

Great Emergence

The Cosmic Web Emerges

Out of the mysterious chaos some 13.7 billion years ago time, space, and energy stabilize into the gift of existence.

Our Universe is born hot and tiny. As the Universe expands and cools energy condenses into matter, sub-atomic particles, radical new beings with new powers, and they in turn transform into atoms of hydrogen & helium, new beings with new powers.

And the great Mystery is here in the sheer gift of life.

The rapid expansion of the Universe stretches out the small fluctuations in the primal distribution of matter into gigantic filaments drawing matter into the Cosmic Web, the primordial creator of all subsequent forms.

And the great mystery is here in the possibility of relationship.

Primal Stars Emerge

Galaxies Emerge

Flowing dark matter draws together stars, black holes, and gaseous clouds into small galaxies wherein stars are born, live, and die.

Over time these clusters merge into the giant galaxies we see today. As they live, stars transform their hydrogen and helium into heavier elements: carbon, oxygen, aluminum.

Some stars in their death throes become supernovas, giving out to the cosmos their precious gifts of selenium, tungsten, uranium.

Concentrated by the gravitational force of dark matter these gaseous filaments collapse into enormous stars. Many of these short-lived beings become black holes, gathering together other stars and black holes to eventually become the stupendous black holes that live at the center of today's galaxies.

And the great Mystery is here in dark matter and black holes, without which we would not be here.

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Many of these treasures will be gathered into the bodies of future generations of stars and planets.

Supernovas are the mothers of the Universe, creating in their wombs the seeds of life. Birth, death, and resurrection are an ancient theme of the Universe.

And the great Mystery is here in the creation and destruction and in the sacrifice of form.

Interstellar Dust Produces  
Molecules

Gravitational Repulsion of  
Dark Energy Cancels  
Gravitational Attraction  
of Matter

Within the interstellar dust these chemical gifts of the supernovas are nurtured into simple organic molecules, vital components for the later emergence of life.

And the great Mystery is here in life's emergent process.

The Universe starts to accelerate its expansion drawing apart galaxies and galactic clusters. Thus galactic evolution decreases significantly and the life-producing spiral galaxies are spared further collisions and destruction thereby permitting their resident stars to create planetary systems.

And the great Mystery is here in the great arc of space-time, which continues to hold us.

Our Grandmother Star  
Births the Solar System

The Great Bombardment  
Creates the Earth-Moon  
Dance

For tens of millions of years, Earth sweeps around the Sun gathering unto herself some of the disbursed body of our grandmother supernova, swelling as she does. Collisions great and small have kept Earth a churning, molten mass. During this time a large planetoid crashes into Earth, causing the Earth to tilt, giving rise to the seasons. Some of the outer layers of the molten Earth and planetoid splash out into Earth orbit solidifying into Moon.

Our ancestral star gives herself into the transforming mystery of a supernova. Our Sun and a great disk of matter, all the planets and other members of our solar system family, emerge from the dispersed body of our grandmother star.

Here begins the story of our blue-and-white pearl of a planet.

And the great Mystery is here in the universe as Earth.

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Eventually the cataclysms of birth are over, and Earth and Moon begin to cool. Their relationship with each other and Sun will choreograph the exquisite dance of life.

And the great Mystery is here in the cycles and seasons of life



Life Emerges, First Cells

Cells Invent Photosynthesis

As the young molten Earth quiets and cools, an atmosphere begins to form. Then come the first rains drenching the young planet and forming the vast covering of her oceans. Within the newly formed oceans a rich variety of chemicals gather together to birth the wonder of life. Earth comes alive.

And the great Mystery is here in a planetary body coming alive.

Earth soon learns to eat the Sun. Molten rock, now in the form of small bacteria, learns to capture Sun's photons and store the energy in chemical bonds. In doing so, they claim a new source of food, water, for their rapidly growing population. However, however, their feasting liberates oxygen. Eventually the atmosphere becomes oxidizing, threatening all life.

And the great Mystery is here in the first living cells and the consequences of their actions.

Earth's Magnetic Field  
Deflects Sun's Cosmic Rays

Oxygen-Loving Bacteria  
and the Nucleated Cell  
Emerge

The strengthening magnetic shield protects Earth's early atmosphere and oceans from being stripped away by Sun's energetic radiation. Life is guaranteed a home.

And the great Mystery is here in protection

These tiny creatures invent respiration, breathing, a new source of energy for Gaia. In the process they also enter into communion with larger cells thereby protecting them from oxygen. This communion leads to the nucleated cell, the basis for the evolution of all complex life.

And the great Mystery is here in cooperation.

Sexual Procreation Emerges

Death is Invented

Single-celled organisms learn to share their genetic heritage and bequeath to their progeny an extravagance of possibilities.

And the great Mystery is here in change.

Single-celled beings relinquish their immortality and enter into a great variety of novel relationships creating multicelled sexual beings. Later, life invents purposeful cell death to facilitate the growth of these multicelled organisms and the florescence of complex life. Death becomes a condition for creative life.

And the great Mystery is here in creativity.

Ecosystems Emerge;  
Multicellular Organisms  
Begin to Form Colonies,  
Communicate with Each  
Other, and Even Eat One  
Another

Sight is Invented;  
Eyes Emerge

Predator organisms arise, ones who have learned to use the complex biomolecules of neighboring organisms, thereby saving their own genetic resources for the development of greater physical capabilities. Here begins the predator-prey dance that promotes the vast diversity of life: the power of the lion and the speed of the gazelle.

And the great Mystery is here in communication and community.

Earth sees herself for the first time and is dazzled.

And the great Mystery is here in beholding.



Plants and Animals Move  
on Land

Insects Invent Flight

Leaving the water, they seek the adventure of  
weather and gravity.

And the great Mystery is here in adaptation.

Earth teaches herself to fly.

And the great Mystery is here in flight.

Dinosaurs Emerge

Mammals Emerge

For 185 million years, these creatures explore the extremes of size, speed, and strength.

And the great Mystery is here in exploration.

Lactation and time spent in pre- and post-natal care begins.

And the great Mystery is here in that molten rock has reshaped itself to be able to express a mother's love for her child.

Birds and Flowers  
Emerge

The Cenozoic Era Begins

Birds follow the insects into the vast vault of the sky while Earth adorns herself magnificently in color and fragrances, and invites the sky creatures into a new dance.

And the great Mystery is here in overwhelming beauty.

With the disappearance of the dinosaurs, mammals are given unlimited opportunities to explore new habitats, new food and new varieties of size, shape, defenses, and creative expressions. This new community of animals, plants, birds and insects produces the great florescence of Earth life which will last 65 million years.

And the great Mystery is here in profuse diversity.

Juvenile African Apes  
Stand up, walk on two  
legs, and leave their forest  
home

Modern Humans &  
Language Emerge

The savannah offers the challenges and opportunities for these courageous young creatures to evolve into humans with brains and nervous systems complex enough that Earth would eventually bring forth a conscious self-awareness of herself.

And the great Mystery is here in the possibility of self-awareness.

Pondering Earth and cosmos in their range of beauty and harshness, humans shape language, art, music, and ritual to respond to the mysteries of existence.

And the great Mystery is here in the birth of spirituality.



Human Farming and  
Herding Emerge

Classical Civilizations  
& Religions Emerge

With the knowledge and ingenuity to selectively cultivate their foods and domesticate their animals, humans begin to shape the environment, deciding which species shall live and which species shall die.

And the great Mystery is here in the consciousness of power and consequence.

Over several thousand years, humans invent writing and more complex technologies and with them arise a variety of religious perspectives that gradually become institutionalized as Hinduism, Confucianism, Judaism, Buddhism, Christianity, and Islam.

And the great Mystery is here in the exploration of the possibilities of self-reflection and self-transcendence of the human person.

Humans Learn of Their  
Descent From a  
Common Ancestor

Astronomers Observe  
the Expansion of the  
Universe

Charles Darwin confirms the wisdom of indigenous traditions that life is "all our relations".

And the great Mystery is here in learning empirically that we are all kin.

After 2.5 million years we learn that we live in a developing Universe, one with itself from the beginning.

And the great Mystery is here in empirically learning that we are all one.

Humans discover DNA,  
life's common language

Scientists Observe the  
Origin of the Universe

This fundamental mode of memory has been shared by all life for nearly four billion years. It carries the record of our embeddedness in the great web of life, revealing the primacy of Earth in our evolutionary development.

And the great Mystery is here in the grounding of ourselves as Earth.

The cosmic background radiation, still streaming from the Great Emergence, is observed by humans for the first time.

And the great Mystery is here in the grounding of ourselves as Universe.

Earth is Seen as whole  
from space

Today  
the story of the universe is  
being told as our  
sacred story

Earth becomes complex enough to witness her own fragile beauty. Her choices for the future are now entwined with human judgment and activities. This understanding is deeply felt with a poignancy and anxiety never before experienced.

And the great Mystery is here in the Universe becoming conscious of itself.

The creativity implicit in the Great Emergence and expressed in the remarkable longing of Earth for life continues as this moment, in us, as one.