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INVISIBLE NANOATRACTIONS: SILICA AEROGEL VERSUS RARE-EARTH MAGNETS

Abstract

In September of 1959, the Soviet spacecraft Lunik 2 first visited the Moon. As the first probe to impact the Moon, Lunik 2 provoked the possibility of human displacement in space. Fascinated by the implications of this idea, visual artist Takis realized an event in 1960 involving electromagnets and a poet who was levitated for fragments of seconds at the Iris Clert Gallery, in Paris; the event was entitled *Impossible, A Man in Space*. This paper of ours is a tribute to Takis and will present the author's hybrid research situated between creative practice, chemical engineering and space technology. The nanomaterial silica aerogel -used by NASA for the Stardust project- is also the epicenter of all Michadoudis' research and his *aer( )sculptures*. This solid material is the lightest ever known. Due to Rayleigh and Mie scattering phenomena offers viewers both blue and orange natural colors -the same ones we observe in our threatened sky. The fact that this ethereal nanoporous material could become hydrophobic has initiated interdisciplinary experiments where water and invisible permanent forces of rare-earth magnets contribute to the final outcome. Seven space-art exercises rose out of this research: the *Magnetic* **N***ano***U***rano***S***culptures* (*NUS*, *nous* in Greek is the "*mind*") will be presented in this paper and also during the author's interactive presentation. An original music composition based on the SOS (Save Our Sky) distress signal will accompany the slideshow of these magnetic *aer( )sculptures* -read as "*erosculptures*".