

# **DLA Thesis Synopsis**

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The topic of my thesis is light appearing in fine artworks in the twentieth century. In my thesis, I was engaged in works of art where light is not there as representation or pictorial technical appliance but is there in its actuality. I chiefly grouped tendencies, as well as works of art and ars poetica thematically in this respect. I set up two main groups of artworks in question: those that use light as tool and those that have light as their topic.

I developed a grouping system during my fine art related researches. For the duration of my DLA studies, dealing with voltage as physical phenomena my attention turned to liquids and light. Apropos of this work, I commenced researching works of art and artists whose artistic approach is similar to that of mine. I began my search of comparable artists and artworks along the artistic application of light. That is where I noticed that artworks created with similar means or even resembling one another often were born out of radically different trains of thought. I noticed that the relation of light to the artwork created of it shows relations of classic material in terms of means or relationship. Other times, however, it provides additional meaning, often as vehicle of meaning.

These two groups are not to be discerned so severely. I intended to illustrate the slight differences of categories I set up by way of discussing a few works of art or artistic attitudes, often representing artworks by artists who work similarly with respect of form, nevertheless, differ in respect of ars poetica. To evaluate the role of light, I emphasised stress and main motifs since specific artworks may differ in their details, however, when the tendencies behind are recognised, they can be separated into two basic artistic attitudes, that is, the application of light as means or topic, as it is were, the application of light as objective. The thesis consists of two larger units. The first unit is a review of theories concerning the nature of light, and in this context, the historic review of the nature of colours. I deemed it necessary to outline scientific-, philosophical approaches and public understanding as I believe that to understand light artworks by artists working in the twentieth century, we cannot confine ourselves to understanding light only as a physical phenomena. I found it worthwhile to review theories of light and colour, a number of scientific theses in order to come closer to aspects that artists in the twentieth century highlighted in the course of their work. I primarily intended to mention those light-conceptions that have affected our methods of thinking and those that still have related views concerning light art and aside.

The section dealing with the history of light is divided to five chronologically defined chapters, with a short interjection about the development of the relations of science and art. The spiral-like procession that is present ever more strikingly and influentially throughout the application of light in art is noticeable even when reviewing the related theses of physics.

Following this section, I review the history of the role of light in works of art, and subsequently I reveal the differences of the two large categories concerning approach, that is to say, the light as means and light as topic. Given that in my opinion two further categories crystallise from these, I discussed artworks dealing with light thematically divided providing examples of both afore mentioned artistic approaches.

Discussing light sculpturing in detail, I did not intend to set up a chronological order. However, the various thematics that often characterise different eras, I found, were related to one or to the other category in terms of their application of light. Thus, a certain chronological order may be discerned in terms of changes of tendencies concerning works of art.

My basic proposal was that what dominated at the beginning was the tool-like state of light. It was only in the second part of the twentieth century that application of light as symbol or topic in light art became general. To prove my thesis, I divided works of art operating with light into larger contextual units. These were the following:

Light, space, motion and time.

Science and art.

Town lights

Nature, subjective and objective environment and spiritual experience.

Within these categories, my experience was that, the diverse artistic methods continuously developed according to the given era or times along the temporally changing spiritual medium providing for the 'halo' for light art, actually any other art. That is, the social- and approach related shift within the topics, just as the emerging of new topics, can be associated with the characteristics of an era and take on similar directions within diverse topics. This simultaneity made the gender branching like foliage within the varied topics and use of light, however, the afore mentioned main approach and thematic related traits of the gender remained.

To prove this, I recalled several artworks from this topic from the beginning of the twentieth century to the present times. During my research and analysis work I noticed that this periodicity that does not solely characterise the application of light in the twentieth or twenty-fifth century but also in earlier times.

Therefore, the nature of the application of light has changed continuously the fine art in varied periods of time. Yet, while these changes took place during a lifetime, by the twentieth century this continuous metamorphosis that often feels like a cycle gained extensive speed. The application of light grew to be ever more multiple, its methods practically has

changed parallel and simultaneously. Hence the reason I deemed it important to provide a review of the history of understanding light in order to establish interfering or interacting views. Gradual changes of spiritual or natural science trends, often existing next to one another, basically determined relations to light ever since their first occurrence or flourishing.

In my thesis, I began with the demonstration of initial times contemplating phenomena of the world as a unit. Then I continued with antique views, followed by notions after Christ, reaching light theories in the twentieth century that, it seems, synthesise certain segments of earlier understandings. Or the other way around: contemporary light theory proven by the most modern means, respectively the seeds of current subjective meanings of light, are to be found in various historic eras. For example, Democritus and Aristotle's eidola theory (about the atom layer peeling off the surface of objects entering the eyes) is similar in many ways to present views of the formation of spectacle according to which the picture of objects is the light 'peeling off', reflecting from objects. Euclid, following Plato, set up the bases of geometric optics as devotee to line of sight, establishing optics valid even today. Albeit, lines of sight do not really exist. Likewise, the roots of the dual nature of light are not only to be found in the nineteenth century but Newton's corpuscular theory of light from the beginning of the eighteenth century, as well as Newton and Huygens' wave theory of light, advanced modern conceptions.

Another important issue with respect of light art is the development of views concerning the nature of colours. As the Aristotelian and Newtonian seven colours and their accordance with musical tones assisted to the birth of light organs that are still the basics of present day light art, light theories in the twentieth century influenced the ways of expression in several ways. Scientists, researchers, painters and philosophers created the practical and spiritual background of the autonomous application of light by disclosing the subjective and objective characteristics of colours. The description of simultaneous contrast phenomena was determining (Goethe, Chevreul, Rood and others) for the division of painting art where light becomes the topic of the picture this tendency leading directly to the application of light as independent element. The recognition of additive mixing of colours and the laws of perception of colours led to the scientific bases of the invention of colour screens and projectors. The opportunity to break up the colour white into homegenic colours alternatively lead to a special process, namely holography, that resulted in the beginning of a distinctive segment of light art.

In the second part of my thesis, I discussed the aforementioned duality of the application of light, as well as the beginnings and development of light art.

My intention was to disclose the roots of light art to be found in sculpture and painting, as well as in an interdisciplinary gender. The beginnings of the latter goes back to the eighteenth century nourishing, among others, Aristotle's colour theory. Aristotle created his spiritual background based on paralleling colours and sounds believing in their identical origins. He produced instruments that, just like musical instruments, were capable of presenting play of light. Up to the twentieth century, direct translation of musical content to light was nothing more than light music. In other words, the correspondence of sound and colour based on various systems, the spectacle was basically due to playing what there was written on a sheet music that was always shown accompanied by music. The play of light becoming independent from acoustic music correlates to scientific discoveries in the twentieth century, that is, the change of approach that assumed that light, unlike sound, is not the travelling of a medium in forced state but, despite of the nature of waves, it is an independent material and energy. This coming apart made it possible for light music to become an independent visual gender and thus playing key role in the development of light sculpture.

In fine art, the journey of light becoming aspect of picture and space originated in the first decades of the past century. These were most probably the times when material first appeared in its real form, then disappeared. It functioned as one of the triggers in the development of light art. On the fine art scenes of the twentieth century, the intention to remove the concrete presence of material surfaced light becoming a tool to do so. Disappearance of light takes place gradually. First light replace pigment in artworks. The appearance and inclusion, however, set of a process towards the independent application of light also in three-dimensional artworks. Space, surface and environment became all altering elements, dynamic part of statues. A number of kinetic artists apply it in their motion statues thus spreading the wings of the artwork in space while also encasing time. Following these steps, parallel with the first appearance of electrical fittings, it gradually became a structural element, that is, it did not only substitute colour or modified space but became a way to add to form. Subsequently, after the disappearance of form and material, its symbolic meaning gained a more powerful role.

With this, light as material, an element substituting colour or structural elements, even more, the understanding of light as means to modify space lending dynamics and chronology gradually altered and became the symbol of light. The characteristic attribute of the eras was that the entirety of the artwork was attained by the contribution of the subjective. It was not 'material' any more, it was the medium. So, with its help, the artists aspired to unify fashioned culture, art and also the already extinct natural reality. They tried to show their

material reality or its role via its interaction with other materials in various ways thus suggesting a kind of transcendentality, a paramount original unit.

The approach of contemporary light art is similar to the latter. However, in terms of form, it is often a reminder of light artworks from the beginning of the twentieth century. However, it infers light on a more conceptual and emotional base. Practically, it merges two approaches, namely subjective light and light as medium. Imprint of personal experiences, at the same time reflection on nature, an experience while it is also a substance that is one of nature's materials. It is also a kind of minimalism. Nevertheless, here it is not to replace material but is rather a representation. The artist does not show concrete images but instead he tries to create the murky shred of memory by way of light that an experience, either in our own environment or nature, leaves imprinted in man. So, even though the artwork is perceived through the eyes, the apparition is only a suggestion. The artwork is only born by attaining our memories, especially emotional recollections.

The objective of my thesis was to reveal interpretations of light in the twentieth century by way of artworks. Parallel with technological inventions and social changes in the past century, light's ever changing interpretation describes best the mentality and preferences of a given era. The appearance of light in spatial fine artworks may suggest beauty inherent in scientific and technical achievements or is the symbol of deformed human environment. It may also invite urban man back to nature or evoke lost but rediscovered transcends.

In my writing, I did not aspire to perfection in reviewing art history, philosophy or science. As an alternative, I intended this study as a kind of *Ars Poetica* where I remembered and represented artworks based on my own understanding varied with scientific results related to it.