

“In the beginning, God created the heavens and the earth.”

Genesis 1:1

“Since the creation of the world [God’s] invisible attributes, his eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse.”

Romans 1:20

Sound Bite

Getting Across the Christian Message in a Sound Bite World

- Most people’s attention span is very low.
- We’ve got to be ready to make our case quickly.
- We want to equip you with questions and short arguments for:
 - The existence of God.
 - The historicity of Jesus’ life, death, and resurrection.
 - The reliability of the Bible.
 - The reasonableness and truth of the gospel.

“...If I delay, you may know how one ought to behave in the household of God, which is the church of the living God, a pillar and support of the truth.”

1 Timothy 3:15

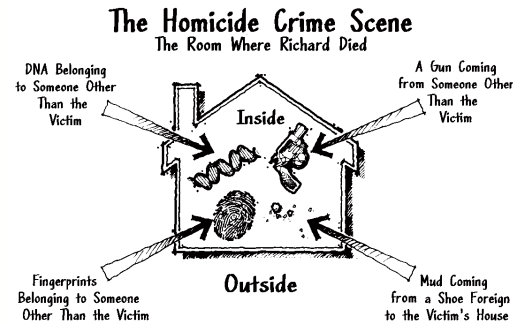
Sound Bite

Getting Across the Christian Message in a Sound Bite World

- January 3 - The Cosmological Argument for God’s Existence - Jeff C.
- January 10 - The Fine Tuning Argument for God’s Existence - Ed
- January 17 - The Moral Argument for God’s Existence - Neville
- January 24 - The Possibility of Miracles - Jeff M.
- January 31 - Jesus’ Resurrection as Historical Fact - Steve
- February 7 - The Problem of Suffering - Lindsay

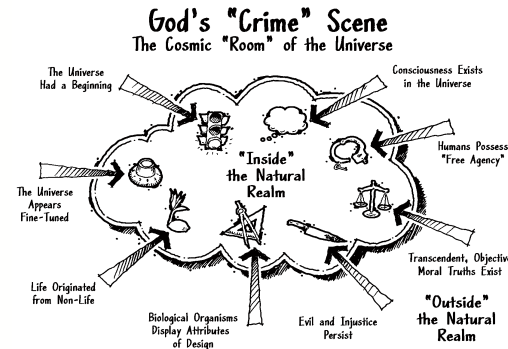


Can I account for the evidence in this room by staying in the room?



Can everything we observe in the universe be explained by natural, physical causes and processes?

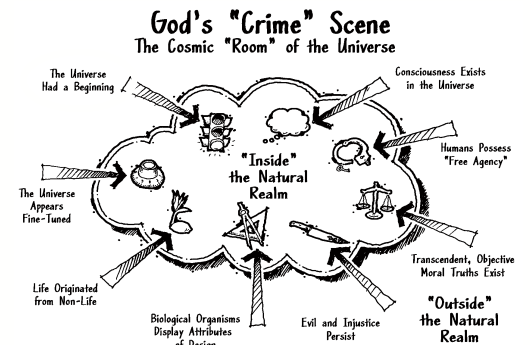
Is there any evidence *inside* the universe pointing to the existence or intervention of a supernatural being *outside* the universe?



Get ready to think hard about the evidence.

Your questions are invited!

In the Beginning
The Cosmological Argument



“By [reasonable] faith we understand that the universe was created by the word of God, so that what is seen was not made out of things that are visible.”

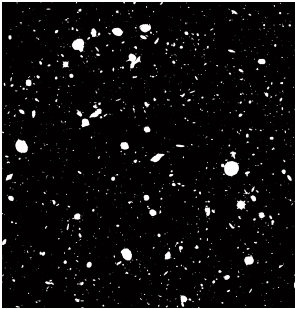
Hebrews 11:3

Cosmological Argument Kalam Cosmological Argument Cosmos κόσμος

**Whatever begins to exist has a cause.
The universe began to exist.
Therefore, the universe has a cause.**

Sound Bite The Cosmological Argument

- Did you know science and evidence prove God exists?
- There are eight strong arguments that God exists.
- May I share one of them with you?
- It's called the Cosmological Argument.



Sound Bite The Cosmological Argument

- Whatever begins to exist has a cause.
- The universe began to exist.
- Therefore, the universe has a cause.
- This cause must be spaceless, timeless, immaterial, uncaused, and personal.
- God is the most reasonable explanation for such an uncaused first cause.

Sound Bite The Cosmological Argument

- I can send you a video that better explains the cosmological argument. Would you like me to do that?
 - <https://www.youtube.com/watch?v=6CuIBuMCLg0>
- This is just one of eight arguments for the existence of God!
- Would you like to meet for coffee to talk about them?

**Whatever begins to exist has a cause.
The universe began to exist.
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The First Premise Whatever Begins to Exist Has a Cause

- Believing something can pop into existence without a cause has no basis in experience or science.
- If something can come from nothing, why don't we see this happening all the time?
- Everyday experience and scientific evidence confirm the first premise.



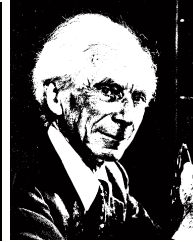
**Whatever begins to exist has a cause.
The universe began to exist.
Therefore, the universe has a cause.**

Did the universe begin, or has it always existed?

“The universe needs no explanation. It’s just there, and that’s all.”



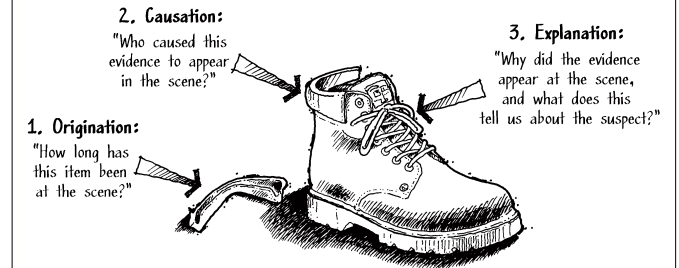
David Hume (1711-1776)



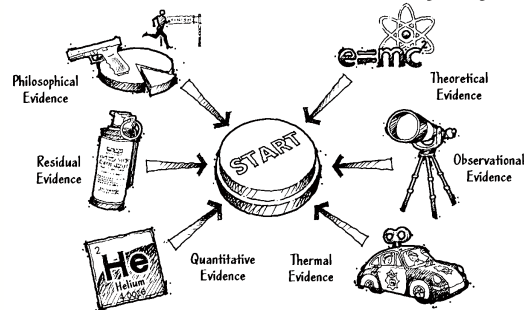
Bertrand Russell (1872-1970)



Stephen Hawking (1942-2018)

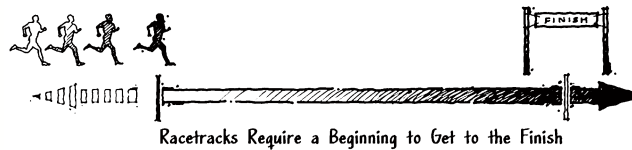


The Diverse, Cumulative Case for a Beginning



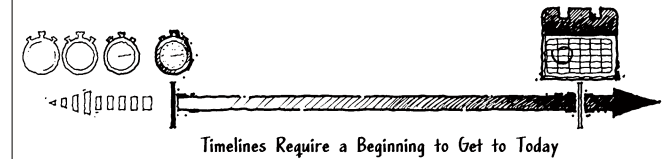
The Problem of Infinite Regression

Unless There Was a Beginning, You'll Never Get to the Finish



Philosophical Evidence

An Infinitely Old Universe Is Not Possible



The Universe Had a Beginning Evidence from Maths and Physics

- Prior to the 20th century, scientists believed the universe was infinitely old, uniform, and unchanging (i.e. Isaac Newton).
- When Albert Einstein tried to apply his theory of general relativity to the cosmos in 1916, he discovered the universe was not eternally old and unchanging.



The Universe Had a Beginning Evidence from Maths and Physics

- Aleksandr Friedmann, a Russian mathematician working with Einstein's theories in the 1920s, predicted an expanding universe.
- This conclusion was unpopular at the time because it implied the universe had a beginning.



The Universe Had a Beginning Evidence from Astronomy

- American Vesto Slipher discovered if an object was moving toward Earth, its spectrograph colour shifted toward blue.
- If an object was moving away from the Earth, its spectrograph colour shifted toward red.
- In 1914, he proposed the universe was expanding.



The Expanding Universe



Evidence from Astronomy

- Confirmed the universe is expanding.



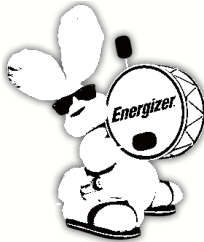
Evidence from Astronomy

- Concluded the universe had a beginning from which it expanded to its current condition.



Thermal Evidence

- Who wound up the bunny?



If our universe was infinitely old, it would have run out of usable energy by now!

Sir Fred Hoyle (1915-2001)

- Hoyle's calculations coincide with our measurements of helium in the universe today.



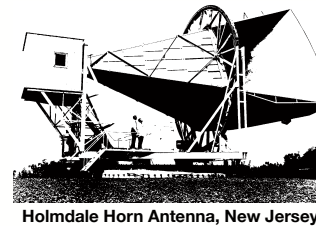
Boris Anrep, Fred Hoyle, National Gallery, London

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Cosmic Background Radiation

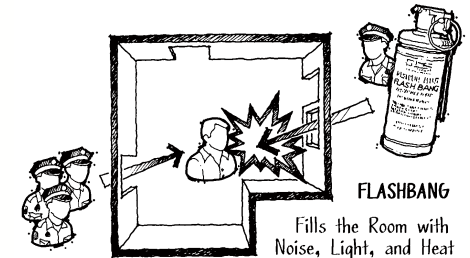
Arno Penzias and Robert Wilson (1964)

- Cosmic background radiation was reaffirmed in 1989 and 2009.

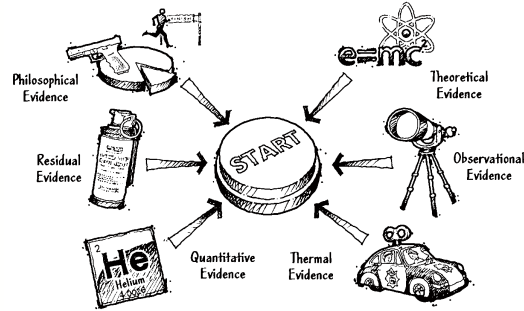


Cosmic Background Radiation

Residual Evidence of the Earliest Moments of the Universe



The Diverse, Cumulative Case for a Beginning



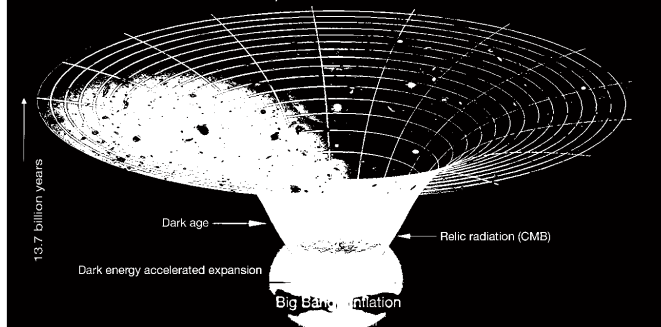
When multiple divergent lines of evidence all point to the same conclusion, you can trust you're making a proper inference.

Alexander Vilenkin

- Tufts University director of the Institute of Cosmology.
- Has demonstrated any model of the universe in which expansion is occurring must have a beginning.
- Addresses all models previously described plus any future proposals in which universe expansion is acknowledged.



Accelerated Expansion of the Universe



The Big Bang Story The Standard Cosmological Model

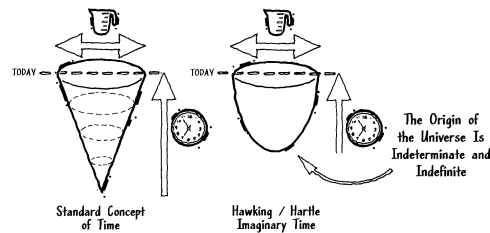
- Billions of years ago the universe began in a tiny, extremely hot and dense point called a singularity. The singularity contained all the mass and energy that we see today.
- The singularity rapidly expanded, spreading out energy and space.
- Over time the energy from the big bang cooled as the universe expanded. Some of the energy turned into hydrogen and helium gases.
- These gases collapsed to form galaxies and stars. Some of the stars created the heavier elements in their cores, exploded, and then distributed these elements into space.
- Some of the heavier elements began to stick together, forming planets.
- The universe will eventually run out of usable energy and remain forever in a state of "heat death."

Possible Objections The Standard Cosmological Model

- Could the universe be expanding eternally (the Steady State Theory)?
 - No. This theory lacks evidential support and is contradicted by cosmic background radiation and the overabundance of helium. The problem of infinite regress remains.
- Could the universe be cycling eternally between expansion and contraction?
 - No. This theory is unsupported by the evidence. There isn't sufficient mass in the universe for gravity to slow its expansion.
- Could the universe be part of a larger, eternal environment?
 - Models of this type still have to explain the origin of the eternal environment.
 - Evidence demonstrates all space, time, and matter began with the origin of our universe.
 - These models redefine the meaning of "nothing" to include "something."

Possible Objections

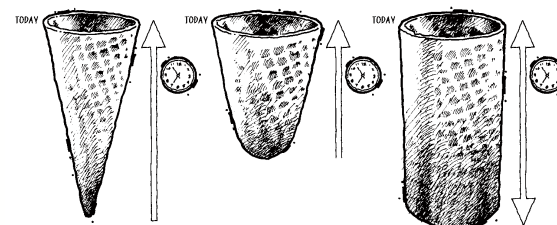
Could Our Understanding of Time Be Incorrect?



This imaginary-time scenario still fails to provide an infinitely old universe.

Possible Objections

Could Our Understanding of Time Be Incorrect?



The attempt to eliminate a beginning consistent with our experience of real time is so far unsuccessful.

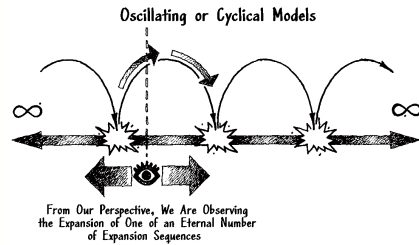
Possible Objections

Could the Universe Be Expanding Eternally?

- This is known as the Steady State Theory.
 - As galaxies move away from one another, new matter appears in the voids.
- However, this theory is not supported by any evidence.
- It is inconsistent with:
 - The discovery of cosmic background radiation.
 - The abundance of helium in the universe.
- There is no reasonable mechanism explaining the existence of new galaxies.
- The scientific community has dismissed the Steady State Theory.

Possible Objections

Could the Universe Be Cycling between Expansion and Contraction?



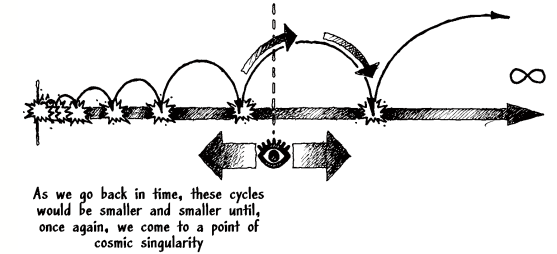
Possible Objections

Could the Universe Be Cycling between Expansion and Contraction?

- No. There isn't enough mass in the universe to halt the expansion or reverse it toward contraction.
- Redshift measurements reveal the universe is expanding faster and faster.
- Usable energy decreases over time, so oscillating models fail to eliminate a beginning of the universe.

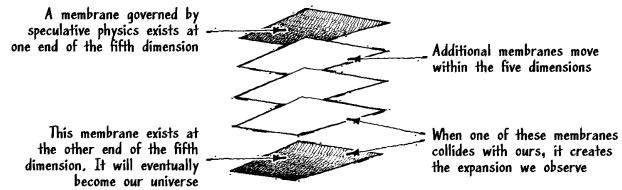
Possible Objections

Could the Universe Be Cycling between Expansion and Contraction?



Possible Objections

Could the Universe Be Cycling between Expansion and Contraction?



The Cyclic Ekpyrotic Scenario is “very popular among journalists” but is “rather unpopular among scientists.”

- Andrei Linde, Physicist

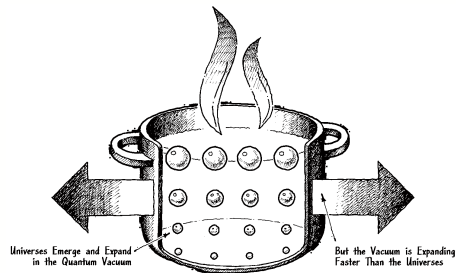
Possible Objections

Could the Universe Be Part of a Larger, Eternal Environment?

- Some cosmologists have proposed an infinitely old, primordial vacuum preexisting our universe.
- Energy fluctuations in this eternal vacuum caused tiny universes to be born the way virtual particles pop into existence.
- Our universe is one of an infinite number of universes that came into existence in the primordial environment.
- The vacuum is expanding, so the “bubble universes” don’t collide.

Possible Objections

Could the Universe Be Part of a Larger, Eternal Environment?



“Physics has changed what we mean by ‘nothing’ ... Empty space is a boiling, bubbling brew of virtual particles popping in and out of existence ... If you wait long enough, that kind of ‘nothing’ will always produce particles.”

Lawrence Krauss, theoretical physicist

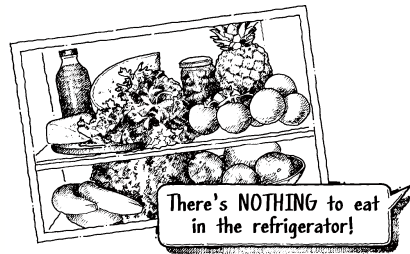
Possible Objections

Could the Universe Be Part of a Larger, Eternal Environment?

- According to the Standard Cosmological Model, all space, time, and matter began to exist at point in the past. Nothing existed prior to this point of origin. The primordial vacuum is something, not nothing.
- The theory fails to account for the initial existence of the primordial vacuum, the primordial particles, and the fluctuating energy.
- It also fails to describe the nature of time, given time as we know it began with our universe.
- We can’t avoid a beginning from nothing by simply redefining “nothing.”

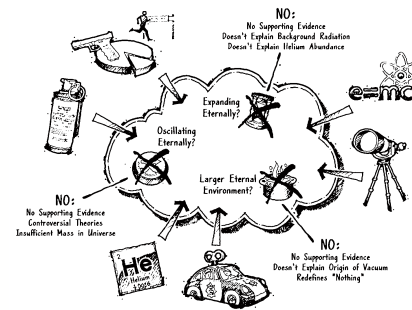
Possible Objections

Could the Universe Be Part of a Larger, Eternal Environment?



"Inside the Room" or "Outside the Room"

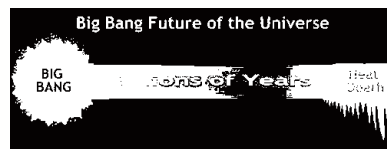
The Weakness of Internal Explanations Compared to the Strength of External Explanations



Scientific Problems with the Big Bang

- Missing Monopoles
- The Flatness Problem
- Inflating the Complexities
- Where's the Antimatter?
- Missing Population III Stars

Does the Big Bang Fit with the Bible?



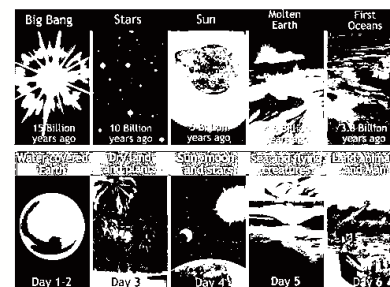
Thousands of
Years
Sin and Death

Genesis

2 Peter 3

Revelation

Does the Big Bang Fit with the Bible?



Does the Big Bang Fit with the Bible?

Answers in Genesis

- For purposes of the cosmological argument, all we're trying to prove is that the universe had a beginning. Current science says it definitely did. Case closed.
- Christians hold differing views on current scientific theories, models, and discoveries and how they fit with Genesis.
- Could God have used something like the big bang in Genesis 1:1 or Genesis 1:3? Of course.
- Could Genesis 1:3 be describing a new phase of the universe and not its initial phase? Possibly. When did the fall of Satan take place?
- Could the universe be old and life on earth be young? Possibly.
- Isn't there a difference between a theistic big bang and an atheistic big bang?

"Keep your eye on the ball."

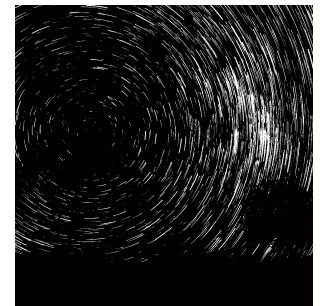
Phil Coleman

Whatever begins to exist has a cause.
The universe began to exist.
Therefore, the universe has a cause.

Reasonable Inference

The Standard Cosmological Model

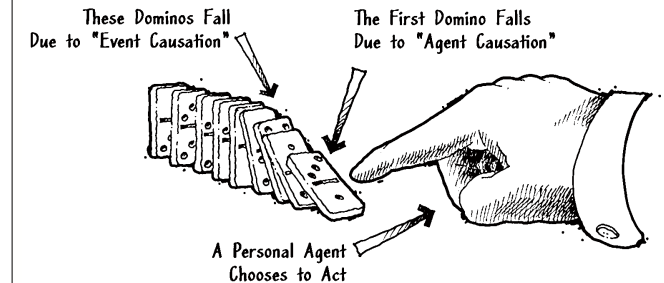
- Our universe came into being from something beyond the space, time, matter, and energy of our universe.
- Still the dominant theory among cosmologists and physicists.
- There is thoughtful disagreement about the age of the universe.
- However, we can be confident the universe is finite.



**Whatever begins to exist has a cause.
The universe began to exist.
Therefore, the universe has a cause.**

What or Who Caused the Universe? Event or Agent Causation

- The universe could not have caused itself, because something would have to exist to cause its own existence.
- The universe must have a spaceless, timeless, nonmaterial cause.
- The cause of the universe can't have a cause because of the dilemma of infinite regress.
- Scientists are searching diligently for an uncaused case...but they can't find one!



Event or Agent Causation

- The casual forces of the universe are either impersonal (event causation) or personal (agent causation).
- An impersonal cause can only produce the universe out of necessity. It cannot make decisions. It simply acts and causes reactions inevitably.
- By contrast, with a personal cause, the universe is here as a result of choice.
- Other arguments for God's existence help explain whether the cause of the universe is more likely impersonal or personal.

**"Why is there something
rather than nothing?"**

Gottfried Leibniz

Gottfried Leibniz 1646-1716

- If the first cause is impersonal, the universe is simply a consequence of physics.
- This is why many physicists reject why questions in favour of how questions.
- If the first cause is personal, the why question is more reasonable.
- A solution denying our ability to ask the why question seems unreasonable and inhuman.
- "That's just the way it is" doesn't satisfy.



The Cosmological Argument Summary

- The beginning of the universe cannot be explained from "inside the room."
- The cause of the universe must be:
 - External to the universe
 - Spaceless, timeless, and immaterial
 - Uncaused
 - Powerful enough to create everything we observe in the universe.
 - Personal.

William Lane Craig Kalam Cosmological Argument

- American analytical philosopher and theologian.
- Has debated many of the world's leading naturalistic cosmologists.
- Has written extensively on the cosmological argument, including *Creation Out of Nothing*.



Creation *ex nihilo*

“In the beginning, God created the heavens and the earth.”

Genesis 1:1

“Where were you when I laid the foundation of the earth? Tell me, if you have understanding.”

Job 38:4

“The fool says in his heart, There is no God. They are corrupt, they do abominable deeds. There is none who does good.”

Psalms 14:1

“Thus says Yahweh, who created the heavens (he is the God who formed the earth and made it, he established it and did not create it a waste place, but formed it to be inhabited), I am Yahweh, and there is none else.”

Isaiah 45:18

“The gods who did not make the heavens and the earth shall perish from the earth and from under the heavens. It is [Yahweh] who made the earth by his power, who established the world by his wisdom, and by his understanding stretched out the heavens.”

Jeremiah 10:11-12

“All things were made through [Jesus], and without him was not any thing made that was made.”

John 1:3

“Since the creation of the world [God’s] invisible attributes, his eternal power and divine nature, have been clearly seen, being understood through what has been made, so that they are without excuse.”

Romans 1:20

“Every house is built by someone, but the builder of all things is God.”

Hebrews 3:4

“By [reasonable] faith we understand that the universe was created by the word of God, so that what is seen was not made out of things that are visible.”

Hebrews 11:3

“Worthy are you, our Lord and God, to receive glory, honor, and power, for you created all things, and by your desire they existed and were created.”

Revelation 4:11

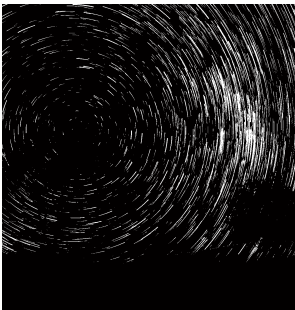
“Behold, I am making all things new.”

Revelation 21:5

Sound Bite

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- May I share one of them with you?
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