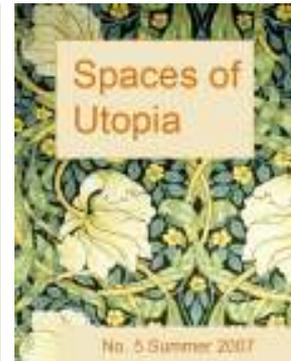


## Art in the Fourth Dimension:

### Giving Form to Form – The Abstract Paintings of Piet Mondrian

**Runette Kruger**

Tshwane University of Technology, South Africa



Citation: Runette Kruger, "Art in the Fourth Dimension: Giving Form to Form – The Abstract Paintings of Piet Mondrian", *Spaces of Utopia: An Electronic Journal*, nr. 5, Summer 2007, pp. 23-35 <<http://ler.letras.up.pt>> ISSN 1646-4729.

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The aim of this paper is to explore the art and utopian ideology of early-twentieth-century Dutch artist Piet Mondrian. As an idealist, Mondrian believed that his art would be instrumental in establishing the utopia he conceived of, and his writings and art are the painstaking and eloquent manifestations of his efforts in this regard.

Mondrian is a key figure in Modernist art, as co-founder, with Theo van Doesburg, of the Dutch *De Stijl* movement (1917-1924), and as a pioneer in the development of twentieth-century abstraction – it was Mondrian who took non-representation further than even the revolutionary Picasso, with his cubist compositions, had.

The background against which Mondrian formulated his notions on utopia is markedly dystopian. The turn of the twentieth century was a time in which the gap left by loss of faith in the Church could be only partially filled by a belief in positivism. The result was a *fin de siècle* characterised by a pervasive nihilism (Tuchman 1986: 19). This ideological impasse was exacerbated by the outbreak of the First World War. The turmoil and cruelty engendered by this event created a

fertile basis for the development of new and radical ideologies (Long 1986: 206). Critic Mathew Shadbolt notes: “[M]any artists attempted ways in which to remove themselves from wartime activities [but] [t]he notion of transcending world disorder ... was arguably no better explored in these [inter-war] years than in the work of ... Piet Mondrian” (Shadbolt 1996: §7, 9). Mondrian’s thought and art were created in reaction to a world he found both brutal and brutalising – a pro-active attempt to establish a utopia on earth.

Mondrian named his ideology, and abstract style of painting, Neoplasticism (*Nieuwe Beelding*). An analysis of Neoplastic theory reveals a non-material, universalist utopia based on the balancing of archetypal opposites. In his writings Mondrian borrowed from theosophy, Hegel, and Plato, as well as mystical notions of a transcendent fourth dimension. It is, furthermore, possible to show that Mondrian’s conception of utopia shares aspects of Hindu, Buddhist and Daoist thought.

Mondrian dwells on the notion of the universal, and for him Neoplasticism is “the most direct *aesthetic manifestation* of the universal possible” (Mondrian 1918a: 51, artist’s own emphasis). In order to do justice to the universal, Mondrian felt it necessary to reduce natural appearance, in visual terms, to its essential constituents. Hence, Mondrian’s pure abstract compositions consist of straight, black lines placed perpendicularly to each other, delineating flatly painted rectangles of primary colour interspersed with white planes. In his attempt to discover and give form to the invisible elements which underlie everyday appearance, Mondrian is a Platonist. For Plato, as for Mondrian, these essences

(or Forms) are more real than the material world, and are the source of that which we perceive in our daily lives. The eighteenth-century German philosopher Immanuel Kant's conception of the *noumena* seems very close to Plato's Forms. The *noumena*, or 'things-in-themselves', are unfathomable, "the external source of experience ... [but] not themselves knowable" (Flew 1984: 251). Similarly, in the *Dao de jing*, the *Dao* is described as follows: "We look at it, and we do not see it ... We listen to it and we do not hear it ... it cannot be made the subject of description ... this is called the Form of the Formless" (Lao Tzu 1997: 11).

Mondrian equates the universal and non-material with the spiritual. In a letter written in 1909, Mondrian states: "In order to approach the spiritual in art, one employs reality as little as possible ... This explains logically why primary forms are employed ... Art must transcend [physical] reality ... Otherwise it would be of no value to man" (Holtzman / James 1986: 17).

In Mondrian's writings the Platonic essences converge with the Hegelian concept of the whole. For Hegel, "nothing can be really true unless it is about Reality as a *whole*" (Russell 1985: 703, emphasis added). The absolute, or whole, is the logical conclusion of the dialectical process, whereby the thesis is replaced by its antithesis, and where, subsequently, both are united and superseded in their synthesis. The dialectic is, by its nature, ever-widening, leading to the final conflation of everything into one, ultimate synthesis: the absolute. In this regard Bertrand Russell states: "[S]ince everything, except the Whole, has relations to outside things, it follows that nothing quite true can be said of separate things, and that in fact, only the Whole is real" (*ibidem*). Thus, the notion (and appearance) of

the world as constituted of separate and discrete elements is an illusion, and the reality of separate things consists solely in their relation to the whole. Mondrian's mature paintings, where the coloured planes are cropped off and the black lines seem to extend beyond the picture plane, are not meant to function as "objects in themselves", autonomously asserting only their material, delimited existence. Rather, they encourage thoughtfulness about their role as part of an infinite spatial continuum. This spatial continuum, as a manifestation of the absolute, can be related to *Dao*. Lao Tzu states:

There was something undefined and complete, coming into existence before Heaven and Earth. How still it was and formless, standing alone ... reaching everywhere and in no danger of being exhausted ... All pervading is the Great T'ao! It may be found on the left hand and on the right. (Lao Tzu 1997: 21, 30)

What these systems of thought, namely Platonism, the Kantian *noumena*, Hegel's absolute, and the oriental conception of *Dao*, have in common is a belief in the trans-personal, as well as the conviction that to focus solely on the material is to be misled. (The Buddhist notion of the physical world as an illusion, and the Hindu goddess Maya who weaves a spell of illusion in the form of the physical world, also clearly pertain). For Mondrian, "deception follows ... [when] reckon[ing] only with the senses" (Mondrian [S.a.]: 382).

Mondrian's search for a utopian construct (predicated thus far on the non-material and universal) furthermore led him to assimilate theosophical ideas as well as mystical thought relating to the fourth dimension. From theosophy, notably H. P. Blavatsky's *Isis Unveiled* (1877) and *The Secret Doctrine* (1888),<sup>1</sup> Mondrian adopted the notion of universal harmony as the balance of archetypal opposites.

Blavatsky traces the notion of the dual nature of the universe back to Phoenician thought, where the cosmos manifests itself as male Essence, or Wisdom, and where primitive Matter, or chaos, is defined as female (Blavatsky 1893: 61). Similarly, the Swiss philosopher Paracelsus states: “Everything is double in nature; magnetism is ... active and passive, male and female ... equilibrium is the resultant of two opposing forces eternally reacting upon each other” (*apud* Blavatsky 1893: xxvi). In Hindu philosophy, too, the union of Shiva, the male element, and Shakti, the female element, constitutes enlightenment, or “an actual resolution of the duality that constitutes the phenomenal world” (Cross 1994: 113).

Mondrian, seeking for a way in which to give form to balanced primordial opposites, lighted on the representation of the vertical and the horizontal meeting at a ninety-degree angle. Mondrian states: “[N]ature ... is governed by one relationship above all others: ... by duality of position, the perpendicular. This relationship ... expresses ... complete harmony” (Mondrian 1918c: 38). For Mondrian, the vertical line represents the male, mental/spiritual principle, whereas the horizontal, aligned as it is with the earth, represents the female, material principle. The correspondence with ideas noted in Blavatsky’s writings is clear.

The question arises as to how the concept of the dual nature of the universe may be reconciled with Mondrian’s preoccupation with the ‘whole’, or the universe as radically integrated. One solution is to consider dualism and monism as part of the same system, a notion found in Western mysticism as well as in *Daoism*.

Seventeenth century German mystic Jakob Böhme<sup>2</sup>, describes the creative principle of dualism as follows: “The being of all being is but a single being, yet in giving birth to itself, it divides itself into two principles ... and out of these two eternal beginnings into a third beginning, into the Creation itself as its own love-play” (*apud* Watts 1986: 245). Similarly, the *Dao de jing* reads: “*Dao* gives rise to one, one to two, two to three, and three to the myriad of things. The myriad of things shoulder *yin* and embrace *yang*, and mix the *qi* to achieve harmony” (Henricks / Lock 1998: 15). Thus, the absolute, or monist whole, comes to self-awareness through the dynamic of duality by means of which all phenomena are created. Mondrian echoes this precisely: “Unity, in its most profound essence, *radiates*: it *is*. The radiation of unity’s *being* wrecks itself upon the physical – and thus gives rise to life and art” (Mondrian 1918b: 90 n5).

In this way, Mondrian, in search of the primordial, universal paradigm, based his formulation of abstract painting and the conceptual basis of Neoplasticism on the notion of balanced duality – a duality which nevertheless forms part of an holistically integrated absolute.

The last school of thought pertaining to Mondrian’s notion of utopia relates to mystical explications of the fourth dimension, or so-called “hyperspace philosophy”,<sup>3</sup> as formulated by early twentieth century philosopher Peter Demianovich Ouspensky. The nature of an inscrutable fourth dimension was a prominent theme of discussion in artistic circles in early-twentieth-century Europe, and Mondrian was quick to respond to the non-materialist implications of a “higher” dimension.

Ouspensky's *Tertium Organum* (1911) is the summation of his thought on hyperspace. Here Ouspensky attempts to explain the fourth dimension as a spatial phenomenon, and, in order to achieve this, explores the relations between the three dimensions with which we are familiar as well as the relation between three- and four-dimensional forms. In this way, Ouspensky points out that a line consists of an infinite number of points, that a plane consists of an infinite number of lines, and that a solid consists of an infinite number of planes. By implication, a four dimensional body consists of an infinite number of three-dimensional bodies. Continuing his analogy, Ouspensky establishes that a line is the trace of the movement of a point, and a plane is the trace of the movement of a line. A three-dimensional solid is the trace of the movement of a plane, and by analogy, a four-dimensional form is the trace of the movement of a three-dimensional form (Ouspensky 1981: 22). The question arises: in which direction does the three-dimensional form move to leave an impression of itself as the trace of a four-dimensional body?

It is useful to keep in mind that a line moves in a direction *perpendicular to itself* in order to form a plane. Similarly, a plane moves in a direction *perpendicular to itself*, and at the same time not parallel to the first line, in order to form a cube. Hence, in a three-dimensional cube there is 'movement' in three directions, each direction perpendicular to each other direction and none of the directions parallel to one another. By implication, a four-dimensional body is a three-dimensional body which moves in a direction perpendicular to itself, and at the same time in a direction not parallel to its height, width or depth – in effect, the three-dimensional

solid moves “away from itself”. The answer to the question of which direction this could be, lies in visualising time as space (*idem*, 54).

In our common perception of time, what we experience as phenomena well up from nowhere (the future) and immediately disappear into oblivion (the past), never to be encountered again – non-existent (*idem*, 25). Contrary to this perception, Ouspensky states: “Reality is continuous and constant”, despite the fact that we represent it to ourselves as an endless series of separate moments, “as through a narrow slit” (*idem*, 26).

Based on the hypothesis that reality is continuous and constant, it would be more logical to assume that events do not come from and disappear into nowhere. Rather, everything, the past, present and future, exists as it is, in a continuous present, which we are inadequately equipped to see in its entirety. Our erroneous perception of time causes us to experience it as a series of segments of a line, rather than as a whole. In light of this, Ouspensky urges us to rise *above* this “line”, and to perceive time as a *plane* (*idem*, 28). On this plane the events of eternity coexist simultaneously, arranged serenely and motionlessly next to each other.

Upon seeing time as a plane, our “time-sense” is transformed into “space-sense”. The “now” which we experience as fleeting, expands into the ever-existing infinity referred to in oriental philosophy as the “Eternal Now”, “a universe in which there [is] no *before* and no *after*, but only the present, *known* or *unknown*” (*idem*, 95).

Ouspensky argues that this Eternal Now is the fourth dimension, but how is this explanation of time as space to be related to three-dimensional bodies existing

as traces of the movement of four-dimensional bodies? The direction, not contained in itself, in which a three-dimensional body must move in order to leave its trace as a four-dimensional body in space, is a direction perpendicular to *our line of time*. This means that four-dimensional bodies are the manifestation of three-dimensional bodies in their *entirety*, existing in perpetual time. We are (ordinarily) unable to experience phenomena (three-dimensional bodies) in their entirety, as four-dimensional bodies, and as we travel “through” four-dimensional bodies (on our time line), we experience only their three-dimensional section, as finite phenomena that come into and fade out of existence. It is also in this way that, according to Ouspensky, a four-dimensional body is made up of an infinite number of three-dimensional bodies.<sup>4</sup>

Ouspensky argues that these four-dimensional bodies are the Forms described by Plato, and the *noumena* addressed by Kant. Yet whereas, according to Kant, we can *never* experience things-in-themselves, Ouspensky posits ways in which we *can*, notably by means of artistic sensibility and mystic insight, but emphasises that positivist science and logic can not assist us in this regard. For Ouspensky, a positivist is like a savage for whom a book is a “thing”, and who will forever interpret it by carefully taking measurements of its appearance (1981: 117). Whilst contemplating the outer representation of the book, the positivist savage will never fathom its content, or *noumena*, nor even acknowledge that this content exists. Conceding that positivism was refreshing and progressive in its time, Ouspensky regrets the fact that it inevitably led to materialism, and feels that

positivism has become conservative and reactionary, arresting rather than benefiting thought (*idem*, 290). Ouspensky states:

[W]e do not realise that we rob ourselves ... of all beauty, all mystery, all meaning, and then wonder why we are so bored and disgusted ... we do not see that we understand nothing around us; that brute force or deceit and falsification always win, and we have nothing with which to oppose them. THE METHOD IS NO GOOD ... positivism wears a uniform ... It rules over thought ... and struggle against it is already declared a crime. (*ibidem*)

By the same token, logic, as first devised by Aristotle, proves obfuscating when it comes to the fourth dimension. Aristotle's laws of logical inference read as follows: *A is A; A is not not-A; Everything is either A or not-A*. Ouspensky remarks that this formula is "simply deduced from observation", and, given the conditioned nature of our perception, brings us nowhere as regards the fourth dimension. Perception, after all, proves misleading even within the realm of the three-dimensional world (Ouspensky 1981: 74).<sup>5</sup>

As a counter system, Ouspensky envisages transcendental logic, or logic of infinity and intuition, its axioms reading as follows: "*A is both A and not A, or Everything is both A and not A, or Everything is All*" (*idem*, 221). These axioms, Ouspensky points out, correlate with the central teaching of the *Upanishads*, namely *Tat tvam asi*, or "Thou art That" (*idem*, 229). Thus, in the fourth dimension, where "Everything is All", opposition is resolved in a mystical union of opposites, in accordance with Mondrian's conception of utopia.

In Mondrian's utopia, material reality is not the bedrock of existence. Rather, it is the non-material, the diaphanous, the eternal and invisible that constitutes true reality. In this non-material utopia conflict is resolved in the balancing, or ultimately the union of, all oppositional elements. Mondrian chose to believe that humankind

was slowly but surely moving toward such a state of tranquil balance, and his Neoplastic ideology and abstract compositions were created with the sole purpose of ushering in such a *dénouement*. His compositions can be interpreted as attempts to capture the Platonic essences, the *noumena*, the absolute, a monist whole, *Dao*, or the fourth dimension – the Eternal Now. In conclusion, these pure abstract works were created as Modernist icons, to encourage contemplation, and hence the creation, of an earthly utopia which was, above all else, harmonious.

## Notes

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<sup>1</sup> In her writings, Blavatsky drew from such diverse sources as the *Vedas* (which comprise four manuscripts that are the cornerstone of Hinduism and date as far back as 1500 BC), the *Pali* books, or *Jutakās* (accounts of the incarnations of Buddha), the Cabala, Egyptian mythology and the Old Testament, as well as modern and ancient Western philosophy.

<sup>2</sup> Böhme, “one of the great speculative mystics [and] ... an important source of inspiration for ... romantic idealists” dwelled, in mystic fashion, on the *unity* of creation (Mautner 2000: 71).

<sup>3</sup> The term ‘hyperspace philosophy’ was formulated by Linda Dalrymple Henderson in her thesis on the impact of notions of the fourth dimension on early-twentieth-century art. It is used to differentiate meta-physical, philosophically oriented inquiry into the fourth dimension from a mathematical approach to the topic. Henderson states: “I find this a useful means for characterizing writers from Hinton to Bragdon and Ouspensky, as opposed to authors of more straightforward mathematical expositions of the fourth dimension” (Henderson 1983: 25). Furthermore, according to Henderson, “many Theosophists became actively interested in the fourth dimension [and] Mondrian was naturally sympathetic toward the fourth dimension because of [his] Theosophical beliefs” (*idem*, 32).

<sup>4</sup> It is in this sense that the German mathematician G. F. B. Riemann, according to Ouspensky, “regarded the ... atom as the *entrance of the fourth dimension into three-dimensional space*” – i.e., not as something material, but as “the inter-section of a four-dimensional line by the plane of our consciousness” (Ouspensky 1981: 23, 35).

<sup>5</sup> An example of this is the way in which incorrect inferences can be made based on clearly observable phenomena, such as for instance the movement of the sun “around” the earth. As Ouspensky remarks: “The sun ... still continues, in all languages, to rise and set” (1981: 80).

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Weisberger, E. (ed.) (1986), *The Spiritual in Art: Abstract Painting 1890-1985*, New York, Abbeville.

Selected Paintings of Piet Mondrian. Complete List of Piet Mondrian. Quotes of Piet Mondrian. He is possibly best known for being one of the founders of the De Stijl, which incorporated an art movement that worked around abstract works, and the new art forms that were being introduced to the world in the early 20th century. The movement was also based on the reductive theory; which took a larger scale image, and brought it to life on the canvas, in architectural works, and in sculpture forms, and in the form of graphic arts as well. Piet Mondrian was born in the Netherlands, and received his formal training there; he attended the Rijksadame van Beeldende in Amsterdam. Mondrian grew up Kruger, Runette, "Art in the Fourth Dimension: Giving Form to Form" The Abstract Paintings of Piet Mondrian. Kruger, Runette, "Mondrian's Abstraction: Chrysalis or Colony? A Psychoanalytic and Feminist Reading." Mensch, James. 12. Given the root of "representation" in notions of resemblance and imitation, among other factors, visual images have often been thought of as more direct and straightforward in their meaning than language itself, which varies from culture to culture. Or, in other words, there has been a strong tendency to think of visual images as not a language, as un-coded and possibly universal in their meaning. . Mondrian's abstract paintings appeared to certain of his contemporaries extremely rigid, more a product of theory than of feeling. One thought of the painter as narrow, doctrinaire, in his inflexible commitment to the right angle and the unmixed primary colors. Yet in the large comprehensive shows of his art one discovers an astonishing range of qualities, a continuous growth from his twenties to his last years in fertile response to the new art of others and to a new milieu. If his abstract paintings of the 1920s and 1930s seem dogmatically limited in their straight forms, these constant elements, through carefully pondered variation of length, thickness, and interval, compose a scale of forces that he deploys in always individual combinations.