The Narrative for the Cosmic Walk (adapted from Sr Miriam MacGillis OP of Genesis Farm)

This is a story, the story of the Cosmos, the story of Earth, of Te Wai Pounamu, the story of human, of Tuatara, of Kiwi, of mountain, the story of you and I. It is the narrative of one single integrated activity, Universe.
In the beginning was the Mystery.
Through the Mystery all things came to be.
Not one thing had its being but through the Mystery.

1. 13.7 billion years ago the Universe Flares Forth from Mystery.
Out of the mysterious emptiness some 13.7 billion years ago time, space, and energy stabilize into the gift of existence. Our Universe is born. The Universe cools while expanding extremely rapidly stretching out tiny differences in density. Energy cools 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.

2. 13 billion years ago, primal stars and Galaxies take shape.
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 centre of today's galaxies.

3. 12 billion years ago, 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, aluminium. Some stars in their death throes become supernovas, giving out to the cosmos their precious gifts of selenium, tungsten, uranium. 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.

4. 10 billion years ago, interstellar dust produces molecules.
Within the interstellar dust these chemical gifts of the supernovas are nurtured into simple organic molecules, vital components for the later emergence of life.

5. 4.6 billion years ago, our grandmother star births the solar system.
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 what will become one blue-and-white pearl of a planet.

6. 4.3 billion years ago, **the great bombardment creates the Earth-Moon dance**.
For 3 or 4 hundred million 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. Some of the outer layers of the molten Earth and planetoid splash out into Earth orbit solidifying into the Moon.
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.

7. **3.9 billion years ago**, **our beautiful Earth awakens into life**.
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 first cells and the wonder of life. Earth comes alive.

8. **3.8 billion years ago**, **cells invent photosynthesis**.
Earth learns to eat the Sun. Molten rock, now in the form of small bacteria, learns to capture the 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, their feasting liberates oxygen. Eventually the atmosphere becomes oxidizing, threatening all life.

9. **2 billion years ago**, **oxygen-loving bacteria and the nucleated cell emerge**.
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.

10. **1 billion years ago, sexual procreation emerges**.
Single-celled organisms learn to share their genetic heritage and bequeath to their progeny an extravagance of possibilities.

11. **700 million years ago, organisms begin living together in colonies.** 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.

12. **540 million years ago**, **The Earth begins to SEE**: eyes emerge.
Earth sees herself for the first time and is dazzled.

13. **460 million years ago**, **plants and animals move onto land**.
Leaving the water, they seek the adventure of weather and gravity.

14. **400 million years ago**, **earth teaches herself to fly**
insects begin leaving the earth and launching into the air. The first flight.

15. **235 million years ago**, **dinosaurs emerge.** For 170 million years, these creatures explore the extremes of size, speed, and strength.

16. **215 million years ago, mammals emerge**.
Molten rock has reshaped itself to be able to express a mother's love for her child. The Tuatara emerged around 200 million years ago.

17. **150 million years ago**, **birds and flowers emerge.**
Birds follow the insects into the vast vault of the sky while Earth adorns herself magnificently in colour and fragrances, and invites the sky creatures into a new dance. Our earth begins to sing

18. 65 million years ago, the Cenozoic Era begins.
With the disappearance of the dinosaurs, mammals are given unlimited opportunities to explore new habitats, new food and new varieties of size, shape, defences, and creative expressions. This new community of animals, plants, birds and insects produce the great florescence of Earth life which continues today. Our Kiwi emerged 50 million years ago

19. 6 million years ago, **juvenile Hominids stand up and walk.** Hominids for the first time walk on two legs, and leave their forest home. 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.

20. 150 thousand years ago, **modern humans & language emerge**.
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.

21. 13,000 years ago, human farming and herding emerge.
With the knowledge and ingenuity to selectively cultivate their foods and domesticate their animals, humans begin to perceive themselves separate from and able to control their environment.

22. 3,000 years ago, classical civilizations & religions emerge.
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, and Islam.
2,030 Years ago, Mary gave birth to Jesus; 'she wrapped him in bands of cloth and laid him in a manger.'

23. 93 years ago, astronomers observe the expansion of the Universe.
After 2 1/2 million years we humans learn that we live in an unfinished Universe. Creation has never ceased.

24. **68 years ago, humans discover DNA, life's common language**.
This fundamental mode of memory has been shared by all life for 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.

25. 58 years ago, scientists observe the origin of the Universe.
The cosmic background radiation, still streaming from the Great Emergence, is observed by humans for the first time.

26. 53 years ago Earth is seen as whole from space.
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.

27. Today the Story of the Universe is our sacred Story.
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.

Kevin Gallagher for ACSD Conference 2024