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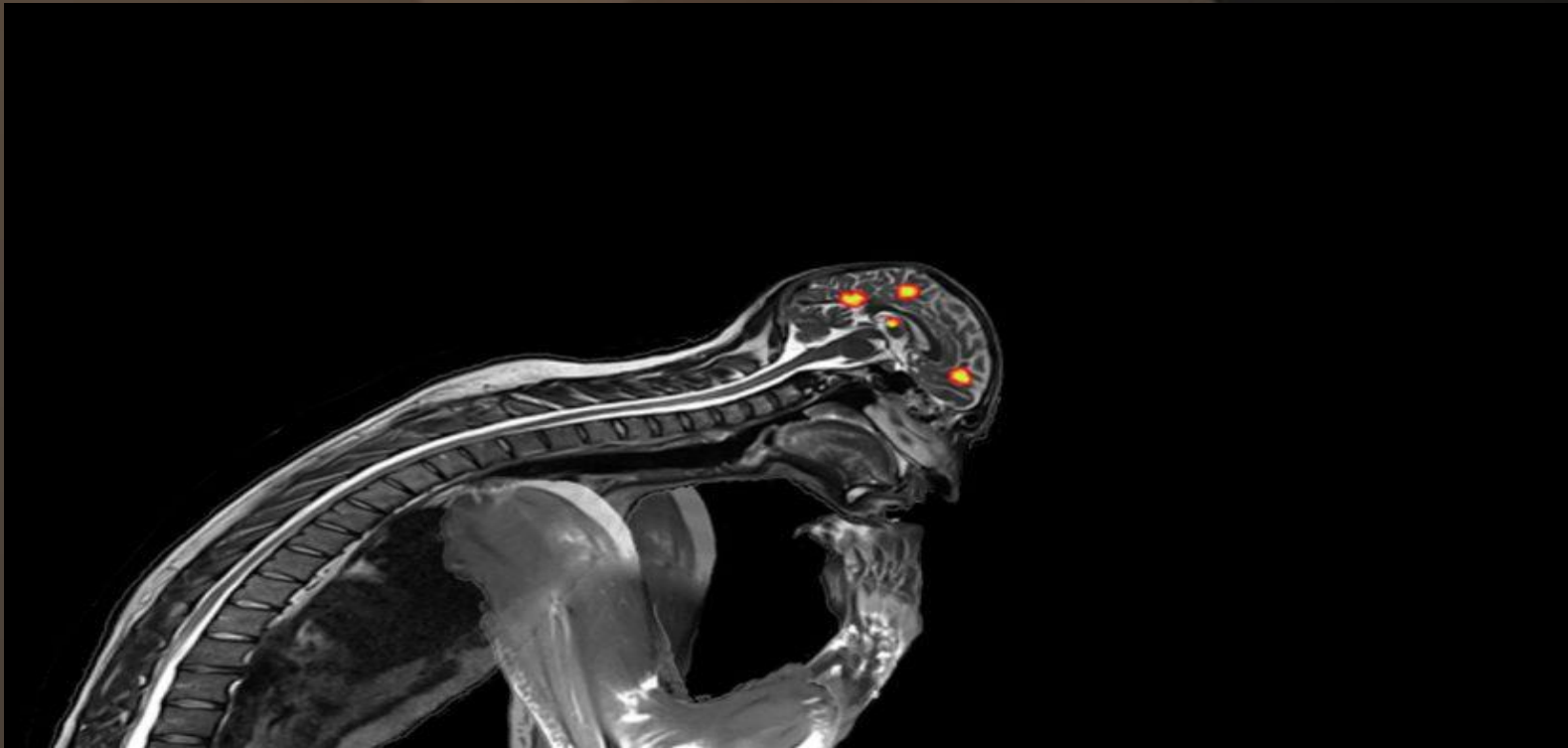
**ASTROBIOLOGY IN THE PHILOSOPHICAL
TRADITION. PAST AND MODERN
PERSPECTIVES. IAC 2018 BREMEN**

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ASTROBIOLOGY IN THE PHILOSOPHICAL TRADITION. PAST AND MODERN PERSPECTIVES.

*Interaction between Astrobiology – Society – Philosophy Present
and Future Challenges – Neo-Philosophy*



*(Source: Science vs. Philosophy ...or maybe they are continuous by Nick Byrd.
<https://byrdnick.com/archives/12338/philosophy-is-continuous-with-science>)*

I. Astrobiology as a controversial science linked to exoplanet research. Definitions and related terms.

- *Astrobiology:*

- *Discipline linked to exoplanet research: 1995 Antropocentrism and Geocentrism casting doubt when Michel Mayor and Didier Queloz discovered exoplanet 51 Pegasi b, distance 50.1 light years using radial velocity methods.*
- *UNESCO's Database: Astrobiology not appearing / Exobiology does (Source <http://skos.um.es/unesco6/?l=en>)*

- *Lack of uniform consensus.*

- *Julian Chela - Flores refers to Astrobiology as an interdisciplinary science. Is an opened question for science and philosophy.*
- *W.T.Huntress Jr. Astrobiology as the study of the origin, evolution and distribution and future of life in the universe.*
- *David C Catling. Defines astrobiology as the study of the origin and evolution of life on Earth and potential life structures and microbial links everywhere in the Universe*

I. Definitions and related terms. (cont')

- *Philosophy of Astrobiology:*

- *Roberto Aretxaga- Burgos: Discipline reflecting rationally on its condition of knowledge, its practice, results and consequences.*

- *Philosopher:*

- *Bernard–Henri Levy, a philosopher is one who develops, produces and organizes concepts (Levy, 2009).*

- *Life:*

- *There is no definition of life that is unanimously accepted (Source Chela Flores, 2011)*
- *Virus, crystals?*
- *Life is a self-contained, autopoietic chemical system (self-sufficient, exchanging energy with the environment in which it is found), capable of reproducing itself and experiencing evolution (Source, Chris Impey: The living cosmos our search for life in the universe, 2007)*

- *Autopoiesis:*

- *The property of a living system that allows it to maintain and renew itself by regulating its composition and conserving its boundaries. (Merriam-Webster)*

II. Astrobiology in the Philosophical Tradition

- *Philosophy of Astrobiology in Modern Astrobiology*

*Christiaan Huygens: Life beyond the solar system. Democracy in Cosmology featured in **Cosmotheoros** (published in 1698). Planets surrounded by Suns plus more than twenty extraterrestrial life forms.*

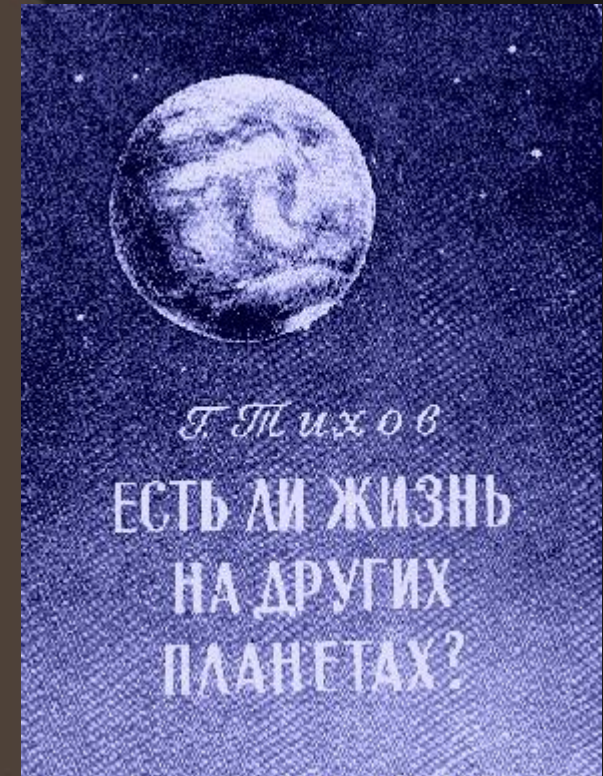
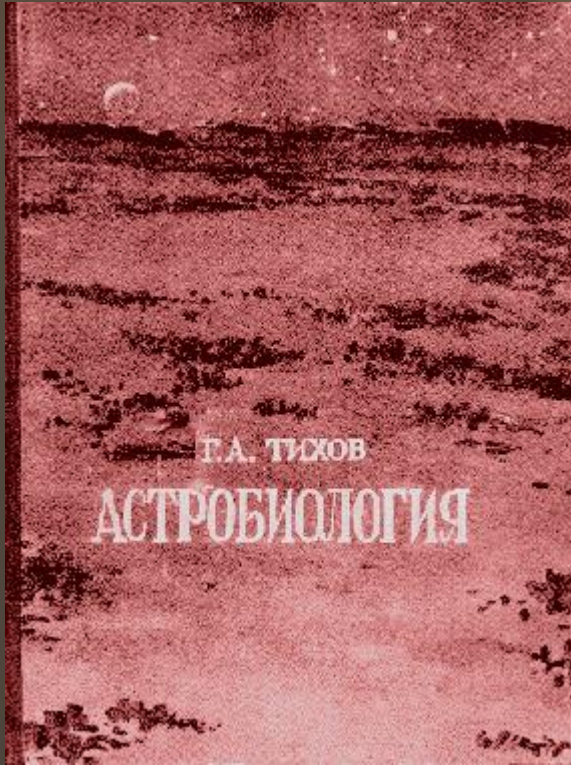


(Image by Alejandra Acosta Source <http://litarco.blogspot.com/2017/11/mientras-exista-belleza-existen.html>)

II. Astrobiology in the Philosophical Tradition (cont')

- *Philosophy of Astrobiology in Modern Astrobiology*

Gavriil Adrianovich Tikhov (1940). “Father of Botanical Astronomy”. Variations of Mars' albedo (chromatic / brightness) due to colors of falling leaves from deciduous trees. Head of Astrobotany in Alma-Ata.



(Images from L to R. “Book: Astrobiology” (1953), The author, “Book: Is there life on other planets” (1955). Source Gavriil A. TIKHOV - 125 Anniversary on the birth <http://planlab.tripod.com/Tikhov1.htm>)

III. Astrobiology in Current Societies. Studies.

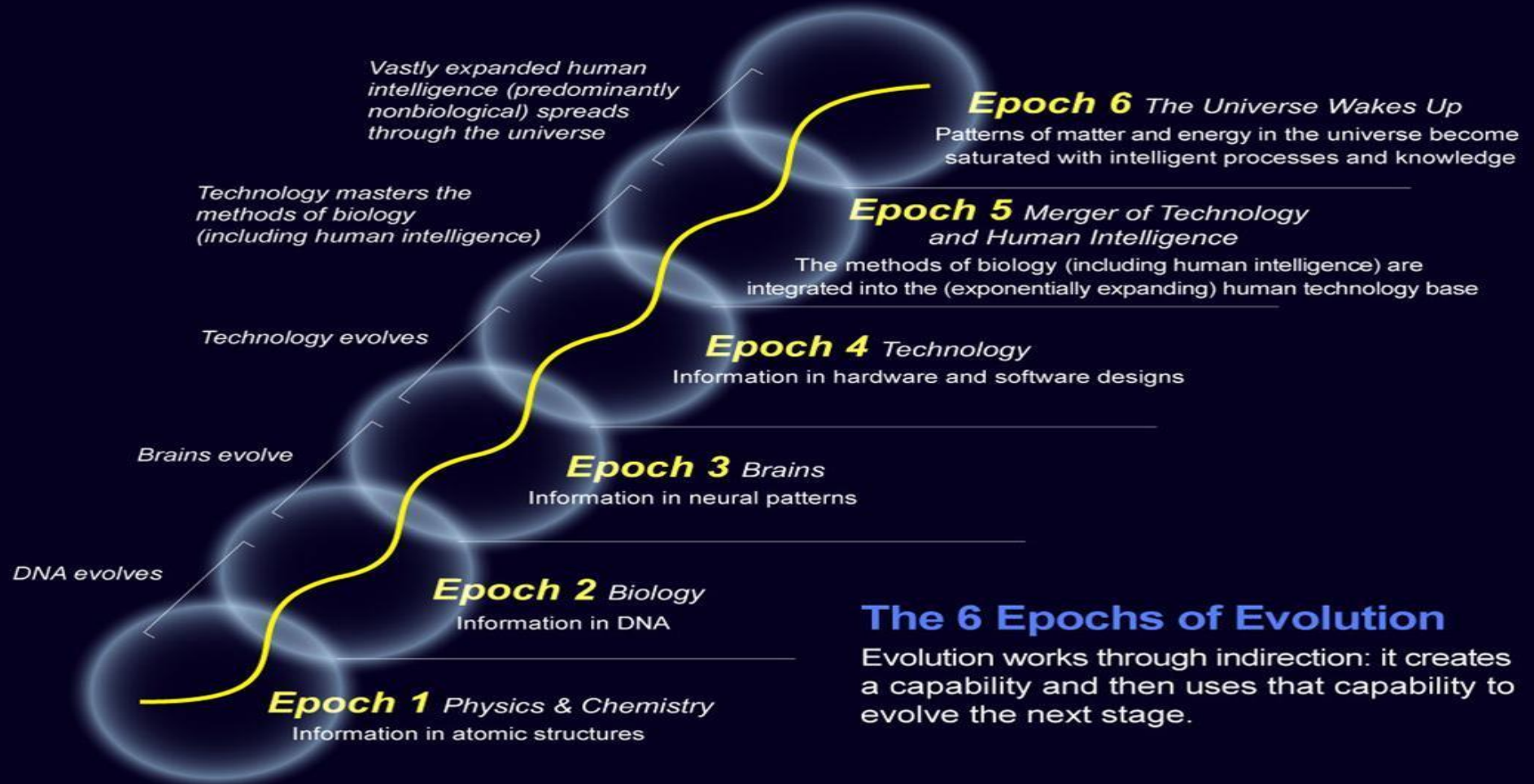
- *Non-academic societies. From Inuit to Australian aborigines*

- *General “universal triple structure”: an earthly plane, an infernal, subterranean or underwater plane, and, finally a heavenly plane. (Source *The Shamans Of Prehistory: Trance And Magic In The Painted Caves* by Jean Clottes & David Lewis-williams • Ed Harry N. Abrams, 1998 • Isbn 0810941821 (Isbn13: 9780810941823) • Hardcover, 120 Pages)*



(Aborigine Artist Donny Woolagoodja painting a Wandjina, an “entity” from Heaven, Image Source: www.contarhistorias.com.br/2013/02/contadores-de-historias-artistas.html)

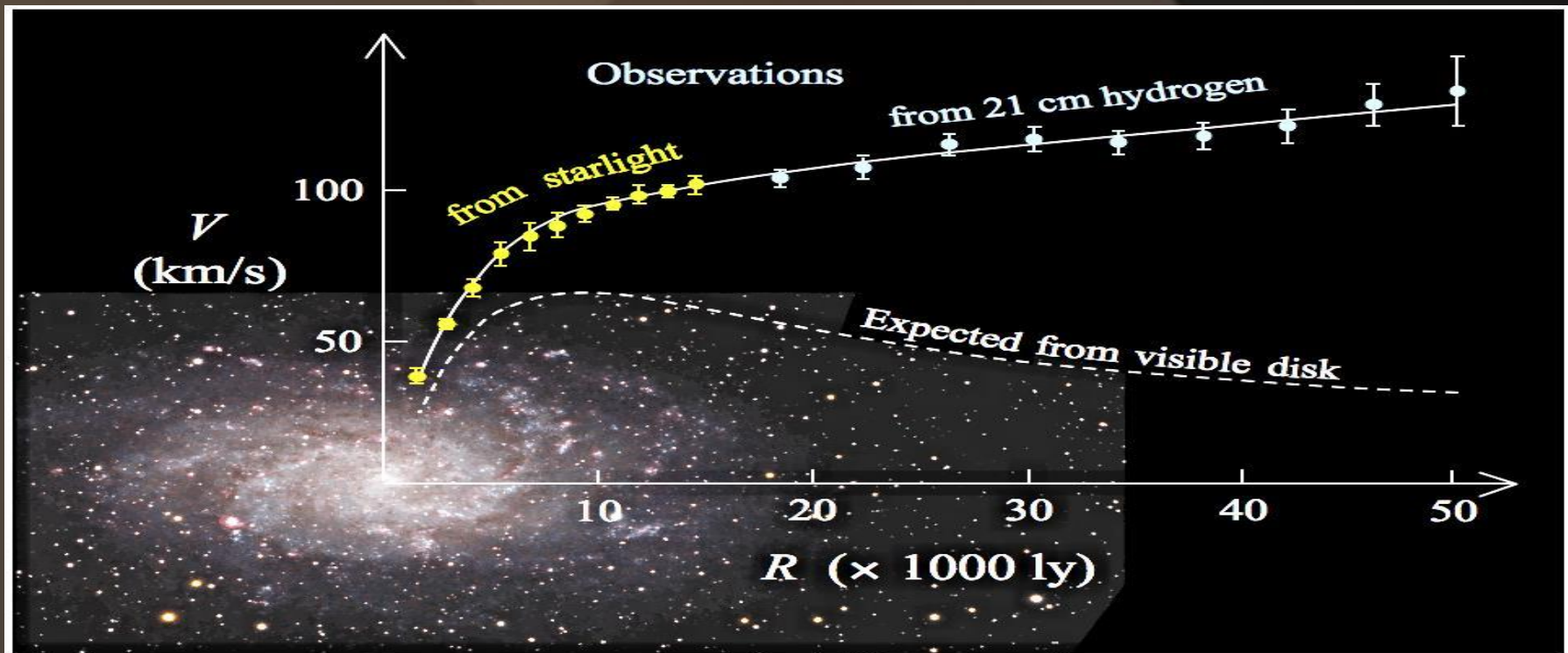
V. Overcoming matter to survive planetary extinction.



(Source: Ray Kurzweil's "The Singularity is Near" (2006). According to transhumanism merging humans and technologies might change our physical status)

VI. Conclusions. More food for thought. Opening Pandora's box.

Are Suns and Galaxies conscious beings? *The Equation proving changing behavioral patters within Galaxies* by Gregory L. Matloff in *Can Panpsychism Become an Observational Science?* (2016).
The farther the slower (ancient thought). Kepler's Law violation.
Stars are alive.



$25 \cdot 10^6$ Earth-like planets in the Milky way only... Are we starseeds? A
Recurrent Genesis by JS (2018)

Thank you!

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