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Space Expectations: Involving the Public in Space Activities (2)

Author: Mr. Alexandre Szames  
France, alexandre.szames@antigravite.com

Mr. Olivier Jeannel  
France, design@antigravite.com

Mr. Marc Millis  
Tau Zero Foundation, United States, marcgmillis@gmail.com

VIRTUALIZING THE 'WARP DRIVE'. CAN VISUAL ARTS INFLUENCE PIONEERING RESEARCH?

**Abstract**

The origins and impact of prior artistic concepts of "warp drives" and other spaceflight breakthroughs are examined and compared to the factors that inspire and engage actual research.

Realizing that most prior art has grown stale in terms of its impact, this paper presents early attempts for new and thought-provoking artwork for futuristic breakthrough aerospaceflight.

It is shown that today's film and game visions are based on an outmoded grammar of design, despite their highly refined appearance. Most of these creative works happen to be inspired by, borrowed or translated from prior art and well-known aeronautical and industrial automotive designs, with little attempt to provoke relevant questions. Endowed with the same trainings, techniques, production tools, references, requirements, markets, i.e. the same cultural backgrounds, skilled people in the visual arts invariably produce the same standardized response: visions failing to raise questions, the eyebrow and by extent, our interest.

Although such images are seductive, they no longer provoke the meaningful questions that lead future pioneers to turn science fiction into technological facts.

To be valuable for inspiring or communicating details of research, artistic concepts of future advances should: (1) draw attention to critical physics or engineering principles, (2) showcase novel talent infused by the alluring utility of pioneering advancements, and (3) inspire students to pursue careers toward making such positive visions real.

As part of an ongoing visual arts research project, Antigravite Design Studio teamed up with Tau Zero Foundation's founder, Marc G. Millis, to better understand which types of visual artwork would have to be produced to inspire students and draw attention to the key research questions that need to be resolved. Equally, it is desired that such artwork be elegant and able to compete with today's sci-fi and architectural imagery. The technological base of this future artwork comes from recent advances in propulsion physics, most notably the 2009 book, *Frontiers of Propulsion Science*. Combining such technical foundations with historical lessons of how product design incorporated technological innovations (archaic, suppressive, utopian), a series of original images are presented.

It is hoped that these new images are coherent, stimulating, and thought-provoking, as well as entertaining and inspiring. Their presentation at the 2010 IAC marks their first public appearance.