of important bits of lost knowledge...
- 4: The supplying of [...] otherwise earned knowledge.
- 5: Presenting cosmic data in such a manner as to illuminate the spiritual teachings...

[Paper 101:4.6-10]

... makes a list of things that, as revelators, they WERE permitted to do;
and anyone who reads this section will have to wonder:

which of their... **more interesting** scientific statements represent

[quote] **“authoritative elimination of error”** (101:4.5),

or...

[quote] **“otherwise earned knowledge”** (101:4.9).

Urantia Book Cosmology...

authoritative elimination of error

[Paper 101:4.6]

[Paper 101:4.9]

otherwise earned knowledge

These are significant carrots they left dangling,

- the possibility for “**authoritative elimination of error**”
- and for the revelation of “**otherwise earned knowledge**”.

In other words, when exploring these papers, we should be on the lookout for:

1. hints about where native physics has gone wrong, and
2. insight about things **beyond** human capacity to **prove** (and thus, possibly, “otherwise earned” ?)

And something else to keep in mind; ...

The story of the cosmos...

eternal purposes

transcendental causation [Paper 42:2.8]

finite phase

time-dependent evolution

The authors of the Urantia Book view the cosmos from outside time.

Which means they can say some interesting things...

- about **eternal purposes**
- and “**transcendental causation**” (42:2.8),
- and even about Einstein’s “**spooky action at a distance**”.

But this also means that any sequential, time-dependent history they reveal must involve ambiguities, and compromise.

Nevertheless, they explain that reality really **does** involve a crucial, “**finite**” phase: of time-dependent **evolution**.

It’s this finite, or time-dependent side of Urantia Book cosmology that we’ll explore.

The story of the cosmos...

2 components:

(1) Ancient, organized, and small
the “grand” universe

(2) Impressively vast (and young?)

... levels of outer space

“master” universe

Ok. In telling their (time-dependent) story of the cosmos, the authors distinguish between two distinct components:

- One is ancient, organized, and small.
- The other is impressively vast. And possibly quite young.

This small part, they call “**the GRAND universe**” – a massive, disk-like structure at the center of... enormous, nested levels of outer space.

Taken together, these two components – this ancient tiny kernel, and these vast levels of outer space – form the so-called “**MASTER universe**”.

This distinction, between an ancient, organized, “**grand universe**”, and unevolved “**levels of outer space**”, is so... **unorthodox**, that our first step is really just to get a feel for the sort of story the Urantia Book reveals, and to see if it’s compatible with what astronomers actually observe.

A fresh perspective on...

- (1) spiral galaxies invisible (“dark”) mass
- (2) “the grand universe” astronomical context
- (3) Milky Way & Orvonton [What do astronomers see ?
What do the papers say ?
- (4) cosmological redshift
 - age of the universe ?
 - Hubble parameter ?
 - microwave background ?

Here’s the plan. We’ll begin with the birth of spiral galaxies, and consider a neat solution to the mystery of invisible (or “dark”) mass.

Next, we’ll review what we actually *know* about our place in space, and see how the Urantia Book’s “**grand universe**” might fit into this astronomical context.

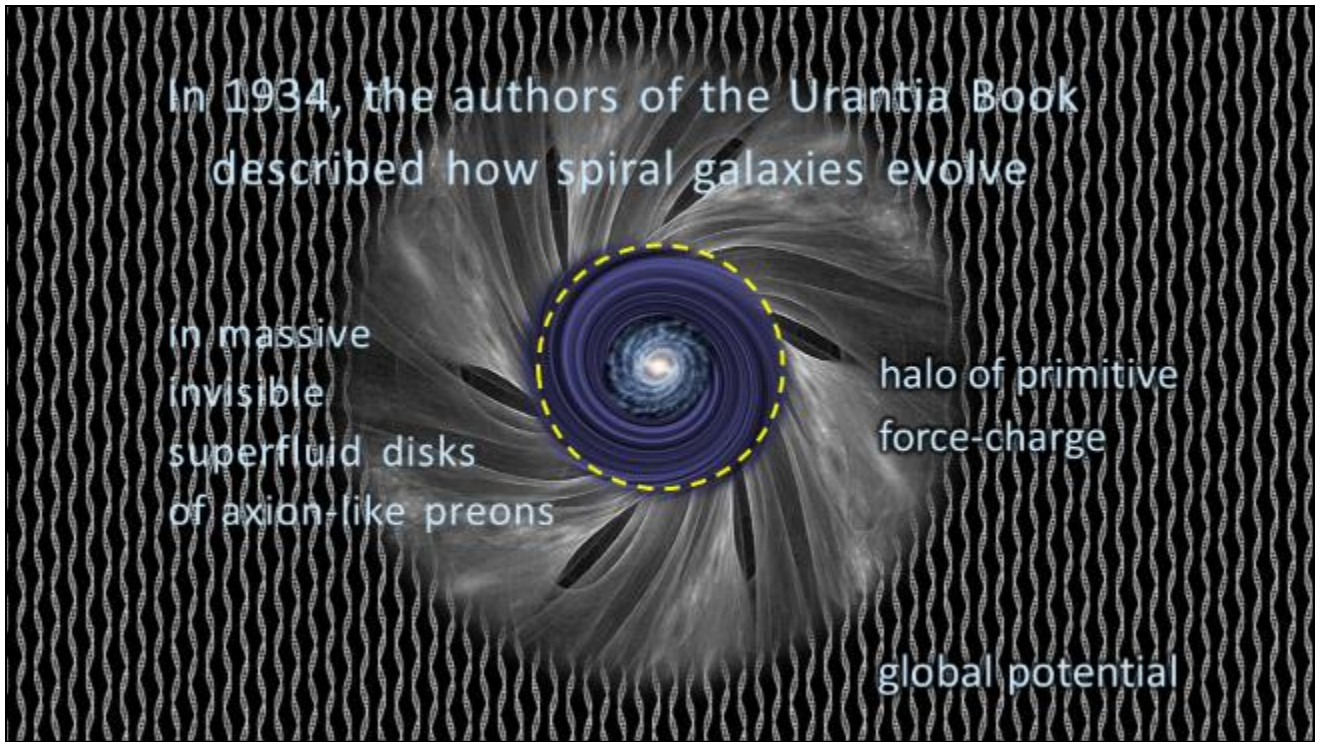
Regarding the Milky Way, and what the authors call a “superuniverse”, – in particular, the superuniverse of **Orvonton** – we’ll compare what astronomers actually see... with what the papers seem to say.

One thing we’ll find is that the story of Orvonton involves an awful lot of time. Much more than 14 billion years. So we’ll also explore...

... how a simple idea about **redshift**

has led cosmologists to believe in a young universe, beginning with a hot Big Bang.

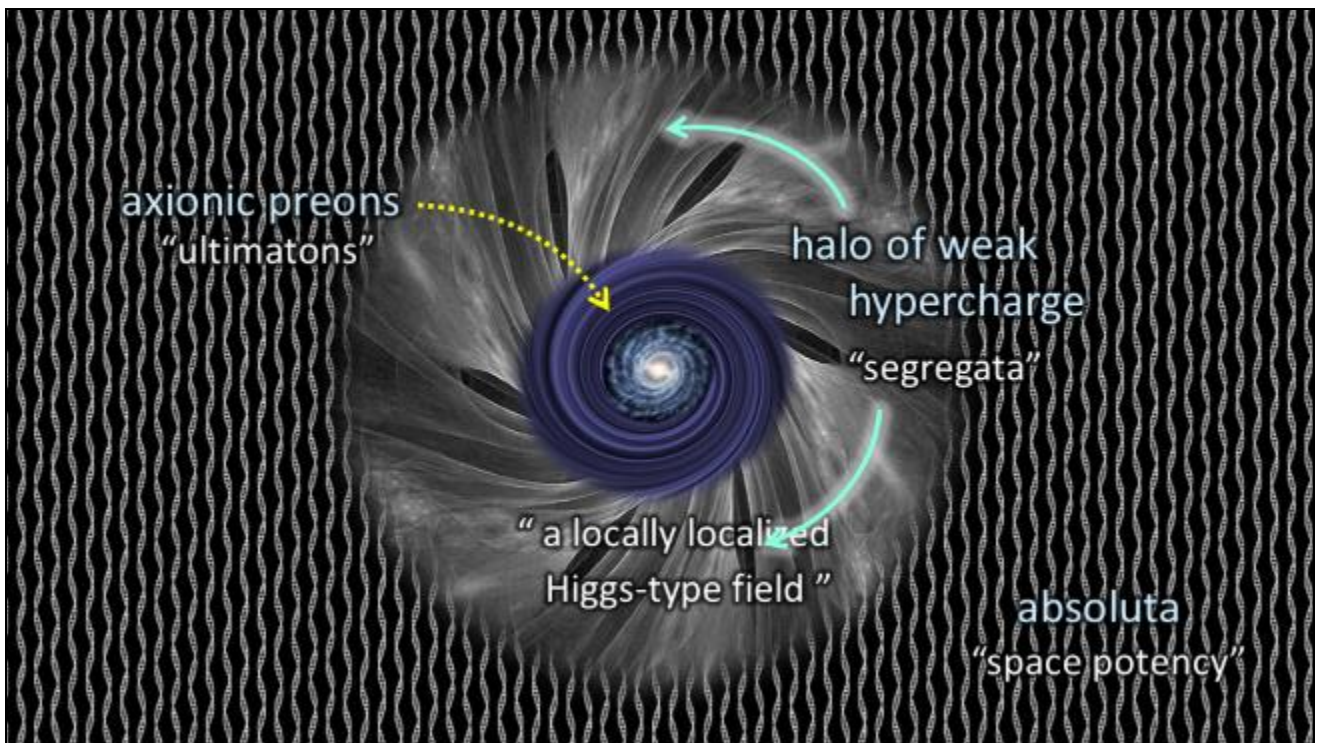
First, spiral galaxies... and “invisible mass”.



In 1934, the authors of the Urantia Book described how spiral galaxies evolve in massive, invisible, superfluid disks of “**axion-like**” preons;

and how these massive, invisible disks emerge from halos of primitive “**force-charge**”;

and how these halos of charge are condensed from a global potential.



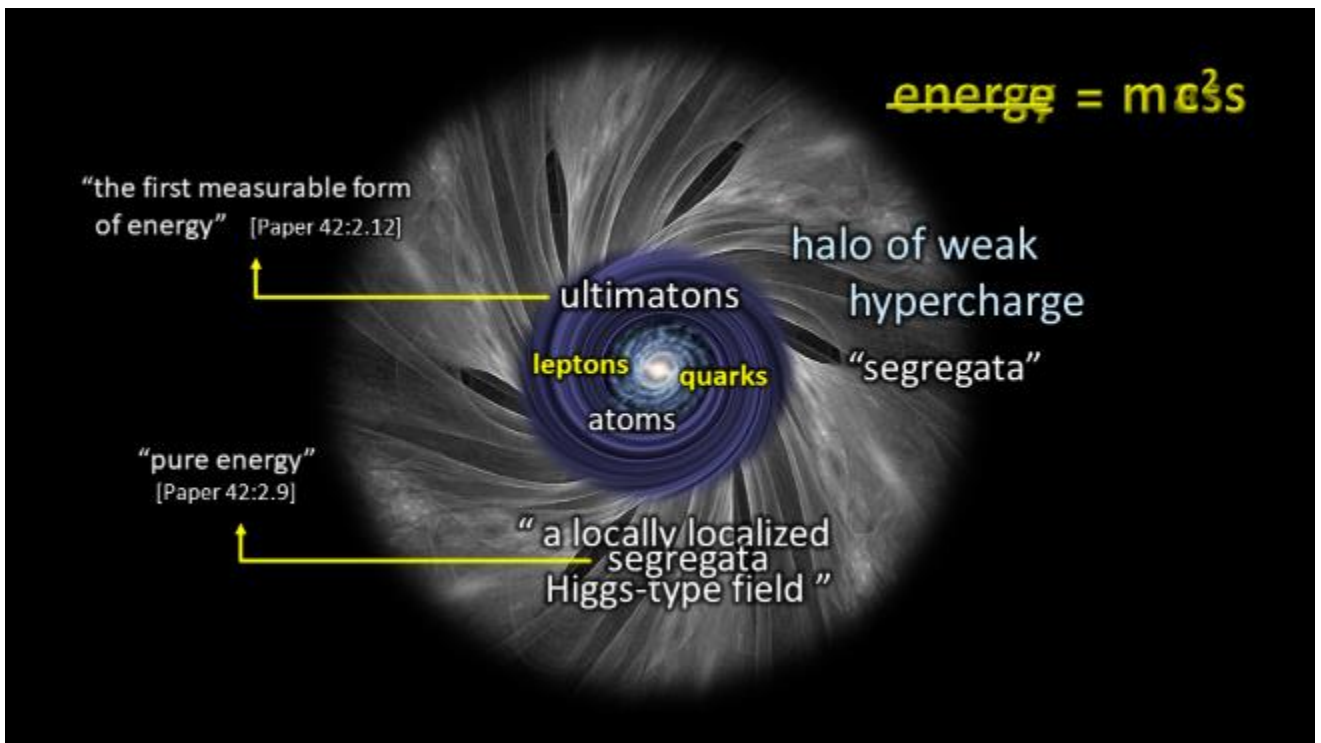
These axion-like preons they call “**ultimatons**”;

This halo of primitive, “weak hypercharge”, they call “**segregata**”;

And this global potential (pervading all space) they call “**absoluta**”,
or “**space potency**”.

In this scheme, the story of galaxies begins with this **halo of segregata**,
the “segregation” of an island of primitive, primordial weak hypercharge.

What nowadays we’d call a “locally localized Higgs-type field”.



From within this field, ...

a disk of ultimatons appears – invisible, massive, superfluid.

And it's from within this disk that spirals of stars emerge; their atoms – their leptons and quarks – built up from clusters of clusters of these... axion-like ultimatons (as we saw in Part 4B).

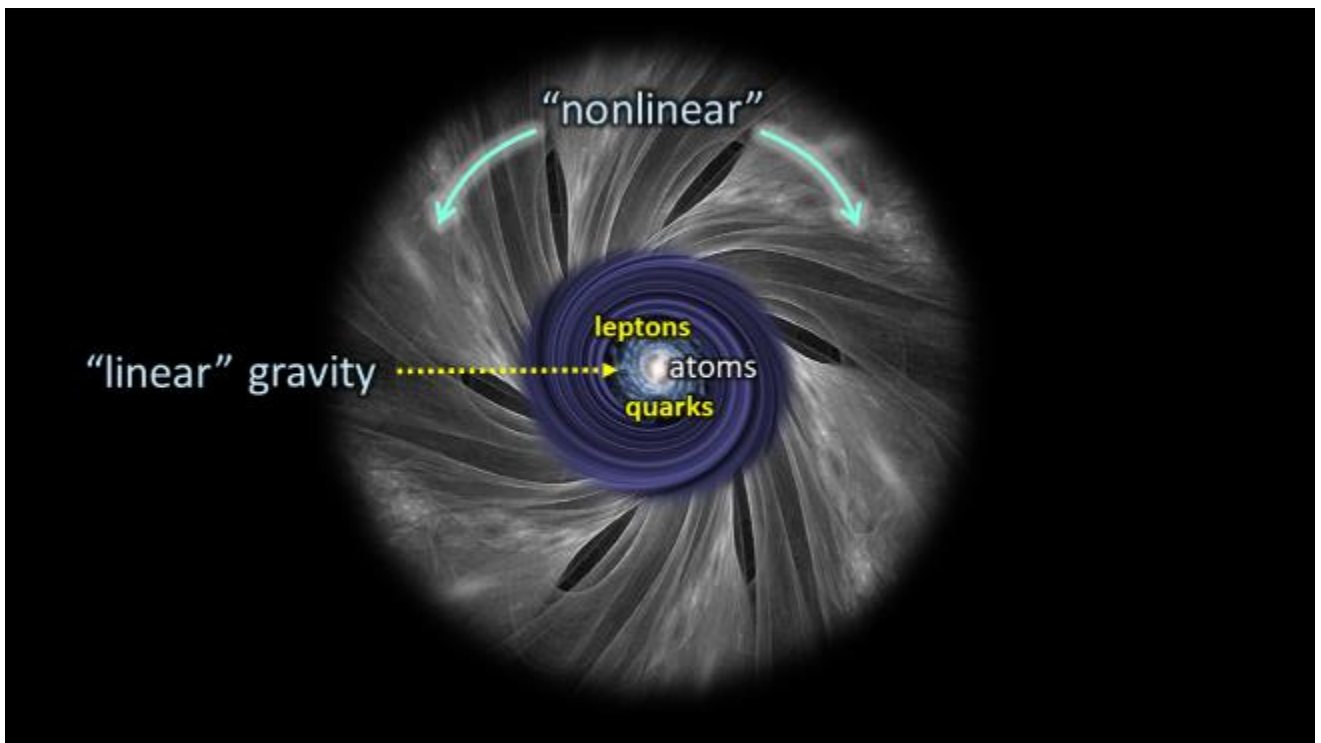
Regarding “mass”, in these papers the so-called “**mature ultimatons**” is described as [quote] “**the first measurable form of energy**” (42:1.2).

They also refer to <segregata> as [quote]: “**pure energy**” (42:2.9).

So this (halo + disk) – this halo of **segregata** plus disk of **ultimata** – represent... an **awful** lot of ENERGY.

But following Einstein, if we divide all this ENERGY by the speed of light, squared, then what we ALSO have... is an awful lot of **mass**.

Or rather, an awful lot of (invisible) gravitational effect.

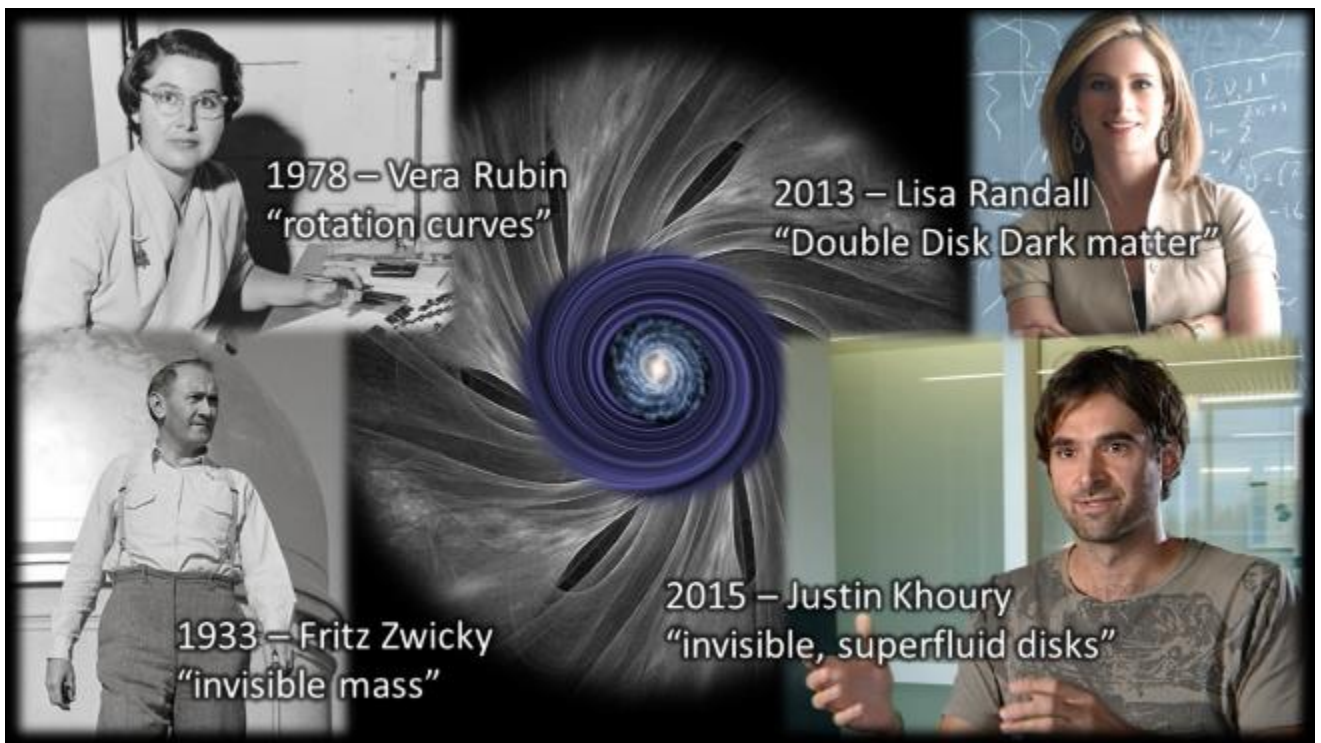


Regarding “**gravity**”, these authors make a surprising distinction between two very different types:

One type of gravity they call “**local**” or “**linear**” – a kind of **quantizable gravitational charge** – which appears wherever leptons and quarks and atoms begin to form.

The other type of gravity they call “**absolute**”, a non-linear, time-transcending, global grasp on energy of all forms.

To make sense of so-called “gravity”, we’d have to accommodate both types.



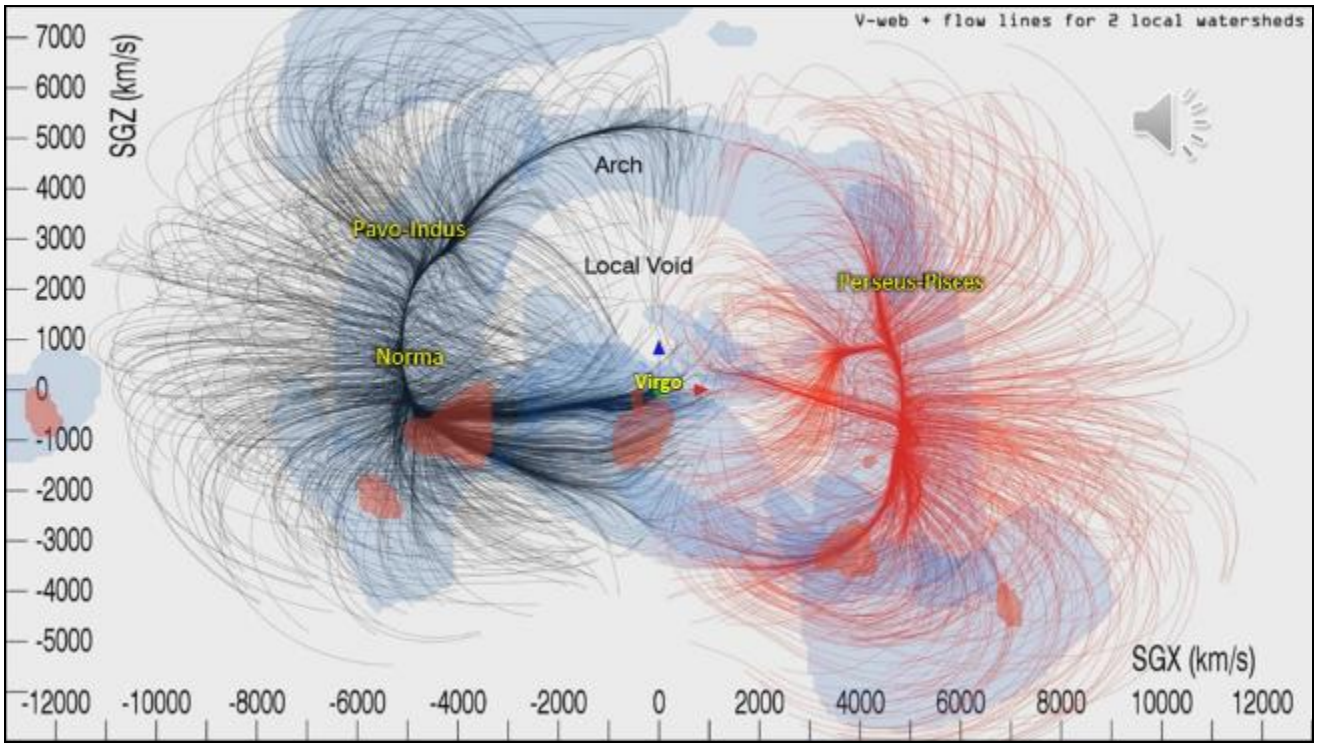
So, in **1934**, at the very same time Fritz Zwicky first noticed the need for invisible mass;

40 years before Vera Rubin measured those "flat rotation curves" of spiral galaxies;

the authors of the Urantia Book presented – or **predicted** – exactly the sort of model that researchers have recently begun to explore.

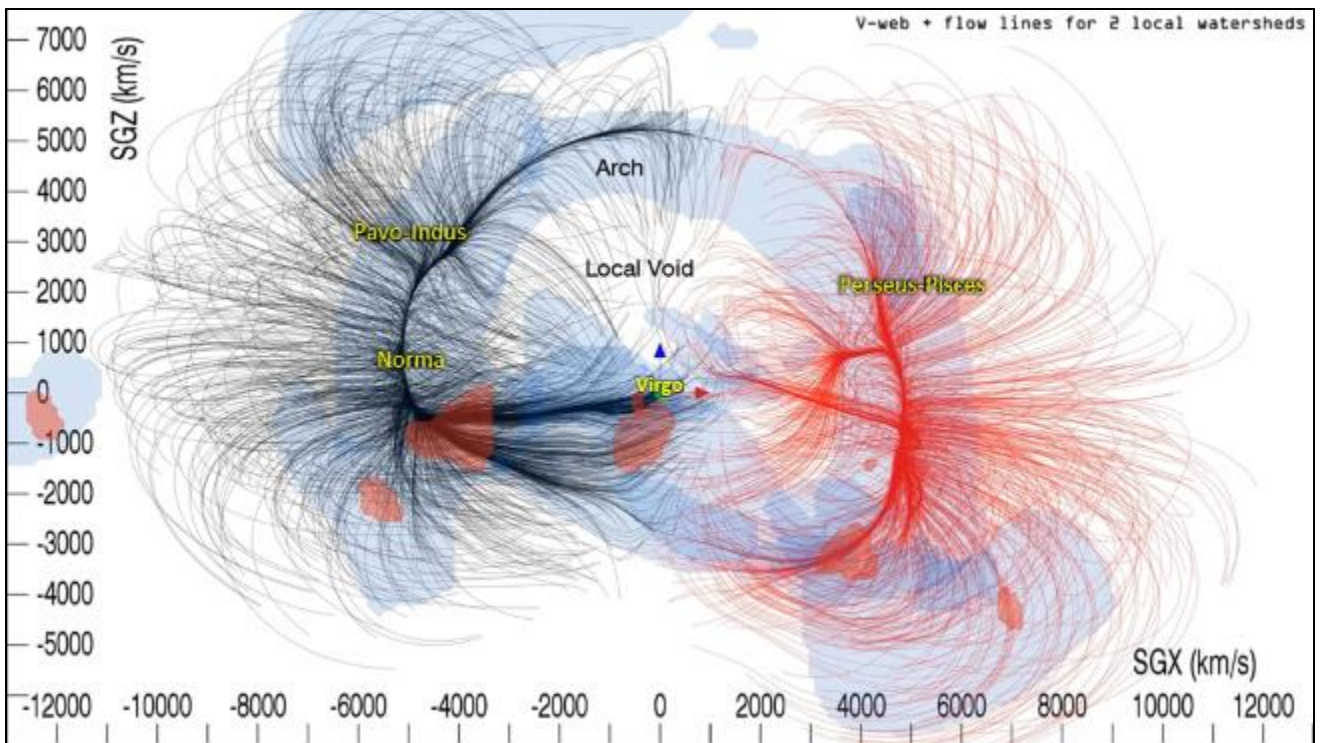
A model that assumes – or **predicted** – the sort of Higgs-type field our Standard Models require. In **1934**.

Ok, so these papers say something interesting about how spiral galaxies form. What about on a larger scale? For example, do they say anything interesting...



... about this?

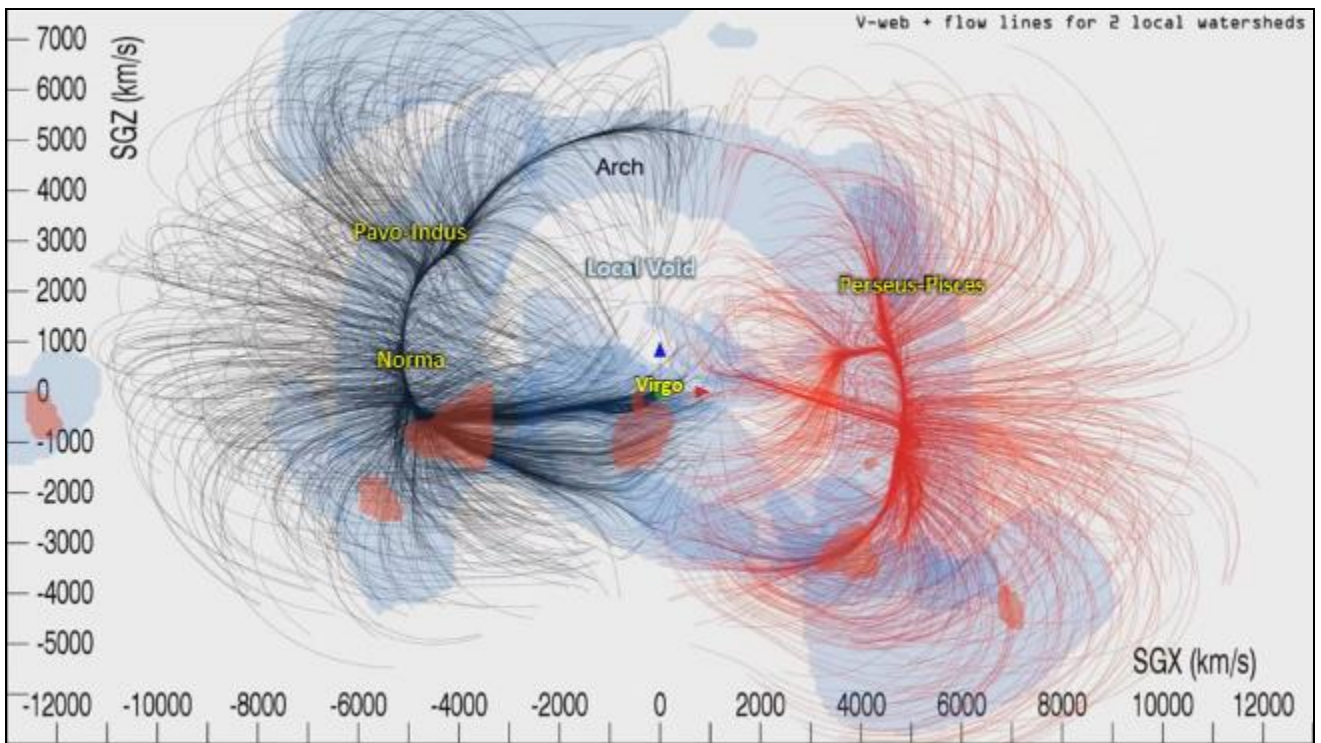
This clip, ...



[[narration over 3D rotation...](#)]

... , from a video by Brent Tully's group (part of their "Cosmic Flows" project), shows the distribution of superclusters, centered on our region of space, out to about 250 million light years (75 Mpc).

Our Milky Way sits at the center of this flow, near the Virgo cluster, in a region of surprisingly empty space, the so-called "Local Void".

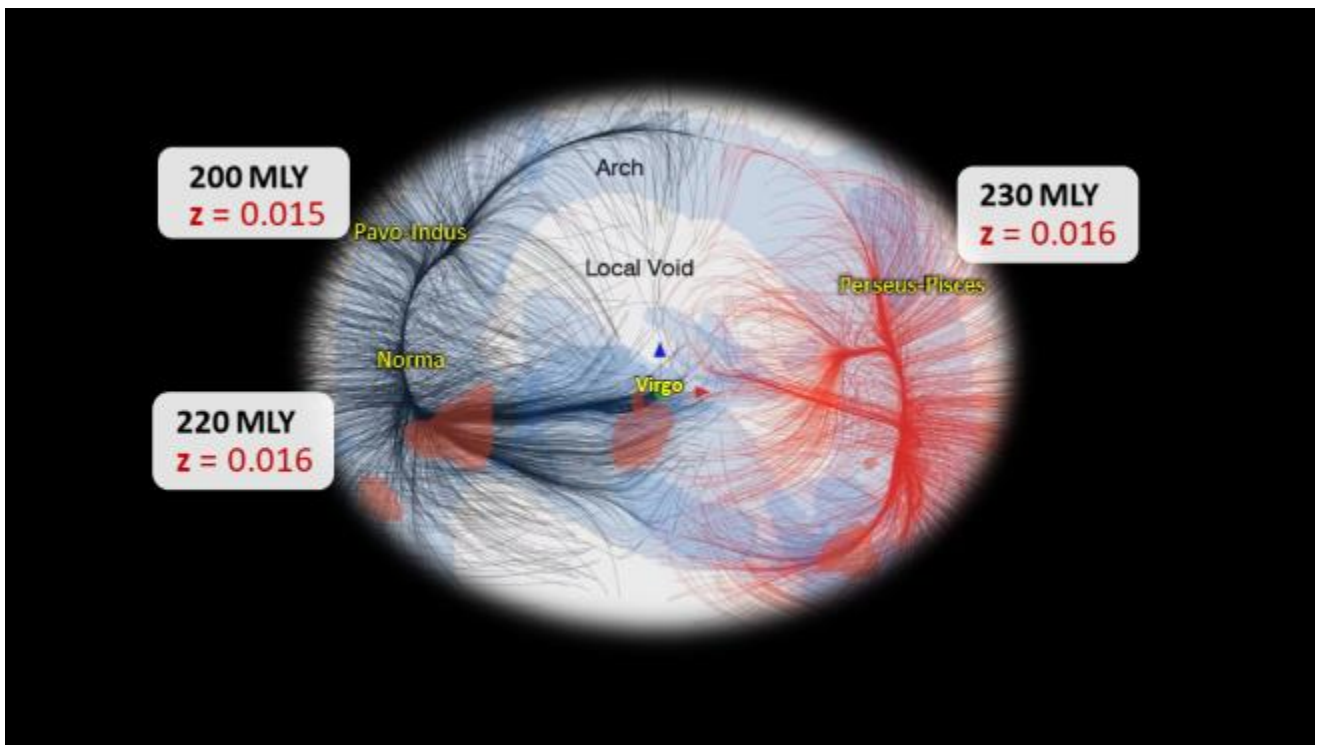


In this simulation, Tully's group have tried to do three things:

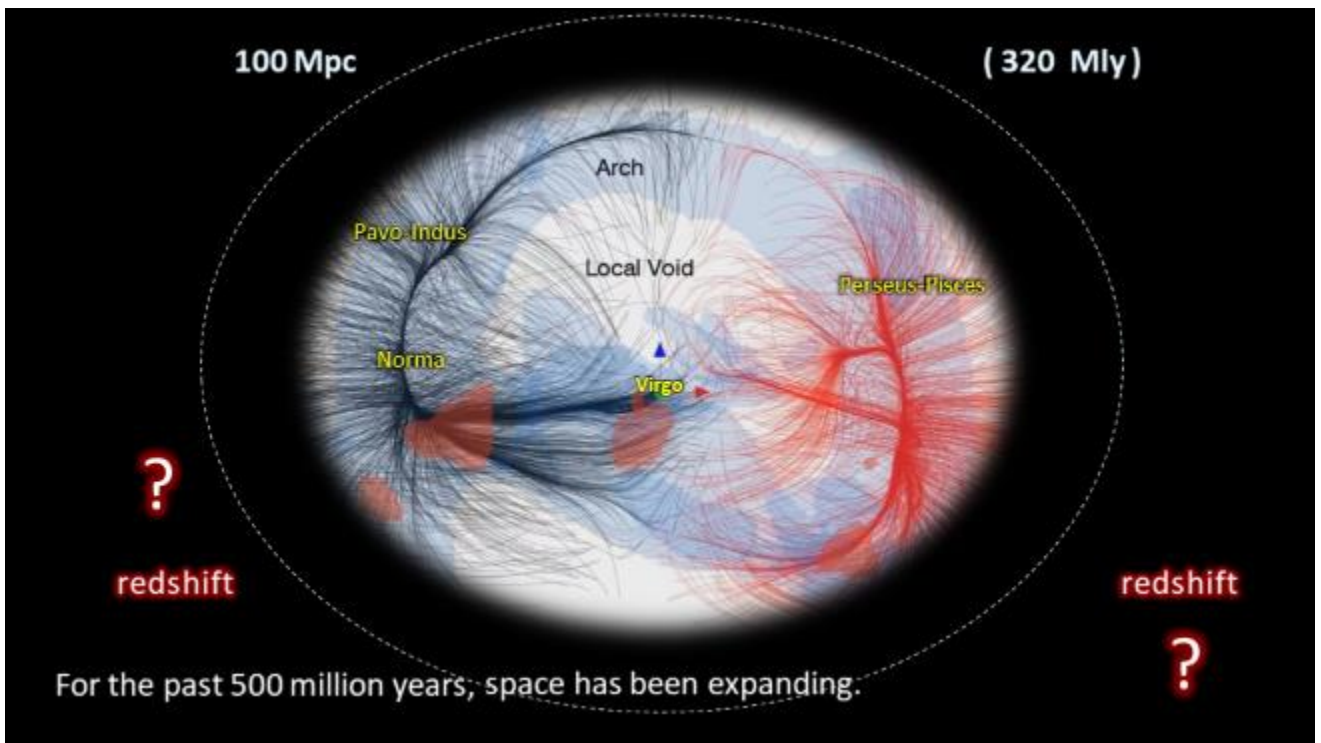
First, **account for** all the normal matter our telescopes can find.
 Next, **estimate** an associated distribution of invisible, or "dark" mass.
 And finally, **extrapolate the motion**, the so-called "cosmic flow",
 of all this mass.

... given their predicted distribution,
 and using some... old assumptions about gravity and space.

Now, allowing for some confusion (in Tully's map) about what's actually flowing where, the Urantia Book predicted – in 1934 – that we would find a distribution something like this, a "void" or "quiescent" region of almost empty space, ringed by great walls of clusters of galaxies.



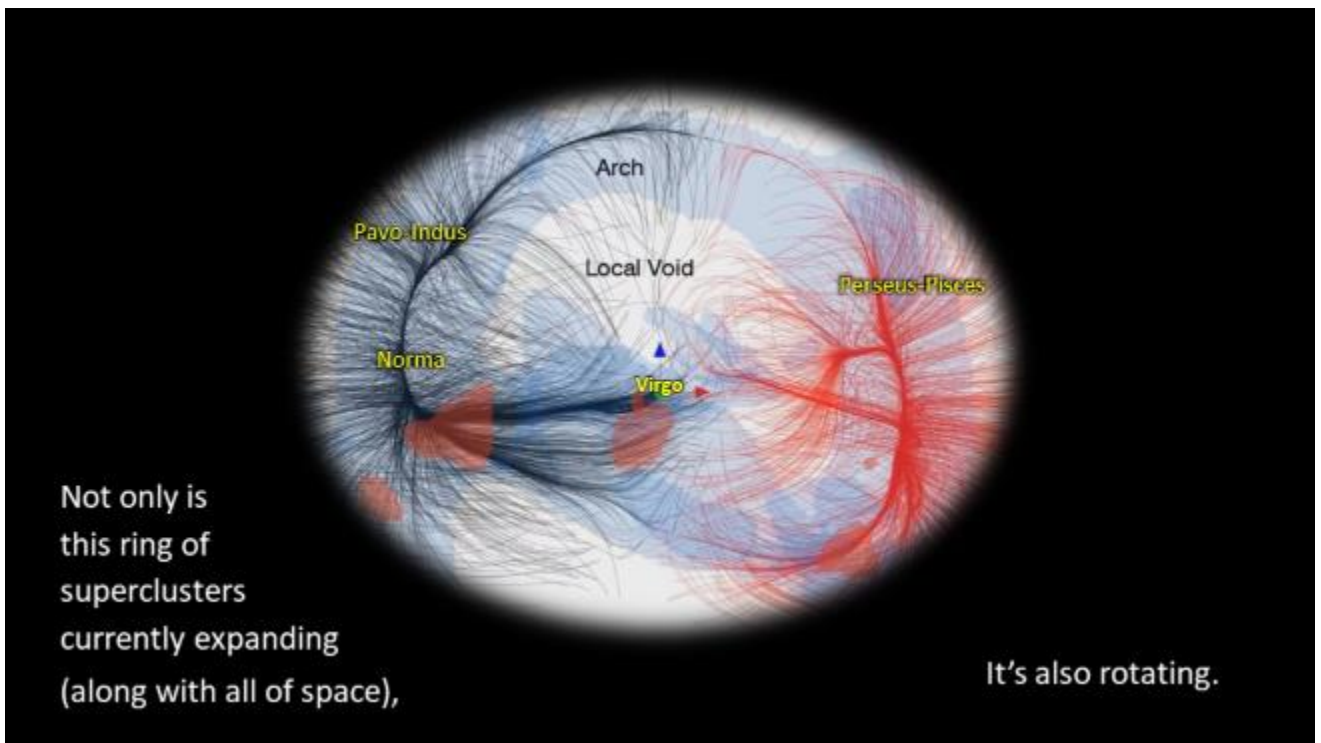
It also predicted – in 1934 – that as we mapped this ring,
we would indeed confirm a (local) outwards “Hubble Flow”, ...



... because for the past **500 million years**, space... HAS been expanding.

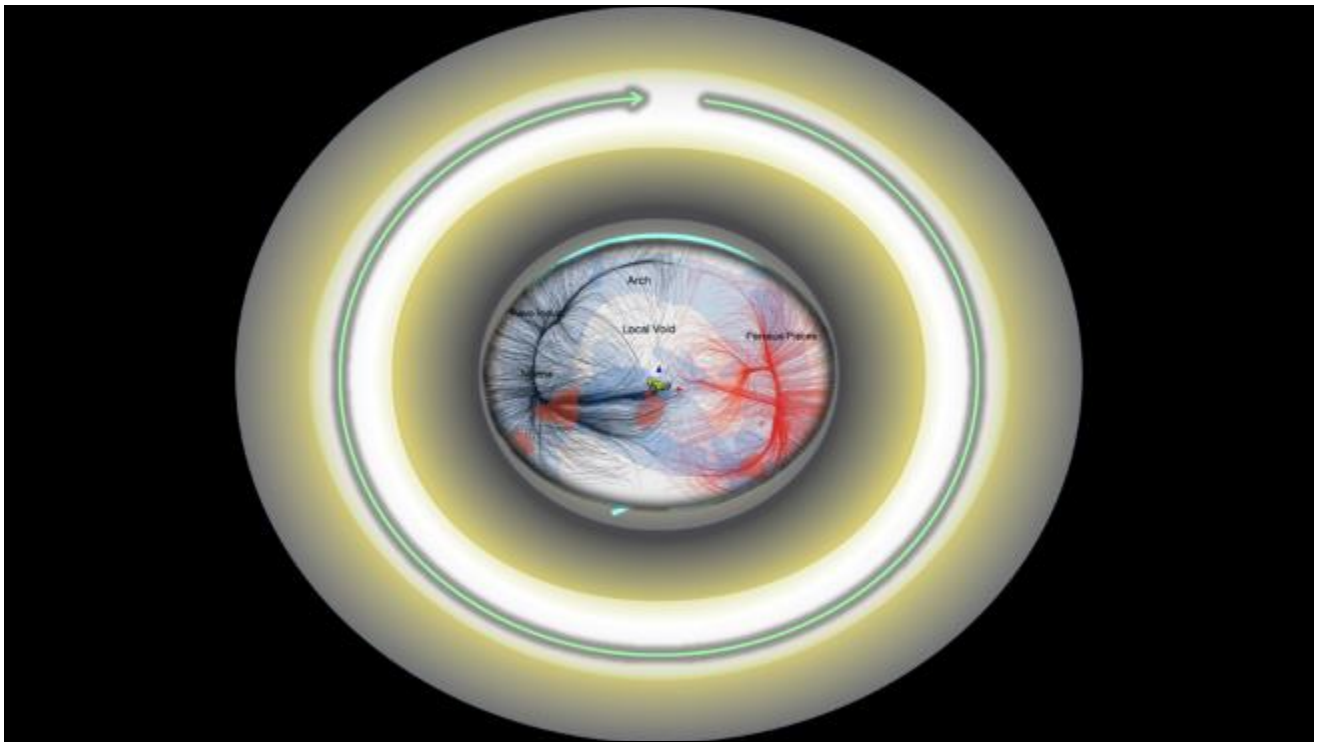
But they added a twist, claiming that beyond this ring, beyond say 100 Mpc (about 320 million light years), redshift becomes not so much a reliable indicator of distance, but more... a source of increasing confusion, the further out we look.

And they added another twist...



Not only is this ring of superclusters expanding (along with all of space), they claim it's also rotating – rotating about a **center** very close to where we are, here near the Virgo cluster.

But this is not just another “rotating cosmology”...

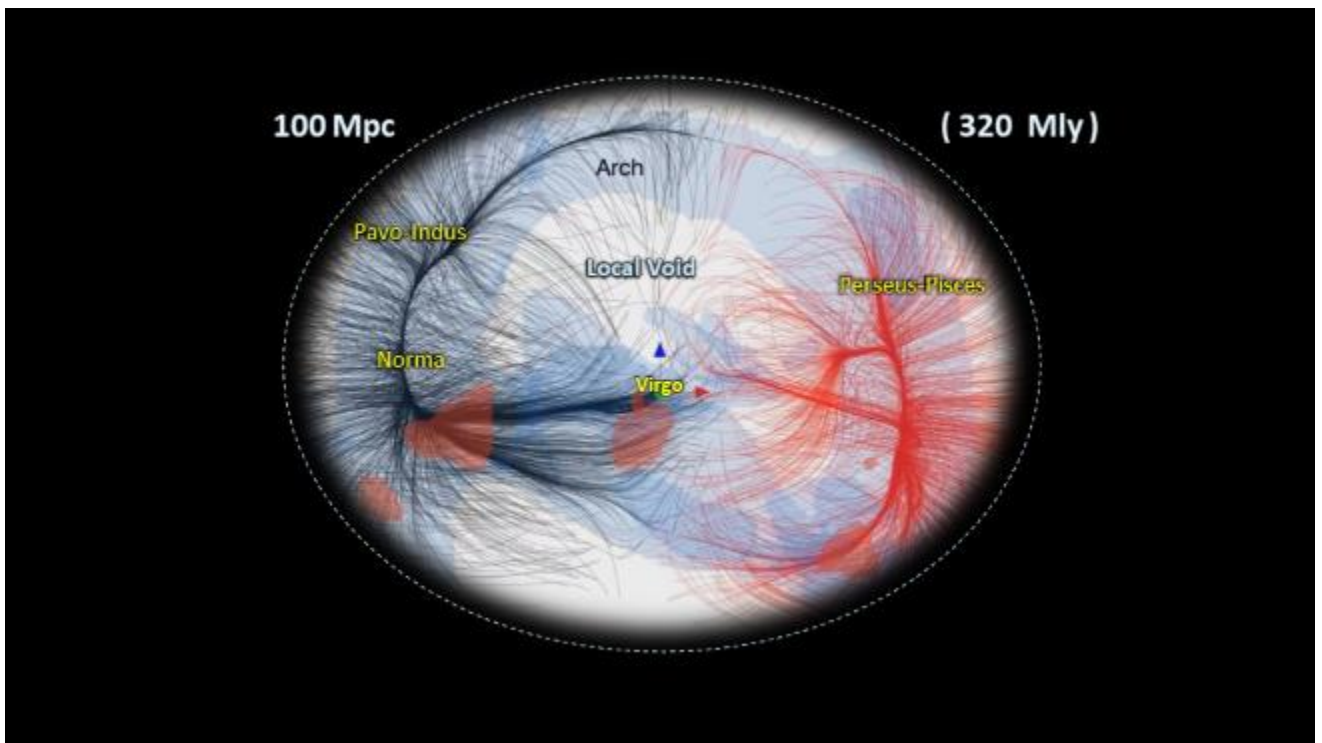


These authors go on to describe a set of far more distant, and far larger, **counter**-rotating flows;

as well as global cycles of expansion and contraction, a kind of “gentle respiration” of all space.

All of which goes against the grain of current cosmological assumptions. Especially this idea about the universe having a “center”.

Of course, if the universe really DOES have a “center”, [. . .]



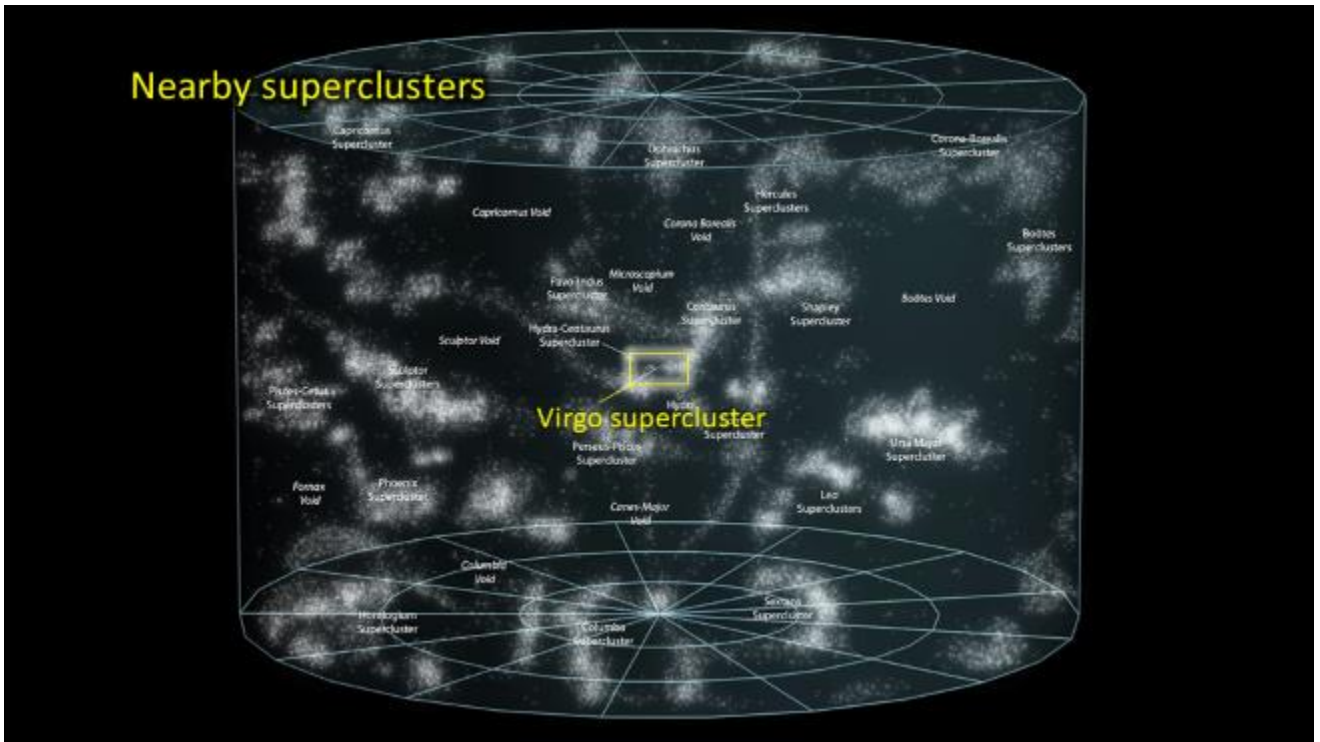
[. . .], then some of those “current cosmological assumptions” would need to change.

So before we explore the dynamics of deep space,

and see why, beyond a certain distance, the usefulness of redshift begins to fail,

and why our Type 1a supernova data seem to fit best within 100 Megaparsecs,

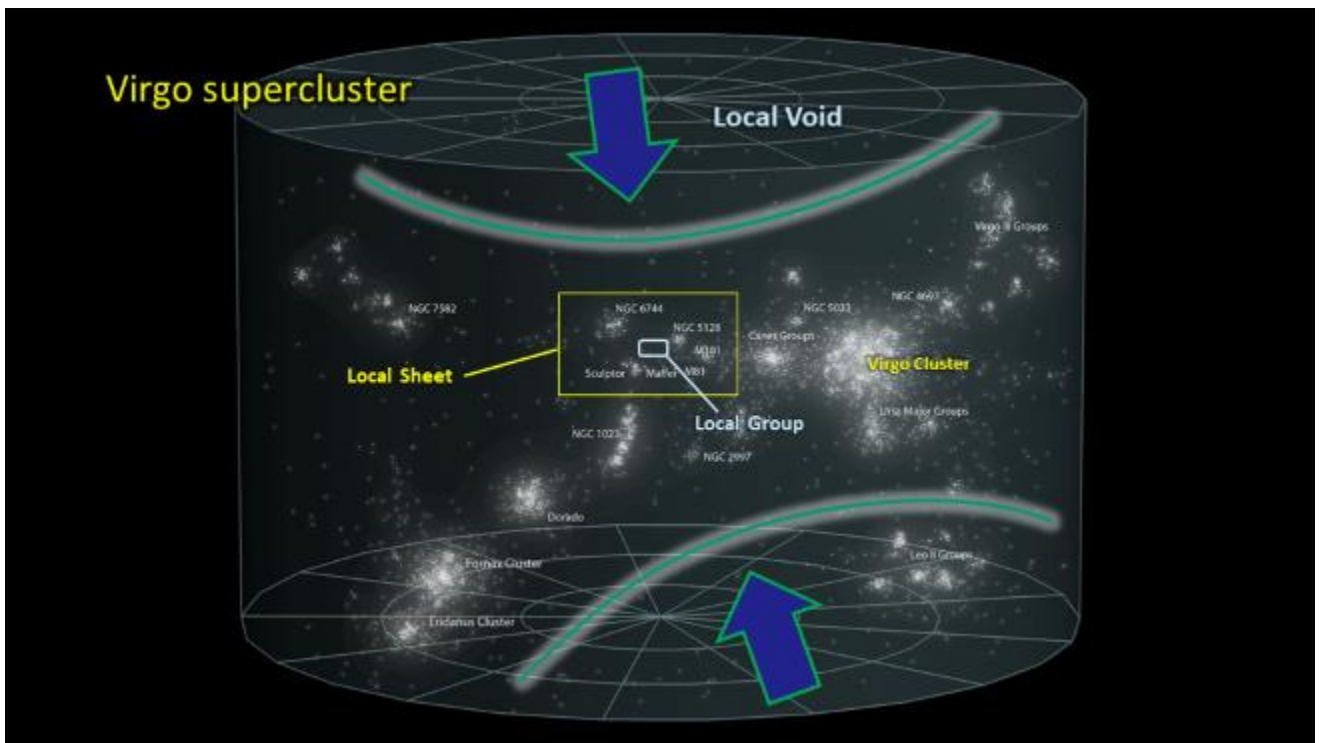
let’s first zoom in closer to home, into the center of this “cosmic flow”. First, to see what astronomers have actually discovered, and second, to explore what sort of center these Urantia Book authors propose.



Here's a rough / redshift plot of the region where Tully's group are mapping those "Cosmic Flows".

Virgo, our "local supercluster", is in the center.

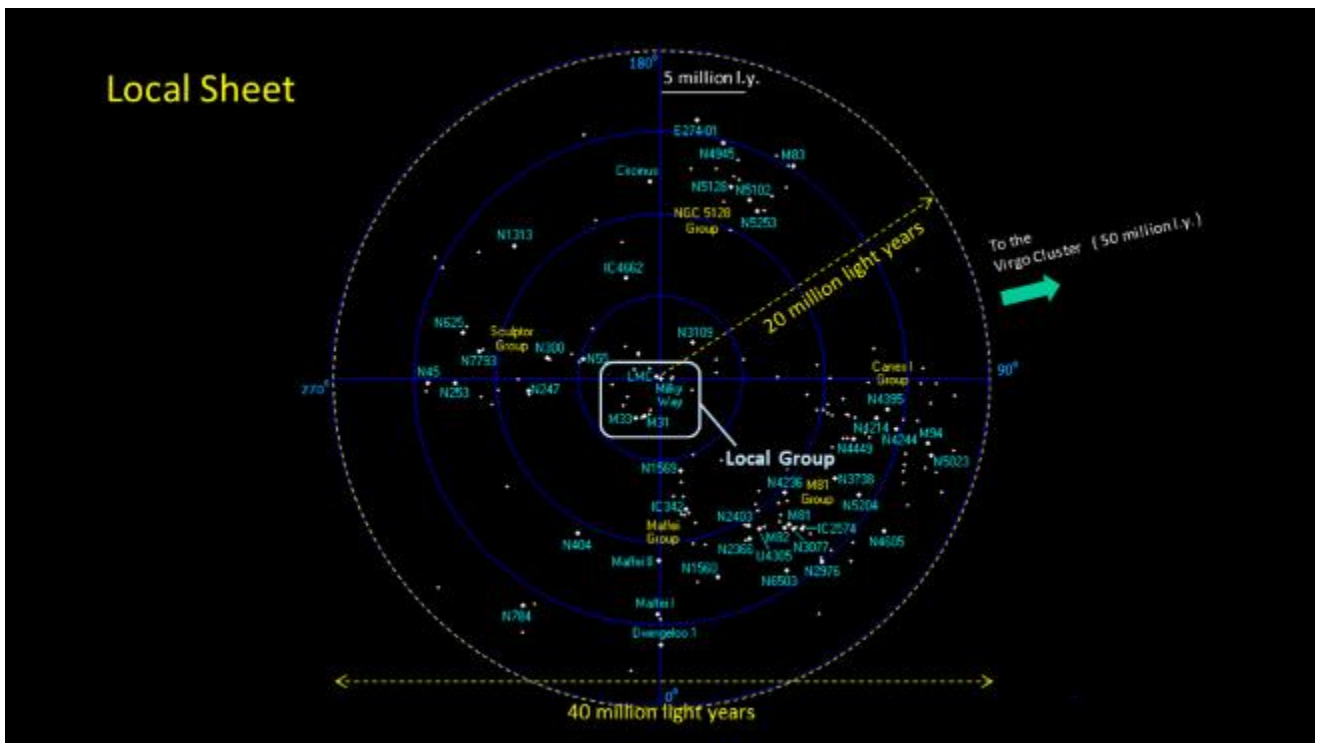
Zooming in, ...



... we find “**the Local Sheet**”, a thin sheet of galaxies sandwiched above and below by so-called “voids” – huge bubbles of (apparently) empty space.

We’re here, in the middle of this sheet, within the so-called “Local Group”.

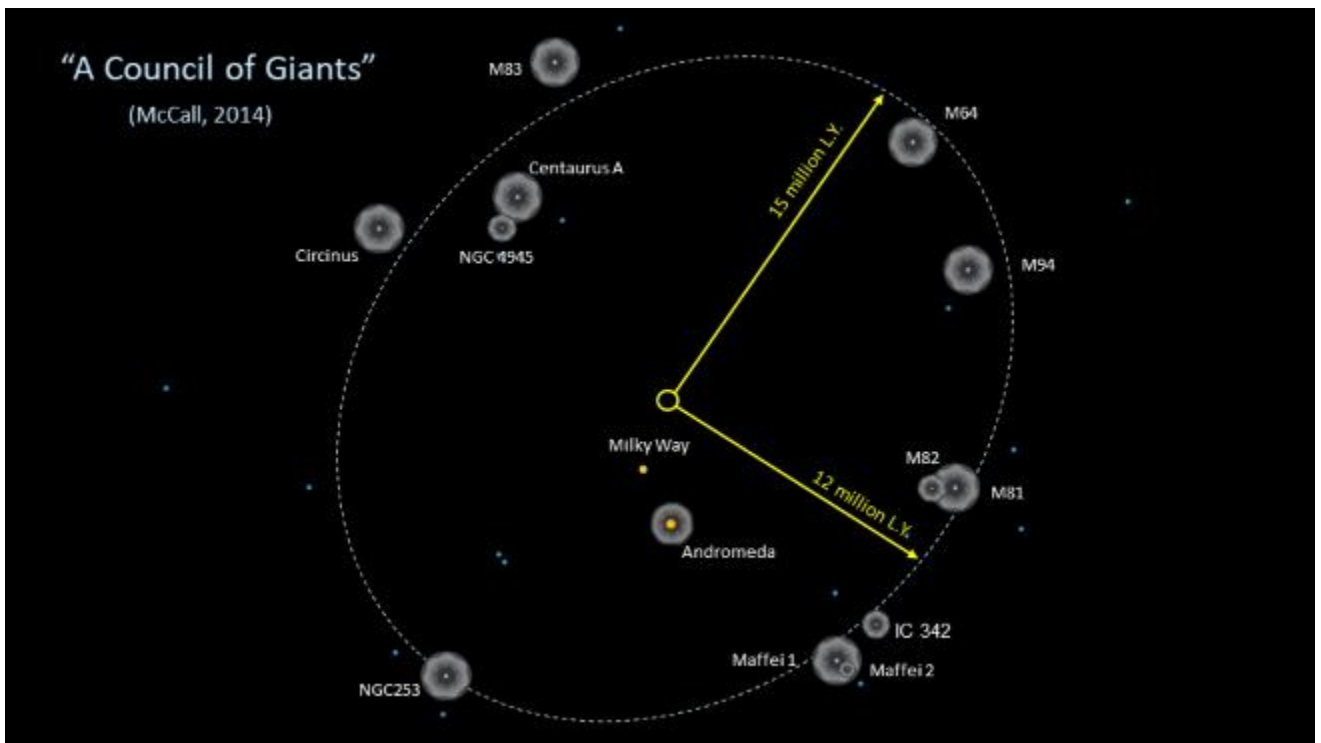
Zooming in a little more, ...



..., here's a map of this "Local Sheet", about 40 million light years across. The Local Group, with our Milky Way, is here in the center.

In 2014, astronomer Marshall McCall presented a study of this region, carefully remapping all bright galaxies within 20 million light years of the Milky Way.

Map: https://en.wikipedia.org/wiki/Virgo_Supercluster



And this... is what he found: an apparent ring of **12** large galaxies, to which he gave the catchy name, “**A Council of Giants**”.

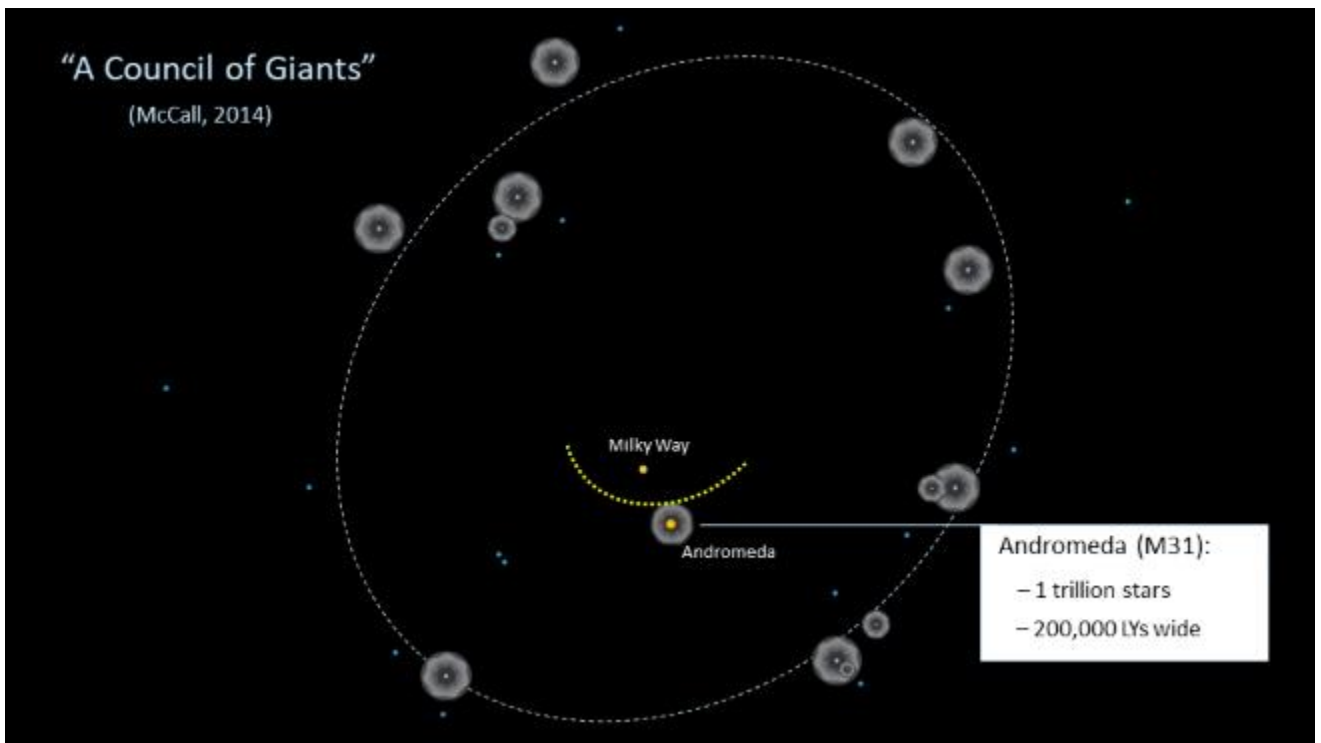
Andromeda and the Milky Way are near the middle of this ring, just off center.

And let’s add in those (invisible) halos of <segregata> and disks of superfluid <ultimata>.

The surprise here, and the point of McCall’s paper, is that relative to each other, these 12 giant galaxies seem to be... bound together, as if holding formation in this **persistent elliptical ring**.

Now, to native astronomers, this “Council of Giants” is just... “one of those things”, a chance arrangement due to gravity. But in a Urantia Book scheme, it may be something more.

In fact, the Urantia Book has a lot to say about this region of space. But first, I should mention a mystery.



Until recently, astronomers assumed that the giant Andromeda galaxy – with its trillion stars and enormous diameter – must be much more massive than our Milky Way.

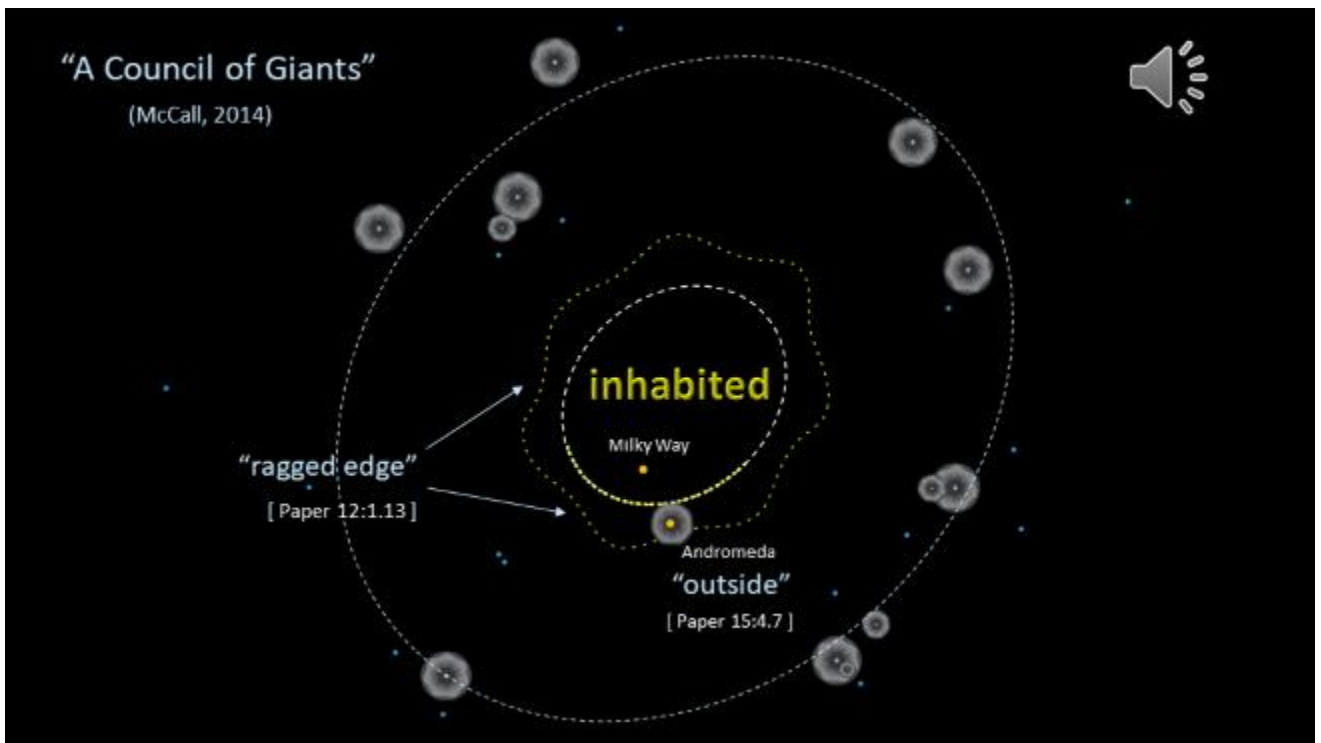
But recent studies (of the dwarf satellites of both) suggest that the Milky Way actually might “weigh” more; or rather, that some system containing our Milky Way has some... unexpected gravitational effect.

Hold that thought.

So this is the sort of neighborhood astronomy reveals.

Now here’s the question: does the Urantia Book add anything worthwhile to this picture? Can the Urantia Book story, of an organized **Center**, surrounded by nested, counter rotating cosmic flows, be made to fit?

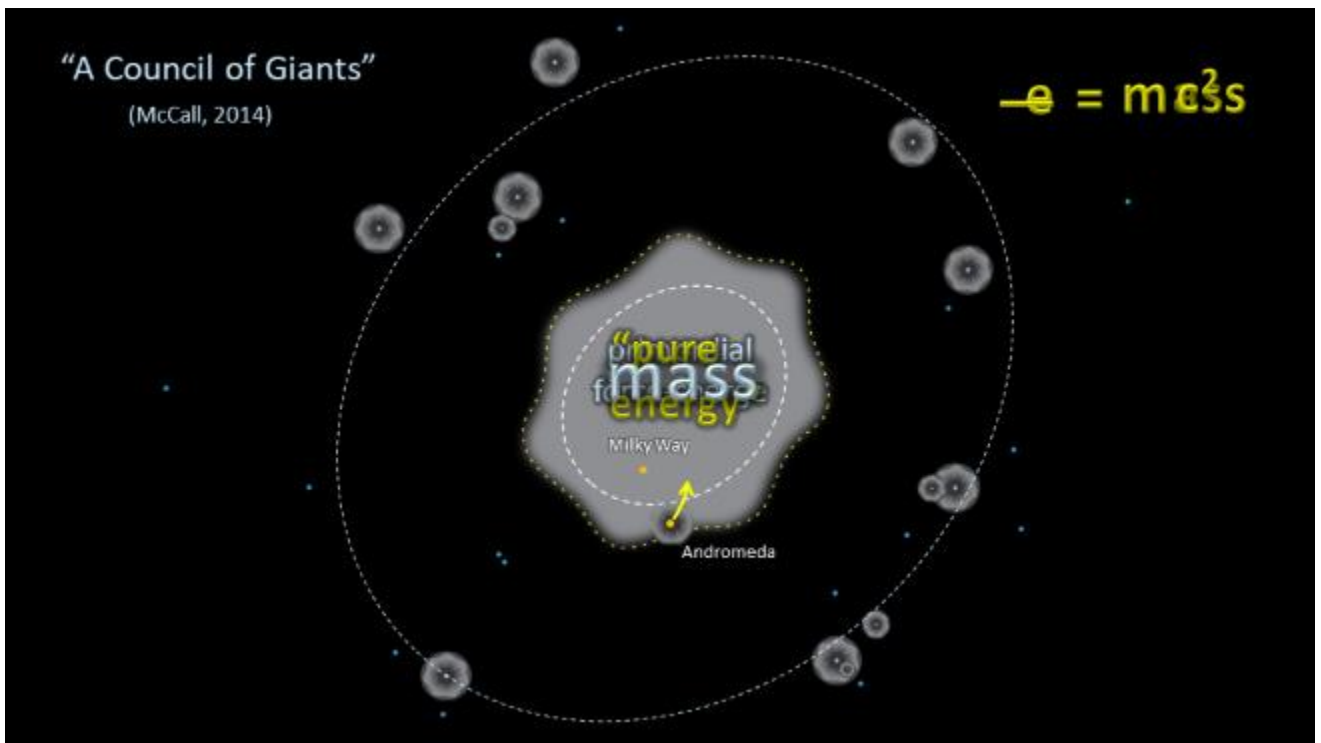
Let’s see.



Paper 15 **begins** by revealing that our Milky Way spiral sits out towards the rim of [quote] **“one gigantic wheel”** (15:0.1),

- * that **inhabited** “superuniverse domains” lie **within** this wheel,
- * and that Andromeda sits **just outside** (15:4.7),
... cruising along this [quote] “ragged edge” (12:1.13).

One feature ...



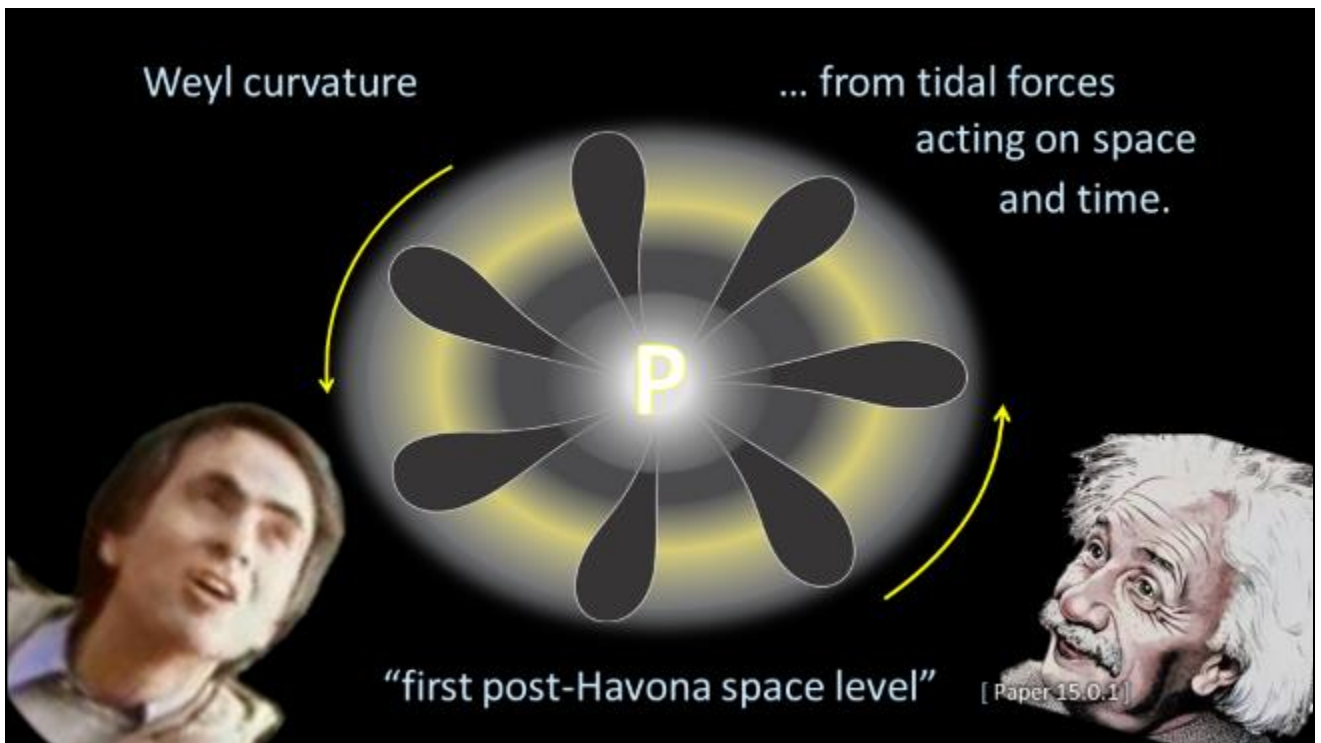
... of this wheel is that it's pervaded by [quote]

"primordial force charge" [11:5.4, 11:8.5];

what nowadays we'd call "a condensate of weak hypercharge",
or "**locally localized Higgs-type field**".

But "primordial force charge" is also called segregata, or "pure energy".
So once again, if we divide all this energy by the speed of light, squared,
then what we have here is... an awful lot of **mass**!

Or rather, gravitational effect. Which would explain why Andromeda
is falling in.



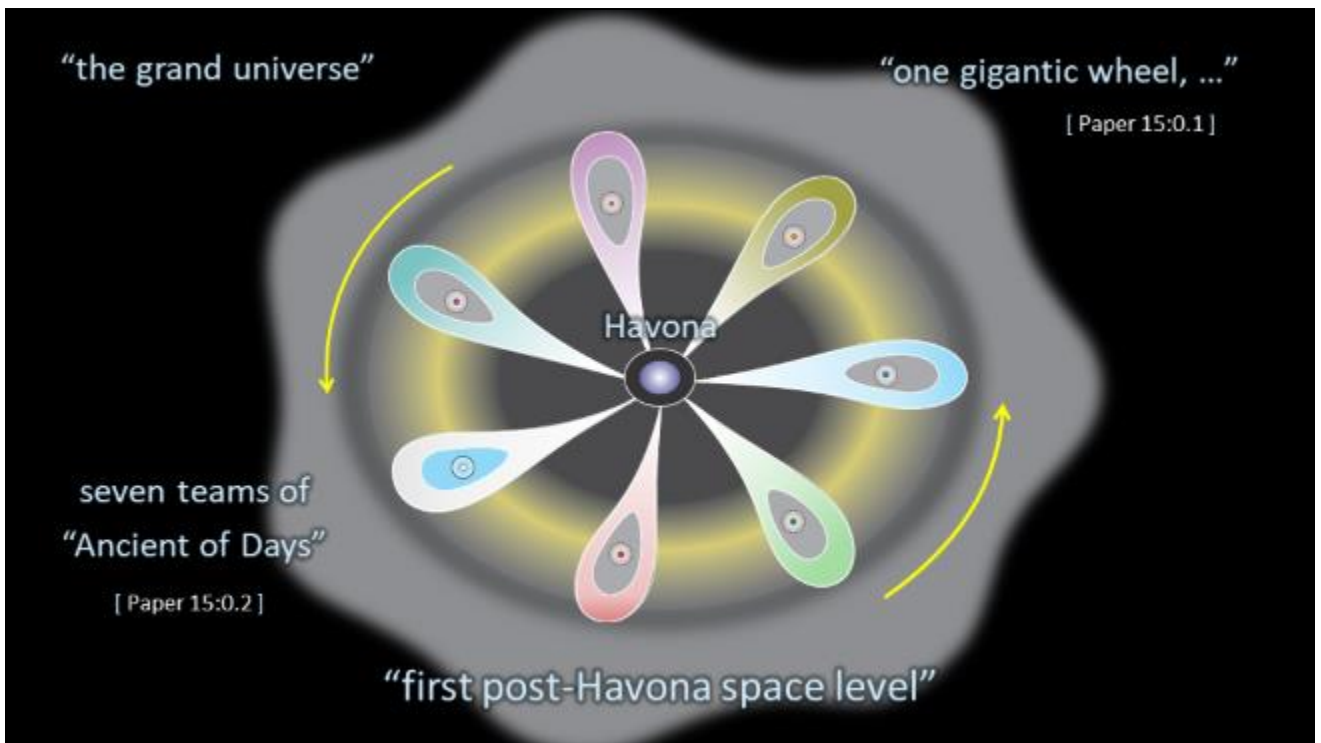
Another feature of this wheel ...

... is that it's rotating – rotating relative to what they call

“the source and center of universe gravity”.

This peculiar (and absolutely **unique**) arrangement **makes possible**... a type of **engineering** that would have made Einstein (and Carl Sagan!) smile: the use of **Weyl curvature** (from tidal forces acting on space and time) to shape seven spokes for this grand universe wheel.

Ok; given this [quote] **“first post-Havona space level”** (15:0.1), with its seven spokes sweeping along the “superuniverse rim” of this “grand universe wheel”, ...

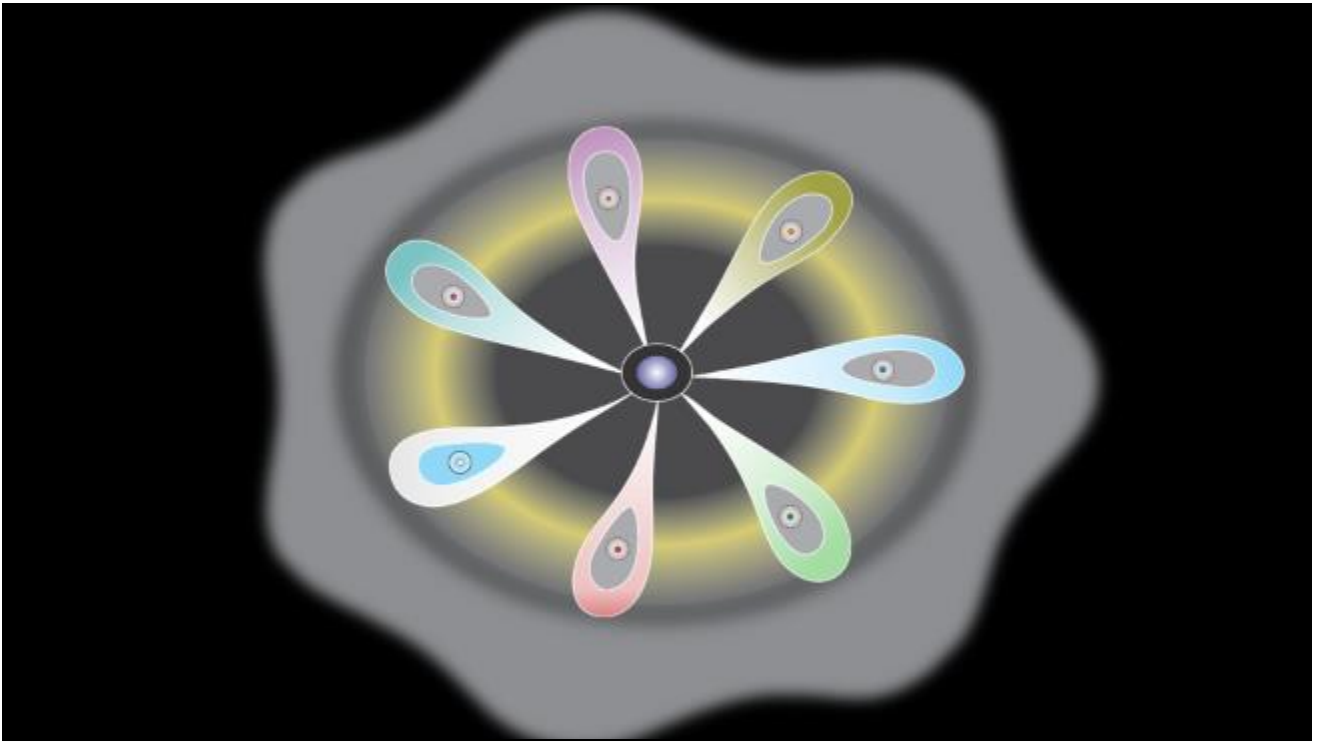


... time dependent **History** – quite literally – begins, with seven small teams of “Ancients of Days”, stepping out from the eternal core of this grand universe wheel, into its time-dependent rim.

Paper 15 puts it like this: from paragraph 1 [quote]:

“As far as the Paradise Trinity is concerned, outside Havona there are just seven inhabited universes, the seven superuniverses which hold jurisdiction over the circle of the first post-Havona space level. The Seven Master Spirits radiate their influence out from the central Isle, [thus constituting the vast creation **ONE GIGANTIC WHEEL**, the hub being the eternal Isle of Paradise, the seven spokes the radiations of the Seven Master Spirits, the rim the outer regions of the grand universe.]” (15:0.1) [end quote]

“... the radiations of the Seven Master Spirits”. What we have here are seven flavors of **energy** and **intent**, adding characteristic color to each superuniverse spoke in this grand universe wheel.



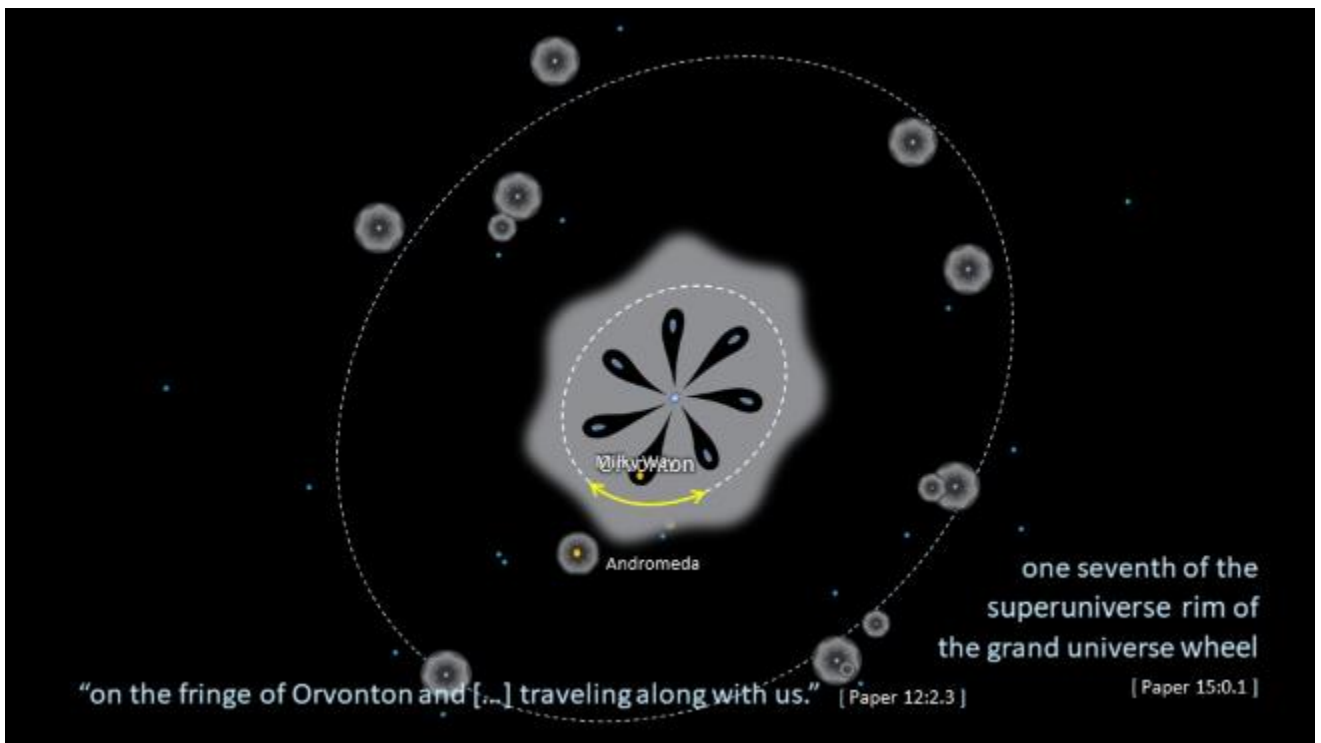
Now, this is **not** the scientific method at work. This is simply one way to sketch the sort of center the Urantia Book reveals.

A center for those nested, counter-rotating levels of outer space.

A center sufficient – eventually – to serve as capital for an absolutely ultimate master universe.

* * *

Ok, the story so far:



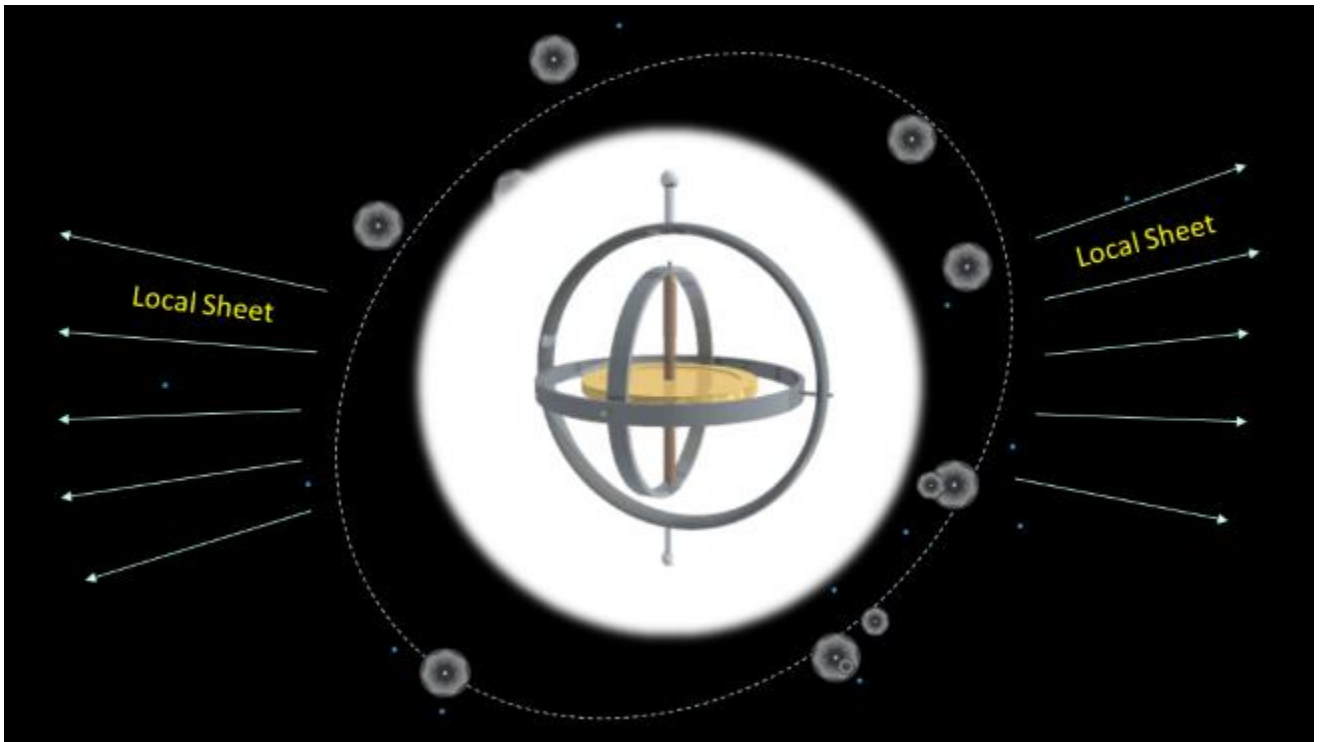
At the dawn of time,

gravity helps to shape a disk of primordial hypercharge into seven superuniverse domains.

Our own superuniverse, Orvonton, spanning one seventh of the rim of this grand universe wheel.

Our Milky Way, just inside the **INHABITED** domain (32:2.11);
 Andromeda, just outside (15:4.7), one of those objects [quote]
 "on the fringe of Orvonton and [...] traveling along with us" (12:2.3).

And McCall's "Council of Giants", his persistent elliptical ring, a boundary,



... the inner fringe of the first of those nested “levels of outer space”.

* * *

For those wondering about the alignment of this “grand universe wheel” with respect to this local sheet, imagine a multi-gimbal gyroscope:

[[Multi-gimble-gyro.gif](#)]

For stability, I like to think of the outer space levels not only rotating **around** the grand universe, but also precessing **OVER**– reinforcing the idea of the grand universe as... a **stable central kernel** for the future master universe.

Of course, astronomers haven’t found...



... anything like this.

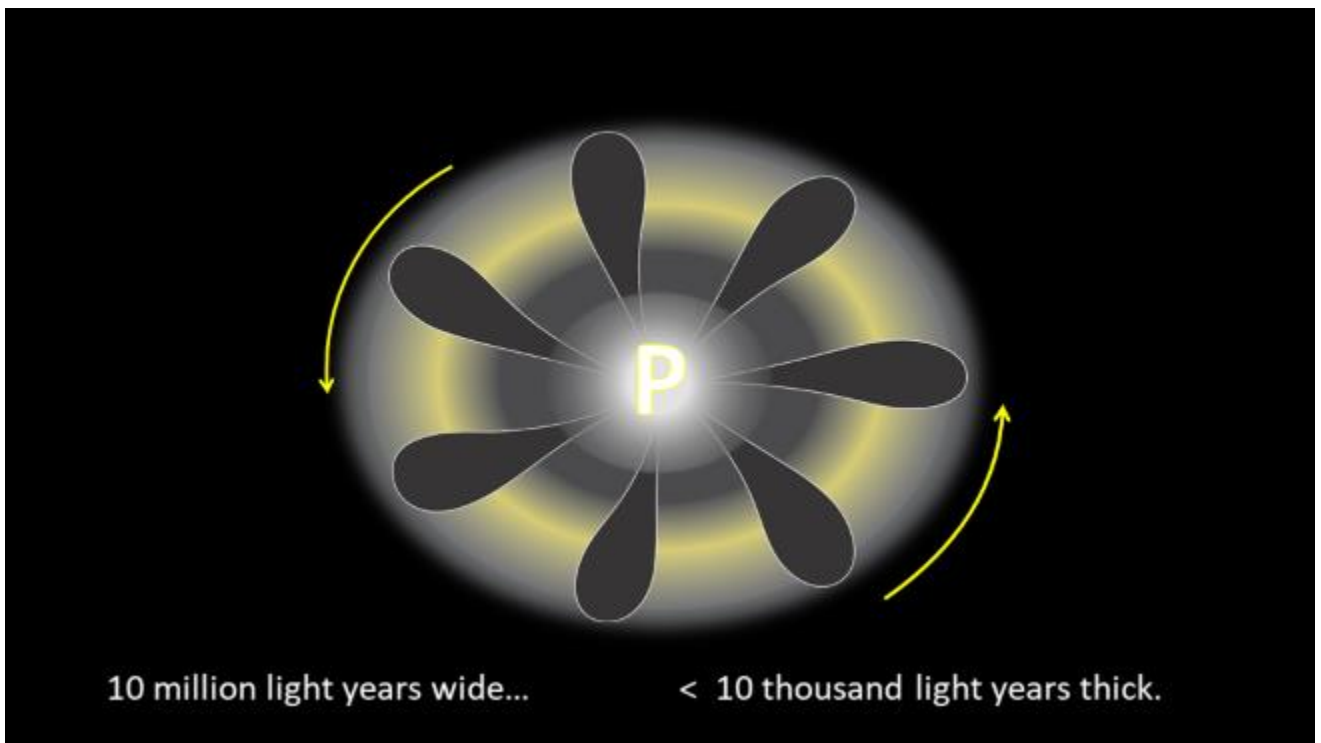
But then again, there's a feature of this wheel we've not yet mentioned:
it's very, very **thin**.

[[Show Saturn, and rotate 3D to show edge on](#)]

“Thin” in the sense that the rings of Saturn are thin; forced by gravity and angular momentum into an almost two-dimensional plane.

So thin, that when seen from the side, they almost... disappear!

Now, replace the gravity of Saturn...

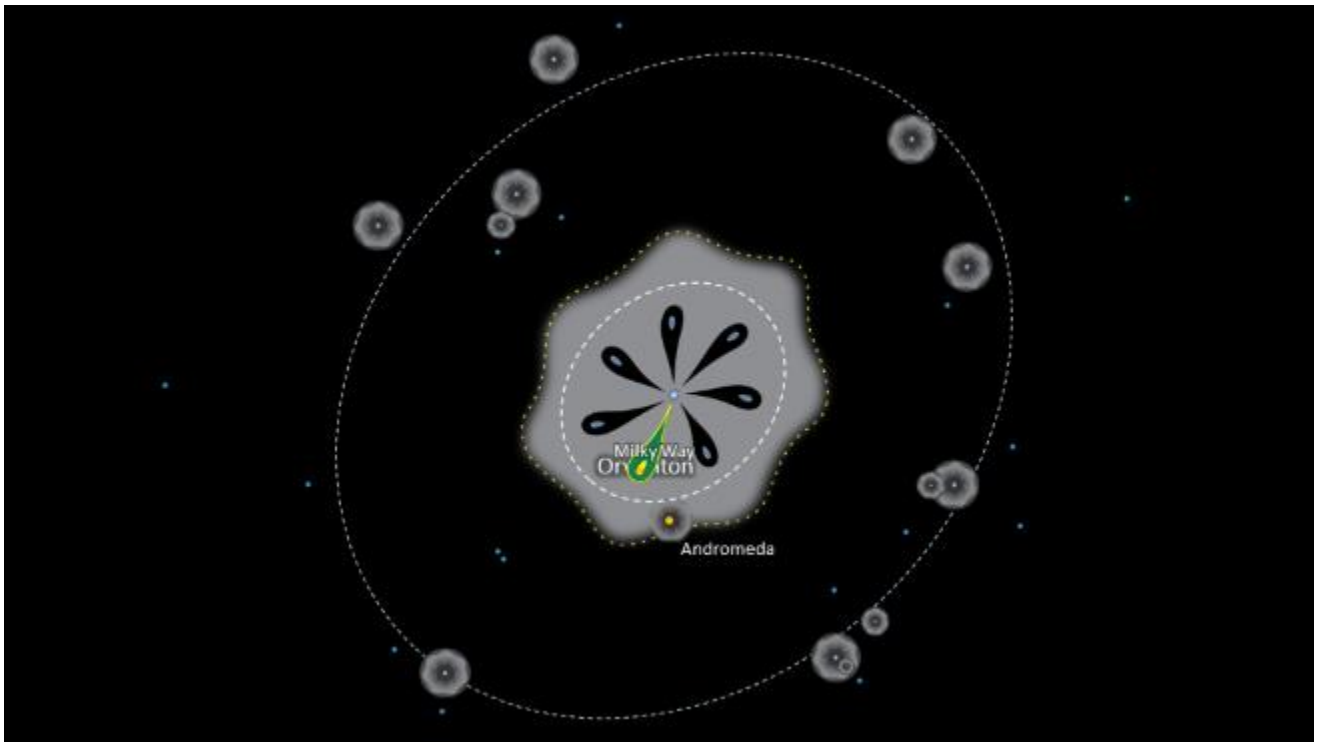


... with the Source & Center of gravity...

In this model, this grand universe wheel, shaped by the gravity of Paradise, is about **10 million** light years wide, but less than **10 thousand** light years thick.

That's a ratio... of {1000:1}!

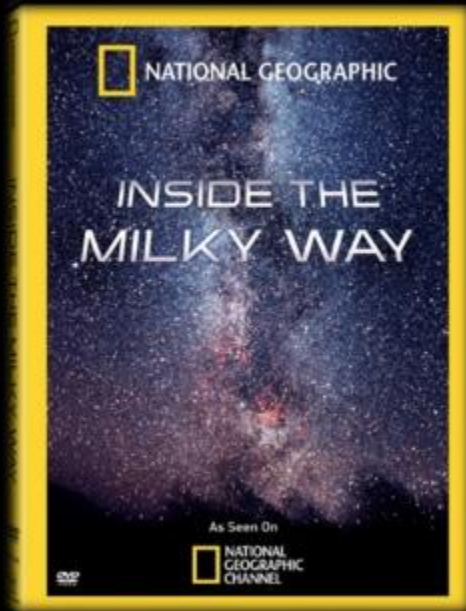
In other words, this structure is *Bible-paper thin*.



... , this “**revelatory**” background allows us to tell an interesting tale about our ancient spiral sector of stars, within our spoke in this grand universe wheel.

But before we try to fit the Urantia Book’s grand universe wheel into a modern cosmological frame, let’s first look at what the **SCIENTIFIC METHOD** has revealed.

What do we actually know about the Milky Way? In 2010, ...



“Inside the Milky Way”

National Geographic
(2010)

... “National Geographic” released a 2-hour documentary,

“Inside the Milky Way”.

This brought together everything we then knew, and assumed, about our home system of stars.

To help set the scene, here’s a 60 second clip from that documentary:

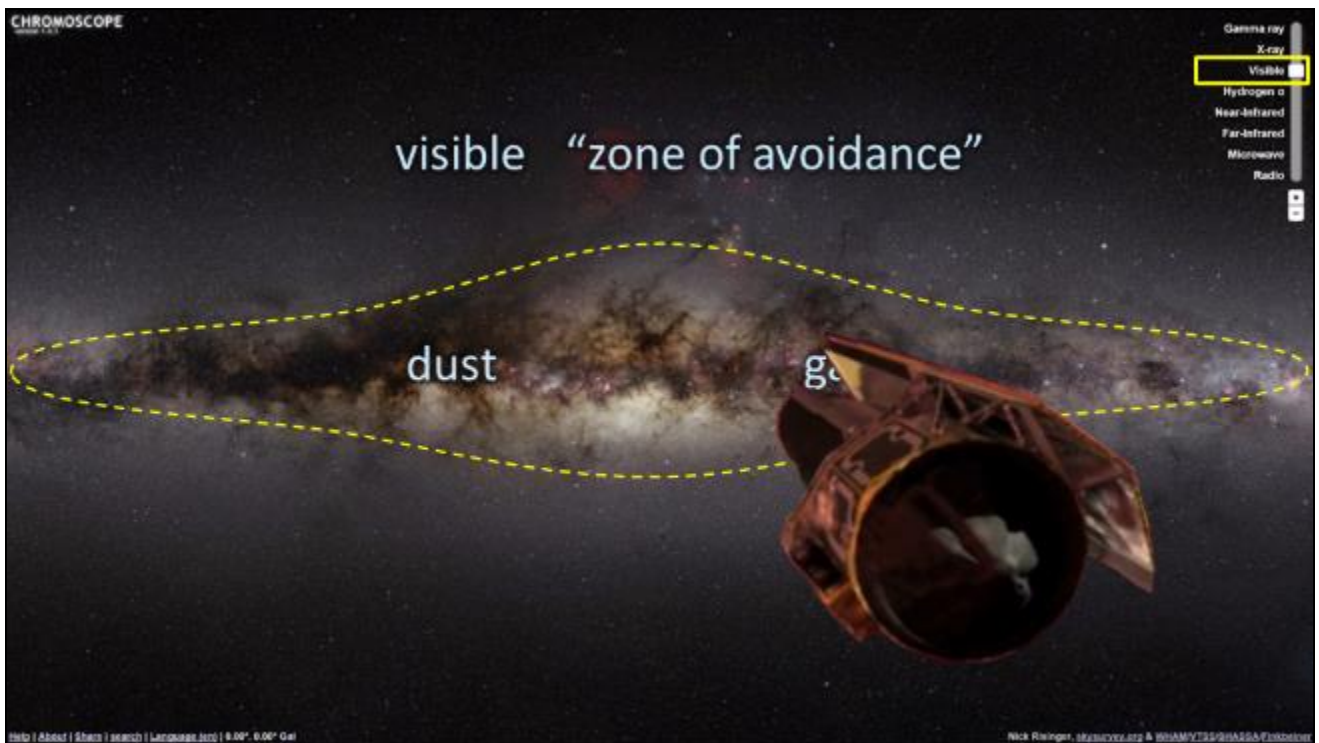


[**Movie**] James Bullock – “The Milky Way, we believe, is a spiral galaxy. [...]”

> Clip ends

> Clip fades

> “About these clouds . . .”



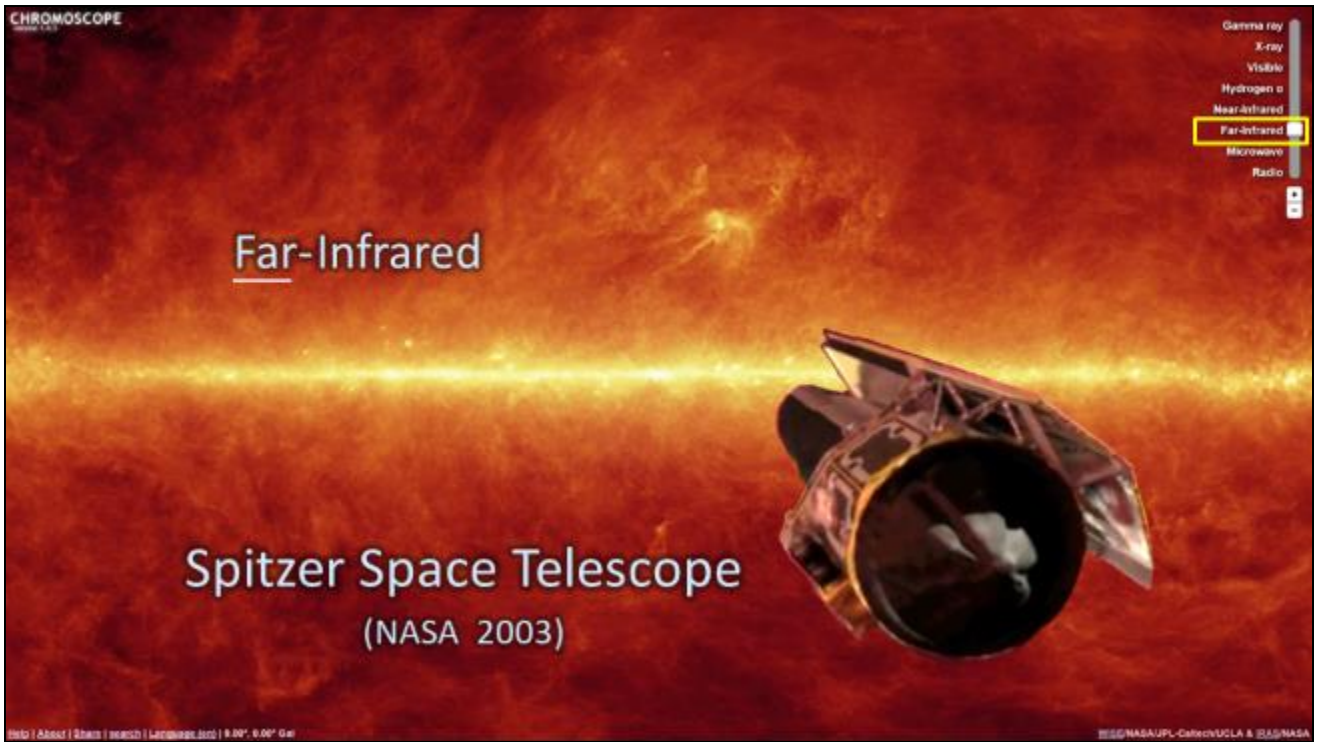
... of dust and gas, what we see depends on how we look.

When using **visible** light, we see something like this.
Which, for poets or philosophers, might be just fine.

But for astronomers, it's just frustrating. Until recently, they had no way to see through all this dust and gas, so astronomers actually avoided looking at this entire part of the sky.

Thus (for astronomers) this region became... **"the zone of avoidance"**.

But in 2003, NASA launched the **Spitzer** Space Telescope...



... and Spitzer was built to look in the **infrared**.

In astronomy, what we **see** really **does** depend on how we “look”!

And this is what we see when we look at that “zone of avoidance” ...
in the **infrared**.

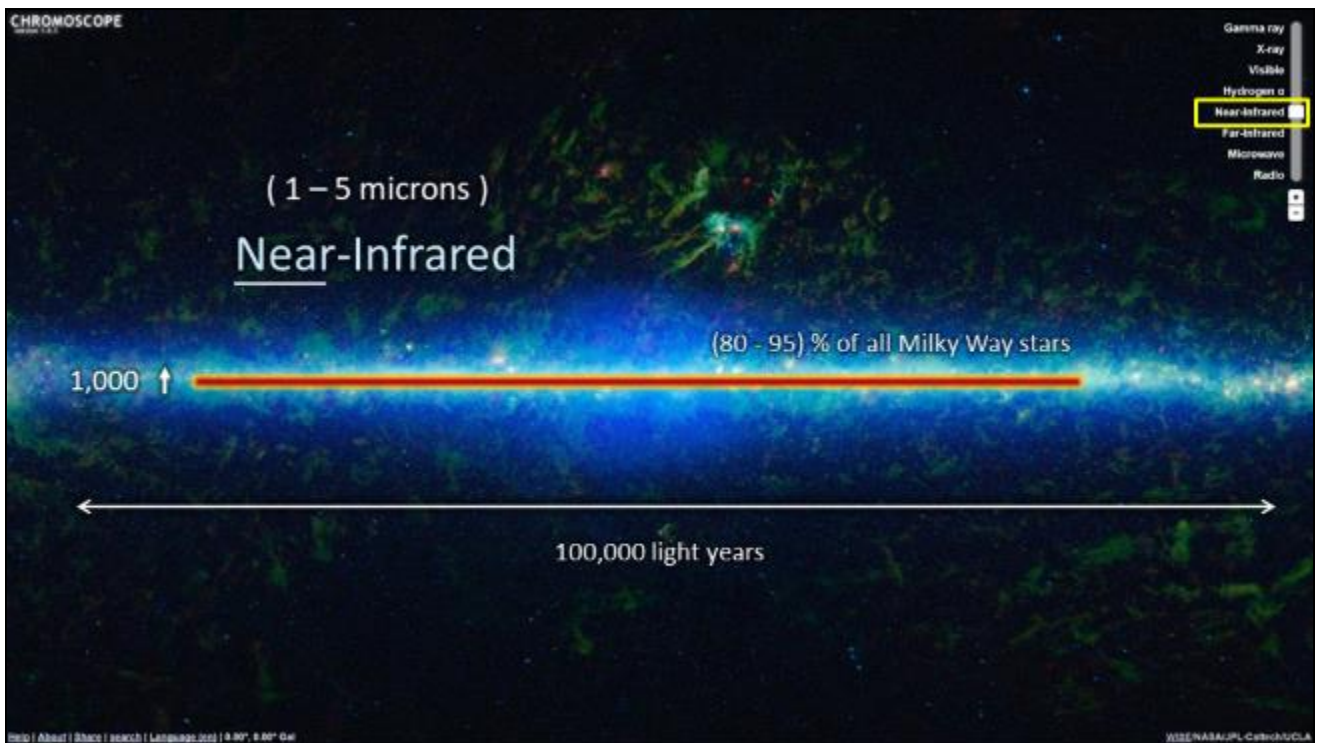
Actually, this is the “**far infrared**”...

<http://www.ipac.caltech.edu/outreach/Edu/Regions/irregions.html>

<http://www.spitzer.caltech.edu/info/277-Fast-Facts>

Spitzer: **3 - 180 microns**.

REGION	microns	WHAT WE SEE
Near-IR	1 - 5	Dust is transparent
Mid-IR	5 - 30	Dust warmed by starlight
Far-IR	30 - 300	Emission from cold dust



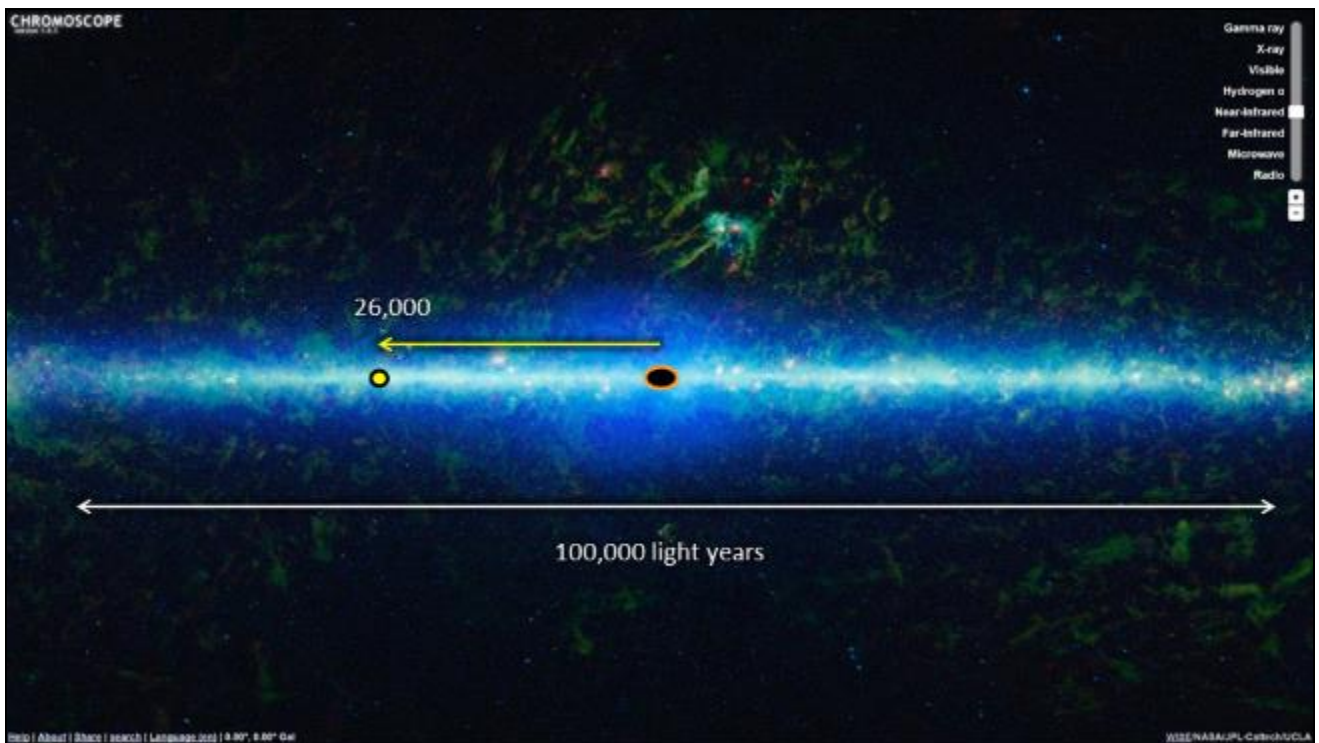
Even better is the “**near infrared**”. At these wavelengths (1 - 5 microns), all that **cold** dust and gas becomes transparent, and we get a better view of the actual distribution of stars.

Now we’ve known for some time that this belt of stars is at least 100,000 light years wide. What’s not so well known is the **actual distribution of stars** within this Milky Way.

Which turns out to be... surprising.

Astronomers now estimate that up to **95%** of the Milky Way’s hundreds of billions of stars lie in a “**thin disk**” less than 1,000 light years thick.

But 100,000 light years wide by 1,000 light years thick... that’s a ratio of 100:1 – like a “DVD”. So this disk is really, **really** thin!



Ok. So what would this system look like from above?

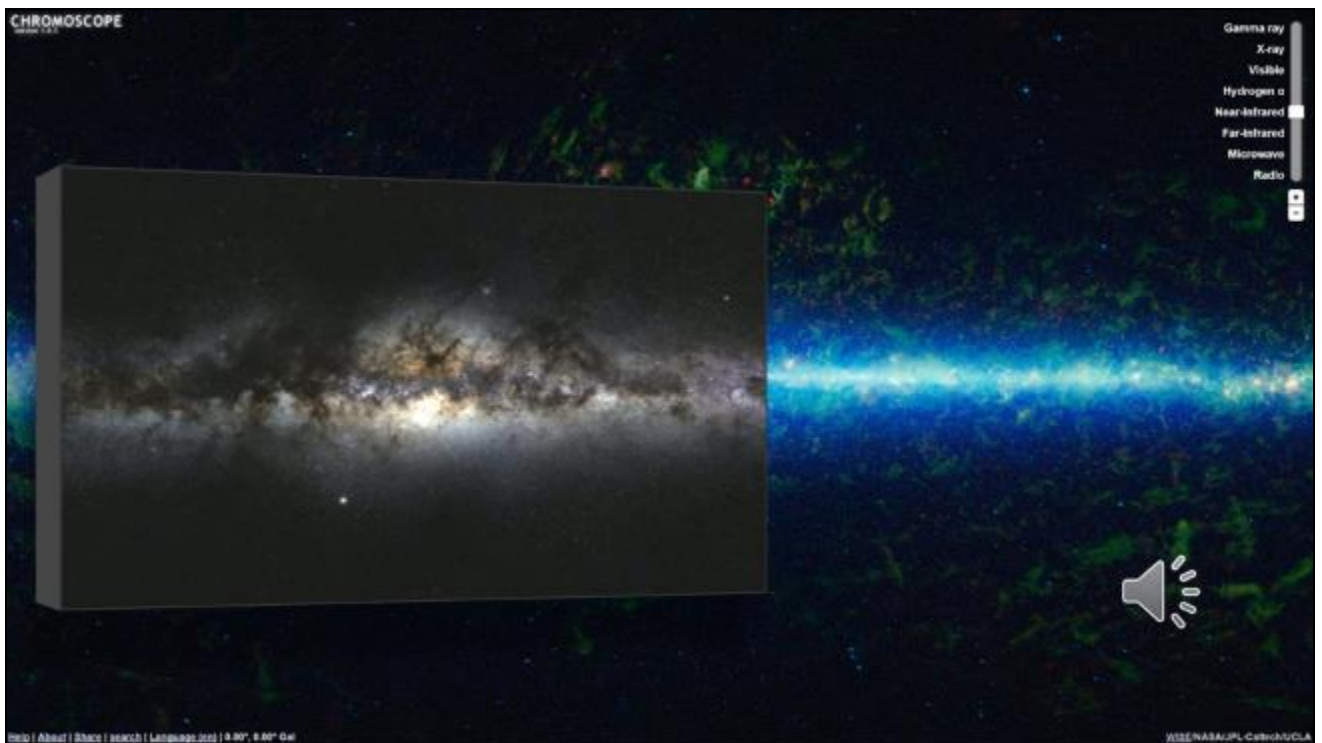
Here we have a problem. Astronomers have worked out that our Sun sits about 26,000 light years from the center of our spiral of stars.

However, it's right in the middle of the dense midplane of the disk.

And as James Bullock said, [quote]

“we can't just fly up above the disk to get bird's eye view”.

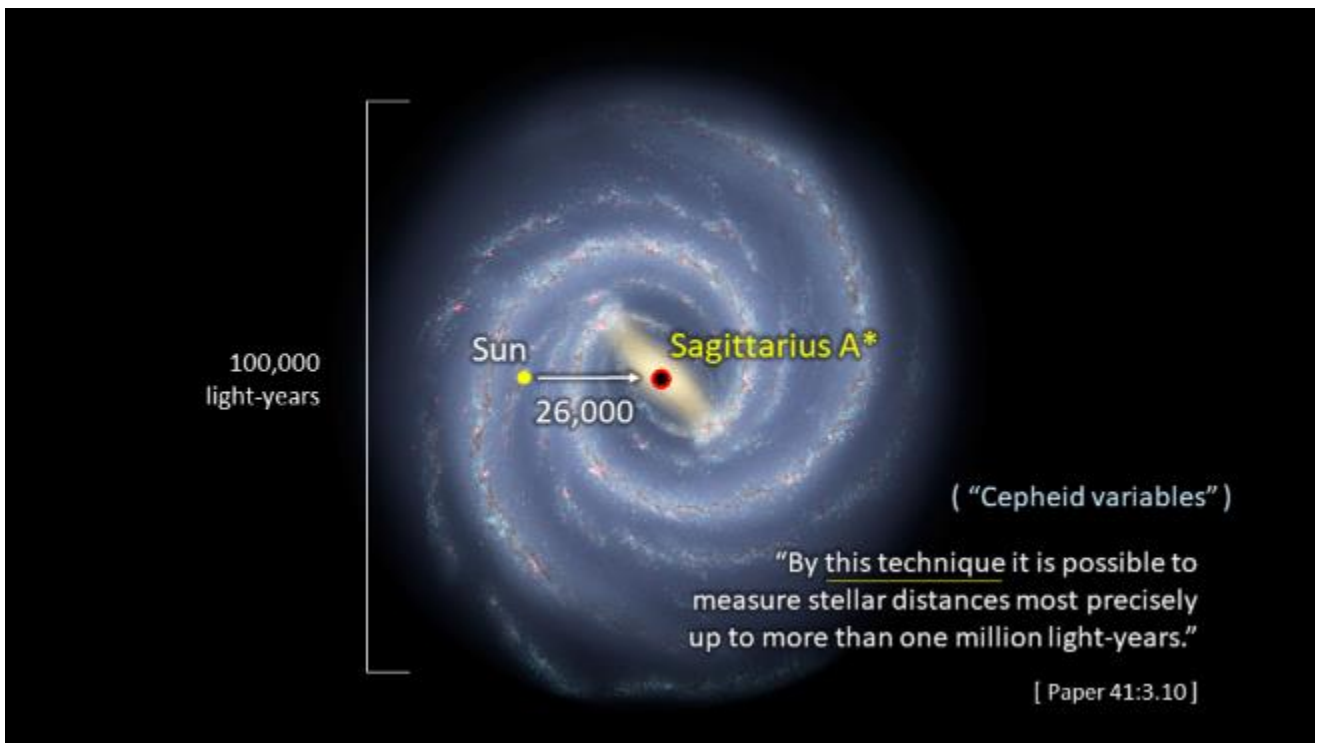
For us, trying to map the Milky Way is like... a bit of **peperoni**, in a very, very **BIG** – and very, very **THIN pizza** – trying to map the pizza in which it's stuck; as astronomer Bob Kirshner explains:



[**Movie**] Robert Kirshner – “It’s something like a pizza. [...]”

[**Movie**] “[...] But we can look at other galaxies,
and see what they look like.”

By looking at other galaxies, and by trying to map the Milky Way’s
spiral arms, ...



... astronomers now think that, from above, the Milky Way would look something like this: our Sun would be about here; and here’s that center of rotation, about 26,000 light years away, we call “**Sagittarius A-star**”.

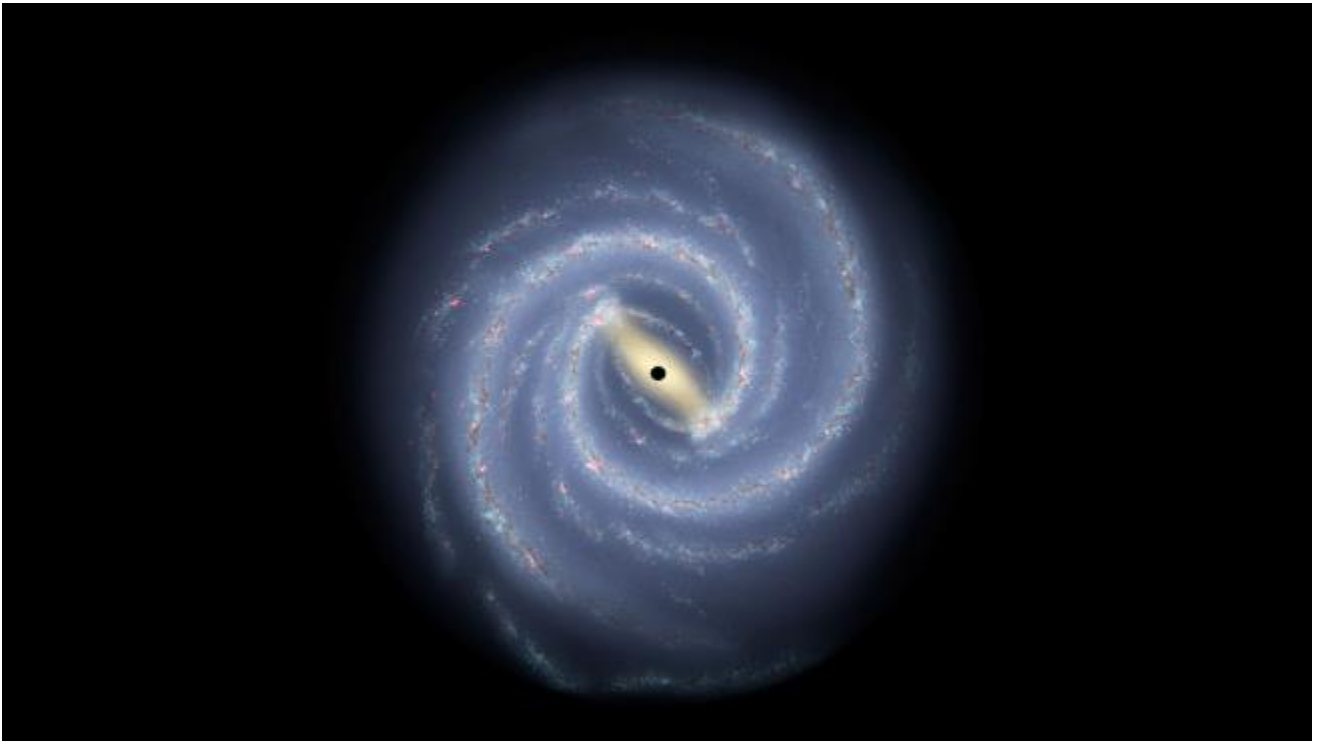
To estimate these distances – **26,000** light years from the Sun to the center, and **100,000** light years wide – astronomers have a “toolkit” of techniques.

Referring to this toolkit, in paper 41 section 3, the author states [quote]:

“By this technique [**Ed. referring to “Cepheid variables”**] it is possible to measure stellar distances **most precisely** up to more than one million light-years”. (459.4, 41:3.10) [end quote]

“**Most precisely**”. Up to more than a million light years. Which implies that our current measurements of distance **within** this disk are on track. In particular, this distance of 26,000 light years to Sagittarius A-star.

Ok, so far, so good.

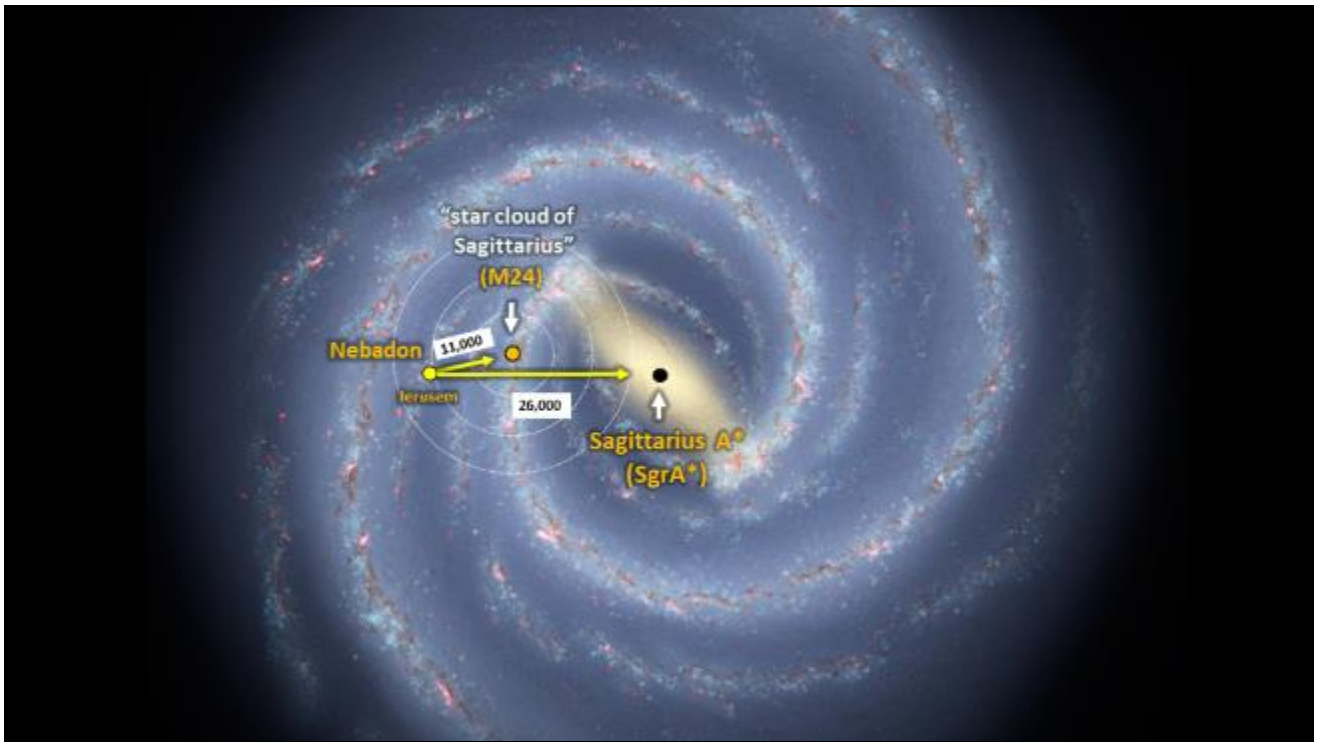


Now, does the Urantia Book say anything interesting about this system of stars?

Yes it does.

TODO: Note - 100 billion ** inhabitable worlds / Major Sector, fits well with [400] billion suns in Milky Wayspiral.

(166.6) 15:2.7 5. The Major Sector. One hundred minor sectors (about 100 [**billion**] inhabitable worlds) make one major sector. Each major sector is provided with a superb headquarters and is presided over by three Perfections of Days, Supreme Trinity Personalities.



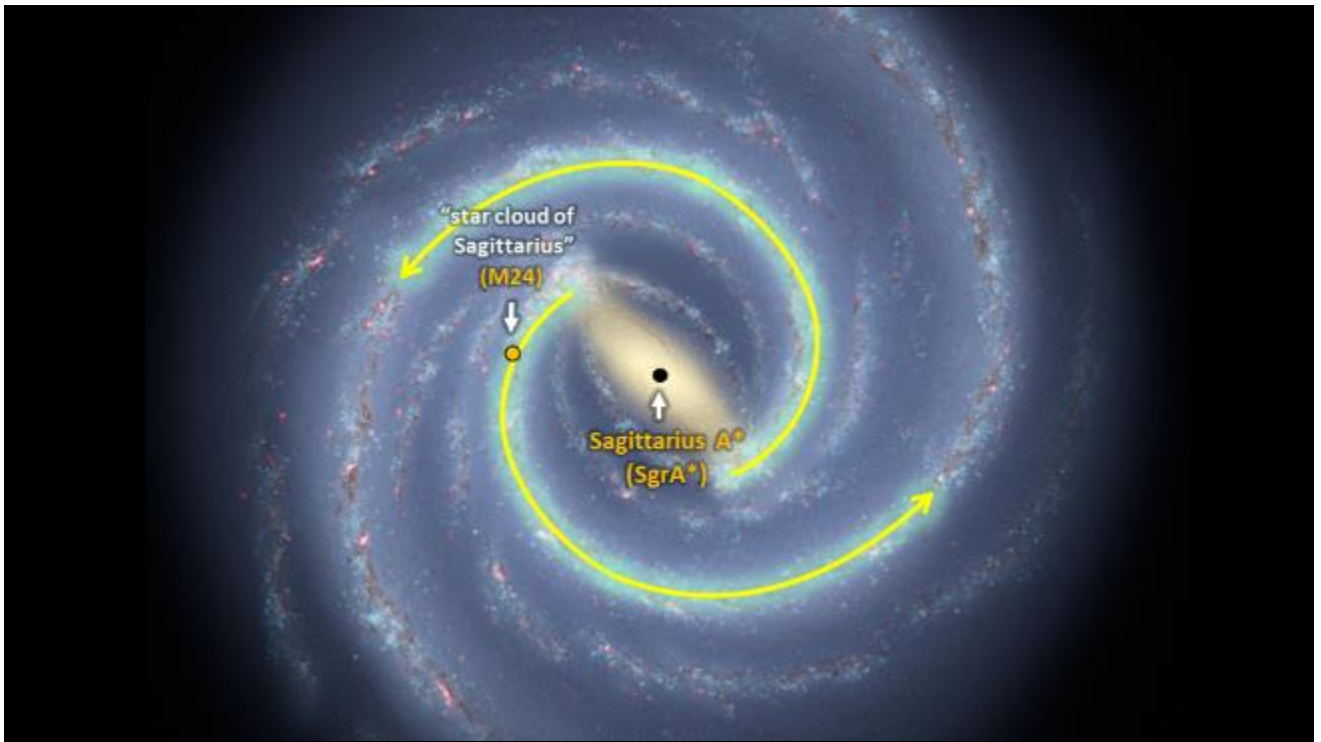
It says the center of our so-called “**minor** sector” is over [\[here\]](#).

From paper 15:3 [quote]:

“The rotational center of your **minor sector** is situated far away in the enormous and dense **star cloud of Sagittarius**, around which your local universe and its associated creations all move, [...]” (15:3.5) [end quote]

Now, if by “**star cloud of Sagittarius**” they mean Messier 24 (about 11,000 light years away), and if this “**dense star cloud**” is the center of rotation for our **minor** sector, then...

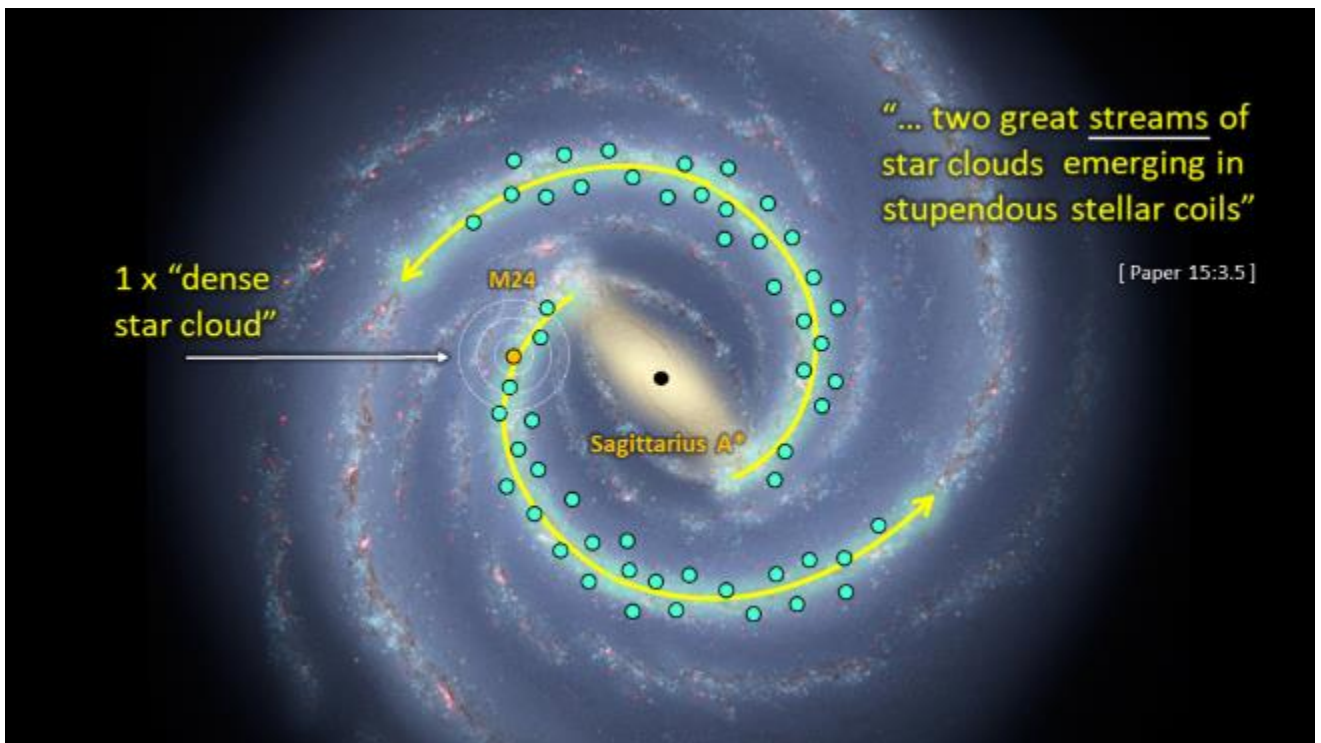
Sagittarius A* (about 26,000 LYs away) becomes an obvious candidate for the **center of rotation** of our **major** sector.



Again from paper 15:3 [quote]:

“[...], and from opposite sides of the vast Sagittarius subgalactic system you may observe **two great streams of star clouds** [repeat] emerging in stupendous stellar coils.” (168.1, 15:3.5) [end quote]

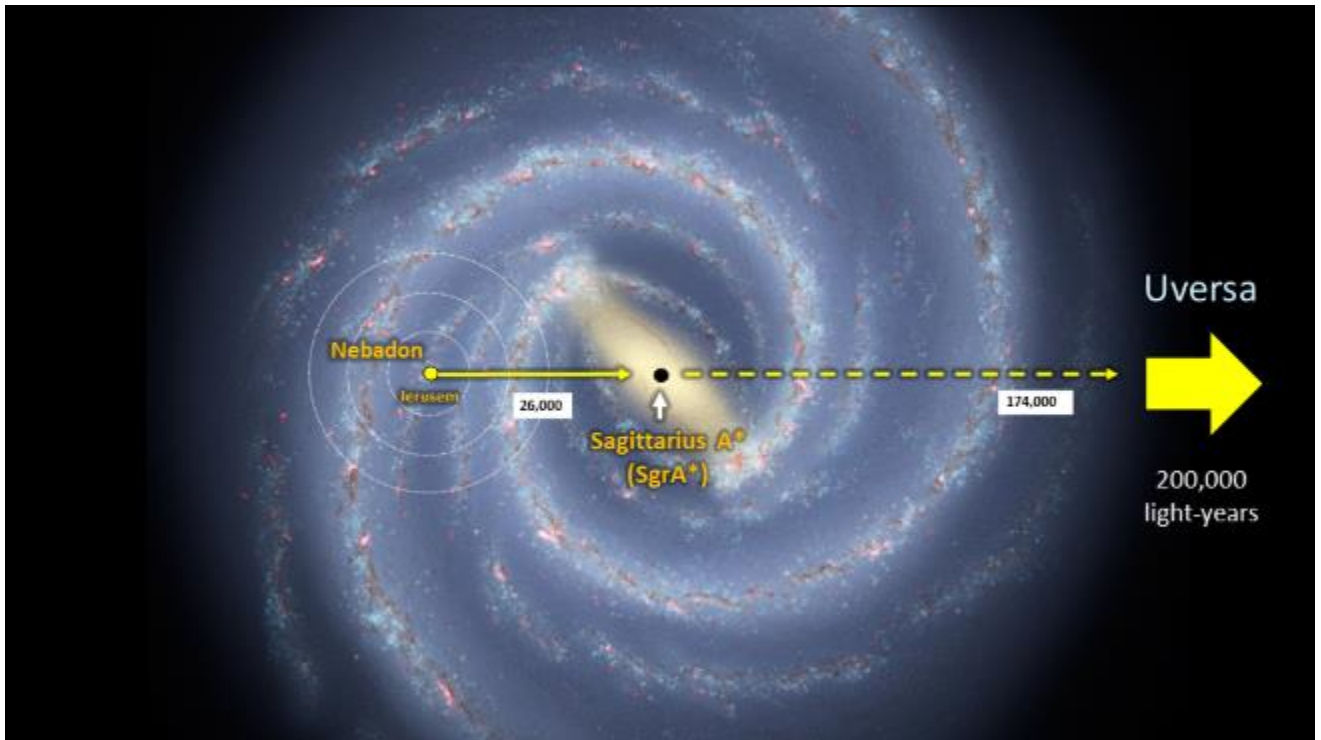
Notice, “two great streams of star clouds”.



The authors connect our **minor** sector (**Ensa**) with a **SINGLE** "star cloud" (Messier 24), then appear to suggest that the center of our **major** sector (**Splandon**) lies somewhere between those "**STREAMS** of star clouds", uncoiling from Sagittarius A-star.

And notice, they call this entire spiral "**SUB-GALACTIC**". More on this soon.

Now, all of this seems reasonable.



But then they say something weird. Or at least, unexpected.

From paper 32 section 2 [quote]:

“[...]. From Jerusem, the headquarters of Satania, it is over two hundred thousand light-years to the physical center of the superuniverse of Orvonton, [...]” (32:2.11)

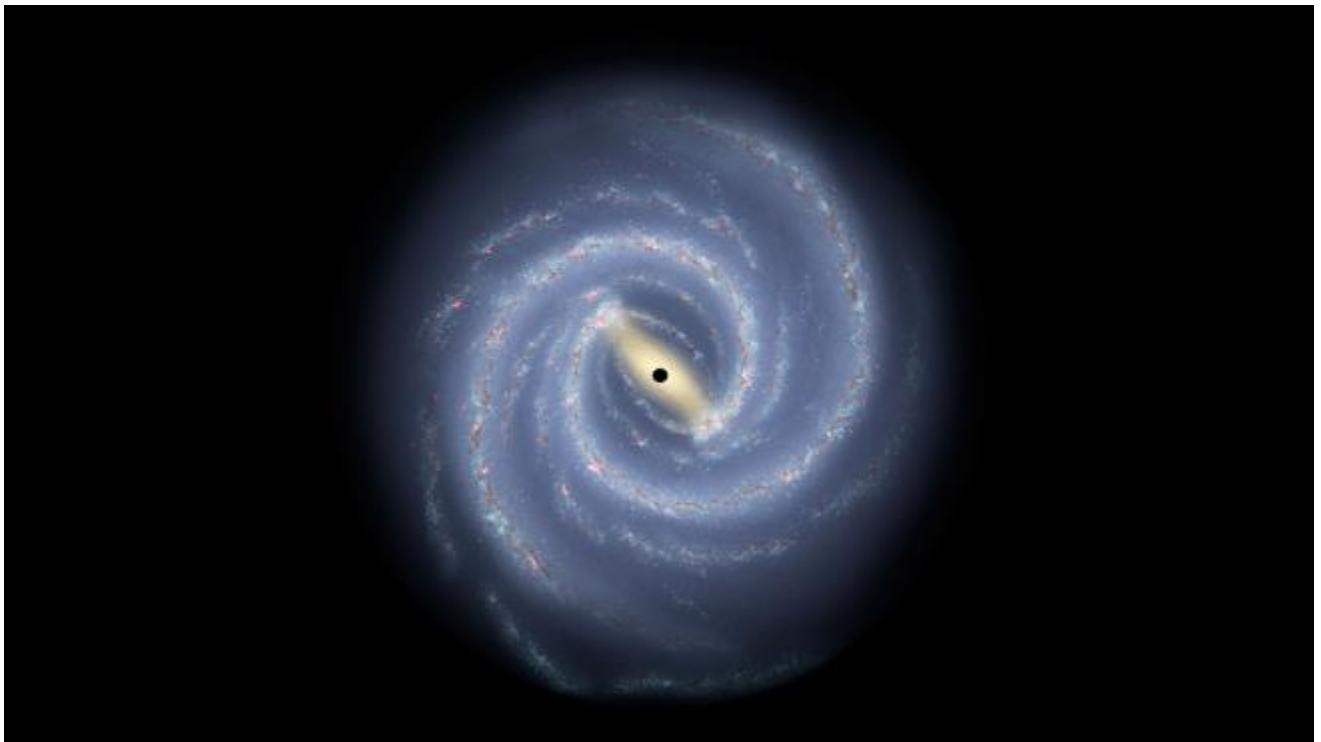
[end quote]

Two hundred thousand light-years.

That’s another... [**174,000 light years!**] past Sagittarius A-star.

In other words, way, way off to the right in this diagram.

Remember, with regard to our astrometric toolkit, they said that we can measure such distances [quote] “**most precisely**” (41:3.10) out to **more than a million light-years**.

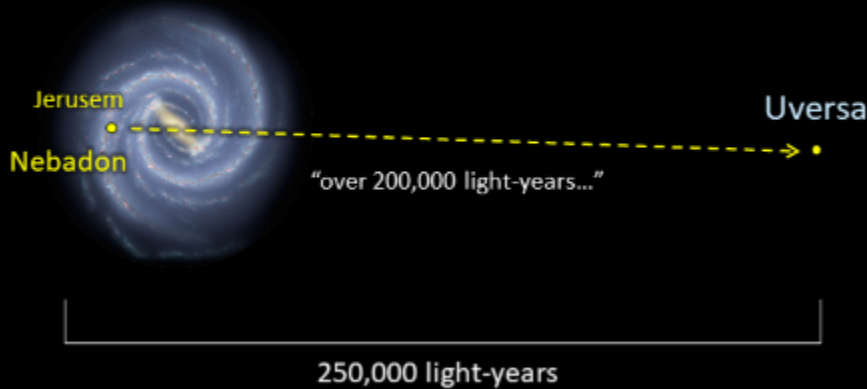


[Zoom out]

Let's try to put that distance in context.

Once again, from paper 32 section 2, [quote] ...

“From the outermost system of inhabited worlds to the center of the superuniverse is a trifle less than two hundred and fifty thousand light-years.” [Paper 32:2.11]



...

“[...] From Jerusem, the headquarters of Satania, it is over two hundred thousand light-years to the physical center of the superuniverse of Orvonton, ...”.

And from the same paragraph, [quote]

“From the outermost system of inhabited worlds to the center of the superuniverse is a trifle less than two hundred and fifty thousand light-years.” (359.8, 32:2.11)

[end quote]

“Nebadon is now well out
towards the edge of
Orvonton.” [Paper 32:2.11]



Uversa



But hang on, in this story, Uversa is supposed to be a center of rotation ;
a center of rotation for [**eventually**] the ten major sectors of a
“superuniverse”.

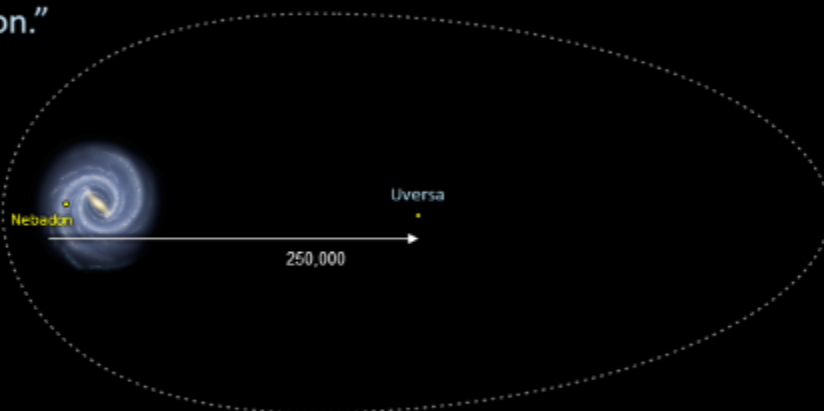
How can we make this work?

Well, in that same section, the author also states that [quote]

“Nebadon is now well out towards the edge of Orvonton” (32:2.11)

[end quote].

“Nebadon is now well out
towards the edge of
Orvonton.”



“..., and the length
far greater than the breadth.”

[Paper 15:3.2]

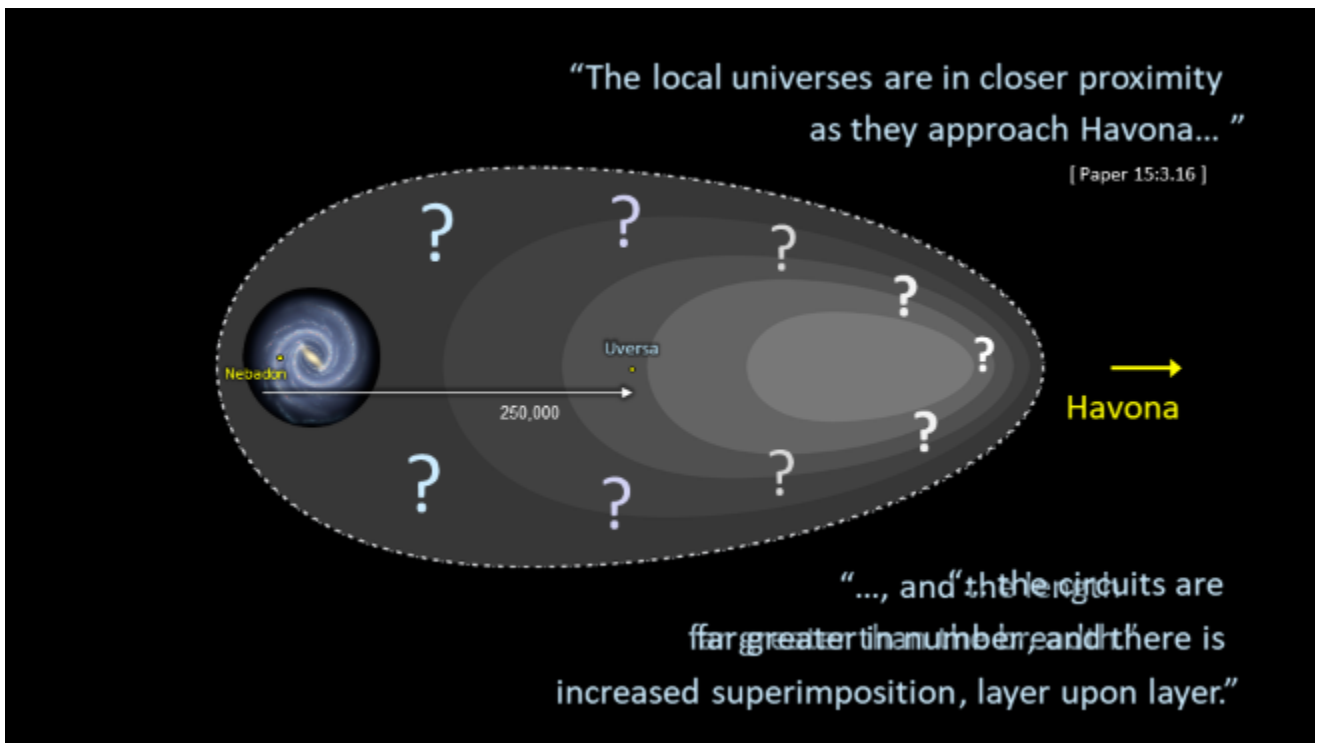
Here’s that distance again: 250,000 light years, from
the “edge of Orvonton” to Uversa.

But back in paper 15 section 3, they say that “**the length**”
of this superuniverse is... [quote]:

“**far greater than the breadth**” (15:3.2)

Do they mean something like this?

And they reveal a bit more;



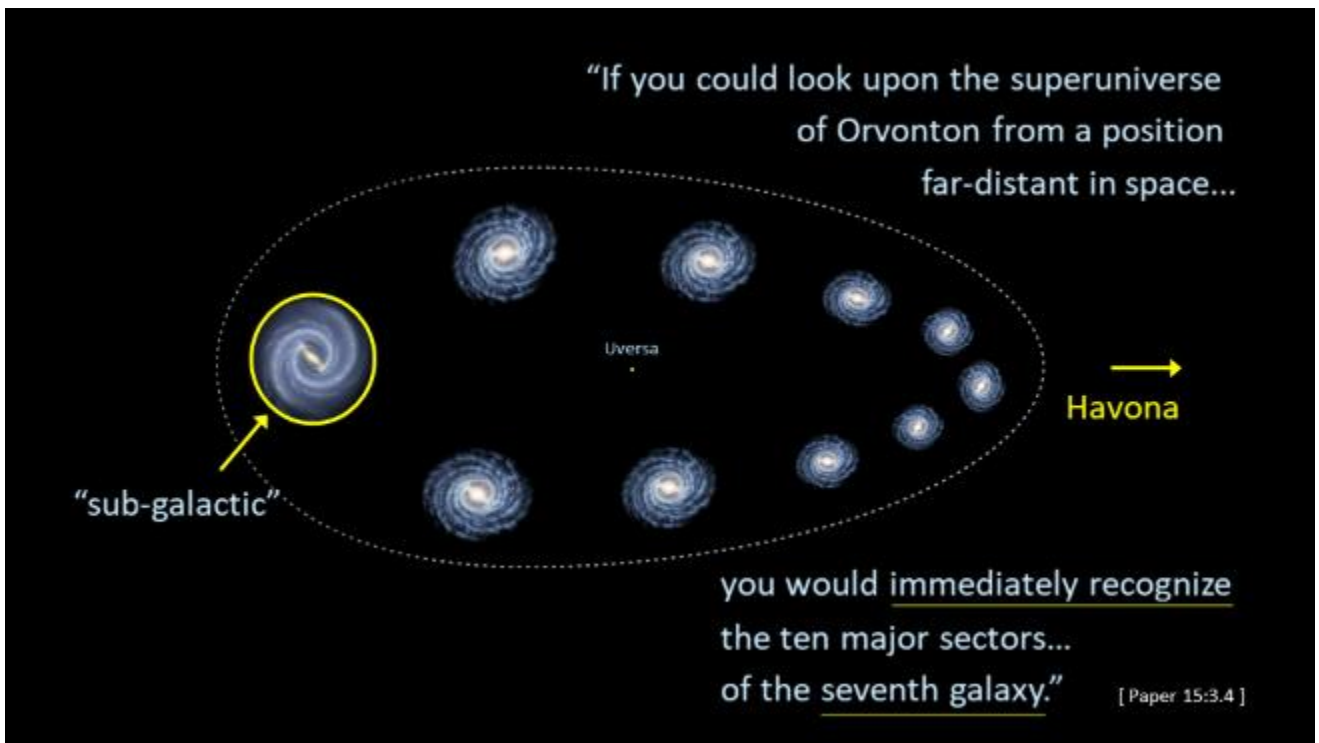
from 15:3.16 [quote]:

“The local universes are in closer proximity
as they approach Havona;” [end quote]

They also state that, on the Havona side, **local universes** are more tightly clustered, and [quote]... **“layered”**.

Are they suggesting a distribution... something like this?

But what about those 10 major sectors mentioned in Paper 15 section 3:



[quote]

“[...]. If you could look upon the superuniverse of Orvonton from a position far-distant in space, you would immediately recognize the ten major sectors of the seventh galaxy” (15:3.4)

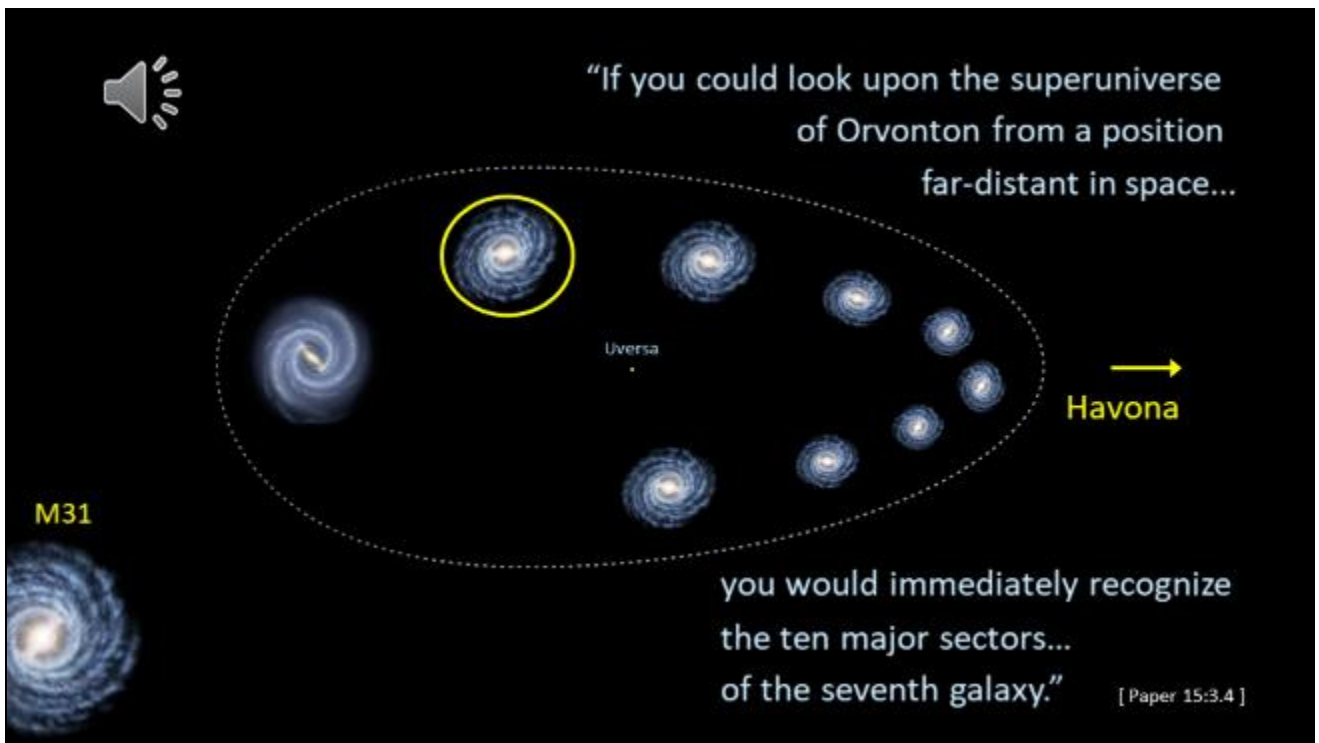
About this term, “**7th galaxy**”. Throughout these papers “**galaxy**” is used as a collective noun, as in “galaxy of stars”, or “galaxy of gods”.

So if we read “**galaxy**” as... “**galaxy of major sector spirals**”

(which we would “*immediately recognize*”)

are they suggesting... [**wipe spirals**] something like this?

In the next paragraph [15:3.5] – as we saw earlier – they refer to this major sector spiral, our Milky Way, as [quote] “**SUB-GALACTIC**”. Which would make perfect sense if, when viewed “**from a position far-distant in space**”, Orvonton is seen to be a “**galaxy**” (or collection) of **SUB-GALACTIC**, major sector spirals.



But then again, in paper 12 section 1, the author implies that this “seventh galaxy” (of major sector spirals) is [quote]

“... as yet uncompleted.” (12:1.13)

Which makes you wonder: is the Andromeda spiral actually one of Orvonton’s *future* major sectors, slowly sliding into place?

Of course, nothing in native astronomy or cosmology predicts anything like this. But as a thought experiment, let’s ask the question:

“If this spiral of stars were here, could we see it?”



Remember, almost ALL the Milky Way's hundreds of billions of stars lie along its midplane, within this thin disk, about 1,000 light years thick.

So in Paper 32, when they mention that [quote]

“dense diameter of the Milky Way”,

think of this thin red band.



Now, imagine we could bring that Andromeda spiral
10 times closer than it is, and place it, say, 200,000 light years
behind the Milky Way.

To get a better view, ...

TODO: discuss apparent magnitude of stars in this neighbor.

Note: GAIA only mapping stars brighter than $V < 20$

Note: (if no dust) Hubble can discern out to $V < 30$



... let's switch to infrared. Ok, if such a **nearby, giant** spiral were spinning face on to our line of sight, it would be very easy to see!

But if we tilt this neighbor to be edge on, its profile – in ALL wavelengths – becomes... a **faint echo** of the foreground Milky Way.

A faint echo.

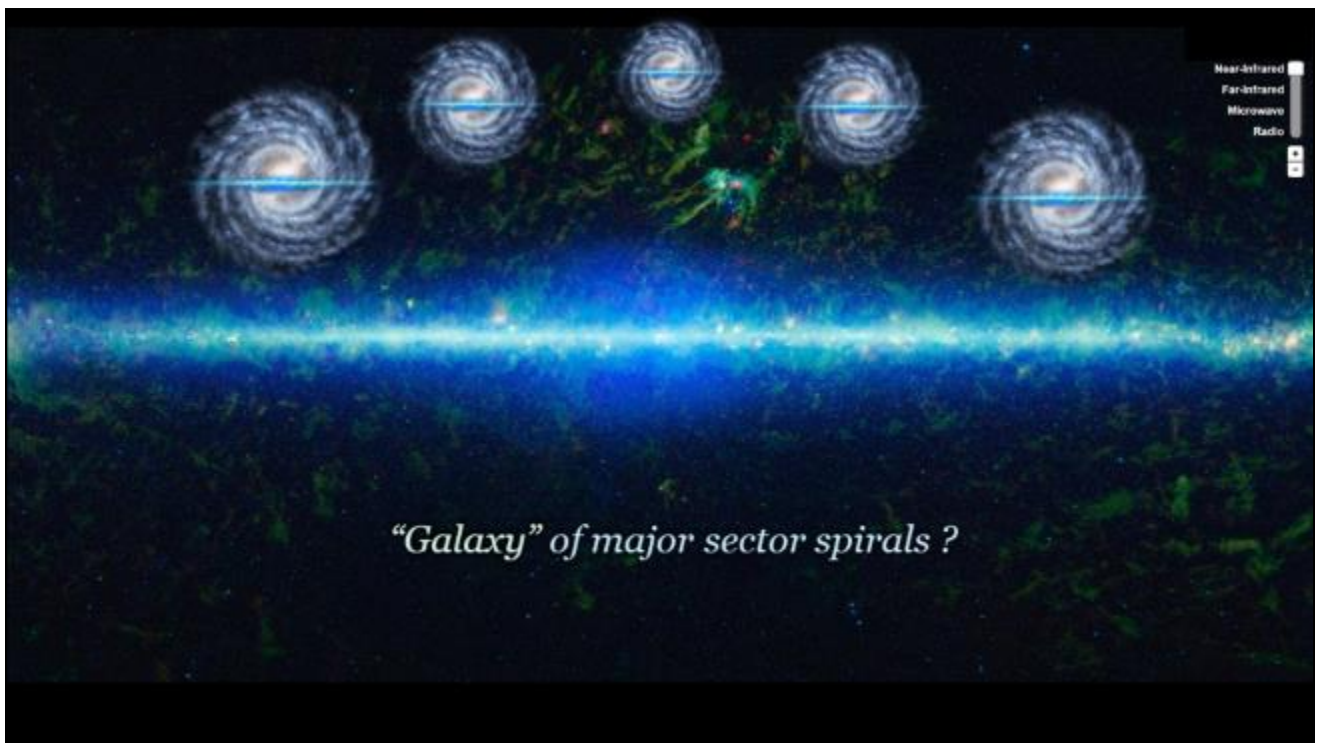
So when we drop it down – into the plane of the Milky Way – its profile becomes, well, **vanishingly** faint. A vanishingly faint **line**, a smudge of **black body radiation**, sitting right behind that [quote]

“dense diameter of the Milky Way”.

So here's the question:

Using existing telescopes, if such a neighbor existed, could we see it?

TODO: discuss apparent visual / IR magnitudes



Or what about this: a **set** of spiral galaxies;

What we have here is... a “Urantia Book” galaxy; in other words,
a “galaxy of major sector spirals” (?!)

All tilted to be precisely edge-on;

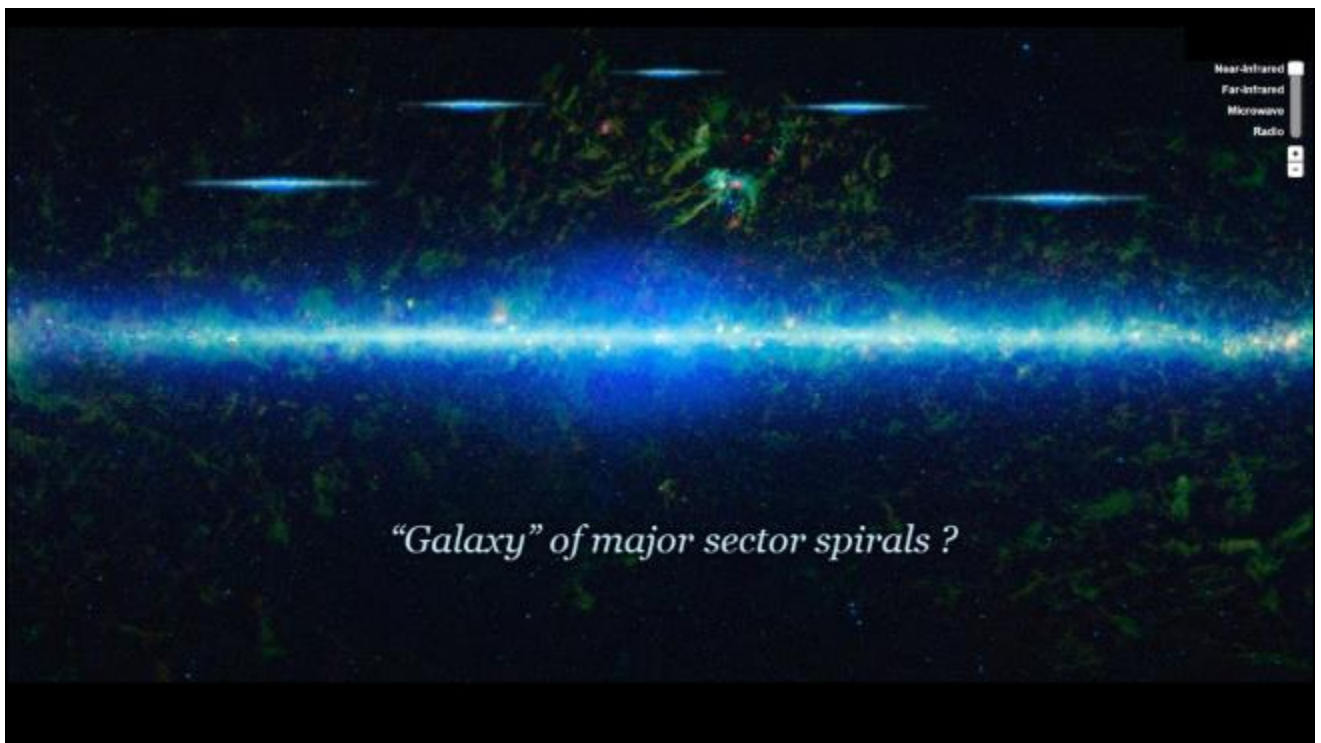
All lined up directly behind this “**dense diameter**”.

The James Webb Space Telescope will be launched soon... and this is designed to look at the infrared, to cut through all that dust and gas.

What if something like this:

[**REPLAY descent**] a “galaxy of major sector spirals”,
were the first thing that telescope finds?

“**Pause to consider...**”



Or what about this: a **set** of spiral galaxies;

What we have here is... a “Urantia Book” galaxy; in other words,
a “galaxy of major sector spirals” (?!)

All tilted to be precisely edge-on;

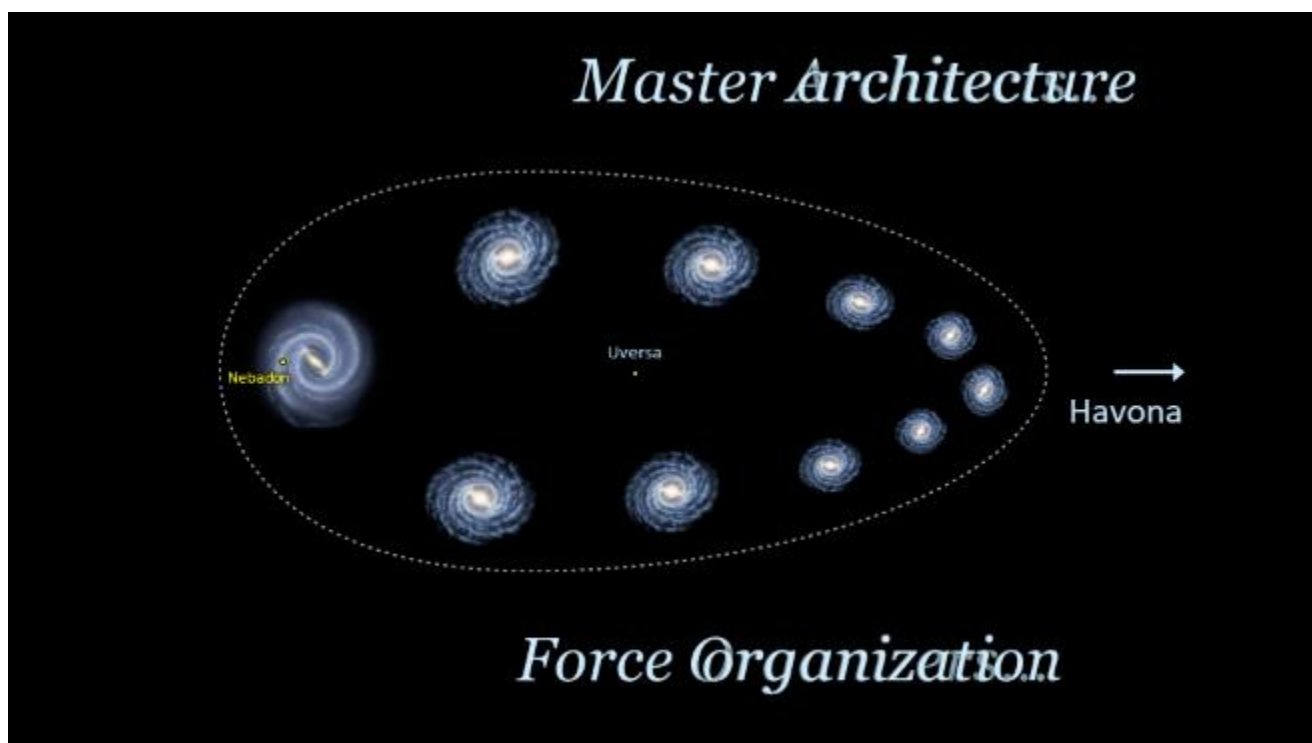
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What if something like this:

[**REPLAY descent**] a “galaxy of major sector spirals”,
were the first thing that telescope finds?

“**Pause to consider...**”



Keep in mind, this is still just our “thought experiment”. There’s no scientific reason or data to suggest that a system like this exists. For me, this is just the simplest way to model what the papers seem to say.

With this in mind, let’s take the next step, and see where this thought experiment leads.

Clearly, a system like this implies "**architecture**". And "**organization**". Both of which the Urantia Book describes:

(with its Master Architects, and Force Organizers...)

And as we saw in previous [chapters]...

The Urantia Book

Introducing a bigger frame in which to think

1: Universe frames

2: the Personal Universe

3: a Family Affair

4: **Cosmology**

4A – Foundations

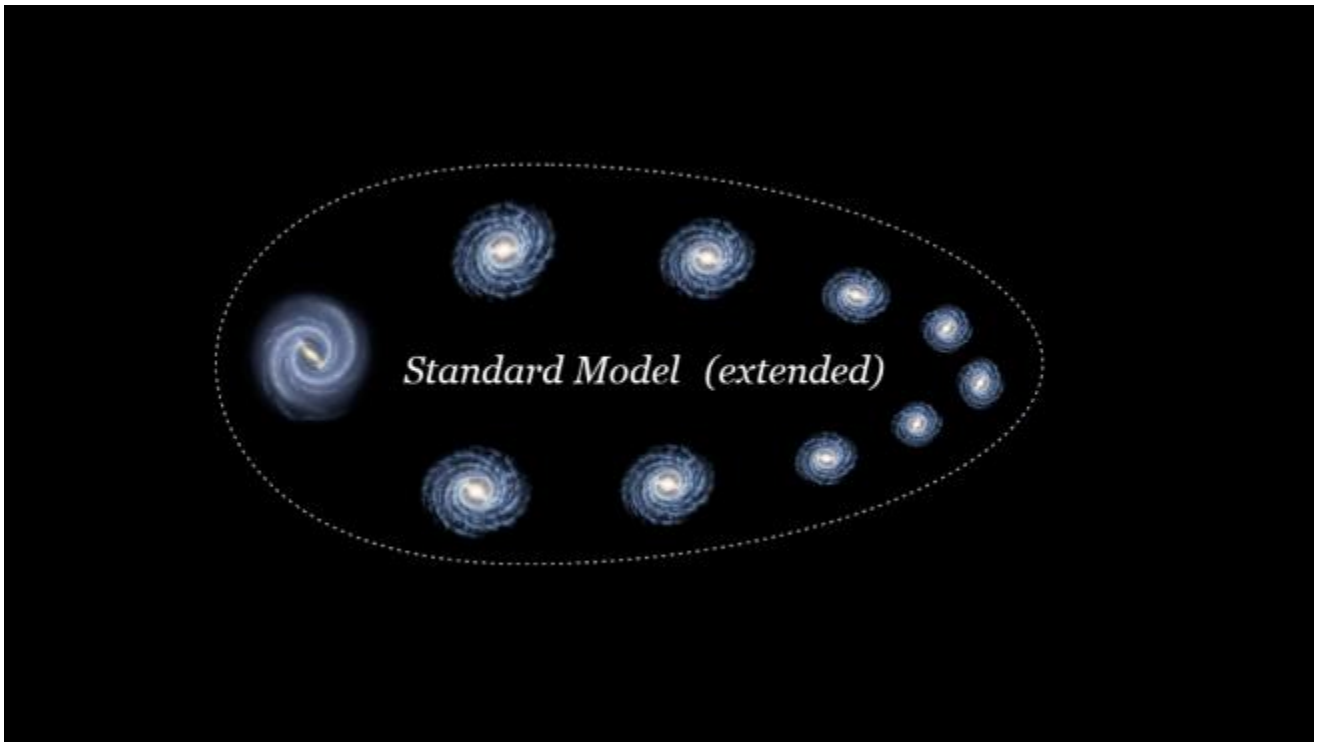
4B – Mass & Matter

4C – Exploding Dark Islands

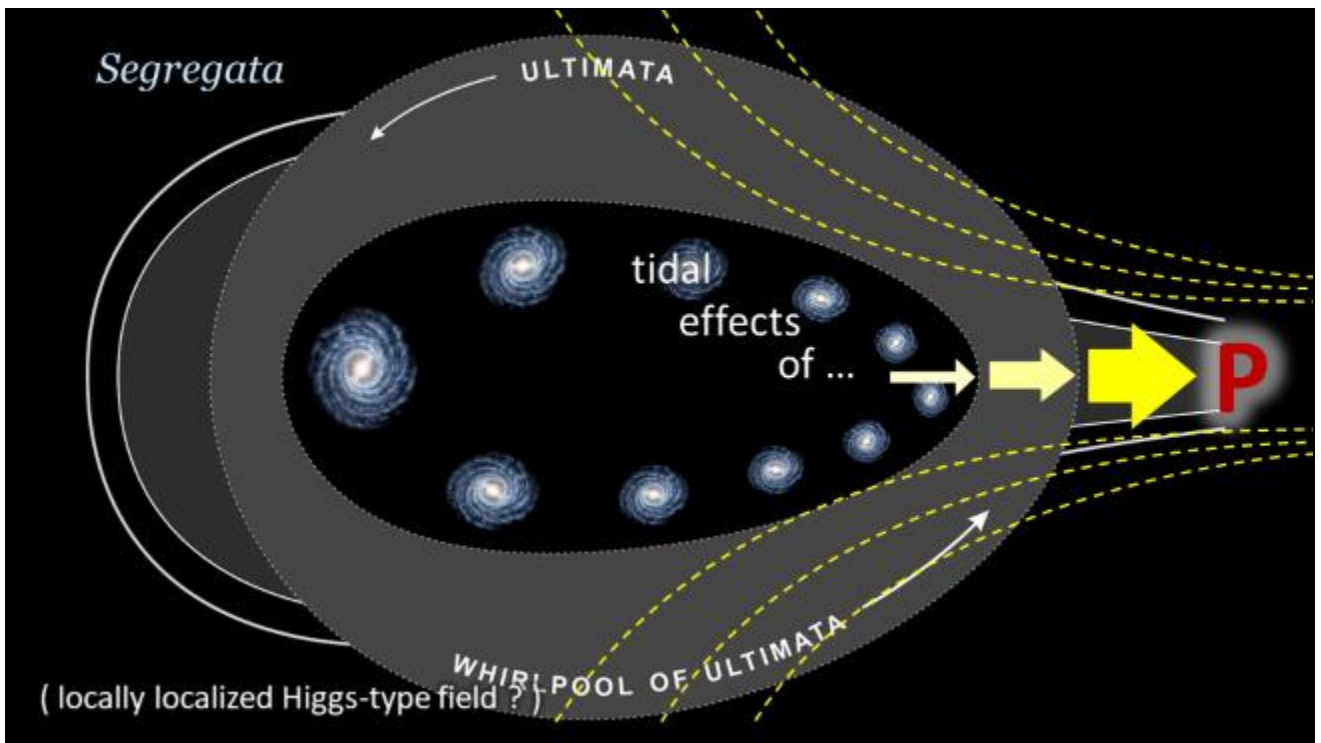
4D – **Ancient Orvonton** (and a young cosmic web)

... (see parts 4A, 4B and 4C),

these papers also provide the sort of **extended standard physics** that such a scheme requires,



adding to this picture three essential (but invisible, or **dark**) parts:



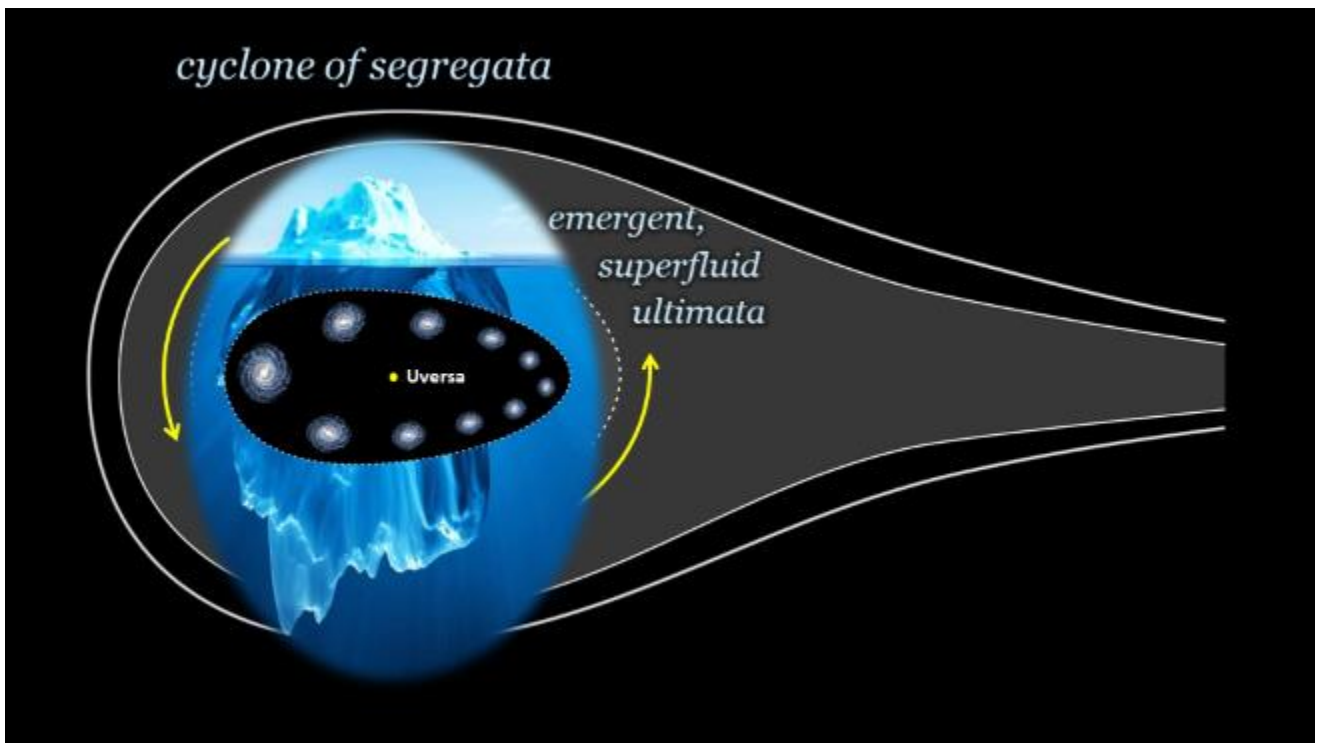
One: that vast swirling cyclone of massive **ultimata**,

Two: that ancestral halo of **segregata** (or “pure energy”),

And 3: (and most importantly) the tidal effects of **Paradise** – the universe’s **source and center of gravity** – acting for a **very** long time.

Question is: could this sort of **extended standard physics** explain the evolution of a system like this?

Let’s have a look.

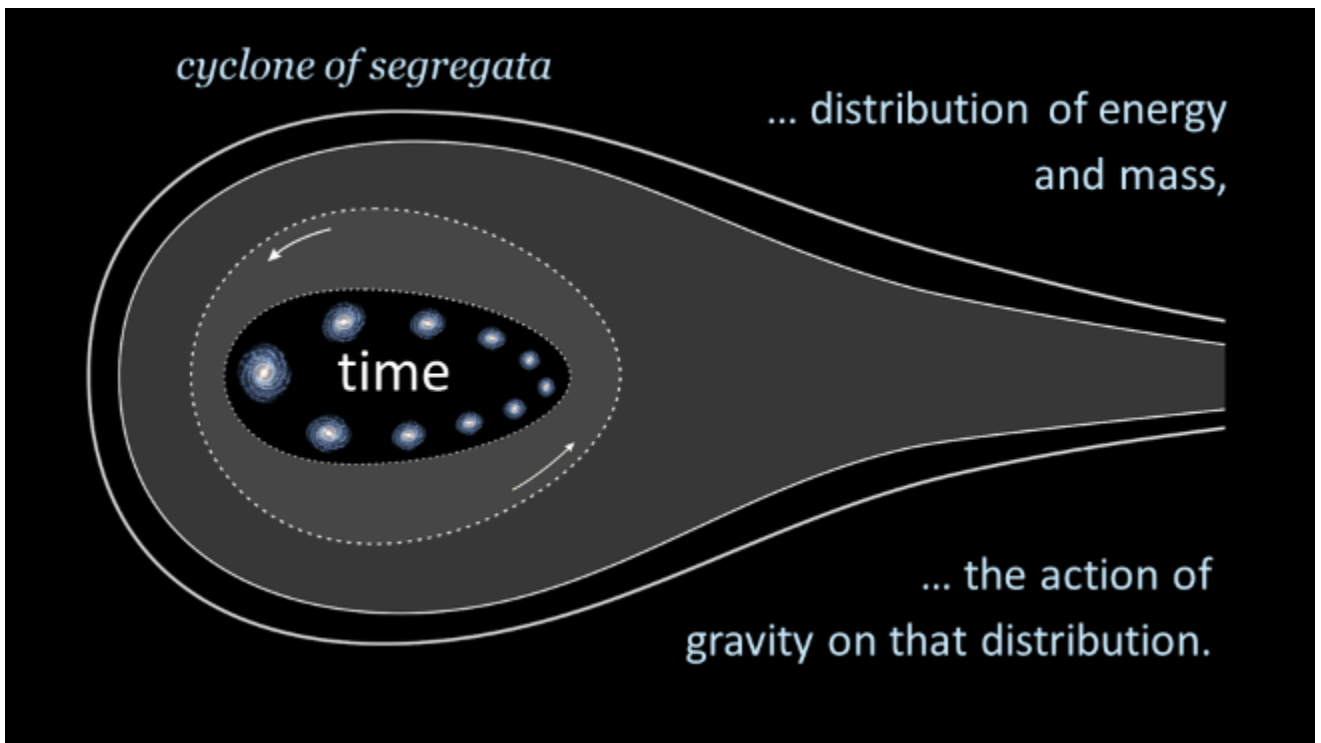


Think how ice is less dense than water; how icebergs – enormous “mountains of ice” – float, and get carried along by ocean currents.

Now think of these spirals of stars – these disks of **gravita** – as icebergs in a flow. A vast, *superfluid* flow, not of water, but of **emergent ultimata**.

So these visible galaxies – these “iceberg spirals” – will naturally “**go with the flow**”, carried around Uversa not just by gravity, by also by ancient, “**force-organized**” flows.

Now, if we float this whole system in a cyclone of segregata (“pure energy”), then what we have here is... a completely unexpected



... distribution of energy and mass. And thus gravitational action; and response.

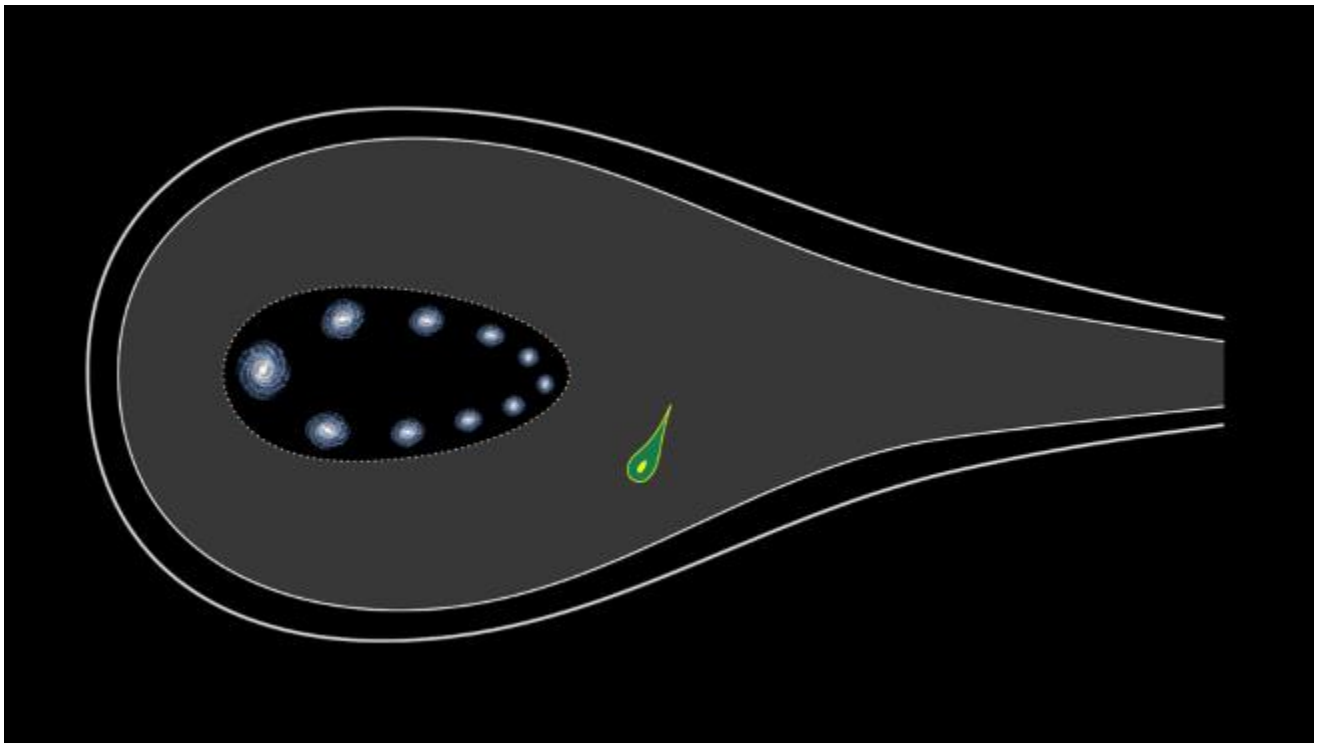
Within such enormous, energy-dense flows, these little spirals of stars would get carried along... like so much **fluff**.

The thing is, this sort of story fits right in with mainstream speculation: what we have here are spirals of stars, evolving in dark, superfluid disks, nested in halos of some mysterious, invisible condensate.

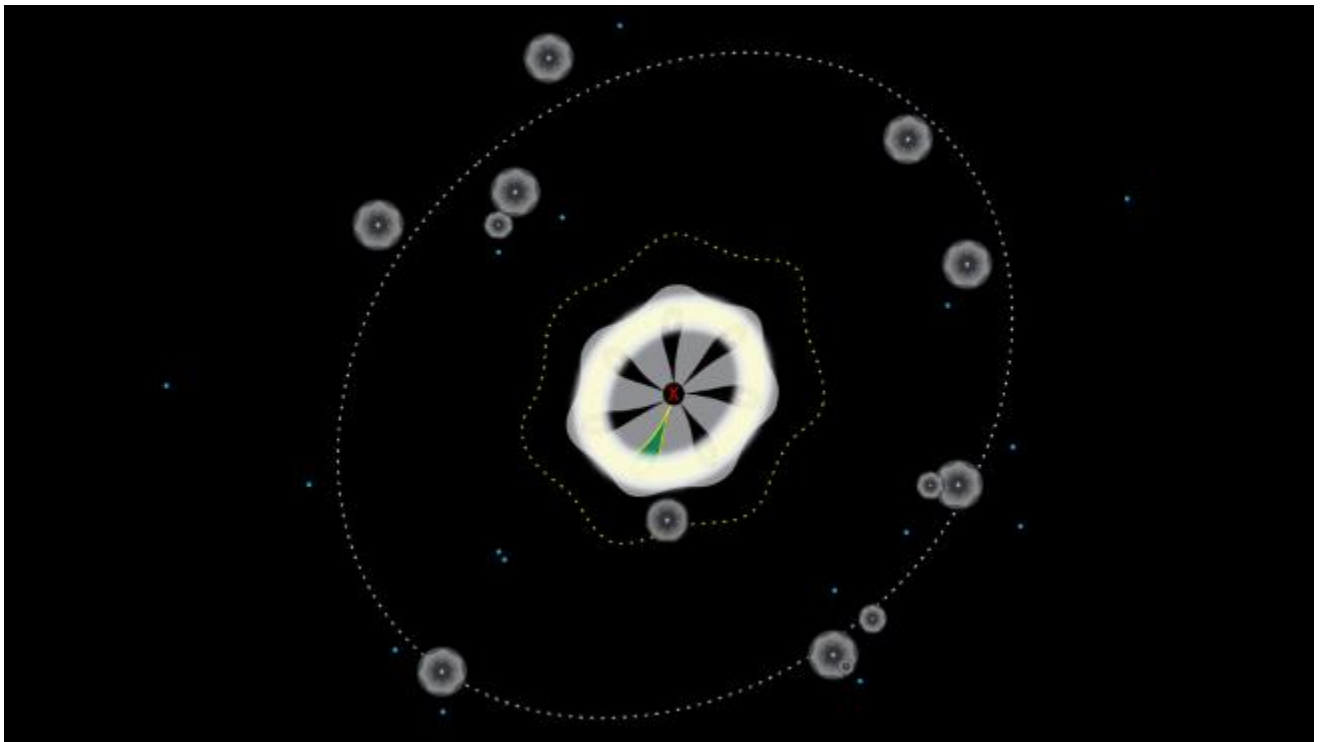
Which is **exactly** the sort of that thing cosmologists (**right now!**) are discussing at their conferences.

So this sort of “gravitational action” on “invisible mass” is not so controversial. The real issues here are **organization**, and **time**.

Even with Paradise Architects, and Force Organizers pulling the strings, it would take a long, long time to evolve a structure like this.



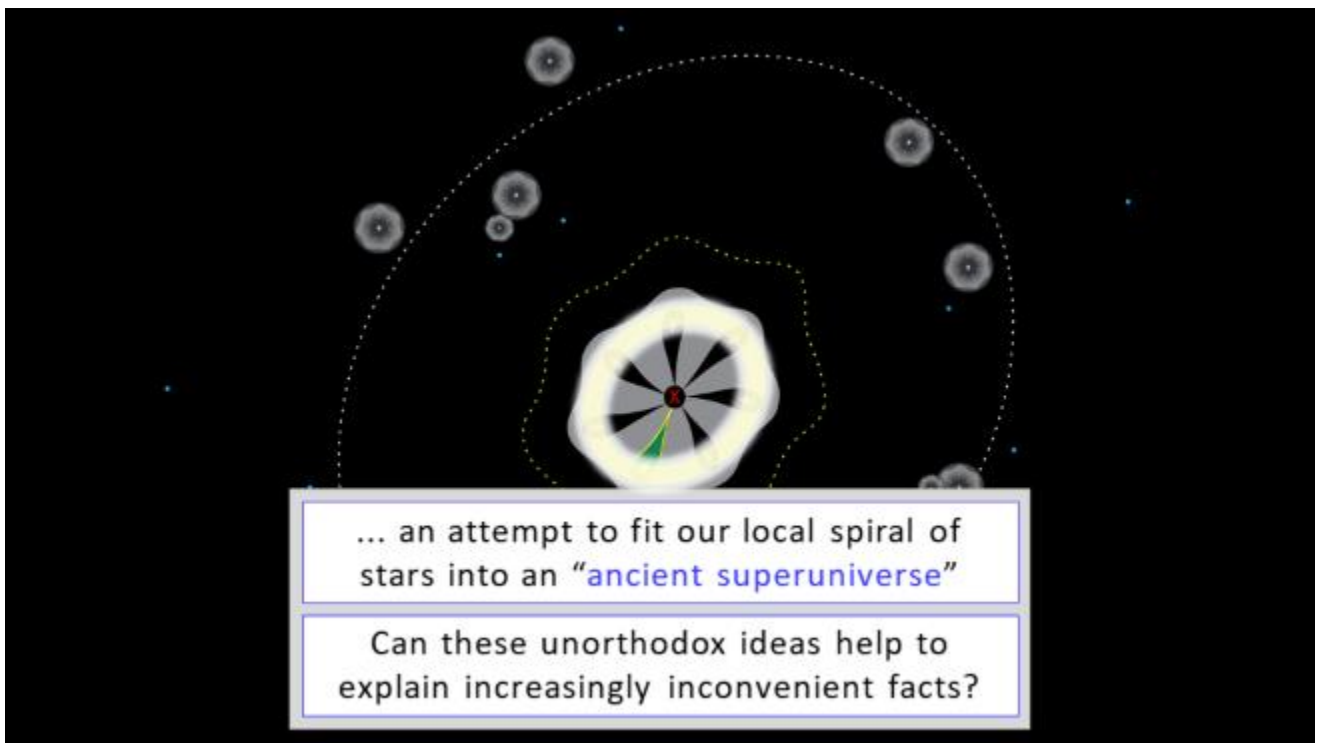
And when we pop Orvonton into place, ...



... as the 7th spoke in that “grand universe wheel”, this issue of time becomes deep: in telling the story of this relatively small “grand universe”, the papers talk in terms of [trillions](#) (with a “T”), not mere **billions** of years.

Which raises an interesting point: In Urantia Book cosmology, from a finite, or time-dependent point of view, this “grand universe age”, this vast span of time – and evolutionary effort – applies only along the [superuniverse rim](#) of this grand universe wheel.

The doings of outer space – relatively speaking – may have only just begun.



Once again: let me emphasize, this is **not** the scientific method at work.

This is simply a sketch of the sort of story the Urantia book reveals; an attempt to see how our local spiral of stars, the Milky Way, might fit in with the idea of “Orvonton”, and how a truly **ancient** “grand universe” might fit into some kind of reasonable astronomical context.

So now the fun begins: How to connect up this handful of unorthodox and ambiguous ideas... with what native science currently assumes?

Let’s have a look at what’s involved.

[[See Part 4D – Issues](#)]