



## SERENDIPIA

Kosmos – Polykosmos – Psykokosmos

### THE SURPRISING RELATIONSHIP BETWEEN ART AND SCIENCE

On the "united divided reality" in the paintings of Lars Physant

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*"Nature opens its eyes in works of art." (Adorno)*

Niels Bohr was the first really prominent scientist in the 20th century to continue the process of building bridges between science and other areas of knowledge, a process that commenced in the Renaissance and continued in the Baroque era, but which occupied a more humble position in cultural life in the centuries that followed. In a letter to the writer Jørgen Bukdahl on 22 April 1959, Niels Bohr highlighted this work as follows: "For me, physics, biology, sociology and ethics, despite all their differences, are all expressions of attempts to increase our knowledge of existence and gain a clear overview of our experiences". He also included art in a more direct way in his attempts to create new lines of connection between the worlds of art and science, particularly his own theory of complementarity. The cornerstone of this theory is that neither visual nor verbal language can interpret the entire world, only fragments or complementary aspects of it. We have to accept that we can never know or see everything at the same time.

He was thus convinced that "progress in human understanding" would in the future "consist of the growth of a web of interwoven complementary understanding of various aspects of the fullness of nature."<sup>2</sup> In a speech expressing his gratitude to Japanese physicists, he used Mount "Fujiyama as a symbol of complementarity, by describing the impressions elicited by the different lights and perspectives as complementary in the sense that only when taken together could they give the full and impressive picture of the ethereal and pure lines of this mountain, as attempted in Hokusai's great work, *Hundred views of Mount Fujiyama*."<sup>3</sup> In this book, Hokusai created one hundred etchings, showing how the light and changing seasons altered the appearance of Mount Fuji.

Lars Physant has always explored the formation of images in the boundaries between abstraction and figuration and between form and colour in a visually convincing way. In his pictorial universe there is also an impressive interplay between art, science, poetry and music. His complex compositions, with their rhythmic patterns of colours, also appeal to both the eye and the ear. This is why he has called one of his paintings *Synestæsi-eksperiment*, 2003 (fig. 1). He has worked with enormous energy and

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<sup>1</sup> Adorno, *Aesthetic Theory* (1970). Also interpreted by Alistair Williams in *New Music and the Claims of Modernity*, Routledge, New York 1997, p. 13.

<sup>2</sup> Quoted by Tor Nørretranders, *Det udelelige. Niels Bohrs aktualitet i fysik, mystik og politik*", Copenhagen, 1985, pp. 316-317.

<sup>3</sup> Bohr, Hans, *My Father*, in S. Rozental (ed.), *Niels Bohr. His Life and Work seen by his Friends and Colleagues*, Amsterdam, 1988, p. 337.

consistency to achieve a very original mastery of painting, making new aspects of our world visible through his art.

He is convinced that we cannot conceive our world as a totality. His paintings thus visualize what he calls a "united divided reality", which is in many respects an original artistic interpretation of Bohr's theory of complementarity.

But it was also his studies in the years from 1990 to 1995 of the medallions on the ceiling of the Sala Hipóstila in Parc Güell, which inspired him to work with a "united divided reality". This medallion was executed in the so-called "trencadís" technique of Josep María Jujol in collaboration with Antoni Gaudí in the period 1908-1909. The picture surface is built up out of infinite numbers of small pieces, which are independent, while also being a part of a whole (fig. 2). In his paintings – such as *Solvind*, 2010 (fig. 3) – we see traces of inspiration gleaned from these studies. This work combines fragments of nature experienced at different times of the day and interpreted through multiple angles. These fragments can also be regarded as painterly interpretations of complementary aspects of nature. They can never actually be seen simultaneously. They belong to our "divided reality" – but can be seen when combined on the surface of the painting. They are "united" in his artistic universe. In this painting – and in many of his other works, for example *Vindens Mandala*, 2014 (fig. 4) – he creates a complicated network of fragments from the natural world with indiscernible transitions between the non-figurative and the figurative, thereby creating a new reality.

The first element in Lars Physant's process of artistic creation is the construction of a completely abstract white relief wood structure consisting of many single pieces mounted in several layers, each one covered with canvases of different textures. On this network of abstract fragments he paints aspects of nature that can never be seen together in the real world but can only be visualized simultaneously in the artistic universe. This is why he has always emphasized that the experience and interpretation of his art demands what he calls a "simultaneous perception" or a plurality of views, which is also the title of one of his paintings from 2004, *Flerhed af blikke* (fig. 4a).

These features emerge in different way in *Panta Rei*, 2003 (*In Memoriam Maria Rosa Caminals*) (fig. 5), which contains a series of lyrical fragments of a cosmic vision, an allusion to "Panta Rei" – literally, "everything flows". It means that everything changes constantly, from the smallest grain of sand to the stars in the sky. It is a cornerstone in the Ancient Greek philosopher Heraclitus' conception of the cosmos.

The surface of the painting is so disrupted that it provides many opportunities for subtle shape formations. The void at the centre of the painting creates surprising confrontations between the artistic universe and reality. The empty space also alludes to infinity and reveals that we can only appreciate nature disjointedly and in pieces, while pictorial art can provide an idea of a totality. The outlines in this totality also reflect an inner reality and express states of mind, which is a central element in Lars Physant's conception of art. This also applies to *Gandhi's letters to Hitler*, 2012 (fig. 6).

This viewpoint is precisely what Cézanne and later Merleau-Ponty emphasised in their theories of art. In *Eye and Mind* (1961) Merleau-Ponty registers "the existence of the eye as a window of the soul by making reference to Rainer Marie Rilke's writings on Rodin's sculptures: without this window, the soul

would not live happily in the body".<sup>4</sup> What painters like Cézanne have always known is that "seeing is not a way of thinking but a means of being absent from the self of rational thought and reflection"<sup>5</sup>, something that Merleau-Ponty also wants to include in his philosophy. In Lars Physant's paintings we find a visualisation of a clear break with all rational fossil ways of thinking, and new openings to the world of feelings and imagination. He thus succeeds in providing us with a broader and more multifaceted experience than those we have in our daily life.

Niels Bohr opened the doorway to a new concept of the world and of the relationship between art and science. Scientists like Mitchell Feigenbaum, working with the "science of chaos", particularly the theory of fractals developed this concept further. Thinking in pictures occupies an important place in their study of fractals, which are images of nonlinear complex dynamic systems and the first break with Galileo Galilei's linear geometry. Benoit Mandelbrot, the father of fractals, realised that fractals are all around us, in the shape of a mountain range, a winding coastline or cloud formations. Linear geometry is unable to describe them, because "clouds are not spheres, mountains are not cones, coastlines are not circles (..) nor does lightning travel in a straight line."<sup>6</sup> Fractals form the basis for the aesthetics of multiplicity, which lays open the viewpoint that there is something in reality that can *only* be brought forth as an image. And this also applies to art. Because verbal language never entirely coincides with artistic expression, visual art is able to grasp perspectives or reveal traces and significance that writers are unable to portray with their tools alone.

Lars Physant has called the fragments of the movements of wind, light and colour in *Verdens lys*, 2010 (fig. 7) "the Jutlandic soil's fractal fimrehår". Similar patterns in nature resembling fractals, emerge in *Vindens variationer*, 2013 (fig. 8) and *Vindens passion*, 2014 (fig.9). In other paintings, where the painterly interpretation of the movements of nature occupy a prominent position – e.g. *Vindens hjørner I*, 2010 (fig. 10) – the shapes and lines have become so unsettled that intense waves of light and colour vibrations fill the picture space, making nature's creative processes come clearly and evident.

In the world of science, one studies the fractal processes primarily as consecutive processes on a computer screen. In Lars Physant's paintings, which appear as closed units, that interpret our fragmented world, one encounters parallels to the fractal process not only in the abstract pattern effects in the movements of the light, colour, clouds, wind and sea, but also – as seen in *Fraktal-eksperiment III*, 2009 (fig. 11) – in the decorations in the divine wish fulfilling tree called Kalpavriksha in the Jain temple Ranakpur in Rajasthan in Western India. Fractal-like movements finally emerge in his paintings in the complex shapes that are forms in the wind-blown grass and in the trees' networks of branches.

For Lars Physant, painting is a process of "forming with colour" and using the language of art to reveal new aspects of our fragmented world, expressing human values and opening up dialogues between the local and the global in art, science and our society. Through his art he breaks up the veil of conventions that surrounds our everyday life in order to reveal a reality that we did not know before.

When encountering Lars Physant's paintings, one is reminded of Paul Klee's highlighting of the

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<sup>4</sup> Cooper, Sarah, *The Soul of Film Theory*, Springer, p. 115.

<sup>5</sup> Cooper, Sarah, *op. cit.*, p. 115.

<sup>6</sup> H. O. Peitgen and P. H. Richter, *The Beauty of Fractals*, Springer, New York 1986, p. V. .

importance of colour as a creative force. He describes colours as the "place where our brain and the universe meet."<sup>7</sup>

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<sup>7</sup> Grohmann, Will, *Paul Klee*, Librairie Flinker, Paris 1954, p. 141. <