

EXPANDED RELIEF (HOLOGRAPHIC MEDITATIONS)**Dr Clarissa Ribeiro, Dr Andrew Buchanan, Clara Reial**Independent artist/CrossLAB, College of Arts and Creative Enterprises, ZAYED University, University of Fortaleza/CrossLAB
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Abstract

The work presented here is a tribute to Hélio Oiticica's radical series of red and yellow 'Spatial Relief' (1960) dialoguing with Moholy-Nagy's attempts to create sculptures that would inhabit space without a support. Exploring the concept of 'expanded cinema' (specifically the idea of 'Cybernetic Cinema'), in *'Expanded Relief: Holographic Meditations'* (2018), the illusion of tridimensionality generated by optical physics, in a configuration similar to the Pepper's Ghost technique, expands the algorithmic images produced in processing. The red color subtle differentiations in the illusionary volumes, the geometric irregularity and variation, are resultants from movements and superpositions of shapes algorithmically conceived and animated. The installation is an invitation to meditate on the subtle existence of the image and the role of the observation in creating reality.

Keywords

Algorithmic Design, Generative Design, Processing, Optical Illusion, Animation, Spatial Reliefs, Neoconcretism, Hélio Oiticica, Cybernetic Cinema, Expanded Cinema, Sculpture

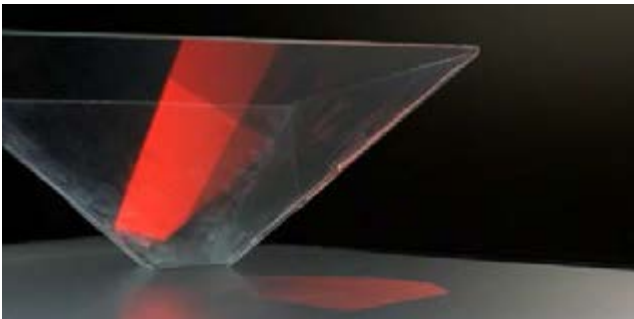
Introduction

Figure 1 . Expanded Relief: Holographic Meditations (2018). (foto by the author).

The concept of 'Holographic Cinema' discussed by Youngblood (1970) in the chapter 7 of 'expanded cinema' (Part Seven: Holographic Cinema: A New World") is explored in the poetics of *Expanded Relief* (2018) intentionally defining displacement and non-locality as structural

ideas for the work. According to Lev Manovich, the book by Gene Youngblood (1970) was influential in establishing media arts as a field of research and practice. One of the main arguments of the author is that expanded cinema is essential for the emergence of a new consciousness. Designed as a meditation on the dichotomy material/immaterial the work proposes reflection about the very nature of reality and perception. The evanescent virtual red sculptures only exists if observed from a certain point of view – moving around the prisms that optically generate and encapsulate the shapes is an alternating dance between appearance and disappearance.



Figure 2 . Hélio Oiticica Spatial Relief (red) REL 036 1959, Polyvinyl acetate resin on plywood, object: 625 x 1480 x 153 mm, 15 kg, Purchased with assistance from the American Fund for the Tate Gallery, Tate Members and the Art Fund 2008, copyright Projeto Hélio Oiticica.

Non-Objects: Transparent Entities

"The non-object is not an anti-object but a special object through which a synthesis of sensorial and mental experiences is intended to take place. It is a transparent body in terms of phenomenological knowledge: while being entirely perceptible it leaves no trace. It is a pure appearance." (Gullar, 1959 apud Asbury, 2005, p.170)

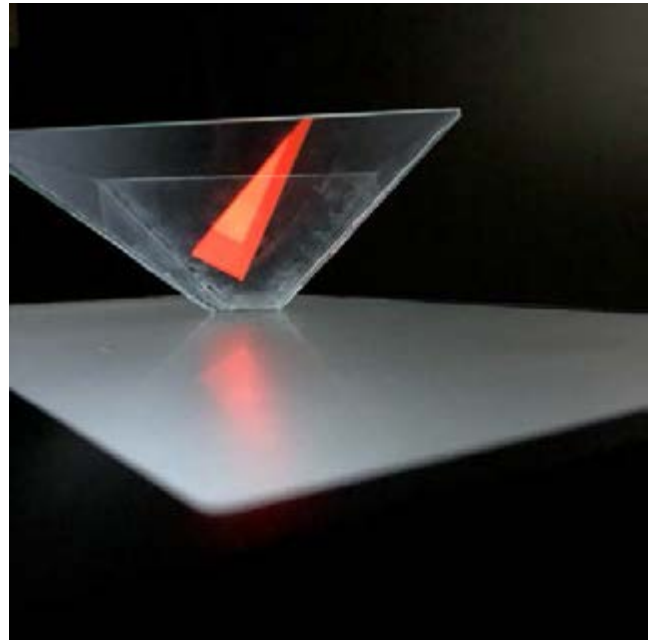


Figure 3 . Laszlo Moholy-Nagy, Photogram, 1928, Gelatin silver photogram, 28.2 x 35.5 cm (image source: The Moholy-Nagy Foundation)

The ‘THEORY OF THE NON-OBJECT’ written by Ferreira Gullar, one of the main voices of Brazilian Neoconcretism, was published in 1959, in a historical moment in which the ‘Jornal do Brasil’, one of the most important newspapers by the time, had the openness to publish in its weekend supplement the representative voices of Brazilian Neo-Concretism. In his text, Gullar defends that, when painting fundamentally abandons representation as in the case of Kazimir Malevich, Piet Mondrian, and their art circles, there is the emergence of a metaphorical space and so it is “[...] the case of establishing the work of art within the space of reality, lending to this space, through the apparition of the work – this special object – significance and transcendence.” (Gullar, 1959 apud Asbury, 2005, p.171) At some point Gullar mentions Moholy-Nagy and specifically his “[...] attempted to create sculptures that would inhabit space without a support.” (Gullar, 1959 apud Asbury, 2005, p.172) having, as pointed by the neo-concrete theorist, the intention of eliminating weight from sculpture, affecting, this way, a fundamental characteristic of an object. According to Walter Gropius, close friend of Laszlo, his greatest effort as an artist was devoted to ‘the conquest of space’ in Gropius words, venturing into “[...] all realms of science and art to unriddle the phenomena of space and light” in the most diverse areas, he incessantly attempted to “[...] interpret space in its relation to time, that is, motion in space.” (Gropius, 1959, p. viii).

Holographic Meditations

In ‘Expanded Cinema’ (1970) Gene Youngblood mentions that techniques known to the ancient Egyptians and practiced by magicians for centuries may provide the means for a future system of large-scale, real image holographic movies as ‘the Illusion of the rose in the vase’ that uses a Figure 4. Expanded Relief: Holographic Meditations



(2018), holography generated inside of the pyramidal glass prism. (foto by the author)

lens, a concave mirror, and pinhole light source to trans- pose illusionistically an object into three-dimensional space in full color, and is commonly used in Japan to project tiny three-dimensional images of human performers onto miniature stages of puppet theatres – the actual persons are beneath the stage floor.

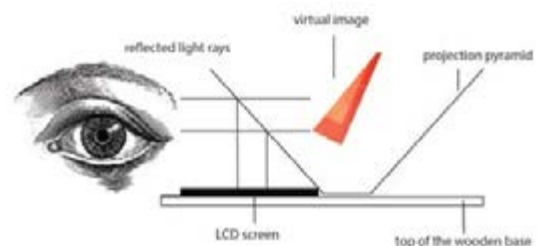


Figure 5. Expanded Relief: Holographic Meditations (2018) diagram (diagram by the author)

Recalling and at the same time expanding to an extreme an evanescence of the object, deeping the explorations and intentions of both Moholy-Nagy and Hélio Oiticica in his series Spatial Relief (red) REL 036 1959 (Polyvinyl acetate resin on plywood), the red moving shape is floating inside of a small glass pyramid on the top of a LCD screen of a tablet where the algorithmically generated motion picture

emerges, as in the surface of a digital lake, up to the air, floating, levitating, free from the framed materiality of the computer screen.

The work was exhibited in April 2018 at the LIP Gallery, University of Fortaleza, in an event related to the LASER talks Fortaleza. In a corridor measuring approximately 5 x 1,5 meters, 3 cubic wooden bases are positioned having on the upper surface an LCD screen installed playing the generative animation. On the top of the screen, the glass prisms are placed. The audience is invited to stay close to the pieces and quietly observing the immaterial moving sculpture – evanescent color floating in the dark.

Matter and energy

Expanded Relief (2018) is a work under construction and, despite the subtlety and simplicity of the first version here shortly presented the intentions of the artists is to deep the conceptual incursions and poetically explore the pop culture constructs and imaginary related to the optical phenomena of holography. Professor Pier Luigi Capucci in his paper “The case of holography among media studies, art and science” (2011) points that “Holography suggests a new visual universe within a culture where the visual simulation is the most effective communication system; and it let us reflect about the need for a more comprehensive definition of “image”.”(Capucci, 2011). Capucci believes in future scenarios where future images will be holographic and the communication be experienced and shaped as “[...] a delicate balance between presence and absence, immediacy and remoteness, materiality and immateriality, matter and energy.” (Capucci, 2011)

References

- Asbury, Michael (2005) Neoconcretism and minimalism: on Ferreira Gullar's theory of the non-object. In: *Cosmopolitan Modernisms*. InIVA / MIT, pp. 168-189
- Capucci, Pier Luigi. The case of holography among media studies, art and science. *Technoetic Arts: A Journal of Speculative Research*. Volume 9 Numbers 2 and 3. Bristol, UK: Intellect Ltd, 2011.
- Gropius, Walter. Introduction. In: *Moholy-Nagy, Sibyl. Moholy-Nagy: Experiment in Totality*. Cambridge: MIT Press; 2nd edition (October 1969)
- Manovich, Lev. (2002) Ten Key Texts on Digital Art: 1970–2000". *Leonardo*. 35 (5): 567–569.
- Moholy-Nagy Foundation (2018). Art Database. Retrieved from: <http://moholy-nagy.org/art-database-gallery/>
- Tate Gallery (2018) Hélio Oiticica Spatial Relief (red), 1959, REL 036 1959, Polyvinyl acetate resin on plywood, object: 625 x 1480 x 153 mm, 15 kg. Retrieved from: <http://www.tate.org.uk/art/artworks/oiticica-spatial-relief-red-rel-036-t12763>
- Youngblood, Gene. (1970) *Expanded Cinema*. New York: E. P. Dutton & Co., Inc. 1970.

Authors Biographies

Clarissa Ribeiro, media artist and researcher, chair of the LASER talks Fortaleza, PhD, MArch, B.Arch, Former Fulbright Scholar, Director of the Lab for Innovation and Prototyping (LIP), coordinates the CrossLab research group at the University of Fortaleza in Brazil. As an independent artist, she has been producing and exhibiting experimental interactive installations exploring cross-scale perspectives in media arts and science, working in collaboration with other artists, research groups and art collectives in her home country, Brazil, and abroad. www.clarissaribeiro.com

Andrew Buchanan holds a PhD in Creative Media from RMIT University (*Plasmatic: Improvising Animated Metamorphosis*) focusing on metamorphic animation and the production and reception theories of improvised animated images. Additionally, he holds a Master of Arts in Animation and Interactive Media and a Bachelor of Industrial Design. Over the last decade, his work has been shown exhibited at the Sydney Film Festival, Experimenta Media Biennial, The International Symposium on Electronic Art, The National Gallery of Victoria, White Night, and at other national and international animation and projection art events.

Clara Reial is a 3rd year student doing a bachelor of architecture and urban planning at the University of Fortaleza. Since 2015 Clara joined the Crosslab research group and has been collaborating on projects in the intersections between art, architecture, science and technology. In 2017 she served as a Junior Teacher Assistant for Professor Clarissa Ribeiro's classes on Experimental Design Strategies at UNIFOR and had published papers in international and local conferences documenting and discussing the didactic strategies she helped implementing.