

Reflections on the AIAA International Space Philosophy Gathering, Saturday August 14, 2021

by **Madhu Thangavelu**

Philosophy deals with the fundamental nature of knowledge and seeks answers and meaning to the deep questions of our existence, nature, and the cosmos. Great philosophies underpin the activities of great civilizations. Philosophical thoughts and tenets precede visions and policies of nations that manifest as concepts and architectures that are vital to propel the progress engine for the continued sustenance of civilization.

Space philosophy shines light on the various dimensions of humanity's quest to interact with nature's most open, transparent, and spacious physical domain; to explore, settle, and engage not only our nation or established allies, but to extend our collaboration, find common meaning, and enhance and enrich our common humanity across the globe, for the benefit and betterment of all.

Space philosophy, through what we know from the very short span our species has directly engaged our planet from without, continues to refine our species sensitivity, offering new insight and perspectives into our inextricable links with the biosphere, making us more aware of our place in the cosmos and the unique planet we call Mother Earth.

Outer space activities continue to provide unbounded inspiration and nourishment for the soul of humanity through the sheer awe and wonder we experience while our curiosity impels us to pursue ever more complex operations in this domain. By design, space activities and technologies are very conscious of resources, and space operations continue to pursue ever cleaner, ecologically sensitive awareness and frugal approaches that are finding their way into dwellings and cities on Earth.

Our esteemed group of speakers and panelists from around the globe presented various dimensions and points of view on space philosophy. Topics covered in this whole-day program included theology, origins, and life in the universe, humanity's purpose and the greening of the cosmos, space art, music and culture, space education, natural and societal law, space policy and politics. Ideas about the Nation State Paradigm under which sovereign nations operate today, Free world values were addressed. Safety of operations and rescue of personnel and common defense at the high frontier were brought up. Space activity and the technological sublime (what is the "Kama Muta" emotion that Sanskrit scholars have observed and so eloquently elucidate regarding our species?—Google it). An observational astronomer's diary on the discovery of a "squashed comet" and events leading up to the spectacular Shoemaker-Levy 9 impact on Jupiter, observations regarding Spaceship Earth, the Overview Effect, and astronaut observations since the dawn of human spaceflight were presented. And an award-winning civil architect's vision of how the astronaut memorial was conceived

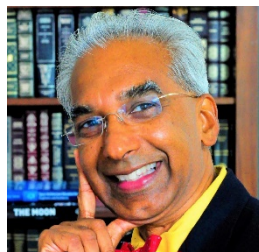
and commissioned as well as alternative futures for human space activity and the progress in governmental and private space sectors in recent years were discussed.

A common theme that resonated throughout the day-long event was that our species and our biosphere and our view and place in the cosmos are inextricably linked. And that we should continue to use our species-unique imaginative faculties and creativity that have served us well to progress the use of tools of technology to become more aware and more sensitive to our surroundings. The messages conveyed suggest that we act collectively in a manner that responds to nature benevolently, starting from caring for our immediate Earthly nature and environment. And space activity, human space activity in particular, is helping to make us better stewards of spaceship earth, or more appropriately, Mother Earth. The overwhelming support for this event now has accumulated a lineup of speakers who hope to present their views in the next edition of this program around Christmas time. One more way to enjoy the holidays!

"Now there is one outstandingly important fact regarding Spaceship Earth, and that is that no instruction book came with it." –R. Buckminster Fuller (*Operating Manual for Spaceship Earth*, 1969)

We shall not cease from exploration
And the end of all our exploring
Will be to arrive where we started
And know the place for the first time.
T. S. Eliot (*Little Gidding*, 1942)

Copyright © 2021, Madhu Thangavelu. All rights reserved.



About the Author: Madhu Thangavelu conducts the ASTE527 Graduate Space Concept Synthesis Studio in the Department of Astronautical Engineering within the Viterbi School of Engineering, and he teaches Space Architecture in the School of Architecture at the University of Southern California. He holds degrees in both disciplines. He is also an adjunct faculty member of the International Space University based in Strasbourg, France, an institution that trains promising young space professionals for leadership in international space activities. He is a former AIAA Vice Chair for Education. He is a

director of the National Space Society and Vice President of NSS for India Region and the North American activities coordinator for the Moon Village Association.

Editors' Notes: Madhu Thangavelu is an inspirational leader in the field of Space Philosophy. His articles are required reading in the Space Philosophy program at *Kepler Space Institute*, and he has contributed to this journal before. On August 14, 2021, Professor Thangavelu convened an historic gathering of Space Philosophers (via Zoom). As editors of this journal, we were thrilled to be a part of it, and to include his reflections here in the Fall issue. He articulates so well the importance of Space Philosophy as a discipline, the diversity of those engaged in the field, and the hope represented for the future of humanity. The session recordings from the gathering are freely available online at the AIAA Los Angeles-Las Vegas Section YouTube channel: https://youtu.be/K03_Cb9CAbE. ***Gordon Arthur and Mark Wagner.***