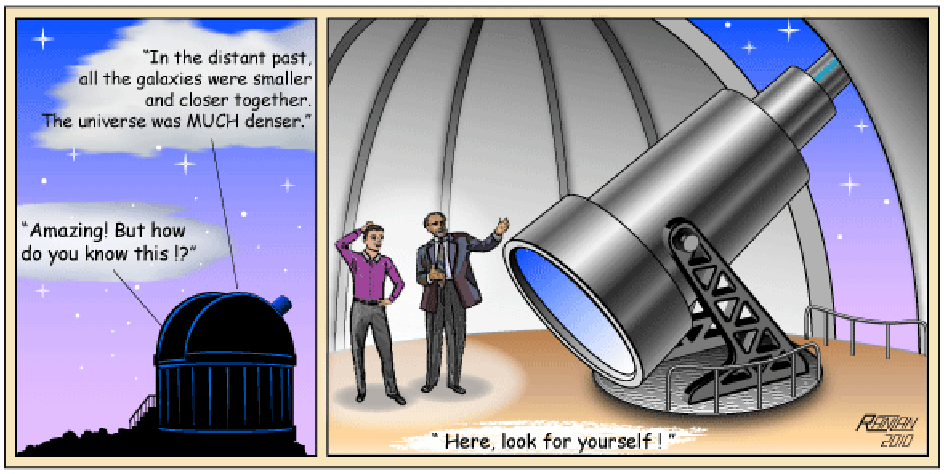
Critique of Conventional Cosmology

Posted at: www.CellularUniverse.org

> *"One seldom sees what one is not looking for, and theory tells experimenters where to look."*

So warned Timothy Ferris in his popular book *The Whole Shebang*. … In other words, one sees what one is *trained* to see!

In today's institutes of higher learning, all students of the astro-sciences are indoctrinated with **Big-Bang expanding-universe** hypothesis. It plays a dominant role in molding the perceptions of the initiated. This concoction, now officially in its sixth decade of dominance, frames the context of everything that astronomers see and detect *—regardless of how speculative, how unrealistic, and how unconvincing the ensuing interpretations may be!*



"Sometimes it seems that the only thing expanding faster than the universe is cosmologists' bewilderment." –George Musser

Essays

1. On Model Tinkering in the Ptolemaic Tradition

Every now and then it is enlightening to check on the "progress" of conventional cosmology, which, as everyone knows, embraces the expanding-universe model — popularly called the Big Bang.

The basic Big Bang has a parameter called the *scaling factor*. Think of it as the radius of the growing universe. Its magnitude grows as the Big Bang universe gets bigger. Technically it is the *derivative of this scaling factor* that describes the rate with which the universe is supposedly expanding. It is a measure of the speed of the expansion of the expanding universe. Simple enough.

However, the model holds that the speed changes over time. For many years it was believed that the expansion speed was slowing down. But careful astronomical observations, notably in 1998, revealed that this was not the case. Expansion wasn't tapering off. It seemed to be ramping up! Rather than abandon the model, the experts came up with **accelerated expansion**. Henceforth they employed an acceleration parameter, which, technically, is the *second derivative of the scaling factor*. (If you are keeping count, that makes three parameters available for theory manipulation.) As the story goes, the universe not only expands but it expands faster and faster. End of story? No. ...

A few years after that notable crisis of 1998 it was gradually revealed, through even more careful and ever deeper astronomical observations, that uniform **accelerated expansion** still wasn't the answer. (Now at this stage any conscious-and-rational person would have abandoned the Big-Bang ship, especially since there are far superior models floating around.) Having maintained a tradition of commitment going back as far as the 1920s when Lemaître formalized the cosmic-explosion idea, abandonment was not an option. And so the experts now came up with another parameter. Yes, a fourth adjustable factor! Admittedly it is not very original. If you can't connect with the underlying reality of the expansion process, at least you can connect with the differential calculus. Ready for this one? ... The new parameter is the third derivative of (you guessed it) the scaling factor. They call it the **jerk parameter**, and it means exactly what it says.

Professor Sean M. Carroll, promoter of the Preposterous Big Bang universe model. Image source: www.thegreatcourses.com

Now I assure you I am not making this up —and in a moment I will do more than assure you by providing the reference source.

The experts even tell us when, in the past of the Big Bang, this supposed "jerk" occurred. (It corresponds to a redshift index equal to 0.5 which corresponds to about 5.4 gigayears ago when the big bang universe was 9.2 gigayears old, assuming a Hubble constant $H_0 = 20$ kilometers per second for every million lightyears.[1]) Think about this for a moment; a jerk-event occurred at some particular period of cosmic time. A special identifiable time! What this means is that the Big Bang universe now has no less than three special moments in time during its existence: The beginning

time (t=0), the end-of-inflation time, and the jerk time; all in violation of the *cosmological principle* (strong version)! It means a violation of the generally accepted rule that a real universe must have no special time or place.

It is little wonder that physicists and cosmologists consider the expanding universe model to be preposterous! Physicist Sean M. Carroll even named his website "preposterous universe." And he goes into some detail in his paper, *The Cosmological Constant*, available at https://link.springer.com/article/10.12942/lrr-2001-1.

Undeterred by considerations of preposterousness and implausibility, a group of experts, using the latest high-z supernovae discoveries, presented their ideas for 'improvements' to the Big Bang. The research paper[2], authored by no less than 19 physicists/astronomers, was published in The Astrophysical Journal, June 2004. (See Reference #2 below.)

Their problem can be expressed this way: For a growing collection of remote supernova events the redshift-distance curve does not agree with the magnitude-distance curve (magnitude corresponds to apparent brightness). The challenge is to get the *theoretical* curve (the redshift-distance graph) to agree with the *empirical* curve (the magnitude-distance graph).

And that is why the scaling factor derivatives are so useful. If it is mathematically necessary to invoke a fourth or even fifth derivative of the scaling factor, to force-fit the curves, then so be it. The Big Bang, being, as it is, a mathematical model, *literally cannot fail*.

What we are witnessing in conventional cosmology is the "keeping up the appearances" in the best Ptolemaic tradition.

Posted 2008 July (www.cellularuniverse.org)
–C. Ranzan

References

1. Ned Wright's Javascript Cosmology Calculator www.astro.ucla.edu/~wright/CosmoCalc.html
2. Type Ia Supernova Discoveries at z > 1 From the Hubble Space Telescope: Evidence for Past Deceleration and Constraints on Dark Energy Evolution, A.G. Riess, et al., ApJ Vol.607, No2, 665-687 (2004) https://iopscience.iop.org/article/10.1086/383612/meta

2. Baffled by the Preposterous

"Sometimes it seems that the only thing expanding faster than the universe is cosmologists' bewilderment."
–George Musser, Columnist for Scientific American (1999 Sept p26)

Another Admission of Bafflement

Dan Hooper is a practicing physicist. He has applied his considerable talents to the search for the universe's missing mass and energy ... and the presentation of the details to a broad audience. He has written a book about the 95 percent of matter in the universe that is totally invisible. In his words, *"This invisible stuff comes in two varieties —dark matter and dark energy. One holds the universe together, while the other tears it apart."*

In light of the fact that many hundreds of physicists are involved in this search, and the search has been going on for many years (since the early 1980s), there should be much to report. Unfortunately, the search has turned out to be a profound disappointment. Dan Hooper finds himself making the following admission:

> *"The advances made in observational cosmology during the past few decades have been incredible. ... the catalog of distant supernova observations has led to the discovery that dark energy comprises about 70 percent of our Universe's density. These findings are remarkable. Sadly, the attempts to develop a compelling theoretical explanation for these findings have been not nearly as successful."*
> –Dan Hooper, **Dark Cosmos**, p173-4

Dan Hooper is talking about dark energy, **the stuff that purportedly is somehow shaping the universe.** Here he expands on the "not nearly as successful" part of his assessment quoted above:

> *"It's fair to say that the theoretical physics community is, at least for the time being, entirely baffled when it comes to dark energy. ..."*

An understatement if ever there was one. But then, this is not anything new. Actually the theoretical physics community has been "entirely baffled" ever since the adoption of ***creationism cosmology*** —ever since the adoption of a speculation (a far-out hypothesis) promulgated as science by Georges Lemaître, way back in 1927 & 1929. Take note, we're not talking about temporary bafflement here. The bafflement goes way back to the time of Edwin Hubble in the 1920s. (To be fair to Hubble, he did have the wisdom to advise caution before jumping to radical unscientific conclusions.)

The admission is that ***dark energy***, also known as Lambda, also known as cosmological constant, also known as vacuum energy, is shaping the universe. BUT how it does the shaping —and even what that shape might be— is a bafflement! ... It is not known what drives this energy nor what shape it leads to. At least that is the sad situation in Academic Cosmology.

What about the other half of the puzzle —the dark matter?

> *"As our search has left us with no known candidate for dark matter, we must turn our attention to the purely theoretical and ... the branch of mathematics ... "* –Dark Cosmos, p80

Are dark energy and dark matter related?

> *"Dark energy and matter are, as far as we [physicists] understand them, completely unrelated phenomena."* –Dark Cosmos, p174

Dark energy (or Lambda) and material matter are unrelated?!! ... They shape the universe yet are unrelated?!! ... Folks, the admission of bafflement could not be any clearer. ... Meanwhile, in DSSU cosmology the two are intimately linked in true Heraclitian tradition —involving flux, processes, opposites, and harmony.

Academic Astrophysics/Cosmology seems to suffer from a strange inbreeding of ideas.

Consider the following remarkable claim, made in his 2006 book, by theoretical physicist Hooper:

> *"The vast majority of cosmologists are convinced that around 14 billion years ago our Universe was in an ultra-hot state that expanded over time to eventually become ... the Big Bang. In fact, I don't believe that I have ever met a cosmologist who disagreed with this assessment."* –Dark Cosmos, p206

I say this is a remarkable claim because these same people admit the model is preposterous and they admit their puzzlement. I'm scratching my head. Something is not right here.

Physicists are baffled by the model they have pieced and pasted together —their model of the expanding universe. Big Bang for short. Yet despite the serious and persistent bafflement, they all agree (or so we keep hearing) on the validity of the Big Bang model!! The academic colleagues of Dan Hooper, instead of voicing justifiable skepticism, compliantly vote their support!

Now what kind of scientific methodology are these learned scientists using? Seems rather irrational, doesn't it? The average thinking person can't help but conclude that there is something seriously wrong here.

What we are witnessing in academic astrophysics/cosmology is conformism to official dogma. Science writer Corey S. Powell calls it "sci/religion" (and calls its practitioners the "Priests of sci/religion"). Others call it "mytho-science." I call it (among other things) the inbreeding of expanding-universe theories. We are witnessing the 80-year-long inbreeding of theories based on the biggest unscientific extrapolation in the long history of science. ...

All the serious models of the universe that have been debated following the introduction of Lemaître's fireball-universe were based on whole-universe expansion. They included *general-relativity* expansion, *steady-state* expansion, kinematic expansion, *inflationary* expansion, negative-pressure expansion, and *quintessence* expansion, to name the most popular ones. **Cross fertilize any of them and you still end up with whole-universe expansion!** The expanding universe models have metaphorically reached an evolutionary dead-end.

And what is blatantly obvious in all this is that Modern Cosmology (more specifically, Academic Cosmology) has simply NOT investigated the non-expanding universe. **It has never explored the perfectly natural cellular universe!**

Giving the last word to Dan Hooper, who despite his bafflement, expresses hope.

> *"Modern physicists hope ... to find not only a more complete description of nature, but also a more complete explanation for it."*
> –Dark Cosmos, p5

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Posted 2010 May (www.cellularuniverse.org)
–C. Ranzan

References:

Dan Hooper, *Dark Cosmos: In Search of Our Universe's Missing Mass and Energy* (Smithsonian Books, HarperCollins Publishers, New York, 2006)

3. The Cosmology Debate That Never Happened

During the 20th century there was a prolonged debate between the proponents of the Big Bang hypothesis and those of the Steady State hypothesis. The debate started in the 1920s with the misinterpretation of the red-shifted light from distant galaxies and supposedly ended in the 1990s with the discovery of minute variations in the cosmic microwave background radiation (CMBR).

The debate dealt with the profound consequences of the series of unexpected observations originating with Arizona astronomer Vesto Slipher during the years 1912 to 1923, and continued with German astronomer Carl Wirtz in 1922, Harlow Shapley in the 1920s, American Cosmologist Howard Robertson in 1928, and Edwin Hubble in 1929. The accumulated observations led to the empirical law that the greater the distance to a galaxy, the greater is the redshift of its light. Stated another way, the empirical relationship meant that the ***apparent*** recessional speed of a galaxy is proportional to its distance. Note the position of both sides in the "Debate." Both the Big Bang side and the Steady State side considered the *apparent speed* to be a REAL recessional motion. (But further note: Hubble himself preferred "the alternative possible interpretation, that red shifts are not velocity shifts, avoiding [two major expanding-universe] difficulties ... ." [1])

Edwin Hubble Powell in 1952.
Credit: Hale Observatories, courtesy AIP Emilio Segre Visual Archives

We all know which Worldview came out on top.

"[T]he conclusion of the greatest cosmological debate in history," according to historian-of-the-Big-Bang, Simon Singh, came with the discovery, by Penzias and Wilson, of the CMB radiation, and with the mass-media publicity that followed. The debate was considered settled when on May 21, 1965, the **New York Times** carried the front page story under the banner headline, SIGNALS IMPLY 'BIG BANG' UNIVERSE.[2]

Actually, the debate continued into the 1990s. It was in 1992 that the COBE satellite discovered variations in the CMB radiation —variations of 1 part in 100,000— coming from different parts of the sky. When appropriately interpreted (as indicating tiny variations in density of the baby big-bang universe), the data "proved" the superiority of the Big Bang model. Quoting, again, from Simon Singh's book *Big Bang*: "At last, the challenge to prove the Big Bang model was over." [3]

When a debate drags on for ***that*** long ... and the outcome hangs by a thread —a thread of evidence, in the variation of some variable, with a variance as tiny as 1 part in 100,000!— then credibility suffers. My initial reaction was to suspect that both sides were wrong.

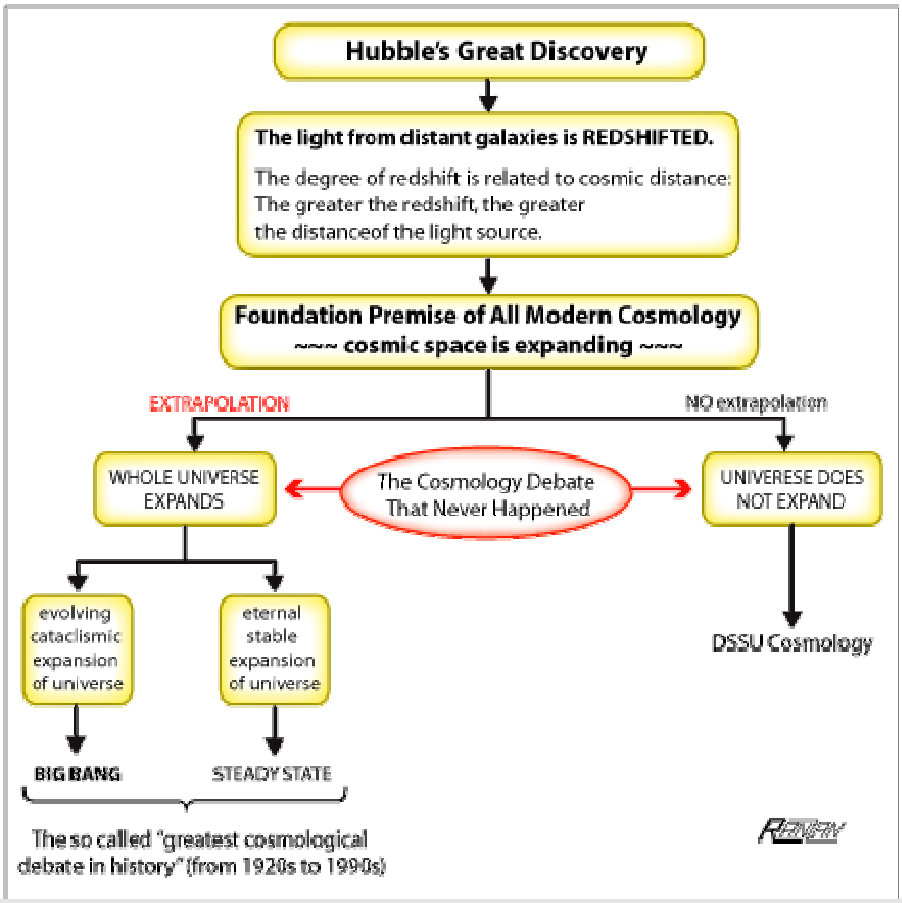
Now, it does not take an astrophysicist to realize that the debate-of-the-century was fundamentally between two types of EXPANDING universe —two types of expanding single-cell universe. The Big Bang (BB) and the historic Steady State (SS) were not of the same species, so to speak. ***But they certainly were of the same genus.***

Undeniably, both universes were single cell and ***both were expanding***. That is, each expanded as a single cosmic unit —even if infinite in size (as some BB and SS versions claim to be)!

But hold on a minute. The debate went on for roughly 75 years. A long time. Certainly it was long enough to examine fundamentally different ideas. Surely, the ***non-expanding*** option would have been proposed and explored.

Surely, there must have been a "great debate" between the expanding universe and the non-expanding universe. And what about a "great debate" between the single-cell cosmos and the multi-cell cosmos? After all, these are concepts of fundamental and obvious relevance to the historic debate.

Guess what! ... Search your libraries; search the history of cosmology; search the astrophysics literature. You will come up empty handed. No such debate has ever taken place!



The cosmology debate that never happened. The pioneering "experts", in their haste to construct a mathematical universe based on Einstein's theory of general relativity, neglected to make a proper evaluation of the two distinct classes of universe —the expanding and the non-expanding universe. With the non-contestation of the expansion-of-the-whole-universe idea, Academic Cosmology became entangled in a phantasmagoric debate and devolved into an unnatural esoteric Worldview known as the Big Bang.

Ladies and gentlemen, let me make this crystal clear: what historians call **"the greatest cosmological debate in history"** was between TWO expanding universes —two hypothetical models that share the same, I repeat, ***the same*** foundational property! If one is to claim some great contest of ideas (let alone the "greatest") then surely there must exist some deep dividing difference! What —we must ask— is so

great about a debate when both sides agree that the universe is expanding, is single-celled, and is evolving? [4]

Sad to say, the experts in this field have dropped the ball —collectively and individually.

The astrophysicists, the cosmologists, and the theorists of the 20th century were embarrassingly negligent. Admittedly, these are strong words, but fully justified. Since the late 1960s and early 1970s, astronomers, including Charlier-de Vaucouleurs, and most notably Jaan Einasto of Estonia, have stated over and over that our universe appears to be cellularly structured! However, in time, astronomers convinced themselves that without a proper supporting theory the apparent cellularity was merely an observational phenomenon. Without a "proper theory" this critical observation was relegated to the status of a mirage, a mere curiosity. ... All I can do is shake my head in disbelief.

Anyway, **the debate that never happened**, the cosmology debate that should have taken place long ago, the debate that the history books will call the "**Great Debate III**",[5] ... at long last, *is now on*.

One of the key issues is the multi-cellular universe as opposed to the single-cell universe (both the BB and historic SS are single-cell). When I say "multi-cellular universe" I'm not talking about a *multiverse*. I am *not* talking about a collection of many separate and isolated universes each with its own laws of physics —each with its own defining parameters. No. I am talking about ***the*** universe (in the singular) being divided into subunits with no interaction among such subunits other than radiation.

A beautiful idea. There is a beautiful idea that Nature has decided to use, and it does so, on all size-scales. The beautiful idea is cellular structure. The scales range from the microscopic scale (think viruses and crystals), through the biological scale (think living cells), and the planetary scale (think plate tectonics), to the stellar scale — and even to the cosmic scale!

Nature's cells are not phenomenological. Rather, they are dynamic and process driven. It is a beautiful idea.

A Failing Cosmology

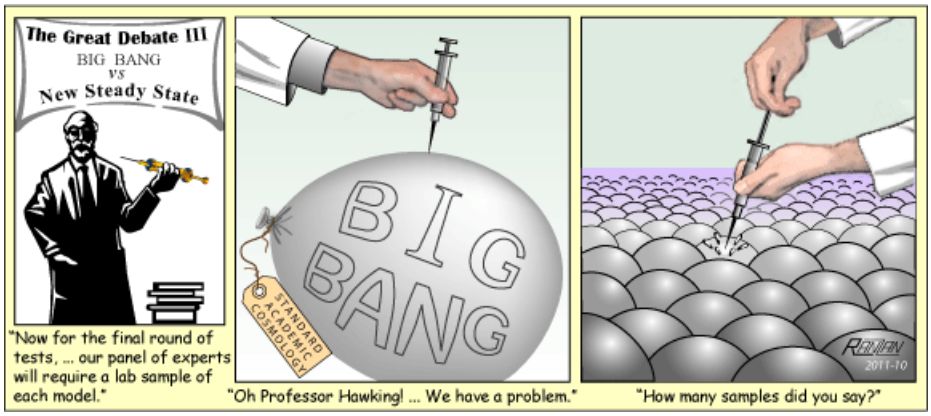
Although we are repeatedly told that the debate is over and that the Big Bang reigns supreme, problems remain. In his book on the Big Bang, Simon Singh, after explaining that the BB universe "is a strange place indeed" and quite unnatural, wrote the following:

> *"Completely solving the remaining mysteries of the Big Bang will require a three-pronged attack, involving further theoretical developments,* ***laboratory experiments*** *and, most important of all, even clearer observations of the cosmos ... and* ***experiments*** *on the lookout for signs of dark matter."* [6] [emphasis added]

This does not sound like a winning cosmology. To many impartial observers, It remains a mystery how the BB model actually connects with reality. Evidently, some theory rethinking is called for (prong one). More laboratory tests are needed (prong two). More observations and experiments are needed in the perennial effort to find that elusive "dark matter" (prong three).

Incidentally, those words, calling for ***laboratory experiments***, brought a smile and

inspired the following comic strip. It metaphorically illustrates why a penetrating examination of the Big Bang model would lead to its destruction.



The above cartoon highlights one of the more serious problems with Standard Cosmology, its insistence on applying the so-called cosmological principle of *homogeneity of the universe*.[7] Just like the balloon is a ball of homogenous air, the early BB was a ball of homogenous plasma (hot ionized gas). The problem is that in the real universe homogeneity IS NOT OBSERVED! As already pointed out, it is cosmic cellular structure that is actually observed. This cell structure is popularly reported as nodes of rich galaxy clusters and enormous networks of superclusters.

The BB model demands a high degree of homogeneity; while the DSSU [8] cellular model requires the inhomogeneity inherent in cosmic tessellation. The BB model hypothesizes the homogeneity of the Hubble expansion; while the DSSU model expounds the inhomogeneity of "space" expansion by including its harmonious opposite, *"space" contraction*. That is to say, while the BB insists on the universal expansion of space, the DSSU insists on regional expansion (and regional contraction). The issue boils down to: **a run-away universe-wide dynamic model** versus **a stable regionally-dynamic model. A BB expanding universe** versus **a SS non-expanding universe**.

If you like a black-and-white view of cosmology, it does not get any better. As a sharp contrast to the conventional wisdom, the DSSU has the right stuff for a meaningful debate.

Returning to Singh's earlier comment. He stresses the importance of finding the mysterious dark matter. Let me make a light-hearted public appeal: In the interest of helping a failing cosmology, if you see anything suspicious, if you come across anything that looks, feels, or smells like dark matter, there are BB believers who need your keen observational skills.

Consider the dedication. The dedication of the BB veterans is truly astonishing. Imagine searching for the dark-matter stuff for over 30 years and finding nothing meaningful! How utterly discouraging! ... They really do need help.

It is not my purpose in this short essay to catalogue the problems of Standard Academic Cosmology. I will simply note that they are many, they are glaring, and they refuse to go away. David Darling, author of *Gravity's Arc*, warns that,

> *"The fall of every great theory is foreshadowed by some niggling*

> *problems or inconsistencies that refuse to go away."* [9]

The one-time assistant to Edwin Hubble and distinguished astronomer, Dr. Halton Arp, had this to say about the failing cosmology:

> *"I believe the observational evidence has become overwhelming, and the Big Bang has in reality been toppled. There is now a need to communicate the new observations, ... and the new insights into the workings of the universe —all the primary obligations of academic science, which has generally tried to suppress or ignore such dissident information."* [10]

He calls the situation a "crisis for the reasonable members of the profession" of the space sciences; with so many alternative, even contradictory, versions of the BB model, "many of them fitting the evidence very badly." Furthermore, he was motivated to make his own appeal. A sincere outreach. ...

> *"At this point, I believe we must look for salvation from the non-specialists, amateurs and interdisciplinary thinkers —those who form judgments on the general thrust of the evidence, those who are skeptical about any explanation, particularly official ones ..."* [10]

Halton Arp ends the preface of his book with these prophetic words:

> *"I believe a painfully honest debate is the only exercise capable of galvanizing meaningful change."* [10]

And *that* "honest debate" with "meaningful change" has its roots in ***the cosmology debate that never happened!***

* * * *

Posted 2011 Oct (www.cellularuniverse.org)

–C. Ranzan

Notes & References:

[1] Edwin Hubble, *The Observational Approach to Cosmology* (Oxford Eng: Clarendon Press, 1937)
[2] Simon Singh, *BIG BANG, The Origin of the Universe* (Fourth Estate, Harper Collins, New York, 2004) p433-434
[3] Ibid. p463
[4] The BB is an evolving universe; that is obvious. The same is not obvious with the SS universe. The historic Steady State universe evolves in the sense that it is perpetually gaining matter as it expands (and there is no compensating loss!).
[5] **Great Debate I** was between the idea of a single island universe and that of multiple island universes. It concerned the astronomical objects known as "nebulae". One side maintained that the nebulae lay within the Milky Way galaxy; the opposing side held the view that they were independent galaxies far beyond the Milky Way.
Great Debate II was between two versions of the expanding universe, the BB and the SS.
Great Debate III is between the expanding universe and the non-expanding universe.
[6] Simon Singh, *BIG BANG, The Origin of the Universe* (Fourth Estate, Harper Collins Publishers, New York, 2004) p481
[7] Jean-Claude Pecker (Collège de France, Paris), *Some Critiques of the Big Bang Cosmology*, **J. Astrophys. Astr.** (1997) 18, 323–333
[8] DSSU is the acronym for *the Dynamic Steady State Universe* —the cosmology theory that holds that the universal space medium is dynamic and that this space medium expands and contracts ***regionally and equally*** resulting in a cosmic-scale cellularly-structured universe.
[9] David Darling, *Gravity's Arc, The Story of Gravity from Aristotle to Einstein and Beyond* (John Wiley & Sons, Inc., Hoboken, New Jersey, 2006) p121
[10] Halton Arp, 1998. *Seeing Red: Redshifts, Cosmology and Academic Science*

4. Has the Higgs Boson Been Discovery?

The Unreported Problem with the Higgs Boson

In July of 2012 physicists announced the first definitive evidence of a new high-mass particle claimed to be the long-awaited Higgs boson. After 50 years of searching, the "Higgs" just ***had*** to be found. The participants in the search had really only two options available to them: find the damn thing or admit (Oh no!) that the theory is wrong. Find something that might serve as the Higgs or admit that they, the elite in this esoteric field, had been pursuing a chimera. Imagine struggling with this cause-of-mass conundrum for 50 long years! This could easily span a physicist's entire career. Better to find the Higgs, no matter what. Find the Higgs, keep face, keep the funds flowing, and somehow the mathematical theory will be made to work.

> After 50 long years of searching, Physicists claim to have detected the Higgs boson, the 'particle' that ostensibly bestows the property of mass on all other such particles. Is it now time to celebrate? ... Definitely not.
>
> The question now is this: If the Higgs 'particle' is the giver of mass to all other particles, what then gives the Higgs itself its mass?! (Yes, the newly discovered particle has mass, lots of it!) A difficult and embarrassing question indeed. It is like asking: If God created everything, then who or what created God? ***While physicists think they have solved the mass problem, the reality is that they have unwittingly exposed an even bigger problem —the riddle of "First Cause".***
>
> Meanwhile, our DSSU reality-based physics continues to advance without it. –CR

Yes —Oh yes!— the mathematics can *always* be counted on. It has been said that math describes *all possible worlds*. Mathematics, like magic, conjures up all possible cosmologies. Just look at what creative mathematics has accomplished with the solid, real-world, evidence of a cosmic redshift of the light from distant galaxies. Here's what creative mathematics did with some good data, a bad interpretation, and an ugly extrapolation. Follow me on this. Take these three ingredients: (1) the cosmic redshift measurements, (2) an wholly unnecessary interpretation, (3) an extrapolation that is both unscientific and philosophically unsound. Apply some mathematical magic; then behold the resulting formulations —the mathematical universes known as the Big Bang universes (there are already numerous versions not to mention countless more *possible* versions). Astrophysicist/cosmologists continually proclaim the Big Bang to be the truth; the uncritical believers simply believe. Meanwhile, problems abound, patches concocted, new speculations appended; yet the current research is to extrapolate even further and formulate multiverses!!! Multiple simultaneous big bangs, of all things! (But that's another story —for another time.)

The mathematics has sustained a disastrously flawed cosmology ever since the 1920s. The same methodology will, no doubt, work for the Higgs model for mass acquisition.

So, celebrate the new particle, whatever it may be. Celebrate the security of the CERN funding. Celebrate the postponement of the day of reckoning of the Higgs model. Give serious thought, however, to a rather obvious inconsistency. …

The BIG question now is this: If the Higgs 'particle' is the giver of mass to all other particles, what then gives the Higgs itself its mass?! (Yes, the newly discovered particle has mass, lots of it!) A difficult and embarrassing question indeed. It is like asking: *if*

God created everything, then who or what created God? ***While physicists think they have solved the mass problem, the reality is that they have unwittingly exposed an even bigger problem —the riddle of "First Cause".***

What has been discovered is that there is a fatal flaw with the Higgs boson.

Why is all this so important to cosmology, the science of the universe? Why should something, the Higgs, supposedly residing in the tiny scale of particle physics, be relevant to the Universe, existing as it does on an unimaginably large scale? …

It is extremely important, for if you do not understand the cause of the property of mass, the Higgs being a mathematical concept unconnected to reality, then you will not understand the cause and mechanism of gravitation; and without the mechanism of gravitation there is no hope of understanding the intrinsic nature of the Cosmos —its inherent cellular structure.

The cause of mass, leads to a cause of gravity, leads to a three-process mechanism of gravity, which in turn leads to the structure of the universe. This sequitur-sequence of understanding leads to the elegantly natural Cosmos. It's called the DSSU —the Dynamic Steady State Universe.

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Posted 2012 Sept (www.cellularuniverse.org)
–C. Ranzan