

The Association of Art with Technology as the Basis of the Russian Constructivism Aesthetic and Ideological Targeting Application

Johannis Tsoumas¹

Abstract

This paper aims at documenting the non-negotiable relationship between art and technology, two important cultural issues whose union has deep roots in the history of mankind. Based on this principle, the author takes an interest in a case of visual/mechanical/functional innovation in art history, philosophy and work of Russian constructivists, a newly jumble of values, which also enhanced concepts opposing the advancement, such as those of utopia and propaganda, which eventually helped document the identity of art with life itself. The positions of the author show that this significant relationship was the basis which great movements of modern art in the beginning, the middle and the end of the 20th century relied upon, many of which were deeply affected by the phenomenal technological developments of the time.

Keywords: Constructivism, technology, art, utopia, propaganda.

¹ Lecturer at *Faculty of Fine Arts and Design*, Department of Interior Architecture, Decoration and Design.



Figure 1: Aleksandr Rodchenko: Poster for Sergei Eisenstein's film *Battleship Potemkin*, 1926.

1. INTRODUCTION

The coexistence and, in the view of some others, the fatal and mutual correlation of art with elements of techniques and knowledge from the wide range of disciplines - especially of technological scale - has its roots in the distant past of human intelligent creativity. From Pegasus of Greek mythology and the wax wings of Daedalus through to the flight machine of the meddlesome Leonardo Da Vinci, from the experiments of Gestalt's psychological optics and the invention of the camera, a tool in the hands of the Impressionist painters, through to the recent advances in digital processing of image, the famous relationship between technology and art remains until today a perpetually productive theme in the course of human ingenuity. Although the issue of the interactive relationship between these two heavy-weights in the course of history has always been impressive, we will pick only one, perhaps the most important in our view, case where the partnership of technology and art reached its peak: the experimental ideology of Russian constructivists in the early decades of the 20th century and its implementation.

2. TECHNOLOGY AND ART - PHILOSOPHY AND UTOPIA

With a trend to adopt new philosophical, political and social values which formed the basic coordinates and determinants of the new sociopolitical status quo in post-revolutionary Russia, the constructivist artists in the country formed a radical ideology considering the standards of that era. With the strong anti-conformist lines, they supported a rather unsightly position, which contrasted the then established standards of art (which largely entailed notions of aesthetic pleasure and harmony), that seemed to stem from the viewpoint

of Karl Marx that production mode can determine the social, political and intellectual development of a place². Based on this reasoning, which accentuated the importance of utilitarian simplicity and respect for the inherent logic of the materials, the mission of the artist seemed to take a completely different course: the artist had to learn to express the desires, wishes and aspirations of the revolutionary proletariat and, thus, be able to improve the physical and mental state of the newly-fashioned society in general. This new ideology seemed to strengthen the position of intellectual and artistic cells of the newly constructed sociopolitical backbone of Russia against many forms of creative expression such as modern architecture, media, photography and industrial production, giving a clear explanation for the multifaceted role of typography, photomontage and other forms of public, mass art.

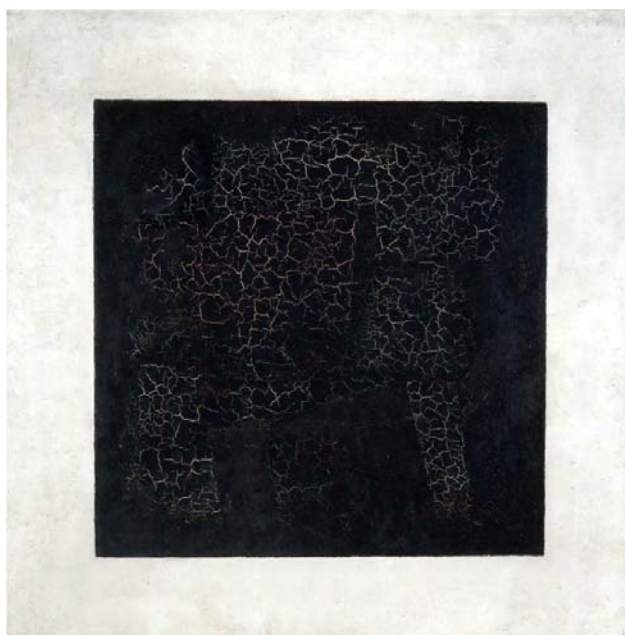


Figure 2. Kazimir Malevich, *Black Square*, 1915

Before proceeding to the substantive results of the application of the essence resulting from the ambiguous relationship between technology and art in everyday Russian reality, it would be advisable to understand the changes that art itself has gone through after its new interpretation. In 1915 one of the representatives of suprematism, Kazimir Malevich, presented his work *Black Square*³ in the exhibition «Last Futuristic Report 0.10», in St. Petersburg, symbolically indicating the zero point and simultaneously the beginning of a new era in the 20th century painting.

¹. Honour, Hugh & Fleming, John, *Ιστορία της Τέχνης IV (History of Art IV)*, (trans. Papas Andreas), Athens, Ypodomi Publications, 1993, p. 198.

². The *Black Square* of Kazimir Malevich is one of the most famous creations of Russian art in the last century. The first Black Square was painted in 1915 to become the turning point in the development of Russian avant-garde. Black Square against white background became the symbol, the basic element in the system of the art of suprematism, the step into the new art. The artist himself created several variants of the Black Square. All four Squares painted by Malevich from 1915 to the early 1930s developed the same idea.

Besides, the intelligent Russian artist, a representative of Constructivism Movement, Vladimir Tatlin presented an array of three-dimensional and two-dimensional 'reliefs' whose philosophical basis supported the experimental combination of some theoretically incompatible materials and methods, the correlations of form, but also the reflection, through art, of new techniques, mechanical and architectural achievements of the era, thus inaugurating a new era of innovative and non-harmonic values in the arts.

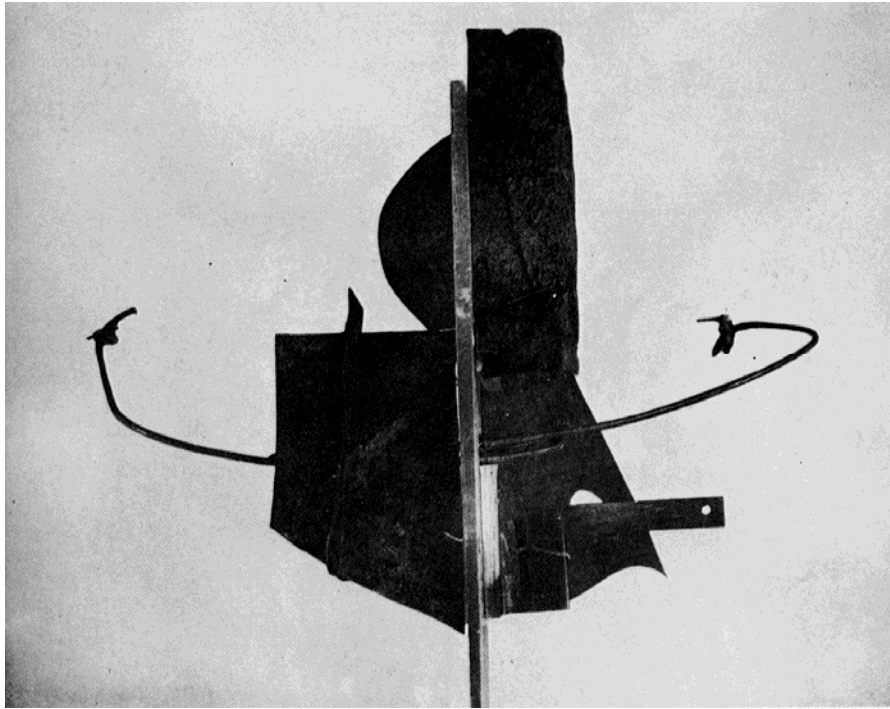


Figure 3. Vladimir Tatlin: Corner Relief, 1915

These two very contrasting and innovative art forms earmarked a period of conflict and dispute, which was characterized by an endless series of discussions, debates and creations, marking the boundaries of two different, ideological camps: the first embraced those who regarded the art to follow the footprints of philosophy, advocating its philosophical dimension and was represented by Malevich, while in the second camp, the supporters of Tatlin, paying deference to the physical dimension of art, advocated, in a powerful way, whatever was production-orientated⁴. In the course of the confrontation between these two major innovative positions, another set of creatures appeared, which, until 1921, further accentuated it: the painted squares of Malevich (*White Square on White Background, Red Square*), while the response of Tatlin also included the design and construction of the model of a tower dedicated to the Third International Exhibition, which was based on the synthesis of architectural, painting and sculptural elements (with heating systems, radio transmitters, projectors, rotating forms of glass and metal, lifts etc.).

³. Blistene, Bernard, *A History of 20th Century Art*, Paris, Flammarion-Beaux Arts, 2001, p.135.



Figure 4. Vladimir Tatlin: Tower Model for the Third International, 1919

This seminal work aspired not to be a simply ‘neutral’ symbol that would reflect the dynamics of industrial production and overall new class status in Russia, but rather a functional building which, in its original size, would be two times larger than the Empire State Building in New York. Its basic construction materials would be glass and iron and would emerge as the most important information center of the country from where new press releases, declarations and manifestos would be continuously broadcast in the form of not only telegraph and radio transmissions, but also from loudspeakers⁵. The plan was never materialized and remained in model form, it being, however, a symbolic work of constructivist ideology which, in its application, addressed three key areas: a) the world of utopia, which these artists wanted to build, b) the art of propaganda that started with the introduction of the new socio-political status, but mostly c) the prevalence of this new power as an absolute application and identification of art with the structural composition of the social, economic and cultural body of the country⁶.

So before we proceed to the search for fundamental innovations, based not only on examples in industrial production and art, but also on propaganda-orientated design of functional objects, the two key areas, i.e. the two key areas which the experimental constructivist ideology essentially relied upon, it would be useful to focus our interest on the former case involving perhaps its most peculiar aspect: the purely utopian one. The

4. Gray, Camilla. *The Russian Experiment in Art 1863-1922*, London, Thames and Hudson, 1986, p. 88-91.

5. Brian Dillon, Art Historian, wrote in *The Guardian* on the 25/07/2009 about this superficial object: “...*The tower was an iron stanza scrawled across the frozen cityscape. In other words, it was a complexly readable object in a way that advanced writers of the era hoped their works might become. It referred back to numerous precursors, and forward to several possible futures. It conjured architectural wonders both, ancient and modern, real and imagined. It resembled the Tower of Babel, the Colossus of Rhodes, the Pharos lighthouse at Alexandria, the emblematic landmarks of Pisa and Paris. It could even be viewed as a diagram of the thrusting gesture of the Statue of Liberty. At the same time, as the architectural critic Owen Hatherley has pointed out recently in his book *Militant Modernism*, the Russian avant-garde was transfixed by the mythology of the red planet - the tower is also a Martian invention, bestriding St Petersburg like a tripod from *The War of the Worlds*...*”.

protagonist here is once again Vladimir Tatlin, who even many years later, sticking to his romantic, but also proactive and strong views on innovations and embracing, like many of his peers, the prevailing perception of Nietzsche's 'Superman', has managed to capture the culmination of the relationship of art and technology in one of the most bold and utopian designs of art of the 20th century with the design of a flying machine that he called «LETATLIN» (a compound word derived from his name and the Russian verb *letat*, meaning 'fly').



Figure 5. Vladimir Tatlin: Presentation of LETATLIN.

The plan, and later the construction of the model of this new ambitious invention but which, like the tower of the Third International Exhibition, was never realized, today not only does it recount the inspiration of the new innovative artist-engineer, but it also witnesses the multifaceted field of his knowledge which, in this case, was ranging from the fields of aerospace, industrial design and visual arts, through to the fields of biology, medicine and micro-surgery⁷. The ideas and principles that dominated Tatlin's design work served as inspiration also for Piotr Miturovich, one more follower of the utilitarian value of new artifacts. More specifically, he maintained that both the art and the artist were decorated by an emotional emblem of the world, which should be creative and innovative though. This principle could reveal spanking new, radical aspects of the universe itself and therefore such an art would no doubt have the potential to have an impact on science and technology, bringing to light new forms and directions. The purpose of the artist was then clear: he was to explore and discover what was happening around him, what problems occurred and to work out solutions through science and technology. Observing nature and its phenomena, engineering, science and aeronautics, he discovered that the nature of the waves (of gas, liquid) could represent a unique form of movement that was a key to all areas of transport or transfer, both in the air and in the water. He used this principle (which he called *volnovoe dvizhenie*) in a flying machine, as well as a series of structures devised in the period spanning from 1922 to 1935, to which he has given the generic name *volnovik* (wave

⁶. Gough, Maria. *The Artist as Producer: Russian Constructivism in Revolution*, Berkeley, University of California, 2005, p.104.

mechanism). All of them were left in the form of design or in a maquette form, confirming, however, the utopian side of the Russian avant-garde experimentation⁸.

3. THE "ART" OF SOCIOPOLITICAL PROPAGANDA

In the 1920's painting in Russia received deep criticism and was mercilessly attacked by the representatives of Constructivism; among them was also Aleksandr Rodchenko, a former champion of the two-dimensional, albeit non-traditional art; it was no long before he became an ardent follower of the ambient opinion that artists were then on coordinates to create works based on the rules of engineering and architecture, with an emphasis on pure form and structure and the possibility for utilitarian application. Rather than the rules of using color or shading, the knowledge of these two sciences was considered more important to the artist. The Museum was considered a useless and obnoxious space - a position adopted by the manifesto of Futurism⁹ - while the practice of art should be done within the sociopolitical ideology of the communist system and support it effectively. These positions laid the foundations to devise three dimensional works which were the founders of the subsequent efforts towards the industrialization of objects¹⁰.

The use of color and materials to create these structures, many of which were a figment of imagination that envisioned their propagandistic function, was very specific. The combination of glass and metal, pure form, symmetry, the use of three, mostly, basic colors (white, red, and black) were just some of the elements of applying constructivist ideology in the production of special-purpose objects. Constructivism had then undertaken the reformation of the concept of art through technology: photography, cinema and photomontage were those types of art that had sought and succeeded to reproduce the image, replacing figurative painting, with the help of technology (machinery) and science (chemistry). It was no long before they became important tools in the hands of constructivist artists trying to change the social face of the country under the communist system. A typical example is Gustav Klutssis's design of propaganda structures using all the then available modern media (radio, loudspeaker, theatrical, etc.)¹¹.

⁷. Lodder, Christina, *Russian Constructivism*, New Heaven, Yale University Press, 1993, p. 67-69.

⁸. Futurism was an artistic and social movement that originated in Italy in the early 20th century. It emphasized and glorified themes associated with contemporary concepts of the future, including speed, technology, youth and violence, and objects such as the car, the airplane and the industrial city. It was largely an Italian phenomenon, though there were parallel movements in Russia, England and elsewhere. The Futurists practiced in every medium of art, including painting, sculpture, ceramics, graphic design, industrial design, interior design, theatre, film, fashion, textiles, literature, music, architecture and even gastronomy and influenced many important art movements of the early and mid 20th century.

⁹. Margolin, Victor. *The struggle for Utopia: Rodchenko, Lissitzky, Moholy-Nagy, 1917-1946*, Chicago, The University of Chicago Press, 1997, p. 15.

¹⁰. Magovedov, Khan & Omarocich, Selim. *Alexandr Vesnin and Russian Constructivism*, Rizzoli, 1986, p. 55-57.

¹¹. Fer, Briony. "Metaphor and Modernity: Russian Constructivism", *Oxford Art Journal*, vol. 12, no, 1989, p. 8.

¹². Eskilsson, Stephen. *Graphic Design: A New History*, New Heaven, Yale University Press, 2007, p. 205.

¹³. Dziga Vertov (pseudonym) was a Soviet pioneer documentary film, newsreel director and cinema theorist. His real name was David Abelevich Kaufman. His filming practices and theories influenced the *cinéma vérité* style of

All constructivists who sought a similar position in the social body under their inspirations found fertile ground in the fields of printing and poster design. These areas had already enabled the artist to make use of the most modern skills and methods of the time, without shaping though the outcome of his inspiration based on the principles of industrialization, which is synonymous with standardization. Artists such as Rodchenko, Gan, Lissitzki and Klutsis were pioneers in the ply of modern typographic design issues mainly focused on the areas of film, books and political / social propaganda. The work of Gan and Rodchenko saw the use of 'robust' printing with clean shapes, fonts and colors. Lissitzki's corresponding projects combined not only constructionist, but also visual principles, trying to conquer the field that we all know as "modern design". The use of photomontage in clerical work, coupled with the asymmetry of suprematism, produced pioneering works in the fields of poster and bookⁱ. However, both the Lissitzki and Rodchenko incorporated the photograph into their printing works. The first printed photomontage by Rodchenko dates back in 1923 and included the illustration of Vladimir Mayakovsky's poems anthology *About This*, while ever since he began with him an extensive cooperation for the illustration and layout of most of his works.ⁱⁱ

In many posters of political / social propaganda, and in many similar ones of cinema and theater, there was a very good use of the photograph which resembled the 'Camera Eye' and 'Film-Truth', the famous documentary by Dziga Vertovⁱⁱⁱ, as well as works by Sergei Eisenstein.

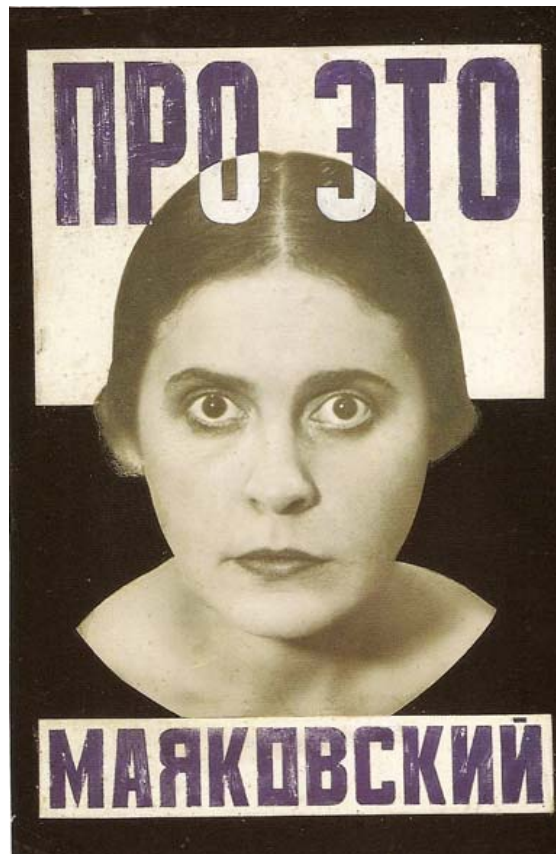
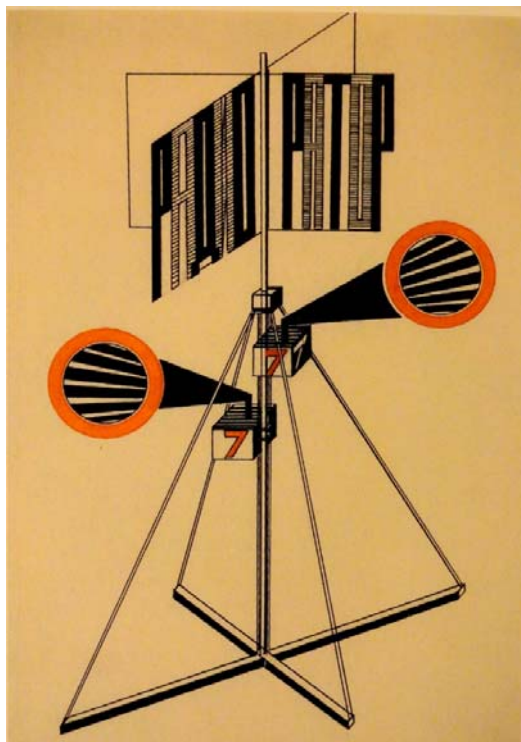


Figure 6. Aleksandr Rodchenko's photomontage for Mayakovsky's work *About This*, 1923

documentary moviemaking and the Dziga Vertov Group, a radical filmmaking cooperative which was active in the 1960s.

However, the leading designer of political posters in post-revolutionary Russia was Gustav Klutis, the main representative and exponent of photomontage¹². In his view, the revolution of the proletariat had, through significant structural changes in society that Russia had gone through, and which had impacted on planning cities, houses, parks, etc., another goal: the discovery and use of another type of 'artistic expression' which would help to support and prevalence of the ideological positions of the communist system. Besides the definition that he gave for the photomontage was simple and clear: «... *All of us ought not to see the photomontage as a simple, expressive composition of photos, but it should rather always include a political slogan, color and graphic elements...*»^{iv}. A typical feature of his compositions was the diagonal arrangement of the figures, charts and printing, while since the beginning of the 1930's, his work began to take shape gradually under the symmetric principles. In the field of designing objects for mass production, we find that constructivists undertake substantial reforms in education and research which included several objectives in that field. However, only a few works in relation to the volume of their designing concepts, were completed in the form of ready-made, mass production and consumption items.



Figures 7, 8. Gustav Klutis political propaganda works: Sketch for Radio Orator No 7, 1922 (left) and political poster based on the photomontage technique, 1930 (right).

The main reason for this outcome was the lack of raw materials, which prevailed as a reflection of poverty that plagued the Soviet production in the 1920's. The factor of low quantity but also of quality several times, of raw materials and technological equipment, especially at the beginning of this decade, when that industrial production had gone down to the one third of the pre-war production levels seemed to affect the

¹⁴. O' Mahony, Mike. *Sport in the USSR: Physical Culture – Visual Culture*, London, Reaktion Books Ltd., 2006, p. 24

¹⁵. Lodder, Christina. *Russian Constructivism*, ibid, p. 101.

designers themselves who had no other option but judge on their own which of their works had the potential to be realized at mass production. However, the fields of furniture, ceramics, and textile design, but mostly clothes for the masses - the main representative being Tatlin, but also the artists and designers Varvara Stepanova and Lyubova Popova - were those who showed the most significant examples of the constructivist industrial design¹³.

4. CONCLUSION

Until the early 1930's in Russia and throughout Western Europe, which was still throbbing from vibrations of the other movements and art forms, other philosophical positions and quests, both the artists and the intellectuals declared to be overwhelmed by the Soviet experiment which seemed to have progressed decisively. Particularly the French, Germans and British artists hoped to see the creation of their "new vision to" in Russia, as they believed that communism, as a new political / social system, was the answer to the isolation of the artist in society, which had ended up as the sad result of a wolverine capitalist economic behavior. They believed that in Russia the new order of things, a great artistic / technological / social experiment that was underway would substantially revise the social status of the artist, while the artist himself would be the key healthy cell to renewal of the social fabric¹⁴. Under these conditions, the profession was art and the artist was no longer the stranger, destitute, 'damned talented' 'servant of social data, nor was he the 'philosophical' commoner who wrote history through his canvas. The new experimental art of constructivists pioneered the interactive relationship between art and technology and established routes of the era of postmodernism, Pop Art, cyber and digital aesthetics, issues which will be difficult to be seen and analyzed independently of the cultural, social, political and often activist- parameters framing it.

REFERENCES

- BLISTENE, Bernard, *A History of 20th Century Art*, Paris, Flammarion-Beaux Arts, 2001.
- DOUGLAS, C., "The new Russian Art and Italian Futurism", *Art Journal*, vol. 34, no 3, 1975.
- ESKILSON, Stephen, *Graphic Design: A New History*, New Heaven, Yale University Press, 2007.
- FER, Briony, "Metaphor and Modernity: Russian Constructivism", *Oxford Art Journal*, vol. 12, 1989.
- GOUGH, Maria, *The Artist as Producer: Russian Constructivism in Revolution*, Berkeley, University of California, 2005.
- GRAY, Camilla, *The Russian Experiment in Art 1863-1922*, London, Thames and Hudson, 1986.
- HONOUR, Hugh & FLEMING, John, *History of Art IV*, (translation Papas Andreas), Athens, Ypodomi Publications, 1993.

¹⁶. Douglas, C., "The new Russian Art and Italian Futurism", *Art Journal*, vol. 34, no 3, 1975, p.12.

¹⁷. GRAY, Camilla: *The Russian Experiment in Art 1863-1922*, *ibid*, p.171.

LODDER, Christina, *Russian Constructivism*, Yale University Press, New Heaven, 1993.

MAGOVEDOV, Khan & OMAROVICH, Selim, *Alexandr Vesnin and Russian Constructivism*, Rizzoli, 1986.

MARGOLIN, Victor, *The struggle for Utopia: Rodchenko, Lissitzky, Moholy-Nagy, 1917-1946*, Chicago, The University of Chicago Press, 1997.

O' MAHONY, Mike, *Sport in the USSR: Physical Culture – Visual Culture*, London, Reaktion Books Ltd., 2006.
