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NUMBER, REDUCTION, AND TRANCE. ON VARIOUS MODELS OF GEOMETRICAL MYSTICISM IN THE ART OF THE TWENTIETH CENTURY

The circle, the square, the line, and the plane – the basics of geometry. There is nothing else that could be as suggestive in combining the concrete with the abstract, in combining objects with ideas and notions. A common perception of mathematics as a discipline devoid of emotion due to its exactness proves unfounded when we realise that at its outset mathematics displayed qualities of a religion.

The concept according to which number is the essence of reality and lies at the root of the harmony embracing the universe is associated with the figure of Pythagoras and the activity of the circle of his followers. The Pythagoreans formed a sect in which one had to take an oath to keep the secret. Outsiders were prevented from getting to know not only the rituals and philosophical principles, but also the mathematical theories. Thus, the Pythagoreans saw mathematics not so much as an applicable science, but as mysteries of a kind. Plato, without whose *Dialogues* modern geometrical aesthetics would not have come to be, is at times considered to have been a Pythagorean who broke the vow of silence.

No texts by Pythagoras have been preserved. We are aware of his theories thanks to the accounts of his students. These were compiled by Nicomachus of Gerasa, who markedly distinguished arithmetic as a science from arithmology as a form of mysticism. Pythagorean representation of numbers as collections of points which, when joined together, constituted 'figural' numbers marked the origin of the perception of geometrical figures as magical signs.

Euclid, the father of geometry as a field within mathematics, organised it in his treatise titled *Elements*, stripping it of any spiritual meanings, emphasising the logical relations within it, yet he did not deprive it of its beauty. The visual attractiveness of Euclidean geometry continues to be regarded as an expression of the perfection of a world founded upon mathematical principles.

Over the centuries, numbers and geometry gradually lost their mystical character giving way to rationalism, whereas the notion of harmony started to acquire a purely aesthetic sense. The only exception were the neo-Pythagorean circles; throughout the centuries, however, these always kept their status as a secret.¹

¹ M.C. Ghyka demonstrates that the Pythagorean tendencies in culture continued to exist through the ages, by having been associated with the Neoplatonic currents of Christianity, to subsequently evolve and beget gnosis and Rosicrucianism; cf. M.C. Ghyka, The Golden Number: Pythagorean Rites and Rhythms in the Development of Western Civilization, transl. by J.E. Graham, Rochester (VT): Inner Traditions, 2016.

AN ARTIST FROM THE FUTURE PROTO-AVANT-GARDE OF HILMA AF KLINT

The trends developed during the Enlightenment helped to decisively shift mathematics and geometry towards science; however, at the turn of the twentieth century, along with the emergence of the new spirituality movement, there occurred a revival of number mysticism and the interpretation of geometrical figures as carriers of metaphysical meanings. The notion, originating in the field of theosophy, according to which thought can assume material form, provided one of the sources of modern abstract art.

Published in 1905, an illustrated book by Annie Besant and C.W. Leadbeater, *Thought-Forms* (with Fifty-Eight Illustrations),² is an interesting piece of testimony corroborating the idea that it was theosophy that served as the exordium for geometric aesthetics in the twentieth-century art. Artists attracted to new spirituality were bound to come across this publication. Its influence can be traced in the theory and practice of Wassily Kandinsky. It is believed to have inspired Hilma af Klint, who created her first abstract compositions around 1906.

Thus, the actual history of geometrical abstraction as an art movement can be dated to her works. Her abstract oeuvre remained completely obscure for decades, partly because the artist herself did not wish to have it exhibited, considering it to consist of 'paintings for the future', impossible to grasp for her contemporaries. Hilma af Klint appeared in academic discourse as late as towards the end of the twentieth century, which led to reactions of confusion.

A practicing spiritualist, already at a young age she discovered she had the ability to receive signals coming from outside the reality of the rational. She was an acclaimed artist, one of the first female graduates of the Stockholm Academy of Fine Arts. When she decided to embrace a form of artistic activity entirely different from conventional painting, her internally driven experiments with automatic drawing directed her attention towards abstraction: initially, these were organic forms, reminiscent of plants and flowers; she later arrived at geometric simplification. Particularly radical (besides her square-based watercolours of the *Parsifal* cycle) are her oil paintings of the *Swan* cycle (1915), in which the artist used sharp contours and strong contrasts. At the centre of the painting, there are concentric circles, vertically divided in half. The left side of the division is kept in black and white; the right one – in three light pastel colours. The

² See https://www.youtube.com/watch?v=6e2dnuRys2k&t=10s [accessed 17 Nov. 2021].

³ This very title: *Paintings for the Future*, was given to what thus far is the largest exhibition of the works by H. af Klint, held at the Guggenheim Museum in New York, New York, USA, 2018–2019.

backdrop is red. An aggressive, but at the same time – rather paradoxically – soothing composition, much like many other works by Hilma af Klint, makes us look again, deeper; it encourages the viewer to finally step out of the painting, perception-wise.

Unusually for the history of modern art, the fact that a new artist emerged when the canon of works, which had been in development for decades, seemed to have been established, gave a shuffle to the series of precursors of abstract art. But is the linear notion of art development really the crucial issue here? The notion of progress as the supreme value for modern art was contested on many occasions. Therefore, one can look at it from another perspective altogether: geometric abstraction as a timeless form of expression, hardly yielding to chronological ordering, with avant-garde-ness as no more than one among its many qualities.

Even though during the canonical, pioneering years (before the Great War) geometric abstraction served, above all, to build a new, utopian world, the mystical undercurrent was always present in its discourse. In a text completed in 1910, Kandinsky emphasised: 'Here, the painter must train not only his eye but also his soul, so that he learns to weigh colour not only by perceiving exterior impressions or sometimes inward ones, but also by utilising it as definite power in his creations.' Elsewhere, explaining what an abstract form is, he writes that it 'in itself is a fully abstract being. Such purely abstract beings, which possess their own life, their own influence, and their own value, are a square, a circle, a triangle, a rhombus, a trapezoid, and innumerable other forms becoming more complicated with no mathematical designation.'

KAZIMIR MALEVICH AND PIET MONDRIAN MEDITATION THROUGH REDUCTION

Kazimir Malevich became attracted to geometry owing to a mystical turn towards an objectless world. More than a mere need for a compositional order, the reduction of painting to the simplest forms offered him a way to express sensations and moods which cannot be grasped intellectually.

The dream of an absolute painting, a pure idea, gave rise to *The Black Square* on a white background, and his subsequent geometric compositions. Malevich arranged a universe completely freed from the objective world and its figural representation, that is, the world in which figures and items formed an ominous whole: the beginning of World War I, and the crisis of the Russian Empire that was soon to end with the outset of the revolution. The world without objects constituted an escape

⁴ W. Kandinsky, *On the Spiritual in Art*, transl. by H. von Rebay, New York: The Solomon R. Guggenheim Foundation, 1946, 62.

⁵ Ibid. 48.

from the situation that the artists, a citizen of Czarist Russia, had found himself in. Malevich emphatically described his work as the ground zero for painting art. The Black Square was the beginning of suprematism, developed by Malevich both in practice and in theory. It meant the supremacy of form and colour – an art attempting to reach the very essence of painting by limiting compositions to their rudimentary elements. The charisma of Malevich attracted a group of young idealists who, like Unovis, would spend several years exploring the master's artistic and philosophical notions, deeply believing in their power to transform the world. Over time, the aesthetic layer would be all that remained of the suprematist ideas propagated by the heirs of Malevich.

There is an extant photograph of Piet Mondrian meditating (dated to 1909, thus from before the geometric breakthrough), the striking feature of which are his hands, placed in an unusual manner: stiffly, in an almost square-shaped fashion.

It seems somewhat analogous to a late self-portrait by Malevich (of 1933), in which his palm is placed as if to suggest the artist was catching something invisible. The Dutch painter's path to geometric abstraction ran through various spiritual resources – the first of these having been Calvinism. Mondrian hailed from a profoundly religious community, and the strict Protestant discipline greatly influenced his attitude.

During the transition phase from figurative to abstract art, Mondrian turned towards theosophy and spiritual revival. He is also known to have been interested in the thought of Rudolf Steiner.⁷ Even though his way of translating motifs of the spiritual into visual language differed completely from how Steiner regarded it, certain elements of the former's idea remained present in Mondrian's works. A direct influence on the formulation of the neoplasticism⁸ is most likely to have come – according to Michel Seuphor (Mondrian's first monographer) – from the views of the Dutch philosopher Matthieu Hubertus Josephus Schoenmakers, who advocated the notion of 'a religion without theology.' Schoenmakers published his texts in the esoteric weekly *Eenheid*, to which Mondrian subscribed from its very beginning.?

One could spend ages pondering the extent to which Mondrian's doctrine of neoplasticism was the result of his own artistic intuition, as opposed to that of the influence of esoteric movements. What is important, however, is that on the

⁶ Cf. K. Malewitsch, *Die gegenstandslose Welt*, S. Bauhausbücher, vol. 11, München: Albert Langen, 1927; K. Malevich, *The Non-Objective World*, S. Bauhausbücher, vol. 11, Zürich: Lars Müller Publishers, 2021.

⁷ Cf. J. van Paaschen, *Mondriaan en Steiner. Wegen naar nieuwe beelding*, Den Haag: Komma, 2017.

⁸ Presented in a hermetic and obscure essay, titled 'De nieuwe beelding in de schilder-kunst', which in its final, published version was stripped of any references to religion, cf. C. Blotkamp, *Mondrian. The Art of Destruction*, London: Reaktion Books, 2001, 109.

⁹ Ibid. 111.

basis of his eclectic theory the artist was able to develop, around 1917, a clear concept of an art based on geometry in an extreme manner.

His deep belief in painting as a medium created a perfect harmony of opposing elements. The need to tame the chaos resulted in the reduction of forms to a layout based on the interplay of the vertical with the horizontal, reflecting the dualism of nature. An increasingly simplified form of his works marked an attempt to reflect the spiritual order that presides over the visible world.

The fact that theosophic and anthroposophical milieux had no interest in Mondrian's activity, an interest he must have hoped for, might have seemed to him a personal failure. Even though he remained a member of the Theosophical Society for the rest of his life, he would feel misunderstood. Rejected by the spiritualist circles, Mondrian focused exclusively on art, treating it with religion-like reverence. He believed that art reduced to the simplest forms in simple relations is an objective way to transmit the idea of the Absolute. He ascribed to his own works the power to restructure reality according to new principles – in the spirit of neoplasticism.

Mondrian was able to combine his spiritualism with a rigid doctrine. Even though in his theoretical texts he provided an account of liberating power of the colours he used, Barnett Newman found his attitude rather limiting. A late series of four paintings by Newman, *Who's Afraid of Red, Yellow and Blue* (1966–1970), is a criticism of Mondrian's dogmatism. Newman claimed that overburdening colours with ideological meanings destroyed the impact of art, suffusing it with unfortunate didacticism.

BARNETT NEWMAN METAPHYSICS AGAINST DOGMATA

Barnett Newman, who as an undergraduate majored in philosophy and decided to pursue painting at a later stage in life, on numerous occasions expressed his criticism of the tradition of the pre-war European avant-garde. In his essay titled 'The Sublime is Now', published in 1948, he bitterly observes that geometrical perfection in Mondrian's works ruined the thing he, in fact, strove to achieve, that is, metaphysics. It was an elaboration of a remark that natural human desire for contact with the Absolute through art had come to be mistaken – and synonymous – with the absolutism of perfection. Newman believed that art should be 'moral but not moralistic'. For him, it was a matter of prime importance. *Onement, Vir*

¹⁰ An article sent by P. Mondrian to one of theosophical journals was rejected for publication; R. Steiner failed to answer the artist's letter. From Mondrian's correspondence one can also gather that his efforts to be accepted to a masonic lodge proved unsuccessful.

B. Newman, 'The Sublime is Now', in J. Lewison, *Looking at Barnett Newman*, London: August Media, 2002, 111.

Heroicus Sublimis, the Stations of the Cross cycle, Chartres: the titles of his works intensify the solemn atmosphere evoked by his large, monochrome planes, divided by narrow vertical stripes of contrasting colours.

Newman saw rejuvenation of art through the spirit of sublimity in an inward turn, performed once the inner sanctum has been cleansed of all the ready-made images: myths, associations, memories – the burden of European art. Thus, Newman's artistic stance conveyed criticism not solely of Mondrian, but of the entire system of European modernity based on the notion of progression. Newman never sought chronological corroboration of the idea of progress – he was able to find spiritual values in the art of the past, as well as that of the indigenous cultures of America, rejected in the Eurocentric outlook.

The metaphysical charge of Newman's art was the subject of an interview conducted with him by David Sylvester in 1965 (though published only in 1972). In it, the artist firmly denied being a mystic, confessing that it was difficult for him to speak about art, and even more difficult about the metaphysical experience associated therewith, as an erroneous impression could emerge of his being involved in mysticism. Newman's outstanding knowledge of Judaist and Christian theology, which his commentaries are a testament to, does nevertheless hint at interpretations focusing on the mystical. The vertical lines, a typical feature of Newman's painting (but found also in his abstract sculptures from the cycle titled *Here*), seem to be binding the divine with the down-to-earth, the human. The artist reduces complex theological considerations to a simple relation on a plane — a space and line.

In his essay titled 'L'instant', ¹³ Jean-François Lyotard likens the line to a bolt of lightning, whereas the point of contact between the solids in the sculpture *Broken Obelisk* he juxtaposes with the detail from the Sistine Chapel: God's finger touching Adam's finger. Lyotard further analysed the apparent plainness of Newman's paintings. The message communicated by his works 'speaks of nothing ('Le message ne «parle» de rien, il n'émane de personne'). It is not that Newman speaks to the beholder through the canvas, it is the painting that is a message in itself: it requires absolute focus on its presence. Thomas B. Hess (Newman's friend and an interpreter of his oeuvre), cited by Lyotard in the said essay, declares that the subject matter of Newman's art is artistic creation in and of itself, as a symbol of the divine creation narrated in the Genesis, even though his paintings are never allegorical or illustrative.

¹² The literal quote: 'because they're hard to talk about without producing the impression that I'm involved in mysticism, which I'm not'; 'Interview with David Sylvester', Ibid. 117.

¹³ J.-F. Lyotard, 'L'instant, Newman' [1984], in *Textes dispersés 11: artistes contem*porains / Miscellaneous Texts ii: Contemporary Artists, H. Parret (ed.), Leuven: Leuven University Press, 2012, 424–43.

Lyotard notices that many of Newman's works refer to the notion of origin, which may refer to any 'instant' (*l'instant*) represented in his art. Without this sudden flash, there would be nothing here, or chaos would reign ('Sans cet éclair il n'y aurait rien ou le chaos'). Hence, one may observe that, even though Newman does acknowledge the problem of petrification of the dogmata of avant-garde art, his own oeuvre does feature – albeit symbolically, with a certain reserve – the fundamental religious dogmata.

TOWARDS LIGHTNESS

AGNES MARTIN AND THE FLIGHT FROM FORM

The aesthetic structure of Agnes Martin's works is based on a rectangular grid. The grid, considered by Rosalind Krauss as the 'impermeable to language' essence of the avant-garde art, is laid absolutely bare in Martin's works – it is the subject of her compositions. The tranquility and order of the artist's oeuvre, also in terms of the subdued colour palette she used, had their source in the practice of meditation.

The idea she would obsessively return to in her art and her life was that of liberation from the ego, a result of Martin's profound interest in Zen philosophy and Taoism. Furthermore, Martin rejected intellectualism in favour of an attempt to revert to the innocence of gaze. About her works, she said: My [artworks] have neither object nor space nor line nor anything – no forms. They are light, lightness, about merging, about formlessness, breaking down form. You wouldn't think of form by the ocean. You can go in if you don't encounter anything. A world without objects, without interruption, making a work without interruption or obstacle. It is to accept the necessity of this simple, direct going into a field of vision as you could cross an empty beach to look at the ocean. The idea of a world without objects is akin to the considerations of Malevich. Art work comes straight through a free mind – an open mind. Absolute freedom is possible. We gradually give up things that disturb us and cover our mind.

In an interview conducted by Joan Simon in 1985, Agnes Marin pondered the notion of beauty, which she referred to as something very mysterious, adding that it was the response given by the human mind to perfection:

¹⁴ Admittedly, of great significance is the fact that A. Martin was diagnosed with schizophrenia. For more on the artist's depressive episodes, catatonic trance, and hallucinations, see N. Princenthal's biographical book: *Agnes Martin. Her Life and Art*, London: Thames & Hudson, 2015.

¹⁵ As cited in an article by A. Wilson, 'Linear Webs: Agnes Martin', *Art and Artists*, 1 (1966): 49.

¹⁶ It is worth juxtaposing these words with a comment M. Jarema made in 1958: 'Art is born out of the freedom of thought.'

"I think it's a response in our minds to perfection. It's too bad, people not realising that their minds expand beyond this world," she claimed.

Asked whether her studies on the spirituality of the East found their way to her works, Martin responded in a genuinely aphoristic manner: 'What I say is that we're capable of a transcendent response, and I think it makes us happy. And I do think beauty produces a transcendent response.' It is astonishing how natural she finds speaking about transcendence without resorting to intellectualism. In conclusion of the conversation in question, the artist explained: 'Art is the concrete representation of our most subtle feelings. That's the end.' 19

MIECZYSŁAW T. JANIKOWSKI HIDDEN LIGHT OF GEOMETRY

Against a uniformly red background, a single element can be seen suspended in space: it is an intensely yellow, precisely drawn circle, rather small in relation to the dimensions of the composition. It gleams. One may sense that it will grow, perhaps to fill the entire rectangle and then extend beyond the painting. Or, conversely, that it will shrink to disappear in the boundlessness of red space. This painting by Mieczysław T. Janikowski is titled Ardèche (after a picturesque region in Southern France), but could as well be called Archē (the beginning), for one can hardly fail to detect a mystical aura in Janikowski's work. His geometric paintings, for all their structural precision, are marked by an exquisite subtlety. Luminescent, painted with tenderness and featuring well-thought out relations between forms, they emanate tranquility. Studying them intently leaves one with the impression of having touched a mystery. The unanimity with which critics and art connoisseurs contemporary to Janikowski would recognise the artist's ascetic attitude is a testament to the fact that his painting art must have originated from profound spiritual explorations, not merely formal calculations. Juliusz Starzyński wrote of the 'lyrically mystical' personality of the painter, Michel Seuphor referred to his paintings as 'extremely sensitive in their rigour', placing emphasis on his complete devotion to art, whereas Paul Cognasse claimed that the works by Janikowski constituted 'a restless search for the hidden world' and 'art for the initiated'. Ascetic and suffused with silence, Janikowski's paintings are the result of contemplation, and they produce that state in the recipient.

J. Simon, 'Perfection Is in the Mind: An Interview with Agnes Martin (Taos, New Mexico, August 21, 1995)', Art in America (1996) May, 83–124, As cited in: https://silo.tips/download/perfection-is-in-the-mind-an-interview-with--agnes-martin# [accessed 04 Apr. 2022].

¹⁸ Ibid.

¹⁹ Ibid.

²⁰ All the above statements, as cited in the catalogue: *Mieczysław Janikowski* 1912–1968. *Malarstwo*, exhibition catalogue, February–March 1974, Muzeum Sztuki in Łódź, Łódź: MS, 1974.

KOJI KAMOJI GEOMETRY OF FOCUS

'I believe that the greater the focus the fewer elements can be seen'²¹ – wrote Koji Kamoji, considering the issue of geometry in his art. By reducing the form, Kamoji is able to combine the Zen tradition with European constructivism. He underscores such qualities of geometric art as simplicity and balance, whereas by enriching it with reminiscences of his personal experiences and constant references to the world of nature, he furnishes it with a deeply philosophical dimension. The presence of the personal element makes Kamoji's geometric abstraction a manifestation of metaphysics. 'I consider geometry in art to be an expression of the spirit,'²² he confessed to Bożena Kowalska.

In his desire to express universal values through his art, Kamoji comes near to the attitude of Barnett Newman: 'I do not mean to build something new, but instead to find and record things we tend to forget about, and the world we drift away from. I wish to find a form adequate to make them present,'²³ he said in 1967, and this statement of his appears to be an inversion of Mondrian's and Malevich's approach.

The series of works by Kamoji, most closely related in its form to geometric abstraction of the first wave, is titled *The Middle Ages*. These are paintings in an identical square format with multi-coloured compositions of geometric figures and subtle references to the world of nature, i.e., pebbles harmoniously integrated into the works. In an accompanying text, titled *Reflections on the Meaning of Art*, the artist points out that contemporary art starts to once again seek spirituality, which it has lost. He calls it the value shared by the West and the East.²⁴

B. Kowalska (ed.), W poszukiwaniu ładu. Artyści o sztuce, Katowice: BWA, 2001, 101.

²² Ibid. 100.

²³ A passage from the introduction to the catalogue of the exhibition held in Galeria Foksal (Warszawa 1967), as cited by A. Wolińska, 'Istnienie jako «wykrawanie zdarzeń z przestrzenno-czasowej całości obiektywnego świata». Obecność czasu w twórczości Kojiego Kamojiego', in M. Brewińska (ed.), Koji Kamoji. Cisza i wola życia, Warszawa – Kraków: Zachęta Narodowa Galeria Sztuki, 2018, 61.

²⁴ In this text, the author enumerates a series of opposite notions in two columns alongside one another. The Middle Ages include, among others: prayer, humility, space, synthesis, quality; meanwhile contemporaneity: progress, conceit, closed spaces, analysis, number.

JERZY KAŁUCKI

GATEWAY TO THE WORLD OF METAPHYSICS

'As a form of expression, geometry is a special kind of silence, which at once includes questions and answers', observed Jerzy Kałucki in 1983. His works – at first glance, cold and perfectly structured – convey a touch of mystery, an elusive aura, which makes it impossible to regard them merely as geometric decorations. The arc that returns in numerous of his painting and spatial compositions might be a gateway, opening the path to the world of metaphysics. There is an overwhelming impression about Kałucki's paintings that they transport us into a further, uncharted space. The artist does not want the limits of the canvas to be the limits of the viewer's imagination. He says that a geometric form may constitute 'the key that opens a space beyond the painting, an instrument for reaching the realm of the intangible', whereas, when pondering the meaning of art, he writes that it is not 'knowledge, falling beyond its competences, but the sense of existing within the flow of time'.

JAN PAMUŁA TO CAPTURE INFINITY

'It is rather that geometry chose me and the situation could not be reversed', ²⁸ explained Jan Pamuła, having been asked why he had chosen geometry as his form of creative expression. *Young Artist Discovers the Magic of Abstract Art*, his painting from 1972, ²⁹ says more about the gravity of entering the path of geometric abstraction than words could. As an artist, Pamuła never deviated from this path, he is consistent in creating a world of order based on a clear structure and the harmony of colours. Krystyna Czerni refers to his approach as 'a kind of spiritual exercise'. ³⁰ The artist's choice of geometry as his artistic worldview was influenced by his familiarity with the philosophy of Kierkegaard and Hegel, as well as the mysticism of Swedenborg.

²⁵ B. Kowalska (ed.), *Język geometrii*, exhibition catalogue, March 1984, Warszawa: BWA, 1984, 90.

²⁶ B. Kowalska (ed.), W poszukiwaniu ładu, op. cit., 91.

²⁷ B. Kowalska (ed.), Sztuka a transcendencja – Radziejowice 2013. Wystawa z xxxi Pleneru dla Artystów Posługujących się Językiem Geometrii, Radom: MCSW Elektrownia, 2013, 44.

²⁸ B. Kowalska (ed.), W poszukiwaniu ładu, op. cit., 134.

²⁹ The painting is discussed by K. Czerni in her essay: '«Daleka podróż» Jana Pamuły', in B. Gawrońska-Oramus (ed.), Jan Pamuła. Průkopník počitačového uměni v Polsku /Pionier sztuki komputerowej w Polsce / Pioneer of computer art in Poland, Olomouc: Muzeum umění, 2020, 29.

³⁰ Ibid. 31.

The artist further emphasises that the basic inspiration for his chromatic exploration was Paul Klee's colour theory, the most spiritually distinguished among all modernist chromatic dogmata. Having turned to computer generated imagery, he never abandoned his spirituality: endless, kaleidoscopic divisions of plane into rectangles, each of which is unique in its proportion and size, represent the transition from a human to a cosmic scale. The rhythmical division of plane into four elements is of trance-like nature. 'I believe in physical influence of various types of energy,' says Jan Pamuła, 'it involves ordering the reality, and ordering oneself, too.'³¹

JANINA KRAUPE AND URSZULA BROLL ESOTERIC GEOMETRY

The position of Janina Kraupe among artists practicing geometric abstraction is far from obvious; however, it is worth looking at her works also in the context of geometric forms present therein. It constitutes merely one layer in these semantically dense, symbolic, abstract compositions. The elements of geometric structure are used to introduce order on the plane, but they do not take to the foreground. Of key importance are the automatic writing (écriture automatique) and intuitive expression of colour. The works by Kraupe reach phenomena inaccessible for the uninitiated, as the artist has never tried to hide her involvement in the occult. The lines dividing her works into rhythmical rectangles organise a space filled with symbols and signs. They are an expression of the geometric harmony underpinning the Universe.

In her colour linocut prints based on astrological calculations – charting the horoscope – Kraupe returns to the idea of sacred geometry: circles, regular polygons, and proportional sections illustrate the secret information hidden in the planetary configurations of the Solar System.³² On many occasions, while speaking about her own works, Kraupe emphasised that some of those were created in a state of a 'semi-trance' and had the nature of visualisations of her internal images, which emerged beyond the rational mind. Even such an advocate of establishing a connection between art and science as Mieczysław Porębski wrote about her: 'She is inward-oriented, focused on receiving.'³³

³¹ Ibid. 63.

³² Close links between mathematics and physics on one side and astrology on the other used to be considered the mainstream of early modern science until the Enlightenment. At the end of the sixteenth century and in the beginning of the next, Kepler applied the principles of Platonic solids in his model of the Universe, while the laws of planetary motions (by many considered the beginning of modern science) are founded on geometric models. Kepler called the golden ratio, which he analysed in its relation to the Pythagorean theorem, a 'divine proportion'. In his work *Harmonia Mundi*, he elaborated on the Pythagorean notion of 'the music of the spheres'; cf. M. Livio, *The Golden Ratio*, New York: Broadway Play, 2022, 147–55.

M. Porębski, *Pożegnanie z krytyką*, Kraków – Wrocław: Wydawnictwo Literackie, 1983, 271.

Geometry found an even subtler manifestation in the paintings of Urszula Broll. A Zen Buddhist and a member of the esoteric group Oneiron, she made a turn in her artistic work, influenced by the practice of meditation: 'Suddenly, a new interpretation of the world opened. For us, people unrelated to any religion, it was of crucial importance'. One of Broll's visual inspirations was *The Red Book* by Carl Gustav Jung. In her oeuvre, Jung's vision overlaps with an element of the legacy of the avantgarde art. Thus, her powerfully emotional compositions are enriched with the experience of Broll's early artistic inspirations, back in the days when she belonged to the St-53 group, in whose name the 'St' stood for Strzemiński.

In an interview with Jakub Gawkowski, conducted in 2018, the artist explained: 'I don't even know wherefrom the geometry in my paintings. Just like anything else, it is a kind of... collection of accidents? Or rather the result of our past actions. I don't believe in accidents. It would be patently absurd if things happened out of the blue, out of thin air. Whatever befalls us, whomever we meet, there must be a distant reason.'35

The purely abstract watercolours from the 1960s constitute subtle geometric images of her internal world. Far from geometry as conventionally understood, Broll never abandoned geometric structure, instead infusing it with a meditative quality, constructing subtle and balanced, symmetrical 'mandalas'. Recalled by her friends, Broll's complete, trance-like absorption in her work (which, in fact, is reminiscent of Agnes Martin's manner of painting) demonstrates that the creative stimuli did actually come from within. Besides, the artist used to say: 'I have a very deep contact with my own works, I create them for myself actually, to get to know what I do not know about myself... In silence, in peace, in communing with the mandala and my own experience, I find mental balance'. ³⁶ Created in peace, the works by Broll have the power to silence the beholder who focuses on them.

TERESA BUJNOWSKA RETURN TO THE METAPHYSICS OF NUMBER

Teresa Bujnowska appears to be overlooking the entire twentieth-century tradition of geometric abstractions, for she goes back directly

³⁴ U. Broll's statements are quoted following a 2018 interview by Jakub Gawkowski, 'Cisza jest wskazana', https://www.dwutygodnik.com/artykul/9004-cisza-jest-wskazana.html [accessed 17 Nov. 2021].

³⁵ Ibid.

³⁶ As cited in: J. Zagrodzki, 'Urszula Broll i Grupa St-53', in *Urszula Broll. Malarstwo*, exhibition catalogue, Biuro Wystaw Artystycznych Jelenia Góra, Jelenia Góra: BWA, 2005, 18.

to the very Pythagorean origins: the awe at the mystical beauty of the number, as heralded by the sect of the Pythagoreans. She explains: 'I refer directly to the Pythagorean thought, which considered Number to constitute the deepest structure of reality. "Everything is arranged according to Number"; hence, the reality appears as Cosmos, that is, an organised whole. Number gives rise to point, point – to line, line – to plane, plane – to solid, and these – to everything that we perceive with our senses. That is how the hierarchy is established: Number – Geometry – Matter."

Bujnowska creates her ascetic drawings and paintings using a ruler in order to further emphasise their universal meaning through the impersonal character of the creative process. She arranges these precisely drawn geometrical figures according to the principles of the ancient symbolism of numbers. The thus created compositions are distinct because of their decorativeness. The figures overlap with one another, they share various types of symmetry, or remain asymmetrical, they illustrate mathematical theorems, such as the Pythagorean theorem. The artist uses multiplication, rescaling, repetition of a single motif in various arrangements. The figures make up sets and series, becoming a collection of repeatable motifs. Losing nothing of the rigidity of their form, they assume qualities of an ornament. The title of one of Bujnowska's exhibitions, *Filometria* (2009), is a very apt expression of the artist's stance.

CONCLUSION

Philosophy and a meditative trance, movements of spiritual revival and the mathematical order, seeking contact with the Absolute and looking deep within oneself: the roots of openness to mystical experiences in artists practicing geometric abstraction vary. Released from the burden of figurativeness, abstract art is a visual complement to the ineffable. Its formal ascesis helps to elicit contemplative qualities of these works.

The oeuvre of artists who combine geometric structure with spiritual message may be treated as a medium transferring us into the – variously understood – ideal, extra-sensual reality. Yet, the contact with it is no less an aesthetic pleasure. The plainness of geometric forms creates an order on many levels, setting the mood required to achieve meditative focus. The power to step beyond the visible and cross to the realm unavailable to the mind constitutes one of the greatest values of abstract art. Eluding definitions, undermining the established chronology and hierarchy of the history of art, it harmonises the sensitivity of the creator with the sensitivity of the recipient.

³⁷ T. Bujnowska 'Dziesięć punktów' (1989), reprinted in: *Filometria. Teresa Bujnowska*, exhibition catalogue, March–April 2009, Painting Gallery at the Academy of Fine Arts in Krakow, Kraków: Grupa Tomami, 2009, 16.

Bibliography

- Blotkamp C., Mondrian. The Art of Destruction, London: Reaktion Books, 2001.
- Filometria. Teresa Bujnowska, exhibition catalogue, March–April 2009, Painting Gallery at the Academy of Fine Arts in Krakow, Kraków: Grupa Tomami, 2009.
- Ghyka M.C., The Golden Number: Pythagorean Rites and Rhythms in the Development of Western Civilization, transl. by J.E. Graham, Rochester (VT): Inner Traditions, 2016.
- Jan Pamuła. Průkopník počitačového uměni v Polsku / Pionier sztuki komputerowej w Polsce / Pioneer of computer art in Poland, B. Gawrońska-Oramus (ed.), Olomouc: Muzeum umění, 2020.
- Język geometrii, B. Kowalska (ed.), exhibition catalogue, March 1984, Warszawa: BWA, 1984
- Kamoji K., Cisza i wola życia, M. Brewińska (ed.), Warszawa Kraków: Zachęta Narodowa Galeria Sztuki. 2018.
- Kandinsky W., *On the Spiritual in Art*, transl. by H. von Rebay, New York: The Solomon R. Guggenheim Foundation, 1946.
- Lewison J., Looking at Barnett Newman, London: August Media, 2002.
- Lyotard J.-F., 'L'instant, Newman' [1984], w: Textes dispersés ii: artistes contemporains / Miscellaneous Texts ii: Contemporary Artists, H. Parret (ed.), Leuven: Leuven University Press, 2012.
- Malevich K., The Non-Objective World, S. Bauhausbücher, vol. 11, Zürich: Lars Müller Publishers, 2021.
- Malewitsch K., Die gegenstandslose Welt, S. Bauhausbücher, vol. 11, München: Albert Langen, 1927.
- Mieczysław Janikowski 1912–1968. Malarstwo, exhibition catalogue, February–March 1974, Muzeum Sztuki in Łódź, Łódź: MS, 1974.
- Paaschen J. van, Mondriaan en Steiner. Wegen naar nieuwe beelding, Den Haag: Komma, 2017.
- Porębski M., Pożegnanie z krytyką, Kraków Wrocław: Wydawnictwo Literackie, 1983.
- Princenthal N., Agnes Martin. Her Life and Art, London: Thames & Hudson, 2015.
- Simon, J., 'Perfection Is in the Mind: An Interview with Agnes Martin (Taos, New Mexico, August 21, 1995)'. Art in America (1996) May, 83–124.
- Sztuka a transcendencja Radziejowice 2013. Wystawa z xxxi Pleneru dla Artystów Posługujących się Językiem Geometrii, B. Kowalska (ed.), Radom: MCSW Elektrownia, 2013
- Urszula Broll. Malarstwo, exhibition catalogue, Biuro Wystaw Artystycznych Jelenia Góra, Jelenia Góra: bwa, 2005.
- W poszukiwaniu ładu. Artyści o sztuce, B. Kowalska (ed.), Katowice: bwa, 2001.

Abstract:

Focusing on selected works by the pioneers of abstract art active in the opening decades of the twentieth century and by artists of the subsequent waves of geometric abstraction both in Poland and in the world, the paper demonstrates how the reduction to geometric forms enhances the contemplative aspect of art. Understanding geometry and, more broadly, mathematics as a carrier of mystical message emerged already in antiquity and can be associated with Pythagorean notions. Modern art revived this conception of geometry. Artists engaged in geometric abstraction oftentimes practiced meditation, developed their esoteric interests, and referred to philosophical and religious mysticism.

Keywords:

geometric abstraction, geometry, painting, mysticism, theosophy

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