



Title	The Twisted Bond--Technological Progress and the Evolution of Russian Literary Avant-Garde
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Citation	Acta Slavica Iaponica, 11, 88-105
Issue Date	1993
Doc URL	https://hdl.handle.net/2115/8056
Type	departmental bulletin paper
File Information	KJ00000034013.pdf



The Twisted Bond: Technological Progress and the Evolution of Russian Literary Avant-Garde

Edward Mozejko

Russian literary history abounds with examples demonstrating a very strong interest, on the part of writers and readers alike, in literature as knowledge. Many writers and critics in this part of Europe looked upon literature as a special kind of knowledge about society, its history, institutions and human nature. M. Gorky, one of the most influential writers of this century, defined literature as "*chelovekoznanie*," a peculiar neologism which, if translated into English, would amount to something as strange as "humanology." It can be said without exaggeration that one can hardly find another country in which the question of the cognitive function of art and literature has been more thoroughly discussed than in Russia.

However, when it comes to examining the relationship between scientific, industrial or technological progress on the one hand, and literature on the other, quite a different picture emerges. Very little research has been done in this area and what is more surprising is the fact that even the avant-garde tradition, so suitable (or so at least it seems to be) for this kind of study, has not been discussed from such a particular point of view. This oversight can be partly accounted for by quite one-sided investigative habits; both the triumph and defeat of the Russian avant-garde are most often and almost exclusively explained by one sociopolitical factor: the Revolution of 1917. The truth of the matter is, however, that at least some aspects of and currents within this movement can be treated as a complex homologue to or direct result of technological change which occurred in the beginning of this century. One can find, of course, scattered comments on the subject in various studies devoted to Russian artistic avant-garde, but so far, to my knowledge, there exists only one study (and a very informative one) which examines a single aspect of the problem under our consideration, that is, the impact which technological progress in the printing industry exercised upon experiments of Russian avant-garde writers. I have in mind G. Janecek's book *The Look of Russian Literature* (1984). Considering the present limited state of research, this paper sets forth a rather modest goal: I intend to give a short historical background of the problem and invoke the basic available material in such a way that it may prove useful as an indication of future possibilities for approaching it.

It becomes almost customary to trace any aspect relating to the rise and evolution of Russian literature (be it aesthetic, social, political, historical and so on) to A. S. Pushkin. Indeed, the author of *Eugene Onegin* also had something to say about the relationship between literature and science. In accordance with the exigencies of romantic aesthetics, he made a comment to the effect that inspiration (*vdokhnovenie*) for a poet and a scientist is equally

important: "Inspiration," he wrote "is a soul's disposition towards livelier acceptance of impressions and understanding of concepts; and consequently, a better explanation of both. Inspiration is needed as much in geometry as it is in poetry."¹

Pushkin's contemporary and the founder of modern Russian criticism, V. Belinskii, went even further and stated the following: "Poetry and science are one and the same (identical), if under science one should understand not schemes of knowledge only but the awareness of thought concealed in it. Poetry and science are identical because they are achieved not by any one quality of our soul, but by the fullness of our spiritual existence which is expressed by the word 'reason'."² At the end of the nineteenth century, A. A. Potebnya, the immediate predecessor of Russian Formalism, concluded that "poetry is one of the two forms of cognition by means of language."³

These quotations, taken at random, give some indication as to how writers and critics of nineteenth century Russia perceived the relationship between science and literature: they drew a parallel and tried to find similarities between them but left out the question of their possible mutual dependence or interaction. Both these spheres of human endeavour are considered to be equally important, albeit pertaining to different objects of attention and using distinct forms of discourse. Gradually, out of this view originated the formulation, rooted in the critical writings of Belinskii, that literature implies "thinking in images" and science communicates its results by means of concepts.

However, there exists within Russian literary tradition yet another alternative which, in fact, outstrips in time the one just described. It sets the relationship between science or production and literature in a different perspective, that is to say, into more direct contact. It grew out of the aesthetics and philosophy of the eighteenth century Enlightenment. Writers of this period such as M. V. Lomonosov were well acquainted with the ancient type of so-called "scientific," didactic literature represented by Lucretius' *De rerum natura*, Virgil's *Georgics*. Cato's *De re rustica* or Varro's *On Agriculture*. In 1739, M. V. Lomonosov wrote his theoretical outline of Russian versification in the form of a letter, while his contemporaries made numerous attempts to convey, in what was considered to be imaginative literature, various achievements of science or practical crafts (trades). "Letter," "long poem" and "ode" were accepted as mediation of scientific discoveries. It was probably this cultural inheritance that spurred N. Dobrolyubov to define literature as a didactic body of texts whose prime goals consisted of popularizing the conquests of science, "a communication of knowledge rather than a search for it."⁴

It is not my task here to pursue this problem in its historical sequence. Nonetheless, it should be pointed out that in Russia, neither the eighteenth nor nineteenth centuries produced any consistent and coherent artistic perception or critical concepts which would tackle the relationship between science, industry or technological progress and literature. It was not until the

twentieth century that the question emerged in its fully complex and acute intensity. In the first decade of this century, it manifested itself primarily through the urban themes of the second wave of Russian symbolists, (A. Blok, Andr. Bely, V. Bryusov), who occasionally also brought to readers' attention the most up-to-date technological inventions such as aviation or cinematography. The city as the centre of modern civilizations received an extremely negative image in the poetry of all symbolists. Epithets and nouns used, for example, by A. Blok, one of the most prominent poets of Russian symbolism, are, as a rule, associated with blood, gloom and loneliness (compare: "*Gorod v krasnye predely. . .*" "*Vechnost' brosil v gorod. . .*" and others); with V. Bryusov, the city generates madness and poverty and is the seat of debauchery ("*Gorodu*").

While the rise of modern life based on technological, industrial progress and concentrated in the city puts the individual in danger, it elevates the symbolist poet to the status of its defender – someone who understands the mysteries of the world much better than does modern science. There exists a clear division, not to say antinomy, between the two. The symbolist poet plays the role of a shaman, a magician, discoverer of invisible, abstract and spiritual forces which, in the final analysis, determine destinies of men. She or he is able to penetrate the unknown spheres of the universe and human existence not by the power of science or technology but by intuition and mysterious ties with the absolute. This brings out in some poets a strong desire to explore and make use of alchemy, occultism and magic.

A good example of such literature is *Ognennyi Angel*, (The Fiery Angel), by V. Bryusov, a novel set in sixteenth century Germany and describing the vicissitudes of a female protagonist, Renate, whose interest in alchemy and wizardry brought against her the accusation of being seized by the devil. Bryusov's comment that, indeed, "the epoch of Renaissance began to develop a strong interest in magical teaching which lasted throughout XVI and XVII C.," sounds more like a suggestion to look for a parallel with the twentieth century rather than a justification for reviving an old historical theme. There exists a clear rift or opposition between what is considered to belong to culture, on the one hand, and to science or civilization, on the other. Acknowledged cognitive human qualities must be supernatural.

In this respect, some currents within Russian literary avant-garde represented a total turnaround and marked quite a sudden, dramatic departure from the symbolist canon of aesthetic beliefs. In a most obvious way, this break is associated with Russian futurism. While such a view is not devoid of validity and has almost become a cliché, it ought to be conditional to a few restricting and correctional comments. First of all, one should remember that Russian futurism is intrinsically heterogenous to the extent that one can speak of two futurisms: pre and post-revolutionary. In the early declarations and manifestoes of Russian futurists, one can hardly find any trace of overt and direct interest in technology or science. Unlike their Italian counterparts, they almost ignored the issue. The only reference made to the

modern technological outlook is to be found in the first manifesto "A Slap in the Face of Public Taste." D. Burlyuk, A. Kruchonykh, V. Mayakovskii and V. Khlebnikov, rejecting the old nineteenth century aesthetics of A. Pushkin, F. Dostoyevskii, L. Tolstoy and M. Gorky, declared that "we look at their nothingness from the heights of skyscrapers. . . ." ⁵ Never mind that skyscrapers did not exist in Russia at that time. The purpose of such a fictitious statement was simple: to depreciate the past and to elevate the importance of new experiments of the present. The main point of concern for the early Russian futurists, that is, cubo-futurists, was language as the material of which literature is made, and the quest for poetic innovation.

The push for recognizing technology as an important subject of literary thematics and at the same time a factor shaping modern literature came, in fact, from the theoreticians of so-called proletarian art and literature, particularly A. Bogdanov. In 1908 he published his first science-fiction novel *Red Star*, followed by *Engineer Menni* in 1913. Proletarian poetry gained in strength and raised its aesthetic quality during the period of World War I, up to the eve of the Revolution of 1917. There exists sufficient evidence to prove the point that futurism, known at its later stage of development as LEF, adopted some of the artistic tenets of proletarian art. ⁶

Let us return, however, to the early period of futurism, named cubo-futurism by its founders. I have mentioned that from its inception, futurism in Russia remained, on the whole, insensitive to technological innovations so visible already in the early twentieth century. When Z. Folejewski touched in passing upon the relationship between futurism and urban technological development in Italy and Russia, he had the following to say:

"Italian artists went as far as announcing that the machine should be adored as superior to man. But for the majority of the Russians these things remained rather alien and. . . terrifying. In this respect the attitude of many 20th century Russian artists was no different than that of Tolstoy, Dostoyevsky and other 19th century men. The country poet Esenin lamented the horse chased by the railway engine; the futurist Khlebnikov presented an apocalyptic vision of a monstrous mechanical bird in his famous poem '*Zhuravl*' (The Crane). Mayakovsky was one of the very few Russian poets for whom not only was the city street more familiar ground than a meadow, but also – in his own words – he 'saw electricity in an electric iron' while Pasternak saw it 'in the lightening in the sky'." ⁷

But it is not Mayakovskii who ought to be credited for the introduction of the technological theme to the poetry of futurism. This was accomplished by one of his colleagues, Vasilii Kamenskii, a member of the original group of futurists and participant in their first publication *Sadok sudei* (A Trap for

Judges, April, 1910). Kamenskii was an ardent advocate of aviation. In 1911, he went to Paris to receive a pilot's license. He visited a number of West European countries in order to learn more about flying. Before returning to Russia, he bought a plane in which he later performed demonstration flights in Russia and Poland. In the early spring of 1912, the poet miraculously escaped death in an accident: his plane crashed into a swamp and he was injured. But even this unfortunate incident did not prevent him from popularizing the benefits of technology and aviation in particular. He travelled extensively throughout Russia as a speaker, addressing the question of the relationship between literature and technology. In one of his lectures entitled "Airplanes and the Poetry of futurism" (1914), he spoke about the direct "influence of technical inventions upon modern poetry." According to Kamenskii, automobiles and airplanes "shorten the globe" and thus motivate new artistic sensitivity.

Kamenskii's fascination with technology did not end with just theoretical or critical considerations. It found its strong support, justification and reflection in his poetry. In 1913 and 1914 he wrote a number of poems devoted to aviation "Vyzov aviatora" (The Challenge of Pilot), "Na aeroplanakh" (On the Planes) and a collection of poetry under the title *Tango s korovami* (Tango with Cows) in which a cycle of poems subtitled "Zhelezobetonnye poemy" (Ferroconcrete Poems) was included. Kamenskii added more poems to the cycle after their appearance in 1914; today, at least some of them can be considered to be the only true manifestations of Russian futurism's interest in technology and a link with its later stage of development. By and large, they can be defined as syncretic poetry which combines a strong visual element with the word and technological inventions. They are supposed to be rather "seen" than "read" and no wonder that Kamenskii exhibited some of these poems with M. Larionov's group of painters,⁸ called "No. 4" (in 1914). In writing them, Kamenskii tried to develop "a new principle of page organization"⁹ and in a few instances this intention was strongly enhanced by content. Such is the case with the poem "Polet" (Flight). Visually, it is composed in the form of an isosceles triangle which is to be read from the base, where the title is placed, to the top. As the lines move higher and become shorter, the type size of the letters gradually diminishes until the apex is reached, where only one letter remains, creating the image of a plane which flies away and eventually disappears in the sky (see Figure 1).

These kinds of experiments made it easier for V. Kamenskii to later join the post-revolutionary group of futurists which gave the beginning to what became known as LEF. LEF was a complex artistic phenomenon, uniting within its boundaries various leftist aesthetic tendencies. The nucleus of the new movement was initiated by former futurists who declared themselves to be on the side of the bolshevik Revolution. They started in 1919 a short-lived journal called *Iskusstvo Kommuny* (The Art of Commune), but the idea of revolutionary art caught the imagination of many writers, painters, artists and architects. They called themselves "*kom-futy*" and, with their appearance

Figure 1. V. Kamenskii's Poem "polet"

*творческий опыт
железобетонной
постройки поэм*

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 е а у
 ч ь ещ
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 П О Л О с ы п о л а й Б Е Г У Т в ы ш е
 в а р у г л е г в о з е м л я у к а т в а а
 в е т е р в э д р о г н у л и к р ы л ь я з н
 в о л т а к т в е с т ь з а в е л е р о в e л л e p ь
 А Э Р О Д Р О М Ю Л П А М Е Х А Н И К С У Е Т И Т С Я

ПОЛЕТ **В** **А**^к **А**^н **Е**^н **С**^н **А**^н **Г**^о **н** **А**^н **Э**^р **О**^п **Л**^а **н** **Е** **В** **А**^р **Ш**^а **в** **Е**

(ЧИТАТЬ СНИЗУ ВВЕРХ)

on the cultural scene, changed the nature of Russian futurism. They not only pronounced their loyalty to the revolution but proclaimed themselves to represent the art of the revolution. This put them, of course, in the position of rivalry with the partisans of proletarian art. To neutralize them, “*kom-futy*” had to adopt within their own program some tenets of proletarian art, one of them being a strong preoccupation with technology, science, industrial progress and modern architecture. Utilitarianism and practiciness, industrial workers psychology and the cult of rationalism, labor’s expediency and uncritical admiration for the machine stemmed from *Prolecut*: they became part and parcel of LEF’s program.

Yet there was an additional reason for showing special interest in the technological and industrial theme. Committed to the revolution, LEF’s artists were painfully aware of Russia’s technical backwardness. Revolution meant to accelerate the process of catching up with the West. Hence the emphasis on technology and hard labor. In poems written during this time, Mayakovskii often compares poet to worker or engineer and proudly declares:

I am a factory too
And if I am without chimneys
it is, perhaps,
more difficult
for me.

Or:

Who is higher – the poet
or the technician
who
leads people towards material well-being?
Both.
Hearts – the same engines.
Soul – the same canny force.
We are equal.

The purpose of writing such poems was, of course, twofold: it created the image of the poet as a useful individual; at the same time, however, knowing the high social status of writers in Russia, it elevated the worker and technician to the level of leaders.

Mayakovskii’s fascination with and enthusiasm for the modern city peaks in the cycle of so-called “American poems,” such as “Broadway” and “Brooklyn’s Bridge.” While critical of the American social order, Mayakovskii clearly admires the inventiveness of technological thought. In his notes to a speech about LEF in 1924, Mayakovskii rejected A. S. Pushkin’s old claim that inspiration is a common characteristic of both art and science. According to him, in the new age, art breaks with the idea of inspiration and

becomes science.¹⁰ He reaffirms this statement in the article "Theatre, Cinematography and Futurism," calling art "a cognitive ability" of man.¹¹

N. Aseev, a former futurist, a member of LEF and close associate of Mayakovskii, explained the acceptance of technology and creative fascination with it in the following way:

Urbanism was a notion close to industrial dreams, future cities, when the steel nightingale is opposed to rural, hut-like Russia. . . After the destruction (caused by World War I – E. M.) Russia needed machines, factories, mines.¹²

Aseev seems to suggest that the activity of LEF fundamentally changed the attitude of artists in Russia towards technology. Aseev himself, for instance, contributed to this change. In the early twenties he published two collections of poetry *Stal'noi solovei* (Steel Nightingale) and *Sovet vetrov* (Council of Winds). Here the pastoral images of old Russia are replaced by such attributes of reality as "scorching metal," the "sounds of propellers" and the "rumble of machines." In short, the world is seen through the prism of, so to speak, "industrialized" metaphors. Artists' and writers' trusting turn towards technology was notable most directly on the thematic level of their creativity but there existed also more subtle and veiled means of expressing this trend. What I have in mind is the concept which propounded the idea of art as object.

In 1922, I. Ehrenburg published in Berlin the first issue of the journal *Veshch* (Object). As it turned out, it was an ephemera but an important one because it proclaimed "the triumph of constructive method in art," an art which is not to be an embellishment of life but an organization of life. "Art means the creation of new objects."¹³ Consequently, articles of everyday utility are on par with works of art. Objects produced in factories, airplanes and automobiles are to be seen as art. "Each organized work – a house, poem or painting – is an expedient object," wrote the editors of *Veshch*, "which does not lead people away from life but helps to organize it."¹⁴ *Veshch* promised to follow and study industry's new inventions, everyday vernacular language, sport's gesture as a material of immediate usefulness to artists.

The same year, that is 1922, I. Ehrenburg also published his book *A vsetaki ona vertitsya* (And Yet the World Goes Round) in which he made one step further in the direction of endorsing the idea of equating art with industrial production.¹⁵

A much more radical stand was taken at the same time by Aleksey Gan in his programmatic book *Konstruktivizm* (1922; Constructivism).¹⁶ He proposed the total abolition of art as a remnant of outlived social orders. In all its forms, art was an expression of these old systems and therefore "inextricably linked to theology, metaphysics and mysticism."¹⁷ "Death to art" – wrote Gan, and instead proposed to accept constructivism, "a shapely child of industrial culture."¹⁸ According to Gan, modern culture (he consistently avoided the word "art") must be built on two basic premisses:

rationalism and material industrial production. Artists' abilities are to be "dissolved" as it were, in two major activities: collectivism and invention of new forms of practical objects produced for daily life.

Similar views were expressed by B. Arvatov, one of the very active participants of LEF.¹⁹ The timing of the changes was probably the only point of his disagreement with Gan. Arvatov did not see the possibility of an immediate introduction of new culture and envisaged a period of transition. Eventually, however, he did not doubt that the only sphere in which human creativity would find its outlet would be industrial art.

I. Ehrenburg, A. Gan and B. Arvatov exercised a serious impact on the creative practice of LEF, including imaginative literature. LEF's writers began to advocate the so-called "literature of facts" (*literatura fakta*) or sheer ideological propaganda literature. The role of writers was reduced to finding appropriate material which would demonstrate some important and true aspects of new Soviet life, "true" because they were supposed to be based on real events. Mayakovskii advocated, at that time, writing so-called "*agitki*" – short, sometimes two, three or four line poems addressing topical issues of the day and helping the party to influence the masses, to convince them about the rightness of its policy. Obviously within such a configuration of literary practice, little room was left for writers' ingenuity or inventiveness. Indeed, fiction, as a traditional attribute, as the very core of imaginative literature, found itself under heavy attack from LEF's artists. Their attitude implied not only a condemnation of formal experiments of the recent prerevolutionary past, but also a total rejection of the traditional nineteenth century realism. They maintained that although artistic realism advocated imitation of outer forms of reality, it was still based on the principle of narrating about fictitious events and characters. LEF's writers were obliged to lend form to real happenings. Hence the slogan that art is *zhiznestroyenie*, i.e. "life building," a production of artifacts out of life. In short, LEF's program meant a reification of literature.

It was at this point that a new group, which called itself the Literary Centre of Constructivists, entered the artistically, philosophically and politically polarized Soviet cultural scene and announced its opposition to LEF. According to literary constructivists (I. Selvinskii, K. Zelinskii, B. Agapov, E. Gabrilovich), the new age of technology does not mean an annihilation of art but a new approach to it. Technology dictates the necessity of creating new art. In expressing this view, I. Selvinskii, the most prominent poet of the group, and K. Zelinskii, its main theoretician, found themselves in opposition to the concepts represented by I. Ehrenburg, B. Arvatov and particularly A. Gan. Out of more or less the same premisses (they agreed on the point that technology and science will play a decisive role in the future development of society) literary constructivists drew diametrically opposite conclusions. In all their major programmatic statements: *Mena vsekh* (1924; Change of Everything), *Gosplan literatury* (1925: The State Plan for Literature) and *Biznes* (1929; Business) they tried and actually did work out a

new literary theory which they also put into practice. Yet in spite of similarities in acknowledging the importance of industry and technology, the main difference dividing I. Selvinskii and his collaborators from LEF's theoreticians and artists was exactly this: the relation to technology and treatment of technological progress within both camps. In LEF, the issue was never taken more than spontaneously, even casually, and whenever it was discussed it was always done in connection with either the concept of industrial, applied art or artistic negativism. For LEF, the major point of preoccupation remained ideology, propaganda art which would have an immediate effect on readers. In short, political expediency was viewed as the determining factor in any consideration about the function of literature and art in society.

By contrast, literary constructivists stressed the role of technology to preceeding and existing forms of literature. Their theoretical stand did not anticipate in the foreseeable future a "disappearance" or annihilation of art or literature as mankind has known it in the past centuries. The main question for them was how literature is to adapt itself to a new technological age? It can be said without much hesitation that no other group in Soviet literature of the twenties developed a more systematic and coherent approach to the question of the relationship between technology, industrial progress or science on the one hand and literature on the other, than literary constructivists did.

In the first manifesto entitled "*Znayem*" (1923: We Know) they defined a work of art (including, of course, literature) as a construction in which each part (or rather component) contributes to the aesthetic effect and creates a harmonious entity. Consequently, they felt justified to draw a parallel with the machine and wrote the following:

"In the machine, a screw helps another screw; built on objective, natural laws discovered by science, machines remind us of the necessity and normalcy and even the comfort of friendly compatability. Constructivism is a school based on firm, scientific and technical ground."²⁰

The authors of the above-mentioned manifesto maintained that due to scientific discoveries, the surrounding material world was subject to continuous "de-materialization," that is, increased efficiency. Translated into literary practice it meant the necessity of finding a corresponding poetic language which would maximize the information content through the medium of most economic, condensed aesthetic means and forms of expression (see Figures 2, 3, 4 and 5).

Figure 2.

УСЛОВНЫЕ ЗНАКИ „РАМАНА...“

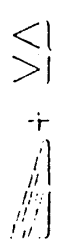

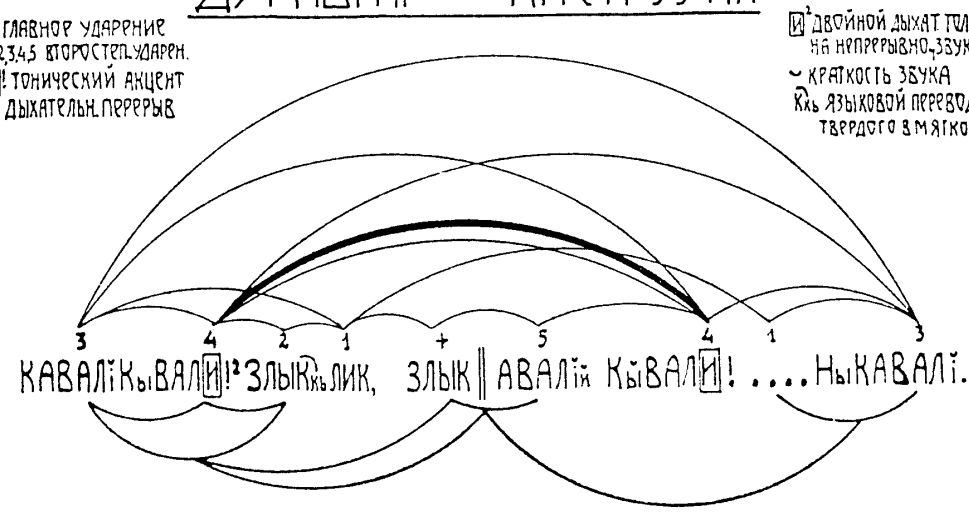
- Цифры над нотами обозначают звуки натуральной скалы.
- Temp.* — Значит звук двенадцатиступенной Баховской темперации.
- Точка с правой стороны буквы — отсутствие звука за той буквой, за которой стоит.
- Отсутствие между двумя «согласными» точки, предполагает слитным в этом месте при Московском произношении звук или комплексный приавук.
- Занятая в верхнем правом углу «согласной» — мягкость ее.
-  — Музыкальные знаки.
- + — Главное дыхательное ударение.
-  — Последующие ударения.
- Ноты ускользающий в произношении комплекс [ш] с нотным знаком над ним имеет следующее значение, созданя произносительную иллюзорность.
- ja — Слышится как русское я.
- o — над буквой — краткость звука.

Figure 3.

ДУГАВА́я КНСТРУЭ́МА

+ ГЛАВНОЕ УДАРЕНИЕ
12345 ВТОРОСТЕП. УДАРЕН.
☑ ТОНИЧЕСКИЙ АКЦЕНТ
|| ДЫХАТЕЛЬН. ПЕРЕРЫВ

☑ ДВОЙНОЙ ДЫХАТ. ПОЛЧЕК НА НЕРПРЕРЫВНО. ЗВУК
~ КРАТКОСТЬ ЗВУКА
Kx ЯЗЫКОВОЙ ПЕРЕРЫВ ТВЕРДОГО & МЯГКОЕ. K



КАВАЛІКЫВАЛІ! ЗЛЫКЪЛИК, ЗЛЫК || АВАЛІя КЫВАЛІ! ... НЫКАВАЛІ.

ДУГИ ДИАЛЕКТИКИ РИТМА ДЫХАТЕЛЬНОЙ, СМЫСЛОВОЙ И ТОНИЧЕСКОЙ ТЕМ:

1. СВЕРХУ ТОНКИЕ — ДЫХАТЕЛЬНЫЕ.
2. " " ТОЛСТАЯ — ТОНИЧЕСКАЯ.
3. СНИЗУ. — СМЫСЛОВЫЕ.

РАМА́Н

(В·Д·ВУГ·ЖВАТА́Х С·Р'ЗУЛ'·ТАТМ·)

Figure 4.

Figure 4 shows a musical score with two staves. The top staff has lyrics: "С· РС· КА Р'А КЪ, И-ЖА Д· ДАИ!". Above the lyrics are several small diagrams with letters А, В, Р, В, А, А, А. A large circle is drawn around the top staff. Below it, a second staff is shown with a diagram labeled "АГУ" and "II". At the bottom, a third staff is shown with a diagram labeled "II" and "ЖАМ Р'АТМ Р'АТМ". The word "ЖАМ" is circled. The word "КАНЪЦ" is written at the bottom right of the diagram.

Figure 5.

К· ВАД· РАТНЙ· СКАС·

ГЛАВА́ I

ГЛАВА́ II

Figure 5 shows two geometric diagrams. The left diagram is a complex shape with a curved bottom edge and a vertical line on the right. The right diagram is a square with a vertical line on the left and a curved top edge. The word "КАНЪЦ" is written at the bottom right of the square diagram.

Although they did not neglect the importance of ideology, they stubbornly insisted throughout their entire activity, stretched over the years 1924-1930, that the dominant factor of Soviet social and cultural life ought to be the advancement of technology, industry and science. They predicted that the Soviet Union would be able to compete with the West only if it overcame its awesome backwardness. In fact, in the final stages of their activity they called themselves Westerners, referring to the tradition of the old nineteenth century conflict between the so-called "*zapadniki*" (Westerners) and Slavophiles.²¹ Their obstinacy evoked at times anger, at times irritation of their colleagues (e.g. V. Mayakovskii) from other groups and condemnation on the part of political authorities. In 1930 they were ordered to quit their activity and were branded "vestiges of outlived bourgeois mentality."

So far we have discussed the question of the relationship between technology (industry) and literature formulated within the framework of various artistic currents, tendencies or literary groupings which became active shortly before and after the revolution. It is, however, interesting to take a closer look at some writers who did not feel any strong affiliations with the existing and broader aesthetic alliances, that is, writers who tried to preserve their artistic freedom intact, regardless of how inviting some programmatic statements of various groups may have been. Two of them deserve in this respect our immediate attention: Yu. Olesha and E. Zamyatin.

Indeed Olesha's novel *Zavist'* (Envy) is interspersed with the motif of the machine and its relationship to man. Clearly, this motif is worked up in a different way than what we observed in the texts of the futurists or constructivists. Critics who related their comments to this aspect of the novel confined themselves almost exclusively to Ivan Babichev's invention of the imaginary machine called "Ophelia."²² In trying to find the sources which may have influenced Olesha's treatment of the man-machine thread of the story, Andrew Barrat points to the science-fiction writers such as H. G. Wells and K. Capek. He suggests that Kavalero's nightmare, caused by Ophelia's turning against him, resembles an episode from *The War of the Worlds* in which "the steel tentacle of a Martian machine" is searching out the narrator. In developing this thought further, A. Barrat arrived at the conclusion that most probably the above-mentioned episode in Olesha's novel was inspired by the ending of K. Capek's play *R. U. R.* "when the robots, endowed with human emotions, rebel against the engineers who created them and wipe out the entire human population of the world."²³ He also draws a parallel between "Domain's justification of his robot production factory in Act II"²⁴ and Andrei Babichev's reasons for building the 'Chetvertak's' factory. While these similarities are interesting in themselves and reveal Olesha's affinity with European literature of the times, they do not explain the concept which underlies his interpretation of the relationship between human beings and the machine. It is important to note that Ivan Babichev's Ophelia is not the only one who bears, so to speak, on her shoulders the motif of the machine. The latter is also tied closely to Andrei Babichev's construction of the

‘Chetvertak,’ the technologically perfect factory which would produce food and meals thus freeing women from thankless chores at home and in the kitchen. In both instances the purpose and goals to be achieved by the machines are different. Ivan Babichev’s dreams are of building “a machine of machines, a universal machine” which would concentrate in itself a great variety of functions. It is a machine that is supposed to do everything, yet Ivan Babichev limits its functions and endows Ophelia with “human feelings.” This would give an appropriate opportunity to revenge himself on the new epoch which neglects these feelings for the sake of a mechanical, soulless future represented by Volodia Makarov. Consequently, Ivan Babichev sets his fantastic invention against the onslaught of uniformity and the cult of the new. Andrei Babichev is, on the other hand, motivated by exactly the opposite sentiments: his ‘Chetvertak’ is built with the intention to relieve human beings from the burden of unnecessary work, to bring happiness to *many* people. He thinks in global terms and dreams of bringing people together through a technological innovation that would serve a collective. This opposition, that is, the machine being controlled by someone who represents the philosophy of individualism (Ivan Babichev) on the one hand, and the machine reflecting the interests of collectivism (Andrei Babichev) on the other, relativizes its role. Depending on who owns the machine, it can serve a variety of functions and aims. Paired with it is the idea that machines do not shape the same attitudes: Kavalero is *afraid* of machines, while Volodia wants to *become* a machine. This presentation of technological and industrial dilemmas marks a significant departure from what futurists and constructivists stood for: it clearly dispenses with their enchantment with and romantic idealization of technology. In fact, it brings Olesha closer to O. Spengler’s concept which differentiates between idealistic and materialistic interpretations of technology. In the first case technology is looked upon as being associated with the practical, economic activity of mankind and because of its mundane nature it exists beyond and below the cultural sphere, which is understood as the domain of the spiritual. As for the materialistic interpretation – it simplifies the problem of technology in that it accepts its functions in an exclusively positive manner; it perceives technology as a beneficial phenomenon only, one which liberates mankind from the burden of labour. Spengler described this attitude as naive and trivial optimism.²⁵

Indeed, both Kavalero and Ivan Babichev look with contempt upon Andrei Babichev’s efforts to construct ‘Chetvertak.’ Ivan Babichev goes as far as to say that his brother’s invention will destroy family life, the very heart (*ochag*) of national tradition. At the same time one should not lose sight of the fact that Ivan Babichev’s invention, the machine called “Ophelia,” turns against himself and terrifies his friend Kavalero which raises the question: can machines serve the idealistic purpose that Ivan Babichev wants them to? Or: Are machines destined to serve only those forces or individuals who, like Andrei Babichev, perceive them as benefactors of collectivity? Eventually

what the author creates is ambiguity, which remains in full agreement with the structure and meaning of *Envy* as a whole.

If the question of the relationship between man and machine is surrounded in Olesha's novel with ambiguity, Evgenii Zamyatin provides it with quite a straightforward answer: the machine is associated with the totalitarian state and is used by it to promote its goals. The One State is embarked on a gigantic task of building the *Integral*, a spaceship which is to take off in order to subjugate other planets. Its first cargo to be carried into space is to contain "odes, manifestoes, poems, or other works extolling the beauty and the grandeur of the One State."²⁶ The motif of the machine reemerges throughout the whole of Zamyatin's novel; more importantly, it engulfs as it were, the understanding of the state as a whole. The One State is an enormous machine; it is organized in a machine-like manner to control all sides of its citizens' activity. Although built on the principles of mathematical precision and rationalism, the "perfect" state is not entirely free of the remnants of past "savagery." They are treated as minor mishaps which can be easily mended. "Fortunately, notes the narrator "D-503," they (that is, the remnants of the past – E. M.) are only breakdowns of minor parts which can easily be repaired without halting the eternal, grandiose movement of the entire Machine. And to expel the warped bolt, we have the skilled, heavy hand of the Benefactor and the experienced eyes of the Guardians."²⁷

It is time for a few general comments and final remarks. In spite of the initial distrust and reluctance to accept and thematize scientific progress within its artistic canon, Russian literary avant-garde gradually embraced technology as part of its aesthetic program to a much greater degree than did some other technologically more advanced and industrialized countries. At the bottom of this process lay profound social upheaval – the October revolution of 1917 which, no doubt, helped to realize the extent of Russia's backwardness. Yet the paradox of the whole situation is that the same revolution, as it grew stale, generated some artistic attitudes which began to question the alleged benefits of technological change and even attacked it for its simplistic understanding and romantic, uncritical acceptance.

By and large it can be said that the intricate relationship between literature and technological progress in the period of the avant-garde reflects itself on three levels: thematic, homologous and philosophical or problematic. What I mean by thematic is literary works of art partly or entirely devoted to the description of, for example, a modern city, an industrial plant, production, scientific or technological inventions or discoveries. The above-mentioned Mayakovskii's poems from his "American" cycle or I. Selvinskii's poem "*Kak delayetsya lampochka*" (How the Bulb is Made) belong to this kind of writing. The homologous level implies a formal, structural relation between literature and technology. It is of a deterministic nature in that it suggests an invisible or more hidden, but at the same time more profound, correspondence between these two spheres of human activity and can be divided into two subcategories. In the first case (of these two subcategories) language itself is

treated as a sort of technology; its application requires special skills, different, for example, in the instance of administrative jargon; journalistic style and imaginative literature. In the latter case the notion of so-called “poetic language” has been developed by Russian formalism and it is appropriate to mention here that one of its most prominent theoreticians, Viktor Shklovskii, entitled his early programmatic article “Art as Technique” (1917; *Iskusstvo kak priyem*). The close association of Russian formalism with futurism confirms the assumption that language can be considered a craft to be applied for achieving a desired aesthetic or practical purpose. Futurist experiments were particularly suitable to demonstrate the principle of “defamiliarization” or “making the device bare.” As far as the second subcategory is concerned, I would like to place within it those writers whose aspiration was to create a metalanguage, corresponding to and reflecting the new technological age. LEF’s writers strove to build out of real events a verbal work of art which would be almost tangible. In doing so, they pushed the reification of literature to the maximum by promoting the idea of art as object. Literary constructivists, in trying to achieve precision of description and maximum content in the smallest possible unit of words, proposed to use a variety of means: geometrical figures, numbers, new diacritical signs and new printing techniques.

With regard to the third type of the relationship between technology and literature, it can be said that it makes this relationship problematic and consequently, it warns against any enthusiasm which might be motivated by a blind reverence for technology and industrialization. It raises the possibility that those who glorify such a direction of human activity may have to pay a high price for its practical implementation.

Further research is needed if we want to give a more comprehensive and adequate description of Russian artistic discoveries and horizons. However, even cursory survey and discussion of them seems to suggest that Russian literary avant-garde opened not only a new chapter in the relationship between art and science or industrial progress in general, but first of all paved the way to new forms of man’s creative innovation.

Notes

- 1 A. S. Pushkin, “Otryvki iz pisem, mysli i zamechaniya (Fragments from letters, thoughts and comments),” *Polnoye sobr. soch. v desyati tomakh*, t. VII (Moskva-Leningrad: Izd. Akademii Nauk SSSR, 1949), p. 57.
- 2 V. Belinskii, “Stikhotvoreniya Lermontova (Lermontov’s Poems),” *Izbrannyye sochineniya* (Moskva-Leningrad: Gosudarstvennoye Izdatelstvo Khudozhestvennoi Literatury, 1949), p. 189. It should be noted, however, that when Belinskii speaks of “science” he mainly has in mind “philosophy” and makes a further distinction between poetry and science on the one hand and so-called “*tochnye nauki*” (exact sciences) on the other.

- 3 A. A. Potebnya, *Iz lektsyi po teorii slovesnosti. Basnya. Poslovitsa. Pogovorka* (Kharkov, 1914), p. 99.
- 4 R. Poirier, "Venerable Complications: Literature, Technology, People," in his: *The Renewal of Literature. Emersonian Reflections* (New Haven and London: Yale University Press, 1987), p. 131.
- 5 See V. Markov (ed.), *Manifesty i programmy russkikh futuristov* (Munchen: Wilhelm Fink Verlag, 1967), p. 50. Translation of the quote from V. Markov, *Russian Futurism: A History* (Berkeley and Los Angeles: University of California Press, 1968), p. 46.
- 6 A. Gastev, *Snaryazhenie sovremennoi kul'tury* (Gosudarstvennoye Izdatel'stvo Ukrainy, 1923), 25p. In his discussion of the XXth century culture, Gastev cites industry (high technology), World War I and revolution as the most important factors in its modern development. In this well-known essay, Gastev, himself a practitioner and theoretician of proletarian literature, puts stress on the necessity of adopting the attitude of "know-how" if one wants to succeed in building new culture.
- 7 Z. Folejewski, *Futurism and its Place in the Development of Modern Poetry* (Ottawa: University of Ottawa Press, 1980), p. 8.
- 8 V. Markov, *op. cit.*, p. 196.
- 9 G. Janecek, *The Look of Russian Literature* (Princeton, New Jersey: Princeton University Press, 1984), p. 121.
- 10 V. Mayakovskii, "Zapisi k vystupleniyu na dispute o LEF-e," in his: *Polnoye sobraniye sochinenii*, t. 13 (Moskva: Gos. Izd. Khudozhestvennoi Literatury, 1961), p. 180.
- 11 V. Mayakovskii, "Teatr, kinematograf, futurizm," *Sobraniye sochinenii*, t. 11 (Moskva: Izd. Pravda, 1978), p. 5.
- 12 Dm. Moldavskii, *Nikolai Aseev* (Moskva-Leningrad, 1965), pp. 41-42; quoted from Nikolai Aseev, *Stikhotvoreniya i poemy*, introductory article by A. Urban (Leningrad, Sovetskii pisatel', 1967), p. 21.
- 13 *Veshch*, eds. El. Lissitzky et Il'ya Ehrenburg, No. 1-2 (1922), p. 2.
- 14 *Ibid.*, p. 2.
- 15 I. Ehrenburg, *A vse-taki ona vertitsya* (Moskva-Berlin: "Gelikon," 1922), 142 pp.
- 16 A. Gan, *Konstruktivizm* (Tver, 1922), 70 pp.
- 17 *Ibid.*, p. 18.
- 18 *Ibid.*, p. 19.
- 19 B. Arvatov, *Ob agit i proz iskusstve* (Moskva, "Federatsiya," 1930), 224 pp.
- 20 "Znayem," K. Zelinskii, A. N. Chicherin, E.-K. Sel'vinskii, (eds.), *Mena vsekh. Konstruktivisty-poety* (Moskva, 1924), p. 9.
- 21 K. Zelinskii, "Konstruktivizm i sotsializm," *Biznes. Sbornik Literaturnogo Tsentra Konstruktivistov* (Moskva: Gosudorstvennoye Izdatel'stvo, 1929), pp. 5-72.
- 22 A. Barratt, *Yurii Olesha's "Envy,"* Birmingham Slavonic Monographs,

- No. 12 (Birmingham: Department of Russian Language and Literature), pp. 9-10.
- 23 *Ibid.*, p. 10.
- 24 *Ibid.*, p. 10.
- 25 See a detailed discussion of O. Spengler's view on this subject in: *Filozofowie o technice. Interpretacje dawne i współczesne*. Ed. Zachera, Lech, Warszawa, Krajowa Agencja Wydawnicza, pp. 79-90.
- 26 Ye. Zamyatin, *We*, Tr. by Mirra Ginsburg (New York: Avon Books, 1983), p. 2.
- 27 *Ibid.*, p.14.