

From Poet to Enginner

From *Less-Known Russian Avant-Garde* series

Julian Sunley and Lev Manovich, 2021



Aleksei Gastev (Russia, 1882–1939) is a unique figure in the avant-garde culture of the 20th century. In the 1910s-1930s, many avant-garde creators in Europe and in Russia were inspired by the machines and buildings of the industrial age - airplanes, factory machines, grain elevators, bridges. The engineer was the hero of the time. Architects, designers, filmmakers, and poets were applying principles of efficiency, economy and strict in their own fields. They developed new languages of design, visual communication and everyday material culture appropriate for the second machine age.

Usually the influence run into one direction - from the world machines, the ideals of engineering, and latest scientific research to the arts and design. However, as far as we know, only Gastev has moved in the opposite direction. Instead of applying principles and methods of work to the arts or design, he left his art (e.g., poetry) to become the director of the institute that aimed to further rationalize work and workers on nation-wide scale.



The main source for these two essays is the the exhibition **'How to Work'** at *Na Shabalovke* gallery, Moscow, 2019, curated by Dr. **Alexandra Selivanova**.

From the exhibition description:

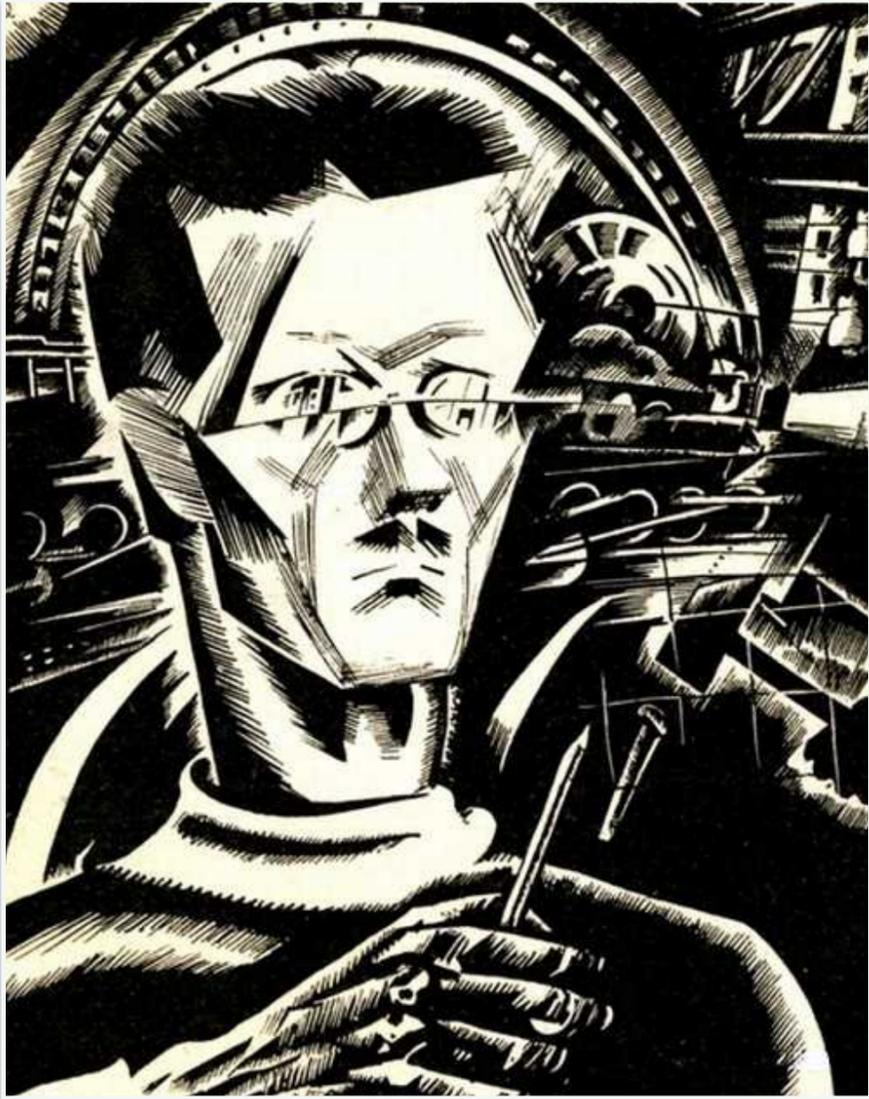
“For the first time the exhibition will present Gastev in various roles - as a theorist, writer, journalist, politician and founder of the CIL (Central Institute of Labor)...A significant section of the exhibition is devoted to the activities of the Central Institute of Labor, its creators and laboratories, including psychotechnical and biomechanical research, S. Nikritin’s Projection Theatre, its film and photography laboratory, etc.”

<https://www.facebook.com/nashabolovke.gallery>



Aleksei Gastev and the Poetry of a Worker's Blow

Julian Sunley



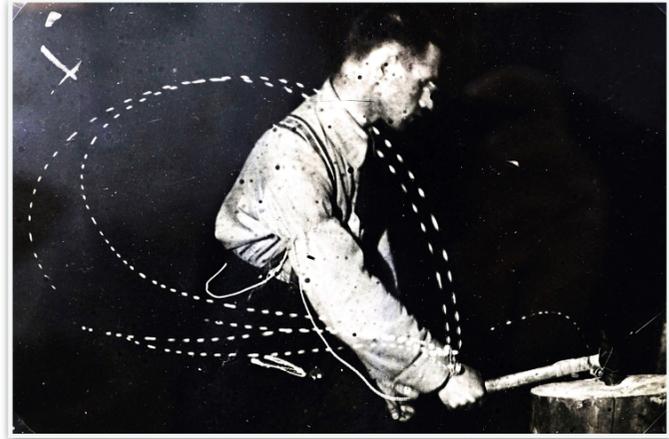
Portrait of Gastev by Z. Tolkachyov from Gastev's 1923 book *The Rebellion of Culture* (*Vostaniye kul'tury*)

As both a leader of one of the first strikes of the 1905 Revolution, and a leading avant-garde poet, Aleksei Gastev's life is a perfect example of how politics and aesthetics intertwined in Russia's revolutionary period.

Gastev's life before the October Revolution consisted of a number of exiles, escapes and attempts to make a literary career under various pen-names. He was only fully recognized for his literary abilities, however, with the publication of his collection **Poetry of the Worker's Blow** (*Poeziya rabochego udara*).

What's more, *Poetry of the Worker's Blow* was chosen by the artistic organization Proletkult to be their first publication. (Proletkult sought to promote and develop proletarian culture across Russia and claimed to have 80,000 members in 1920).

This turned out to be a highly astute decision by Proletkult — poems such as '**We Grow From Iron**' (*Rastyom iz zheleza*) featured industrial images and comparisons of workers to iron and steel, which would quickly become established tropes of Soviet literature in both its avant-garde and traditional strains.

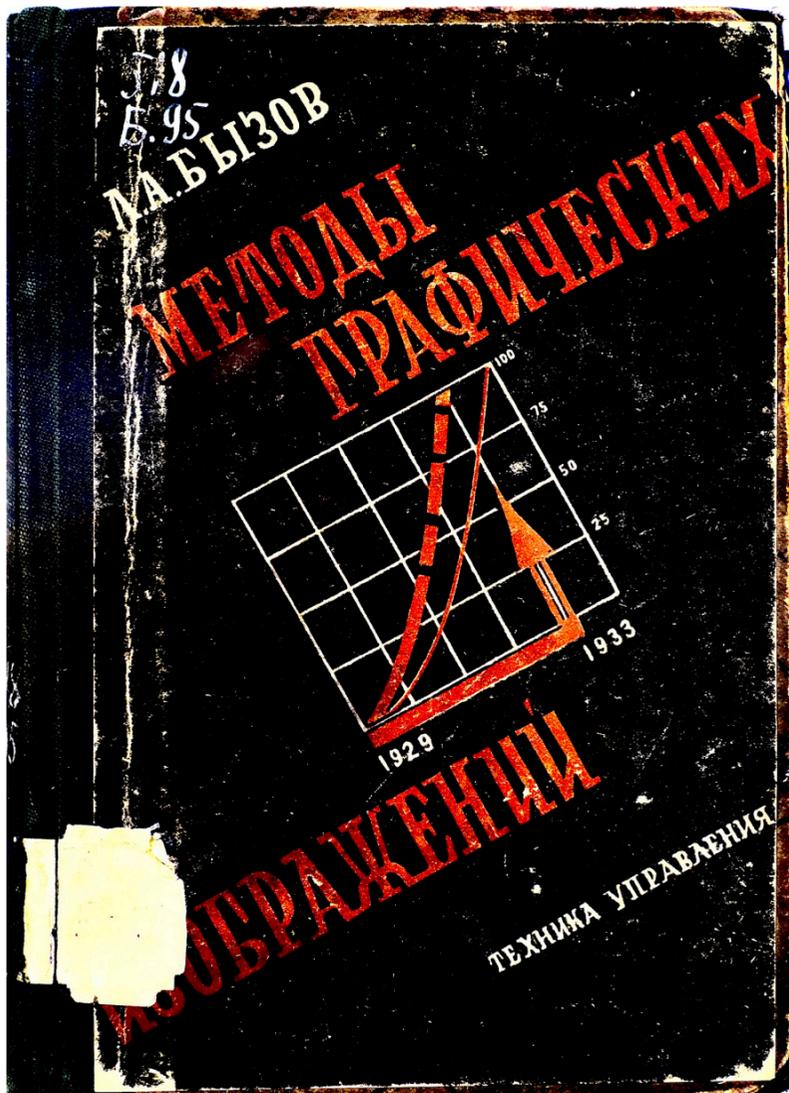


Time-motion studies. The figure in the photograph is Gastev himself.

But almost as soon as he found literary success, Gastev moved on to new endeavors, essentially abandoning poetry by 1920. With the construction of the Soviet nation at hand, the poet saw more meaning in applying himself to functional work than artistic pursuits.

To this end, Gastev founded **The Central Institute of Labour** in 1920, which was dedicated to developing methods for the rationalization of work. (The ideas of Frederic Taylor became very popular in Russia after the revolution and inspired the work of the institute). To develop these methods, the institute conducted numerous experiments. It was in these experiments that Gastev found the key obsession of his later life: time-motion studies of labour.

From time-motion studies, Gastev and the Institute could produce new visual materials that would serve as paragons for work technique. In a text featured in the exhibition at *Na Shabalovke*, Leonty Byzov, one of Gastev's colleagues at the institute, expressed visual media's potential for representing scientific research:



Cover of A. Bazov's book *Methods of Graphic Representation*.



Time-motion studies. The text below the photograph reads 'Blow of the blacksmith and hammerer', highlighting the continuity between Gastev's interests in poetry and labour management.

"We are the contemporaries and participants of a new great revolution in thought. Its roots are the era of the great scientific coup (поворот) at the beginning of modernity: though initially only through mathematics, a fundamentally new means of expressing thought has been entering scientific practice — this means is graphic, and hence spatial, and since it does not pertain to sounds, it is related to lines."

Gastev's interest in graphic representations of worker efficiency and Byzov's remarks on science's turn towards new graphic languages of expression ought to be contextualized. During the 1910s and 1920s, many new schools and styles in the visual arts developed in Russia (Neo-primitivism, Rayism, Cubo-Futurism, Constructivism, Suprematism, Analytical Art), reflecting and accelerating a new sense of possibility with respect to creating new visual languages of representation.

(Note by LM: "Graphic means" maybe be also referring to new techniques for capturing and representing movement developed by **Etienne-Jules Marey** in 1870s-1880s, as well as data visualization methods already popular in 1920s. See the cover of Byzov's book *Methods of Graphic Representation* shown above. The photograph on the right is an example of movement representation using method pioneered by Marey.)

Unsurprisingly, Gastev's approach to labour management was not without its poetic qualities. Just as some Constructivists fused art with more utilitarian goals, Gastev described his institute in labour management as his main artistic creation. At

times his vision of **work management starts to strongly resemble those earlier poetic writings:**

"We start from the most primitive, the most elementary movements and produce *the machineization of man himself...* The perfect mastery of a given movement implies the maximum degree of automaticity. If this maximum increases... nervous energy would be freed for new initiating stimuli, and the power of an individual would grow indefinitely" (translation by Gerovitch; quoted in Smirnov).

The fusing of the worker with the machine and his sudden unstoppable growth and energy are images straight out of the aforementioned '**We Grow From Iron**'. However, Gastev was not just building castles in the air at the CIL. By his arrest in 1938, the CIL had 'produced over 500,000 qualified workers in 200 professions and 20,000 industrial trainers in 1,700 educational centres' (Smirnov).

From Poet to Engineer

Lev Manovich

I see Gastev as a unique figure in the avant-garde culture of the 20th century. In the 1910s-1930s, many avant-garde creators in Europe and in Russia were inspired by the machines and buildings of the industrial age - airplanes, factory machines, grain elevators, bridges. The engineer was the hero of the time. Architects, designers, filmmakers, and poets were applying principles of efficiency and economy and in their own fields. They developed new languages of design, visual communication and everyday material culture appropriate for the second machine age. Many of them taught at **Bauhaus** in Germany and **Vkhutemas** in Russia. (The latter was much larger than Bauhaus - with 100 faculty members and 2500 students).

Usually the influence ran into one direction - from the world of machines, the ideals of engineering, and latest scientific research to the arts and design.

For example, architects got rid of the non-functional ornament and brought factory-like large windows to family houses. **Le Corbusier** stated: "A house is a machine for living in." Austrian architect **Margarete Schütte-Lihotzky** conducted time-motion studies to understand the movements of a housewife in a kitchen and used the results to design a new optimized kitchen (1926). **Sergei Eisenstein** was trying to use all the leading psychological theories of his time to predict the effects of his films on the viewer, and would edit them accordingly.

However, as far as I know, only Gastev **moved in the opposite direction**. Instead of applying the principles and methods of work to the arts or design, he left his art (i.e. poetry) to become the director of an institute that aimed to further rationalize work and workers on nation-wide scale.

As Julian points out, Gastev's vision of movement efficiency had a strong poetic side to it. Gastev dreams of a new world where **all citizens always move in the most efficient ways** with the precision of professional dancers in a ballet performance. He wanted to rationalize not only workers' movements but also all everyday movements.

Such a vision was certainly beyond anything imagined by **Frederic Taylor** (inventor of time studies method) and **Frank and Lillian Gilbreth** (inventors of the time and motion method). In its scale, Gastev's vision fits with other artistic avant-garde projects of post-revolutionary Russia - such as the decoration of the city of Vitebsk by **Kazimir Malevich's** students in 1919 or **Dziga Vertov** dreaming of thousands of cameras capturing life from every possible point of view. Thus, it may be more correct to see Gastev's project as the ultimate **synthesis** of the post-revolutionary artistic avant-garde and the ideas and methods of scientific management - rather than only a shift in one direction, from the arts to a factory.

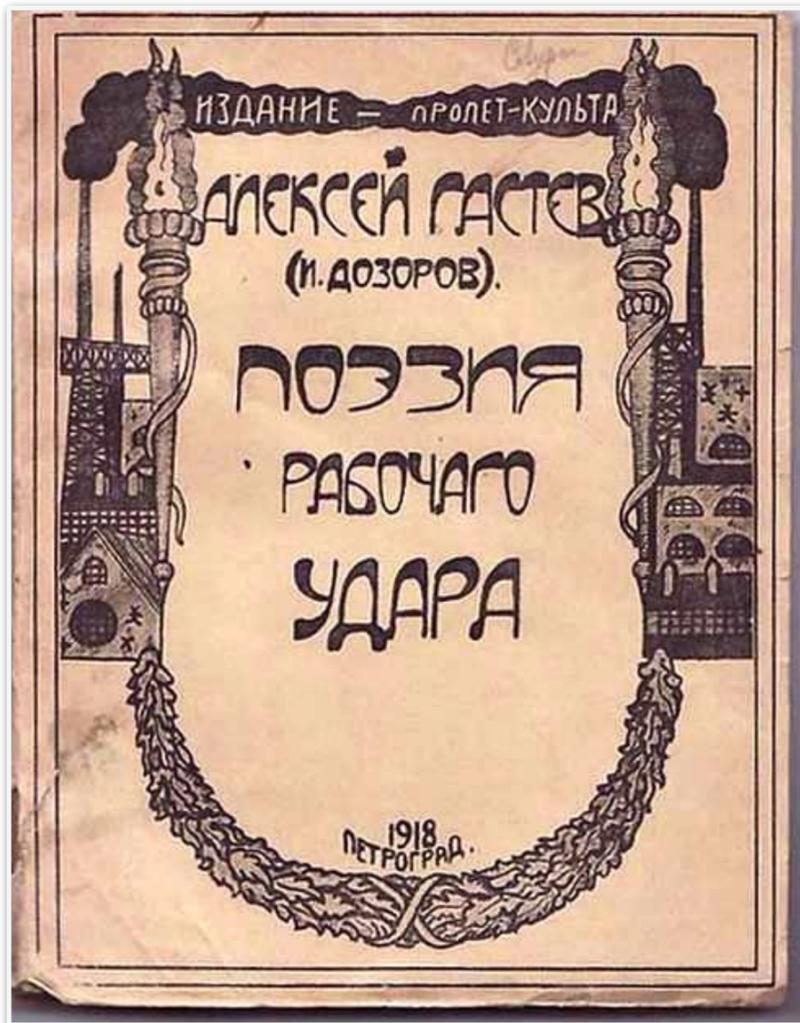
As the *Gastev: How to Work* exhibition curators point out, Gastev called The Central Institute of Labour 'his main artistic curation.' In 1920 Gastev came up with the term '**movement culture**' which he defined as "the sum of the masses' movement habits and skills."

Among numerous studies analyzing movements in different kinds of work and activities conducted at the laboratory headed by a neurophysiologist **Nikolai Bernstein** (who coined the term biomechanics in 1922), we find diagrams of the movements of a piano player next to diagrams of the movements of a blacksmith and hammerer.

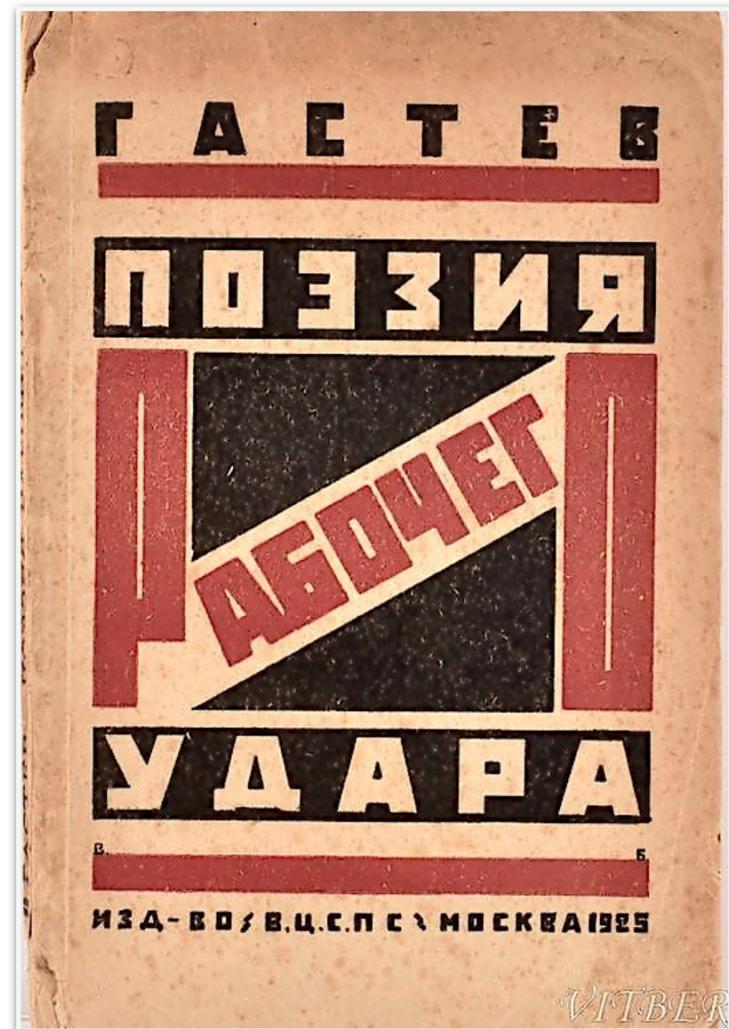
More fascinating connections between the activities of workers and artists can be seen in the program of 10 lectures delivered at the Institute under the general title '**Education in Work (Elementary Theory of Creative Process)**.' The description of lecture VIII, titled "Integrating universal creative labour", contains this sentence: "Line moving upward: a slave, worker, craftsperson, master, artist, creator."

In the early 1930s the famous Russian writer **Maxim Gorky** visited the Institute. At the end of the visit, he told Gastev:

"Now I understand why you gave up writing poetry. This institute is your best poem."

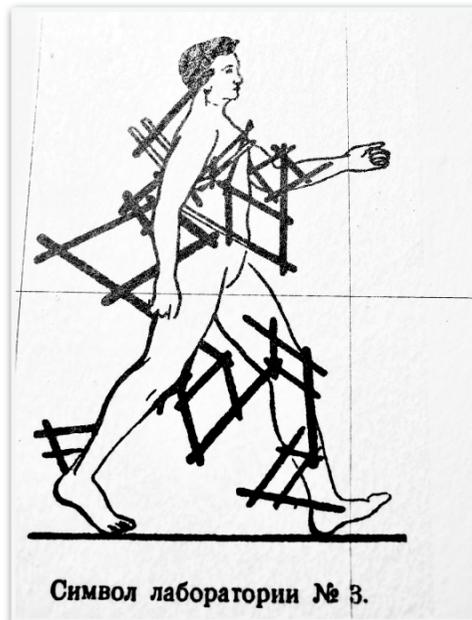


1918



1926

First edition of Gastev's 'Poetry of the Worker's Blow', published in Petrograd in 1918, and sixth edition of the same collection, published in Moscow in 1926. Under the author's name on the first edition, we can see one of his pen-names in brackets: И. Дозоров. The evident shift in the publications' art style — from Art Nouveau to Constructivism — exemplify the revolution in graphic design that occurred in the 1920s in Russia along with a number of countries in Europe.



A vast array of professionals worked at the Central Institute of Labour: artists, photographers, engineers, psychotechnicians, draftsmen, and teachers. The Institute's structure accommodated this variety, composed as it was out of a number of discrete labs, each of which had its own logo. Above we can see logos for the labs in Technology (No. 2), Biomechanics (No. 3), Physiotechnics (No. 4), and Psychotechnics (No. 5).

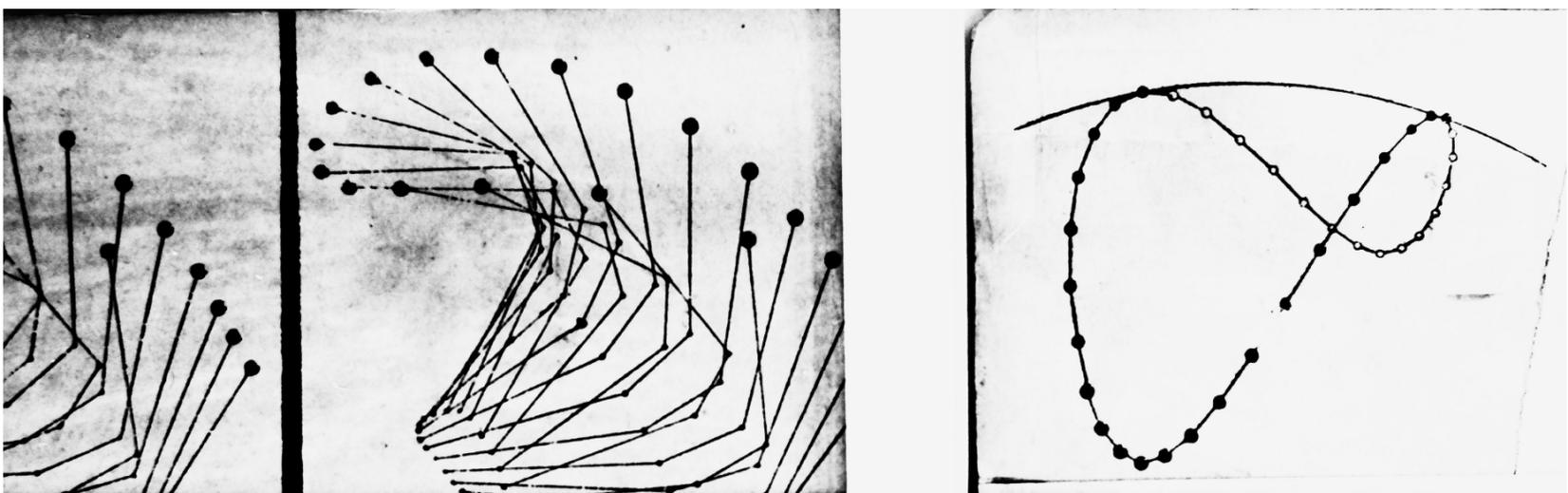


Diagram of the cyclical movements of a pianist's hands from the laboratory of neurophysiologist [Nikolai Bernstein](#), 1925.



Workers in a factory in Russia performing exercises, 1930s.



Gastev's children with a machine tool, 1930s.



Rules for the CIT that, among banning smoking in the workplace and instructing people to speak quietly while working, maintained that not fearing experiments and elegance were part of the workplace's culture, once again showing how the institute grew out of Gastev's initial experimental aesthetics.



Techniques of the Central Institute of Labour: The curved panel at head height blocks peripheral vision. This was used in exercises to test and improve focus, encouraging workers not to be distracted by other things in their field of vision.



Techniques of the Central Institute of Labour: An alterable device that isolates muscles, encouraging workers to only use the required muscles to accomplish a task. In this case, it prevents your upper arm from moving, encouraging you to only use your wrist muscles when working with a hammer.

Sources and further reading

Books

Andrei Smirnov, [Sound in Z](#).

Kurt Johansson, [Aleksij Gastej: Proletarian Bard of the Machine Age](#).

Articles

Irina Sirotkina, [The art and science of movement in France and Russia](#).

Kendall E. Bailes, [Alexei Gastej and the Soviet Controversy over Taylorism 1918-1924](#).

Rolf Hellebust, [Aleksij Gastej and the Metallization of the Revolutionary Body](#).

Slava Gerovitch, [Love-Hate for Man-Machine Metaphors in Soviet Physiology](#).

Blog Posts

Charnel House, [The ultra-Taylorist Soviet utopianism of Aleksij Gastej](#).

[The choreography of labour](#).

Image sources

All images are photographs that were taken by Lev Manovich at the exhibition 'How to Work' (2019) at *Na Shabalovke* gallery, Moscow except for the following:

[Portrait of Gastej](#) by Tolkachyov, 1923 (Monoskop).

The cover of the first edition of [Poetry of the Worker's Blow](#), 1918 (Monoskop).

The sixth edition of [Poetry of the Worker's Blow](#), 1926 (Vitber).



