

Colour and Landscape



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Cesia in nature and in the representation of nature. Luminous cesia: a special case

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ABSTRACT

We have naturalised colour as it appears in the matt opaque cesia, a homogeneous colour, distributed almost without change on the surface of objects, without being distorted by the reflection of light or by the colours of the objects surrounding it. Since the distribution of colour in the space varies in accordance to its cesia, such as has been systematised by Caivano (1991); from the perceptual point of view, it appears in our visual world associated to other phenomenal aspects, as postulated by Katz (1935: 7-9). Our proposal is to analyse cesia in nature and in the representation of nature, specially the luminous cesia, and to reproduce it. The luminous cesia (Jofré 2014), a reformulation that we proposed to the variable absorption of the system of cesias proposed by Caivano in 1991, includes the light itself —luminous colour, according to the denomination of Katz—, incandescence, phosphorescence and fluorescence, and also has temporal attributes. We can consider that the reflections of light in bright colours are also sensations of luminous cesia, since they are perceived and represented in a similar way.

In landscape paintings the attention to the cesia was belated, unlike the cesias of garments, which were meticulously represented. Umberto Eco comments that when John Constable realistically painted the glare, in *Wivenhoe Park* (1816), the meticulous representation of the reflection of light on the water and the fields, which seems photographic, was not interpreted as a form of imitation of real luminous relations, but as an odd whim. In later paintings, Constable advanced in the realism of representation of glare, and William Turner painted the luminous cesia of the sun and the fire.

Nowadays we can create our works with light, and with materials that reflect light in different ways. We make immersive landscapes inspired by nature in general, and specially in elements that emit light or re-emit it in different ways: in lightning, in the iridescence of certain plumages, in fluorescent corals, in the bioluminescent seas.

Keywords: *cesia, art, representation, natural landscape, perception*

INTRODUCTION

In the natural landscape the luminous cesia is almost always present, we see it in the sun, which has its own light, and in things that reflect light with such intensity that they look luminous: the moon, the lightning, the sky, and all things that shine. During the day we see the sky and the sun, and we also find the sensation of luminous cesia in the shimmer of water, in clouds, in the iridescent plumage of some birds, in gold and silver, of schools of fish in underwater landscapes, and also in the rainbow, the northern lights, lightning and flashes of lightning. In the night we see the stars, and the luminosity of the moon, of lightning and flashes of lightning intensifies, and the luminous beings and things appear: the fireflies, which appear in large numbers in some places, the luminescent seas and reefs, the Waitomo caves in New Zealand.

In art, the representation of cesia has been fundamental to the realistic representation of the world. Realism, defined by its form, is one in which a high effect of reality is produced by a high level of similarity between the image and the referent, which can be imaginary; it exists in order to create an illusion of reality, allowing to create unreal worlds that seem real.

The iconic representation of light was achieved in painting in the fifteenth century. We could consider that, within the conventional symmetrical representations of Byzantine art, we can consider that the representation of the starry sky in the Ravenna mosaic of the Celestial Vault of the Gala Placida Mausoleum is a landscape sketch, where the glow of the golden stars represent the light.

But the iconic representation of light with the means of painting began to be incorporated into the landscape in the following century, in the visionary paintings of Tintoretto, in which the luminous vibrations of the landscape contribute to the miraculous sense of the sacred scenes. And it is only fully incorporated in the nineteenth century, in the realistic landscapes of Constable and Turner.

At present, light intervenes in art in different ways, it can even be the support of the work, but we can rarely find that this happens in the representation of a landscape.

Our research proposes to create landscapes with luminous cesia. We have experimented with light, with fluorescent colors and with transparent and bright sheets that transmit and re-transmit light. The proposal of our research was to create an environment: an artistic work consisting of a series of successive landscapes built in real space, which can be traversed inside by the viewer.

We raised the need to represent worlds that transmitted transcendence and spirituality which led us to the hypothesis that materials that convey the idea of immateriality should be used. In an earlier investigation, it was established that in painting and cinema the representation of elusive cesias had achieved this effect (Jofré 2017). This led us to use luminous cesia and cesias that reflect and transmit light. We have experimented with light, with fluorescent colors and with transparent and bright sheets that transmit and re-transmit light.

ARTISTIC WORK

Within the framework of our research work, two artistic works were carried out in which the luminous cesia had a fundamental role in an experimental cinematographic short film, *Infinite: The doors of perception* (Melina Matélica, 2019), and a collective installation, *Landscapes and senses*.

The first one, inspired by Aldous Huxley's essays *The doors of perception* and *Heaven and hell*, is based on experimentation with hallucinogens, which connects with the inner world, a wonderful world that we visit only in dreams or in meditation, and in the search for the divine and

transcendence. The film shows the journey through a space landscape with lights suspended in space.

Landscapes and senses is an environment, within which the viewer travels. Different filmmakers show different representations of landscapes of America, which follow one after another. Some of them seek realism, while others take as a source of inspiration the worldview of the original peoples of America, their mythical relationship with nature, and altered perceptions produced by hallucinogens and mystical trances. The installation is oriented to an immersive reception based on experimentation with illusory spaces. These illusory spaces result in a distorted and enigmatic perception for the viewer who enters a space in which the artistic realization is on the ceiling, and through a mirror that is placed in front of his eyes, the viewer can only see what is above, but due to a physical-psychological effect, he sees it as if it were below, so that when walking he thinks he is stepping on it, and experiences a walk full of obstacles and diverse sensations.

This art that we call “space inversion”, is multisensory: the perception of the position of the body in relation to space, and also the view, is at stake, as if the depth of space was perceived for the first time.

THEORY

We had reformulated the semiotic systematization of cesia, incorporating luminous cesia (Jofré 2014). The parameter that accounts for the light/dark axis is conceived by Caivano from the physical point of view as from the absorption: the ability of materials to absorb light. Considering that the levels of luminosity are not only produced by reflection or absorption of light but also by their emission, we proposed that this parameter should be incorporated and the axis inverted, which could be conceived from the replacement of absorption by emission, or both parameters could be considered interchangeably. Our proposal is to group both parameters into that of luminosity, which includes not only the absorption but also the emission of light (Table 1).

Parameter	Sensations	Depends on
Transmission	transparent / opaque	permeability
Diffusion	bright / opaque	diffusivity
Luminosity	luminous / dark	luminosity

Table 1: Parameters of cesia.

Luminosity, as we said, can also account for other modes of appearance considered by Katz, such as incandescence and fluorescence, and they also have temporal attributes. Fluorescence is a luminescence that occurs when stimulated mainly by ultraviolet light. Phosphorescence is a luminescence that persists long after exposure to a light source ceases. We had also considered it necessary to include other luminous phenomena that we find in nature: glow and iridescence. Glow is a form of specular reflection that we find on bright surfaces, which re-emit light, in which there are special modes such as pearl luster and metallic luster. Iridescence is an optical phenomenon that depends on the property of certain reflective surfaces on which the colors of the rainbow appear, not simultaneously, but the color of the reflected light varies according to the angle from which it is observed.

Regarding the application of studies on light cesia in artistic production, on the one hand we inquired into the iconic representation of landscapes. We followed the semiotic approach of the Groupe μ (1992), in which there is transformation between the model and the representation: there are visual characteristics of the real world model, brands, which make it recognizable, and others contributed by the producer of the representation.

It is important to take into account that the brands that come from the producer, even if they are subjective, also come partly from the real world, from art and from theoretical models: producing a landscape that transmits spirituality requires of a process in which the real landscapes that have provoked that sensation on us, play an important role, and so does the study of the artistic works that provoked that sensation, and of the theory of art that guides us on the means to achieve it. For this artistic work we have selected both, the luminous cesia and the opposition light/darkness as the brand that represents spirituality.

We started from a study of the incomprehensible image (Jofré 2017). That study concludes that the image that effectively represents non-earthly worlds, freed from the limitations of nature, is a type of image that transcends the limits of its materiality. We made a theoretical journey on the transcendent image of different authors. Lessing described these images as “forms that leave room for imagination”. Wölfflin (1985: 84-88) describes them as open, weightless and unlimited, and to the darkness in which they are immersed as a continuity of space to infinity. Following Wölfflin, Floch describes them as dark, mysterious and disturbing. And Tatarkiewicz (2001), in his classification of forms, characterizes them as opposed to the form it calls “L”: the defined form, which encloses, which limits. He takes these concepts from Witold Gombrowicz, who describes this form as “a type of obligatory rule, a law that guides man but also overwhelms him”; the opposite of it is a certain indeterminacy, because there is less form in it, less limit, and more freedom.

We had come to the conclusion that the rules to build that freedom in order to produce spiritual sense, are the same rules that Wölfflin discovers in Baroque art: mainly indistinction, the lack of clear visibility. Light and the effect it produces on bright, reflective, and transparent cesias comply with this rule; as they are elusive, unlike opaque and matt cesias, which represent the apprehensive images of realism.

Wölfflin refers to the effect and the sense that some cesias produce when he says, for example, that the color of the objects does not remain the same as itself but rather “mirrors” with the most diverse colors, for that reason “the shapes are elusive, they appear and disappear [...] the edges are inconsistent, the surfaces avoid palpation. [...] The accent does not fall [...] on being, but on happening and metamorphosis;” the form “subtracts from determination and constantly changes and renews.” Wölfflin suggests the unrealistic appearance of this way of representing when he says: “palpable surfaces appear destroyed” and the figure appears in a vague way, unable to consolidate neither in the lines nor on the surfaces the tangibility of the real thing.

EXPERIMENTATIONS

We considered how to solve artistically the different quests for landscape representation from these spiritual worldviews. We reached the need to provide a multisensory aesthetic experience, the stimulation of all the senses, inviting the viewer to build his from his own worldview.

It was foreseen that the luminous cesia would predominate in five of the landscapes. Fluorescent colors were chosen in one of them so that the landscape elements seem to emit light. It was extensively experimented with the entire color palette.

Another landscape was inspired by water, its transparency, and the reflections of the sky on it. This work was experimented with large sheets of recycled polyethylene. The effect was studied with transparent and semi-transparent engraving inks, and with reflective paints. Both inks and paints were experimented with lights of different colors, and with the change of colors and intensities in time (Figure 1).



Figure 1: Aquatic landscape (Adriana Miranda and Laura Pedrerol).

Another one was a coral reef with RGB LEDs, with primary and secondary colors. A volcano with geometrized cracks, through which a red incandescence is seen. And finally, a night of lightning, in which the light/dark opposition plays a main role, but also the subtle tones (Figure 2).

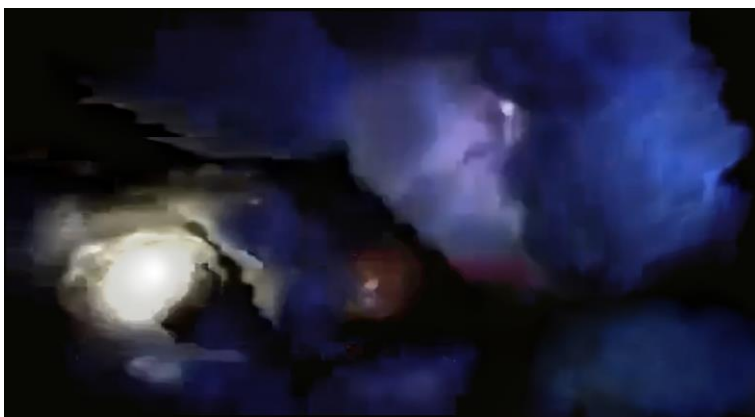


Figure 2: Lightning storm (Varinnia Jofré).

RESULTS

White was chosen for the fluorescent landscape which resulted in a snowy landscape that emits light (Figure 3).

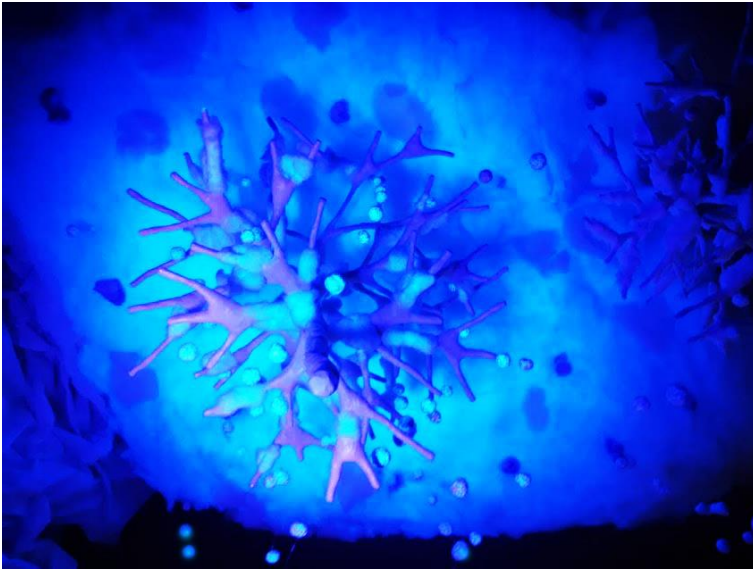


Figure 3: Snowy landscape (Silvia Albarracín).

The cesia of the material was capitalized for the aquatic landscape of polyethylene: both the transparency, illuminating it from the back, and the reflectance, illuminating it from the front. Light of various colors was used, trying to avoid saturated tones, and the intensity was also graduated.

The LEDs on the reef were removed and it was decided to illuminate it from behind. As regards the volcano, it was possible to see a plausible red glow in the background, through the cracks. The time variable, with a uniform and slow rhythm that produced a pulsating effect, was added both in an area of the water and the reef. And also, for the lightning storm, in which a minimally random sequence was achieved.

The light/dark opposition played a fundamental role. An unexpected result was that, once assembled, the entire installation looked resplendent, as a result of the quite intense lighting surrounded by darkness (Figure 4).



Figure 4: Ice landscape (Ana María Giuffrida).

In conclusion, we can consider that in our investigation we found that the light/dark opposition effectively produces the effect of spirituality that was sought. The void produced by the darkness allowed the lights in the film to look as if they were floating in space and in the environment, and that the space seemed to be deep. Furthermore, that the effect of spirituality produced by the selected cesias we had found in the paintings and the cinema, can be transferred to real space and real materials.

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