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The Proto-Pixel Art of Malevich and Kandinsky: Black Square, Its Digital Descendant and Neo-Vitalist Impulse

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<u>The Proto-Pixel Art of Malevich and Kandinsky: *Black Square*, Its Digital Descendant and the Vitalist Impulse.</u>

The turn of the 20th century was marked by scientific discoveries of various particles of organic and non-organic matter that comprise the physical world we inhabit. Albert Einstein proved the material existence of atom in 1905. British physicist J.J. Thomson discovered the first subatomic particle, an electron. Microbiologists were able to study such basic units of life as bacterial cells, with the Dutch scientist Martinus Beijerinck discovering virus particles in 1898.

Interestingly, the sharpened focus on studying the microstructure of the world that natural sciences endorsed has found its parallel trajectory in the developments of social sciences and humanities. Around 1914, Russian scholars, such as Viktor Shklovsky and Roman Jakobson, have formed a literary school of Formalism, whose mandate mirrored that of Ferdinand de Saussure - to study literary language as a system with its own set of dynamic rules that differ from those of the everyday language (Bennett 50). In poetics Shklovsky saw the possibility of resurrecting the dying world caught in the recycling of sounds that lost meaning, where all turns trivial.

> Words die, the world is always young. Artist sees the world anew, and, as Adam, gives its proper names to everything. Lily – it's beautiful, but the word "lily" is ugly, groped and "raped". That is why I call lily "euy" and the original beauty is restored. Poem gives mindlessly a row of vowls and consonants; these rows are untouchable. It is better to substitute words with a different one, related not in terms of its meaning but in terms of its sound (liki-miki-kika). (13)

The manifesto tone of Shklovsky's writings brings to mind a contemporary to Formalism movement, Russian Futurism. Indeed, analysis of the Futurist poetry dominates writings of the early Formalists, with Shklovsky's particular attention to Velimir Khlebnikov's *Zaum* poetry. In attempts to emphasize words' concrete nature and their phonetic structure, to set them free from ideological weight, moralization and vulgarity, Futurists played grammatical games, forming new transrational language of *Zaum* (Medvedev and Bakhtin 59). When published, Khlebnikov's

experiments with sound poetry were accompanied by illustrations created by Kazimir Malevich. *Zaum*, laid down the motivations for Malevich's Suprematism (Douglas 50) - the new artistic language based on basic geometric forms, embodying an anti-materialist, anti-utilitarian philosophy. This urge for creating visual language freed from pragmatic concerns resembles Futurists' struggle for forming language empty of the stiffening voice of reason.

The time when Malevich was developing his theories was enriched with insights into the particles of matter, units of biological life and of language. If one considers the atmosphere of scientific and theoretical discoveries that nourished the artist, it becomes less surprising that Malevich's investigations of the visual world led him to discover nothing else but a particle, a basic unit of visible reality – his renowned *Black Square*. Malevich regarded his *Black Square* as the "embryo of all possibilities", a "living royal infant", a "real living form" (Douglas 156). Malevich writes:

> I didn't invent anything, but felt the night in me and in it I saw something new, and called it Suprematism, and it expressed itself in me through the blackness of a surface plane, which formed a square, then a circle. In them I saw a new color world, but that was a long time ago, now it is alive in front of us. (111)

Around the same time Malevich was pondering over the way to scientifically express the structure of the visual world through painting, another prominent Russian artist, Wassily Kandinsky, was developing his own visual system. Kandinsky's methodology of painting, driven by "inner necessity", relied on operations of artistic intuition (Short 88), the emphasis on which suggests an influence of Henry Bergson on this artist's theories. Finding synthesis between intuition and reason as constituents of a creative act could be considered the project of Kandinsky's life. Similarly, Kazimir Malevich's vanguard experimentation depended on what Malevich calls "intuitive reason". Bergson theorized on intuition as a way to reach beyond illusions of reality and Malevich actively practiced these theories (Drake 50). Art historian Will

Grohmann, a contemporary of the painters discussed here, appropriately applies to Kandinsky Bergson's description of an artist capable of perceiving the world emancipated from habit:

> Hence, originally, the diversity of arts… This applies himself to colors and forms, and since he loves color for color and form for form, since he perceives them for their sake and not for his own, it is the inner life of things that he sees appearing through their forms and colors. Little by little he insinuates it into his own perception, baffled though we may be at the outset. For a few moments at least he diverts us from prejudices of form and color that come between ourselves and reality. And thus he realizes the loftiest ambition of art, which here consists in revealing to us nature. (146)

The prejudices of form and color Bergson mentions evaporate, disclosing the world through the artists' eyes. Russian Formalist, Viktor Shklovsky, would have continued this passage by suggesting a method one could employ to achieve this naivety of vision — "defamiliarization", or "estrangement" – an artistic technique meant to awaken the mind from being unconsciously involved in habitual automated perception of life, "life that had never been" (quoted in Shklovsky 5). The aspiration to see the true original reality, exposed through the mud of the everyday, which manifested itself in Malevich's work, resurfaces here with Kandinsky's desire to "reveal nature", to make art that, as Grohmann notices, showed us "the very face of reality".

To satisfy this objective through artistic practice Wassily Kandinsky develops a scientific theory of art, directed at resolving the tension between intuitive and analytic approaches to creative processes. The artist begins his meticulous study by considering artistic elements that serve as the building material for a given work of art. The primary element in Kandinsky's art system, his "embryo of all possibilities" as Malevich would have named it, is *the Point* (Kandinsky 105). This primary element becomes alive once it is released from the confines of traditional use and conventional logic:

> As we gradually tear the point out of its restricted sphere of customary influence, its inner attributes — which were silent now — make themselves heard more and more. One after another, these qualities — inner tensions — come out of the depths of its being and radiate their energy. Their effects and influence upon human beings overcome ever more easily the resistance they set up. In short, the dead point becomes the living thing. (Kandinsky 26-27)

The scientific style of *Point and Line to Plane* closely resembles some of Malevich's writings on artistic movements, where the latter studied the science of artistic cultures by employing methodologies usually used in cell biology. Malevich termed his project *Bacteriology of Art* and analyzed the effects of the doses of Suprematism on various painterly cultures. The illustrations and tables both artists produced to support their theories are highly detailed and rational, and could easily be mistaken for those explaining phenomena normally scrutinized through hard sciences' lens. Analytical and methodical, Kazimir Malevich and Wassily Kandinsky were dedicated to developing theories of visual systems. Could the areas of investigation these artists engaged with overlap with those of cybernetics, transdisciplinary science that too explores systems?

Biological metaphor resurfaces in the work of mathematician John von Neumann in his unfinished work *The Computer and the Brain* printed posthumously in 1958. Kandinsky's mapping the visual system of art with the assistance of analytical mathematics resembles Neumann's discerning of computer's structure with reliance on the science of neurophysiology. Neumann's organic and biological vision of large digital machines differentiates between such parts as 'active' organs and organs serving memory functions (29-30). The scientist reverses the vector of conceptualizing the computer as human nervous system by proposing that it's the latter that is, in fact, digital. The pulse of a neuron is akin to binary code, which serves as a marker for further actions of an adjacent neuron, thus creating a set of rules that governs an active organ (Neumann 43-44). Based on Neumann's formulations it is possible to conclude that when Alan Turing and John von Neumann developed theories of information processing, their project was to build a machine whose workings would be analogues to those of the human brain. If one continues further this analogy, where computer is the human brain, a single instruction cycle

equals to firing of a neuron, what then is the doppelganger of a pixel in the physical world that we inhabit? Kandinsky and Malevich would have proposed *the Point* and the *Black Square*, respectively.

In his book *Deep Time of the Media*, Siegfried Zielinski points at the persistence of the techno-organic paradigm that supported the advancements of mechanics and, later, electronics. Zielinski, however, is convinced that technology is not and cannot be human, as the computer and the brain are fundamentally different. It is the temporalities of technological and human evolutions that constitute the inconceivable break between the two, voiding the possibility of technology ever becoming human and vice versa. The slow and steady pace of biological and geological evolutions rhythmically contradicts the fast and irregular beats of civilizations, whose greatly condensed qualitative developments were enabled by humans' ability to store knowledge, mobilized and disseminated via nomadic cultural practices (Zielinski 6-7). According to Zielinski, not acknowledging the differences between the transformative forces of nature and culture, leads to presenting the history of media as a biological evolutionary model, which reduces the archive of historical evidence to satisfy its teleology. Possibly, this positivist tendency could explain why there has been so little scholarly effort at excavating the proto-pixel works of Malevich and Kandinsky — they simply don't fit the linear history of the digital pixel. Zielinski's motto "do not seek the old in the new, but find something new in the old" is relevant here, for *the Black Square* and Kandinsky's *the Point* continue to be read as belonging to the "old" transcendental discourse — paradigm, abstract works of art are often ascribed to.

One such account is offered by Jurgen Claus in *On Cosmic and Digital Code.* In this paper, Claus calls to attention that Kandinsky's practically defined a pixel in his writings. However, the author tends to read Kandinsky and Malevich's work as scripts containing cosmic

data "no longer seen as earthly things", running into traps of previously mentioned "old" discourse on abstraction. This confusion is not only present in the contemporary readings of the discussed works. Malevich's colleagues, too, expressed bewilderment with the meaning of the painting intentionally void of expressive potentialities:

> Here is the square, but what did he want to express through it? Abstraction of everything? Graphic representation of form, if we look at the square without mythical faith, as if it were a real earthy fact then what is it? (quoted in Tupitsyn 9)

As *Black Square* resisted clear-cut explanation mythical thinking was left as the only promise for finding the picture's meaning, and reading the painting through the lens of transcendental discourse became an established tradition to this day.

To avoid simply following familiar tropes this paper's argument needs to find ways to form new connections that are not conditioned by the linear notion of progress, allowing movements in all directions. In search for methods that can support such intellectual freedoms, Zielinski suggests paleontological approach to media history — media archeology. The geological concept of deep time carries particular significance for this method, as it denies any credibility to the progress-oriented way of thinking in relation to cultural change. Theoretical constructions imbued with teleological propositions are capable of maintaining integrity on the scale of relatively short-lived civilizations. However, once subjected to scrutiny on the larger scale of geological time, these theories begin to fall apart, as they can't withstand the weight of the deep time of history (Zielinski 5). Following Zielinski's advice, this paper doesn't wish to propose that *the Black Square* and *the Point* are the earlier, less developed analog technologies, which eventually evolved into the contemporary pixel. On the contrary, it seeks to investigate the deep time of the pixel, to excavate artifacts that speak of its diversity, which, I suspect, can be found on the site of the avant-garde experiments of Malevich and Kandinsky.

What are the intimate connections that suggest that the works of the historical avant-garde and the digital pixel belong to the same rhizome? It can be speculated that one of the forces, which creates productive associations between the aforementioned particles of the visual worlds, is their vitality. Earlier, I have argued that Malevich and Kandinsky treated the basic units of the visual systems these artists developed as alive, driven by the vital force. Is the pixel, too, a vital element?

In their book *Life After New Media: Mediation as a Vital Process*, Joanna Zylinska and Sarah Kember, explore the relationships between media and technology, proposing that "mediation is an intrinsic condition of being-in and becoming-with, the technological world" (1). The authors emphasize the temporal dimension of mediation, which constitute the "lifeness" of media, pointing at interrelations between biology and technology. Interestingly, even though Zielinski, too, is concerned with temporal dimensions of culture, the argument this author offers is in stark opposition to that of Zylinska and Kember — technology is fundamentally different from humans, according to the former. The authors of *Life After New Media* suggest that arguments, such as Zielinski's, are symptomatic of the theoretical environment characterized by the prevalence of the social constructivist approaches to media history, told from the humanistic perspective, neglecting that of the artifact. Zylinska and Kember resuscitate the question of technology in relation to culture and media, as the distinction between tools and their human users is no longer possible. The authors bring in Heidegger's theories of technology, which, in words of Mark Poster, are acutely reminiscent of the observations of the Russian avant-gardes.

> As a result of the unconscious quality of modern humans' relation to their framing of things, they do not perceive the setting up of the scene in which they act and take their cultural shapes. Consequently, our own being in the world is invisible to us. (quoted in Kember and Zylinska 14)

What is described here is akin to the "life that has never been", the habitual reality the avant-garde artists of the early 20th century attempted to defamiliarize. Heidegger's defamiliarization technique consists of making the world visible through acknowledging technology as a "world-forming process". It is this temporal aspect of technology that of particular relevance to Zylinska and Kember's proposition that "we have always been mediated", emphasizing our physical and ontological belonging to the technological environment. In *Genesis of the Media Concept*, Guillory's philological investigation of the concept of media leads to Hegel's *Vermittlung*, a term that describes the impossibility of "an immediate (*unmittelbar*) relation between subject and object, or the immediacy of any knowledge whatsoever", commenting on the temporal principle of mediation (343). The process of mediation is infused with change; it's transformative. It produces reality rather than merely constructs it (Kember and Zylinska 67). For Bergson, duration and change are synonymous with life and liveliness, allowing Zylinska and Kember consider the temporality and performativity of mediation as an indicator of its vitality.

Is it possible for a non-human element to be driven by the vital impulse? How can one theorize mediation and with it the pixel, as capable of forming new connections and assemblages without participation of the human factor? Bergson suggests:

> There is no reason, therefore, why a duration, and so a form of existence like our own, should not be attributed to the systems that science isolates, provided such systems are reintegrated into the Whole. But they must be so reintegrated. The same is even more obviously true of the objects cut out by our perception (11).

Mediation, as Zylinska and Kember argue, constitutes such reintegration posited by Bergson as a necessary condition of vitality, as it is a multiagential force that includes humans and nonhumans, machines and its users, in an ongoing process of becoming-with (40). To further investigate the relationships between the "liveness" of the pixel, *the Black Square* and *the Point*, one needs to

look closer at what constitutes computer mediation — the process, where the pixel is one of the main actors.

In his book *The Interface Effect*, Alexander Galloway attempts to define the computer as a mode of mediation. Galloway proposes that the computer simulates the metaphysical arrangement, remediating metaphysics itself. While not referencing any external phenomena or being, it remediates the very conditions of being. Computer works according to the logic of calculus, whose aim is to simulate acting on the world. As such, computer possesses a system of reasoning that enables it to work through a problem consequentially. Galloway argues that it is the executable function of the computer that defines it as an ethic — general principles of definition and manipulation of objects. "The matter at hand is not that of coming to know the world, but rather that how specific, abstract definitions are executed to form a world" (Galloway 23).

It is possible to suggest that *the Black Square*, *the Point* and the pixel are such "abstract definitions" employed to form a world, for these visual units are not intended as vehicles for gaining knowledge about the world but as particles with which to create it. Malevich and Kandinsky's visual systems, akin to Galloway's computer, remediate being, simulating realities. The artists' writings are akin to computer code meant to provide instructions, define the ethic, and describe the principles with which the new worlds should be arranged. Bergson has identified the "abstract definition" of the visual unit isolated by human perception from the totality of arrangement as "little square". Curiously, the "little square" has come to define the metaphysics of the computer — its digital visual reality.

> Now, suppose our eyes made that they cannot help seeing in the work of the master [painter] a mosaic effect. Or suppose our intellect so made that it cannot explain the appearance of the figure on the canvas except as a work of mosaic. We should then be able to speak simply of a collection of little squares. ... It is the picture ... projected on the canvas, which, by the mere fact of entering our perception, is *de*composed before our

eyes into thousands and thousands of little squares which present, as *re*composed, a wonderful arrangement. (Bergson 90)

If we allow ourselves the freedom of speculation and playful analogies, the canvas for Malevich and Kandinsky can be thought of as a proto-monitor where, based on the logics of visual programming language the artists compiled, the particles were arranged into various assemblages. In his 1927 film script, titled *Artistic and Scientific Film – Painting and Architectural Concerns – Approaching the New Plastic Architectural System*, Malevich has documented a sequence, throughout which *the Black Square* gradually turned into an assemblage consisting of the multiplicity of shapes. This script demonstrates attempts to consider ways in which to create visual reality utilizing *the Black Square*, strengthening associations between the digital computer screen and Malevich's work.

For Malevich and Kandinsky, their painterly simulations were intimately connected to the physical perceptible world mediated in their work. However, the creative code these artists wrote has not been rendered into visually recognizable form. In one of the illustrations to *Point and Line to Plane*, the body of a jumping dancer is translated into the language of Kandinsky's primary shapes, transforming it into circles and lines (42). Rendering — computer-programming process, which generates an image from a model, bridging abstraction and representation — is a function of a computer that is imperative for successful communication between the computer and its users. The avant-garde artists, however, didn't have faith in rendering and, as an outcome, their works often possessed non-communicative qualities. In *Genesis of the Media Concept*, Guillory refers to the non-communicative mediation in relation to Lockean conception of words as medium of thought and arising from it notions of clarity of language transparent to meaning. Guillory cites a passage from George Campbell's *The Philosophy of Rhetoric* (1776), which exemplifies the stylistic norms of language propagated by the ideas John Locke:

> Now, in corporeal things, if the medium through which we look at any object be perfectly transparent, our whole attention is fixed on the object; we are scarcely sensible that there is a medium which intervenes, and can hardly be said to perceive it. But if there be any flaw in the medium, if we see through it but dimly, if the object be imperfectly represented, or if we know it to be misrepresented, our attention is immediately taken off the object, to the medium. (339)

Campbell describes the failure of communication which results in the undesirable bringing forth of the medium — a strategy that became the "holy mantra" of the medium-specific Modern art, promoted by such critics as Clement Greenberg in the 1950's. For Malevich and Kandinsky, however, the opaqueness of the medium was more a result of their poetic intentions than any true motivation to concentrate on the medium of paint itself. Poets, as Guillory noticed, are allowed to ignore the demand for communication as poetry is of "the nature of soliloquy", comprehension of which is deliberately complicated, making it analogous to code.

Pixel, on the contrary, is a transparent medium that doesn't obscure communication of the visual content, abiding to Lockean conception of the clarity of language. Possibly, the difference between the pixel and the avant-garde works lies in precisely this — the pragmatic and technological nature of the former and the expressive motivation of the latter. It can be argued that one of the reasons Guillory undertakes to sketch out genesis of the media concept, is the author's drive to synthesize the two different conceptions of media initially proposed by John Locke and John Wilkins. For Locke, words are the medium of thought, complicating communication and deeming language forever deficient. For Wilkins, writing is the medium of speech, whose technology, if improved, promises the possibility of universal language (Guillory 338). The Lockean abstract notion of mediation corresponds with the communicative opaqueness of *the Black Square* and *the Point*. Wilkins' concrete materiality of the medium, which reflects on the technology used to mediate, is characteristic of the pixel — a truly universal unit of digital visual vocabulary. Similarly to Guillory's aspirations to find synthesis between the abstract and

technological conceptions of media, the theory of mediation and the fact of media, this paper seeks to reconcile the often overlooked poetic possibilities of digital pixels with their technical nature; the expressive qualities of proto-pixels of Malevich and Kandinsky with their often unnoticed technicality.

The works of the historical avant-gardes open up discourses of mutability and hybridity and allow trespassing borders between such concepts as organic and non-organic, animate and inanimate, real and virtual, medium and mediation. Malevich, after embarking on the project of seeking fragments in the continuous flow of matter and encountering *the Black Square*, felt the urge to find continuity and duration, creating his *White on White* — the work in which negation of figure-ground relationship aspires to join infinity. It could be argued that the binaries and conceptual divisions discussed in this paper are symptomatic of the general segregation of knowledge, initiated with industrialization — the process driven by intellect and reason the avant-gardes so vehemently condemned. There is a growing sense of the need to reverse this process and re-think the isolating nature of traditional methods of inquiry, making relevant the work of such thinkers as Henry Bergson, who believed in the possibility of such a project. It is with the words of this influential philosopher that I would like to conclude this paper:

> For — we cannot too often repeat it — intelligence and instinct are turned in opposite directions, the former towards inert matter, the latter towards life. … But it is to the very inwardness of life that intuition leads us — by intuition I mean instinct that has become disinterested, self-conscious, capable of reflecting upon its object and of enlarging it indefinitely. That an effort of this kind is not impossible, is proved by the existence in man of an aesthetic faculty along with normal perception. (176)

Works Cited

Bennett, Tony. *Formalism and Marxism*. London: Methuen, 2003. Print.

Bergson, Henri, and Arthur Mitchell. *Creative Evolution*. New York: Modern Library, 1944. Print.

Douglas, Charlotte. "Evolution and the Biological Metaphor in Modern Russian Art." *Art Journal* 44.2 (1984): 153-61. Print.

Douglas, Charlotte. *Swans of Other Worlds: Kazimir Malevich and the Origins of Abstraction in Russia*. Ann Arbor, MI: UMI Research, 1980. Print.

Drake, Ryan. "Aristotelian Aisthesis and the Violence of Suprematism." *Epoché: A Journal for the History of Philosophy* 18.1 (2013): 49-66. Print.

Galloway, Alexander R. *The Interface Effect*. Cambridge, UK: Polity, 2012. Print.

Grohmann, Will. *Wassily Kandinsky*. Leipzig: Klinkhardt & Biermann, 1924. Print.

Guillory, John. "Genesis of the Media Concept." *Critical Inquiry* 36.2 (2010): 321-62. Print.

Kandinsky, Wassily, and Hilla Rebay. *Point and Line to Plane*. New York: Dover Publications, 1979. Print.

Kandinsky, Wassily, Kenneth Clement Lindsay, and Peter Vergo. *Kandinsky, Complete Writings on Art*. Boston, MA: G.K. Hall, 1982. Print.

Kandinsky, Wassily, N. B. Avtonomova, Dmitriĭ Vladimirovich. Sarab□ianov, and Valeriĭ Stefanovich. Turchin. *Izbrannye Trudy Po Teorii Iskusstva*. Moskva: Gileia, 2001. Print.

Kember, Sarah, and Joanna Zylinska. *Life after New Media: Mediation as a Vital Process*. Cambridge, MA: MIT, 2012. Print.

Malevich, Kazimir. *Sobranie sochinenii v piati tomakh* [*Collected Works in Five Volumes*]. Edited by Aleksandra Shatskikh. Moscow: Gileia, 1995-2004.

Medvedev, P. N., and M. M. Bakhtin. *The Formal Method in Literary Scholarship: A Critical Introduction to Sociological Poetics*. Baltimore: Johns Hopkins UP, 1978. Print.

Neumann, John Von. *The Computer and the Brain*. New Haven: Yale UP, 1958. Print.

Shklovksy, Viktor, Leo Jakubinsky, Osip Brik, Yevgeny Polivanov, and Boris Eikhenbaum. *Poetics: Collections on the Theory of Poetic Language*. Vol. 1. Petrograd: 18th State Printing House, 1919. Print.

Short, Christopher. *The Art Theory of Wassily Kandinsky, 1909-1928: The Quest for Synthesis*. New York: Peter Lang, 2010. Print.

Tupitsyn, Margarita. *Malevich and Film*. New Haven: Yale UP in Association with the Fundação Centro Cultural De Belém, 2002. Print.

Zielinski, Siegfried. *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means*. Cambridge, MA: MIT, 2006. Print.