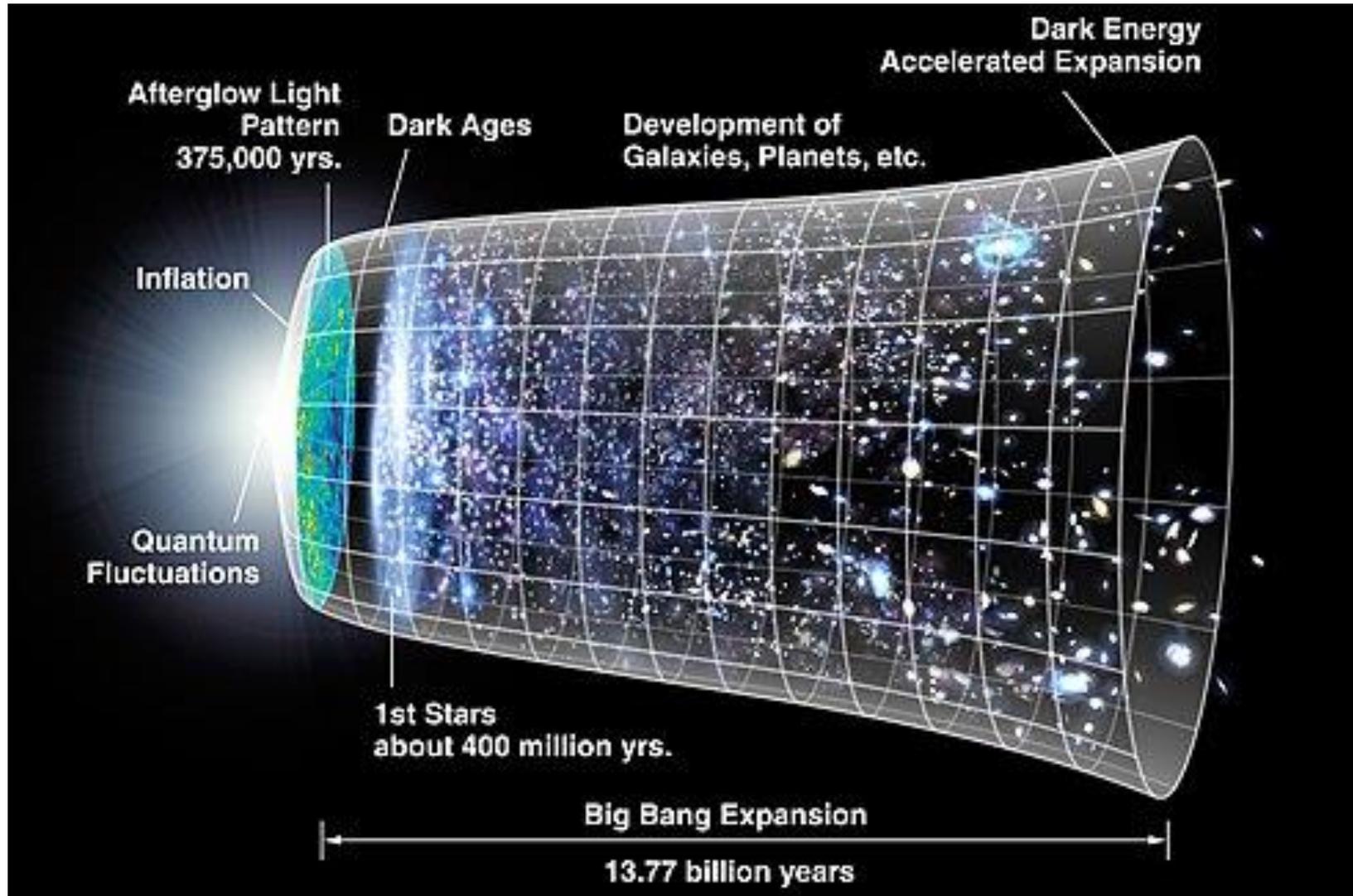


Physics, Cosmology and the World of the Spirit: The Unity of Reality

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The Big Bang and its aftermath



Cosmology and the Big Questions?

- ▶ What brought the universe into existence?
- ▶ Has it always existed, and will it always exist?
- ▶ Why is the world intelligible?
- ▶ Does the universe have a purpose?
- ▶ Are we accidents of the universe, or were we meant to be here?
- ▶ Do we have a special place in the universe?

Revelation

- ▶ Are there answers and insights from Revelation?
- ▶ If so, will they serve as a brake on scientific inquiry, or will they stimulate the further development of science?
- ▶ How relevant is the concept of ‘the two books’ - the book of nature and the book of Revelation?

Physics and Physical Cosmology have:

- ▶ Made Unprecedented Discoveries
- ▶ Advanced and transformed our understanding of physical reality at the most fundamental level
- ▶ Advanced and transformed our knowledge of the origin, structure and evolution of the cosmos.

The Revelation of Baha'u'llah has:

- ▶ transformed our understanding of ourselves,
- ▶ transformed our understanding of the relationships that bind us together
- ▶ transformed our understanding of the course of our history, and of our view of the future of our species on this planet.

The Created World: Five Features of Baha'i Cosmology

- ▶ The Creation has always existed
- ▶ There is one reality
- ▶ Reality is hierarchical in nature
- ▶ The 'higher' is a spiritual reality relative to the 'lower'.
- ▶ Threefold nature of man: the animal, the human, and the divine

The Created World

“... the truth is that the world of existence is a single world, although its stations are manifold in accordance with the manifold realities of things. For instance, the world of mineral, plant, and animal existence is the same world. Despite this, **the animal world in relation to the world of the vegetable is a spiritual reality and another world and abode.”**

‘Abdu’l-Baha

The Threefold Nature of Man

- ▶ **The ‘human’ is the power of the intellect, and is a spiritual reality relative to the ‘animal’**
- ▶ **The ‘divine’ is awakened in man by the Spirit of Faith, and is a spiritual reality relative to the ‘human’**

Physics

- ▶ All “arrows of explanation” go back to particle physics and gravitational theory (Nobel laureate Stephen Weinberg)
- ▶ New properties of matter emerge as matter combines in ever-larger and more complex systems: **emergence - “More is Different”** (Nobel laureate Philip Anderson)
- ▶ Properties of complex systems cannot be derived from the equations governing material at a lower level, or from the properties exhibited by that material at that lower level.

Emergence

- ▶ Fluid viscosity: not a property of a single particle, but of a collection of particles.
- ▶ Consciousness: **not a property of a single particle, but of a living system** composed of organ systems which are composed of organs which are composed of tissues which are composed of cells which are composed of molecules which are composed of atoms or elements, which in turn are **composed of elementary particles, all acting under strong nuclear, weak nuclear, electromagnetic and gravitational forces.**

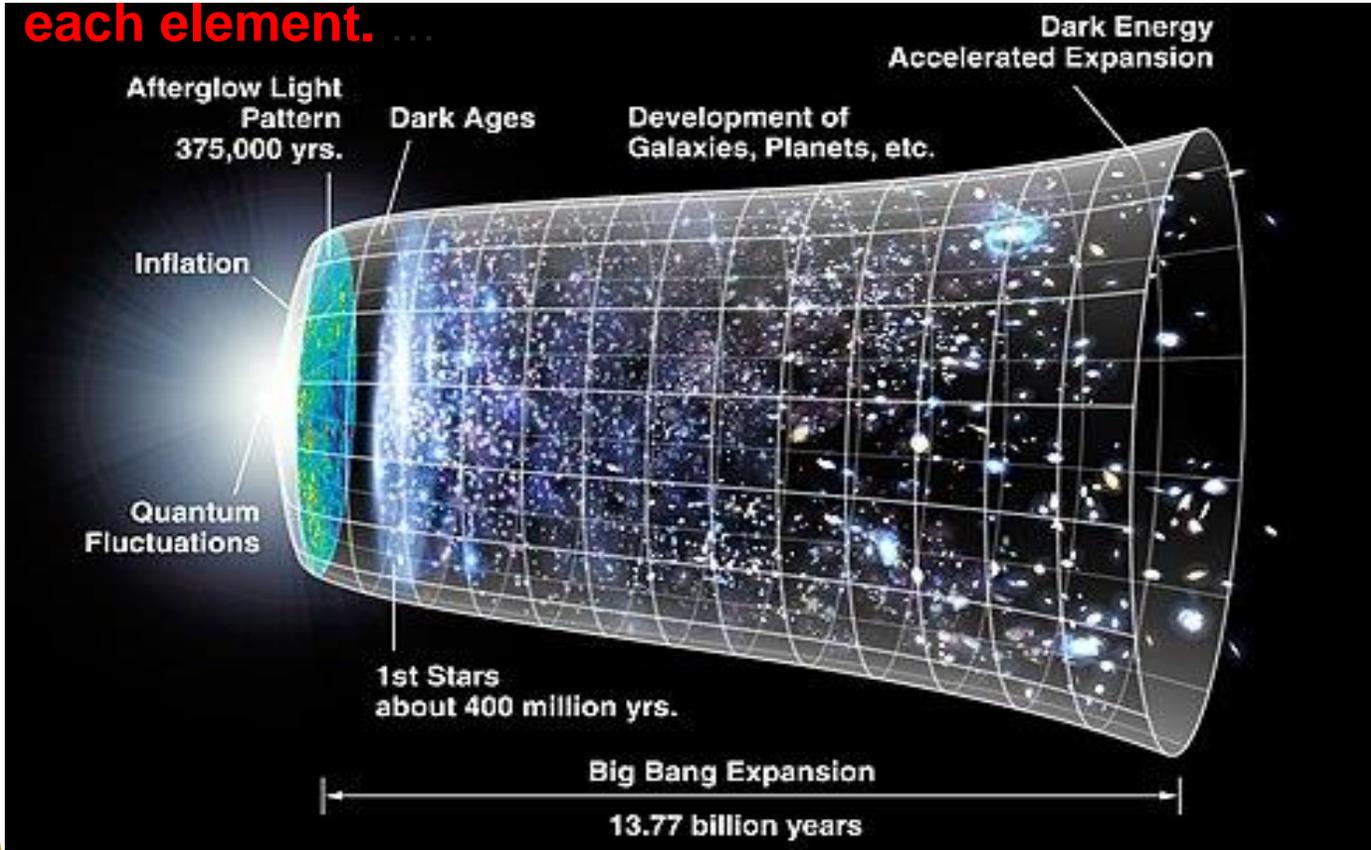
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Then these elements were composed, arranged, and combined in infinite forms; ...

This composition and arrangement arose, through the wisdom of God and His ancient might, from one natural order. 'Abdu'l-Baha

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The Unity of Reality

“The spiritual world is like unto the phenomenal world. They are the exact counterpoint of each other.” ‘Abdul-Baha

“Regard the world as the human body...”

Baha’u’llah