

Cubist sculpture in the Russian avant garde art movement.
Examination of the work of Anton Lavinsky and Alexi Babichev.

This document is not intended to be a historical biography of either the events of the period or the artists concerned. Rather it is intended to create a framework within which to view the works of this collection. Establishing a timeline for the works poses considerable difficulty, partially due to the language barrier and partially because of the loss of period archival material.

Much of that loss probably occurred during the successive periods of war and civil war, and even during more recent times when the work of avant garde artists was considered politically subversive. It is known that under Stalin thousands of such works were removed from state museums and galleries and deliberately left to rot in damp cellars and distant underground storage locations.

The most well known collector of Russian avant garde art, George Costakis was subjected to gestapo like treatment during the 1960s because of his interest in such art.

These two relatively unknown Russian artists demonstrate through their work that they were at the forefront of artistic development of the period and merit much wider acclaim than they have until now been credited with. In the domain of sculpture their work is comparable to more well known artists working in Paris. The artistic style of these sculptures would seem to support the theory that these Russian sculptors were well aware of artistic developments taking place in France during the early part of the 20th century.

Between 1908 into the mid 30's, there was a great deal of artistic and political exchange between Russia and France and this was particularly so in the case of the radical artistic developments taking place in Paris in the first quarter of the 20th century.

Some of the most well known activists of the time in both countries had close political and emotional ties. The sister of Lilya Brik, Elsa Triolet was married to the French writer and poet Louis Aragon who was also a long time supporter and member of the French communist party.

Lilya herself was known as the muse of the avant garde. She lived with her husband Ossip Brik and her lover Vladimir Mayakovsky from 1915 until 1930, when Mayakovsky committed suicide. It was Elsa who first introduced the young poet, who was her ex-boyfriend, to the Brik's during one of the weekly artistic gatherings at their St Petersburg apartment.

Generally when one talks about art, most of us automatically think of paintings or at least works on paper. But paintings are only two dimensional artistic renderings. The word art actually encompasses many expressive works and includes the use of countless forms and mediums.

In post revolution Russia after a period of chaotic squabbling amongst the various factions of artistic expression played out in Moscow at the Free Art Workshops and at the INKHUK (institute of artistic culture) the young objectivists finally seized power. Kandinsky relinquished his seat as director at the INKHUK and a young sculptor is credited with assembling the creative direction for the institute. The name of this relatively unknown revolutionary was Alexi Babichev.

(For the text of Babichev's plan see Matsa, Sovetskoe iskusstvo, p 139)

For all the brave new aspirations of the young and not so young progressive artists of the period, achieving unity on any one topic seems to have eluded them. Human nature prevents large numbers of individuals from cooperating on any single project without the existence of some greater and usually imaginary umbrella concept to enable everyone to work in relative harmony.

The existence of this higher goal enables large numbers of people to strive together for the common good, whilst setting aside their individual differences of opinion. In theory the revolution itself should have been sufficient motivation, but the level of dissonance among the various revolutionary factions was so great that no single group could unite the masses.

The Bolsheviks made the most serious attempts at doing so, whether by violence in and out of the political arena or by coercion. They succeeded in gaining control of the continent and forming what became known as the Soviet Union. In this respect young artists, who naively believed that the revolution was actually going to change something in the longer term for the Russian people and even the world, were harnessed into turning their enthusiasm towards publicising and spreading the ideals of the Bolsheviks themselves.

In reality there was little wider public or economic support for these new artistic forms. Were it not for the fact that Alexander Rodchenko was largely responsible for the purchases of artistic works for state museums and galleries, many of the artists concerned would not have been able to consecrate their time to such flights of fancy as cubism or futurism. There was little support amongst private collectors for the new styles. In 1919 Boris Korolev's concrete cubist sculpture of Bakunin was torn down even before the scaffolding surrounding it was removed.

After the October 1917 revolution, the Stroganoff School of Technical Art and Design, became the Free Art Workshops, an experiment in artistic education where students could even choose their teachers. Its management and functioning were chaotic and the results of its artistic schooling are debatable.

In 1920 the Free Art Workshops were finally closed and under Lenin the Vkhutemas was created (Higher Art and Technical Studios). The Vkhutemas whilst still functioning as a training ground for artists of various disciplines also had the purpose of finding practical solutions to technical and constructional problems in manufacturing, These in turn could help to drag Russia out of the 18th century mantle it had, with the exception of the ruling classes and the bourgeoisie been living under for the duration of Romanov rule.

Between 1920 and 1924 the Vkhutemas was largely controlled by the group who later became known as the constructivists although in reality the only departments where constructivist principals made any real impact on the real world was architecture and textile printing.

In addition to its work as a state run artistic institute the Vkhutemas had incorporated within its statutes the possibility of admitting from the working classes and from a variety of backgrounds, a controlled number of individuals who had no formal artistic background or training. The Person responsible for helping these individuals train as artists was none other than the same Alexi Babichev.

Within the Vkhutemas various artistic disciplines were taught, ranging from Architecture to Painting and Fabric printing.

Of all the departments, architecture was the largest and the most important. Within the classrooms and on the executive steering committee, many household names from the constructivist ideology were to be found. As in the case of many artistic institutions sculpture was one of the smallest departments.

At the helm of the sculpture department was another young sculptor named Anton Lavinsky. He was aided by Alexi Babichev and Boris Korolev. All three whilst having trained in the classical disciplines embraced the new wave of cubism and various uniquely Russian variations.

Lavinsky and Babichev were particularly politically active both within the Vkhutemas and out of hours at the various and frequent meetings held to discuss revolutionary and artistic matters pertaining to the Vkhutemas and Inkhuk. Their names are frequently found in the minutes of these meetings.

In March 1921 Alexander Rodchenko, declared his group officially be called “the constructivists”. The group comprised among others: himself, Loganson, The brothers Stenberg, Medunetski, Tatlin, and Prusakov. According to a list of artists to be represented in the state collections drawn up in the spring of that year works of the group were categorised as constructions, by contrast the works of Korolev. Lavinski and Gabo were categorised as sculptures.

Throughout the artistic history of the post revolutionary period, and most importantly during the period 1917 to 1925 the names of Anton Lavinsky and Alexi Babichev appear in many historical documents which have miraculously survived the ravages of the period. That being the case, today there is hardly a professional person in the world of Russian art who has even heard of them.

Turning to world of digital general artistic knowledge we can begin to understand why this lack of knowledge is perpetuated. In a Wikipedia search of “cubism” there is to be found a list of 37 artists associated with cubist sculpture, Naum Gabo is the only Russian avant garde artist mentioned.

In another section it is acknowledged that there were “cubo-futurists” working at the Vkhutemas, but only Boris Korolev, and Vera Mukhina are mentioned.

Boris Korolev certainly did work in the cubist style and taught at the Vkhutemas from 1920 alongside the head of department Anton Lavinsky and Alexi Babichev, who achieve no mention. As for Vera Mekhina though she also taught at the Vkhutemas it was not until 1926, by which time cubism was no longer taught or considered fashionable. In addition the vast majority of her known work would be categorised as Socialist Realism, a style which was very much in fashion as decreed by Joseph Stalin.

I believe, the lack of knowledge about their lives, can be largely attributed to a lack of knowledge of their work. Until recently none of their sculpture of that period had been seen or exhibited.

There may exist some examples hidden away in some corner of the Hermitage or the Tretyakov, but if that is so they are not easy to find or are not attributed with any great historical importance. This fact which is lamentable as they were two of the greatest innovators in the sphere of modern Russian sculpture.

In the case of Lavinsky it is reported that he destroyed many of his own works. He did this it is claimed by his wife under the influence of Ossip Brik, interpreting Brik's view (expressed in an article appearing in his publication LEF) that all art not directly in the service of the revolution was bourgeois activity.

Subsequently Lavinsky resigned from the Sculpture department at the Vkhutemas and transferred to the woodworking department where he is credited for designing street booths for the distribution of agitprop material and theatre and poster designs. In 1925 he assisted in the building and presentation of the Russian pavillion at the Paris exhibition. After that he returned to Russia never to leave again. He died in 1968, with all his archives were apparently destroyed.

Alexi Babichev ran what was known as the Space studio (space in this sense referring more correctly to volume), a division of INKhUK (institute of artistic culture). In 1920 he was instrumental along with Brik, Rodchenko and others in the ousting of Kandinsky from his position as director of the INKhUK. *app 1

He was responsible for the dept workers at the Vkhutemas and was also a sculpture teacher along with Lavinsky and Korolev. He ran a group of sculptors known as Monolith whose task was to design public sculptural works to celebrate the revolution.

Unfortunately little is left in terms of records of his work. His archives did survive in part and those are located at the Thessalonica state museum, having been part of a donation by the Russian art collector George Costakis. There are a few surviving period photographs of his or his students work which have been published in recent works about the period.

These two artists through their extraordinary work provide a unique vista on the influence of western cubism and Russian constructivism on the sculpture of the Russian Avant Garde.

When one considers the sculptural works of Jacques Lipchitz, Henri Laurens, Osip Zadkine, Pablo Picasso, George Braque, Leon Indenbaum, Joseph Csaky, and Alexandr Archipenko, known as the pioneers of cubism, alongside the works of Lavinsky and Babichev, it is clear that these two not only possessed an advanced understanding of artistic principals, but also a superior technical knowledge of fabrication.

I believe it is well beyond time that these Russian pioneers of this relatively short lived artistic style were credited for their work alongside those from whom they obtained their inspiration. They did not simply copy the prevailing European style, but took it as a starting point for further development. This is particularly notable in the works of Babichev which are for the period, unique in the world.

Jaques Lipchitz himself commented on the transfer of artistic ideas taking place at the time in a 1970s interview and specifically refutes the idea of the artists copying one another

Concerning the relative differences between the two artists, though they were certainly aware of each others work and probably worked on occasions within the same workspace, they managed to develop two distinct approaches to cubist sculptural style.

Technically most their works are almost identical although as shown by the Liege university report, the materials used were different and in all but one case unique to each of them. This aspect is dealt with in the Technical appraisal appendix.

The works of Anton Lavinski

The style of Lavinski's works can be largely defined as figurative cubism, they are produced from a wide variety of materials but almost all exhibit a figurative element. In addition, there several representations of the dualism of the sexes in his group of sculptures.

Many of his works share a common thread and resemble most closely the work of Jaques Lipchitz and to a lesser extent Henri Laurens during the 1915 to 1920 period. Though the resemblance is most pronounced in the case of Lipchitz, Lavinsky's work uses more overtly regular geometric forms.

* app 1,2,3,4

Lavinsky's use of materials is diverse, with works in plaster, clay, limestone, alabaster, marble, ivory and even fossilised coral.

With very few exceptions, when working in terracotta or plaster his finishing technique exhibits the use of a palette knife or some such object. There is a strong textural element as found in the works of Giacometti or Frink. His terracotta work is predominately, but not exclusively, in white kaolin type clay. In all other materials, with a few exceptions, his finish is smooth and polished. The exceptions are one plaster maquette and the same sculpture in limestone where the traces of final finishing with a file may be recognised. * app 5

His works are signed with great precision in Russian Cyrillic except that the "L" of Lavinsky. This would normally be written in a form of an extended version of the latin lowercase n, but it is cut short on the left leg and angled slightly to the left. I have been unable to find any documented previous use of this form in any of the Russian or Slavic states in either ancient or modern texts. * app 6 and * T app 1

The works of Alexi Babichev

In contrast, the work of Babichev is significantly more geometric in form and demonstrates a mathematical approach more aligned to the ideals of constructivism. In fact in the statement of 1921 regarding categorisation of works, the name of Babichev is not mentioned along side those of his colleagues referred to as sculptors, but then neither is he considered a constructivist.

Babichev's work is exclusively based on the merging of different geometric figures. In some there is an element of figuration, but it is purely geometric and not as fluid in the use of mixed forms as in the case of Lavinsky.

The method by which these forms are assembled would also support a mathematical approach to sculpture. From a technical analysis by x-ray it would seem that the different shapes were made separately and then assembled as a construction, one shape being cut into another to a predetermined, mathematically accurate manner.

T app 3

In terms of finish Babichev's work is mostly smooth and regular, except in a series of smaller works which are probably maquettes, and in the case of clay containing a high

percentage of grog. They all exhibit considerable skill in obtaining a precise meeting of angles and smoothing of the surfaces. His work is almost exclusively in clay, predominately of the ferric red type, and mostly containing a porcelain type grog. * T app 2

His works are signed in Russian Cyrillic but is notable that the character “E of” chev is written like a reversed euro symbol. This form is found in the Glagolitic alphabet, and a similar version was used in cyrillic during the 13th century. This version fell out of use by the end of the century and has been used only sporadically since then. It is used to accentuate the sound of “E” as in TED *app 6 and *T app 1

Serge Kolzoff

Not much information about Kolzoff has survived, but a listing in the dictionary of Russian sculptors (ref) states that he worked in the art nouveau style but later converted to cubism.

his work is of a hybrid cubist type, in the same red terracotta finished with a black patina, as are most of the works of Babichev. From a technical point of view the one in this collection is formed in a similar manner to the works by Lavinsky and Babichev, but it demonstrates a less precise technique. Subjectively both this sculpture and the one which does not form part of this collection are interesting as they are not as strictly cubist as the sculptures of Babichev and Lavinsky. The work in the photographic record was originally purchased privately at one of the Bruxelles fine art exhibitions.

Kolzoff signs his work in latin script and this appears to be consistent with versions of his signature of historically earlier works in the art nouveau style. Interestingly the work of the photographic reference is labelled with an bone plaque in an identical manner to one of the wooden base of a work by Lavinsky, * app 7

“Kolzoff, Serge

Born September 1892 in Moscow, studied at Moscow school of fine arts and was winner of its gold medal. Most of his work was realistic, but during the 1920s his style changed to constructivism.” web item not entirely correct.

The specificity of VKhUTEMAS manifested in it’s innovative structure, bringing together the departments of Fine arts (Painting, Sculpture) and Manufacturing (Architecture, Printmaking, Metalworking, Woodworking, Textile and Ceramic). A Preliminary course was an important part of the new teaching method that was developed at VKhUTEMAS, and was made compulsory for all students, regardless of their future specialisation. Many greatest masters of Russian Avant-garde were employed in active teaching in the educational process of VKhUTEMAS: N.Ladovsky, K.Malevich, V.Kandinsky, E. Lissitzky, P. Miturich, L. Popova, V. Tatlin, A. Vesnin, B.Korolev, A. Lavinsky, A. Babichev, A. Rodchenko, V. Krinsky, etc. The special feature about the VKhUTEMAS was that in the center of the educational process at all departments was the new concepts of Space and the integration of learning.

2) (Russian)

Собрание узаконений

* app 1

The INKhUK (monoskop.org)

Institute of Artistic Culture, 1920–24) was an artistic organisation, a society of painters, graphic artists, sculptors, architects, and art scholars. The institute was set up in Moscow in March 1920 as a section of IZO Narkompros (the Department of Visual Arts of the People's Commissariat for Education) to determine the course of artistic experiment in post-Revolutionary Russia. INKhUK had its own regulations and program.

Its first director was Kandinsky. Further sections were formed in Petrograd under Tatlin and in Vitebsk under Malevich. The program of INKhUK was initially influenced by the leftist trends in art (for example, abstract art). In accordance with Kandinsky's program of 1920, artists affiliated with INKhUK studied the formal devices in various types of art (for example, music, painting, and sculpture) and the uniqueness of their influence upon the viewer.

Kandinsky's ideals soon proved uncongenial to the more widespread desire to create an art suitable for a Communist utopia. After Kandinsky was voted out of office in the late 1920, two different programmes emerged. 'Laboratory art' involved a rationalizing, analytical approach often using traditional artistic materials (such as paint and canvas); 'production art' placed the emphasis more on designers and craftsmen working for machine production, striving to apply the results of their artistic experiments to daily practical activities. The latter group proved the more influential of the two, contributing to the development of Constructivism. [1]

In 1921, the LEF program was developed in INKhUK, and attention was focused upon finding a theoretical solution to the problems of constructivism and production art. Under the auspices of INKhUK, experimental work in artistic design was conducted, and educational programs were organized at VkhUTEMAS.

After its closure, the archive of INKhUK passed to a sculptor who played a vital role in its daily operations--Aleksii Babichev--from whose widow, Natal'ia Babicheva, it was eventually acquired by the Greco-Russian collector George Costakis (Georgii Kostaki) before his emigration to Greece in 1978, where it is now preserved in the State Museum of Contemporary Art in Thessaloniki.[2]

Among the artists active in INKhUK were B. I. Arvatov, A. V. Babichev, Brik, Lissitzky, Popova, Rodchenko, and Stepanova.

From Wikipedia

By the early 1920s, significant Cubist sculpture had been done in Sweden (by sculptor Bror Hjorth), in Prague (by Gutfreund and his collaborator Emil Filla), and at least two dedicated "Cubo-Futurist" sculptors were on staff at the Soviet art school Vkhutemas in Moscow (Boris Korolev and Vera Mukhina).

Artists associated with Cubist Sculpture

August Agero
Alexander Archipenko
Jean Arp
Umberto Boccioni
Antoine Bourdelle
István Beöthy
Constantin Brâncuși
Henri Gaudier-Brzeska
Joseph Csaky

JOHN E. BOWLT

*A Monument to Bakunin:
Korolev's Cubo-Futurist Statue of 1919*

"Workers and Red Army men are surprised and outraged when they find out that the monument is about to be unveiled."¹ Such was the public reaction to the statue to Mikhail Bakunin erected at the Miasnitskii Gates (now Kirov Street) in Moscow in September, 1919. The designer of this provocative monument was the sculptor, painter, and architect, Boris Danilovich Korolev (1884-1963),² an artist now appreciated in the Soviet Union not for his abstract sculptures but for his expressive, if orthodox, busts and statues of Lenin. Like many of the celebrated masters of Socialist Realism—Aleksandr Deineka, Vera Mukhina, Iurii Pimenov—Korolev started his artistic career as a "formalist." As a young man, Korolev was almost as radical in sculpture as Bakunin was in political theory. How did the paths of artist and politician cross? This article tells the story of their curious confrontation.

Korolev's statue of Bakunin was commissioned by the Visual Arts Section of the People's Commissariat for Enlightenment (IZO NKP) in accordance with Lenin's Program of Monumental Propaganda which he initiated by decree on 12 April 1918: *On the Dismantling of Monuments Erected in Honor of the Tsars and Their Servants and on the Formulation of Projects for Monuments to the Russian Socialist Revolution*. In order for us to understand the artistic and political importance of Korolev's *Bakunin*, we must examine it within the immediate context of this Decree. What did the Decree decree? A few extracts indicate Lenin's general purpose and objective:

1. Monuments erected in honor of the Tsars and of their servants and which do not present interest either from a historical or from an artistic viewpoint are to be dismantled and taken off the squares and streets; in part they are to be transferred to depositories, in part they are to be used for utilitarian ends. . . .

2. The same committee [the Soviet of People's Commissars] is entrusted with mobilizing artistic forces and organizing an extensive competition for producing projects for monuments intended to commemorate the great days of the Russian Socialist Revolution.

3. The Soviet of People's Commissars expresses the desire that certain of the more hideous idols be dismantled and the first models of the new monuments be put up for verdict by the masses by the 1st May.

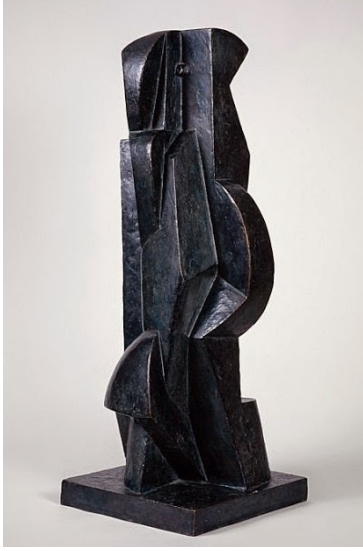
4. The same committee is entrusted with urgently preparing the decoration of the city by 1st May and the replacement of inscriptions, emblems, street names,

1. [unsigned article] "Uberite chuchelo!" in *Vechernie izvestiia Moskovskogo Soveta rabochikh i krasnoarmeiskikh deputatov* (Moscow), 10 Feb. 1920.

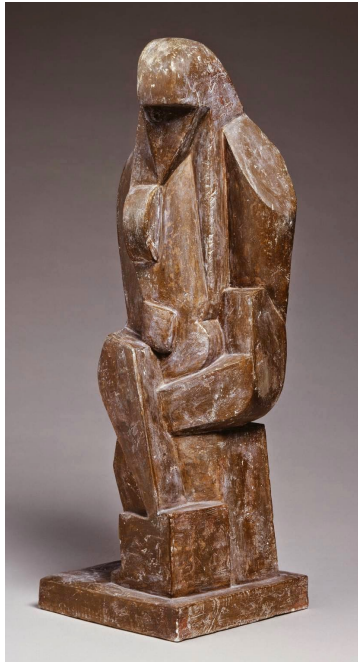
2. The most comprehensive source of information on Korolev is L. Bubnova's monograph: *Boris Danilovich Korolev* (Moscow: Iskustvo, 1968).

Andrew Dasburg
André Derain
Emil Filla
Naum Gabo
Pablo Gargallo
Paul Gauguin
Alberto Giacometti
Julio González
Otto Gutfreund
Ernst Ludwig Kirchner
Jean Lambert-Rucki
Henri Laurens
Wilhelm Lehmbruck
Jacques Lipchitz
Jan et Joël Martel
Henri Matisse
Gustave Miklos
Amedeo Modigliani
László Moholy-Nagy
Henry Moore
Chana Orloff
Antoine Pevsner
Pablo Picasso
Auguste Rodin
Edwin Scharff
Raymond Duchamp-Villon
William Wauer
Ossip Zadkine

I remember one day when Juan Gris told me about a bunch of grapes he had seen in a painting by Picasso. The next day these grapes were in a painting by Gris, this time in a bowl; and the day after, the bowl appeared in a painting by Picasso. This was not simply imitation; we were all working with the same language and exploring the vocabulary of that language together.

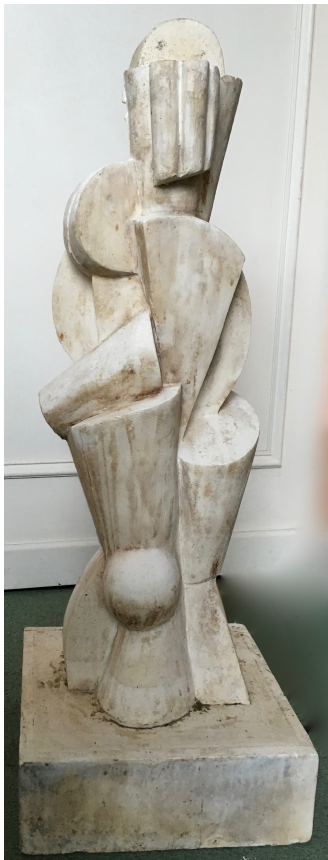


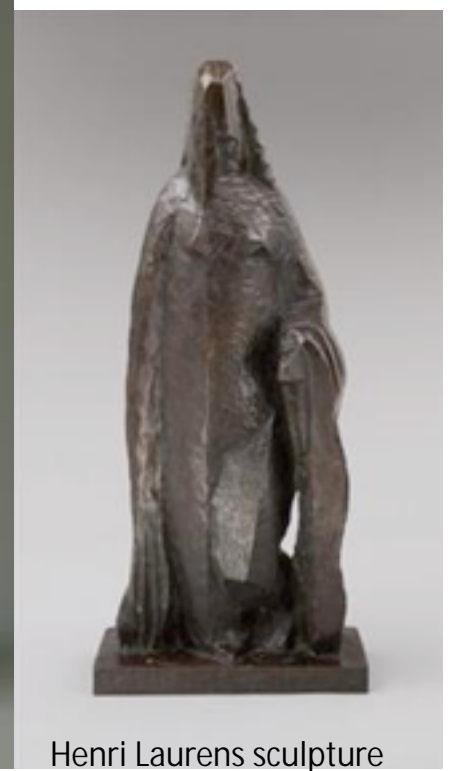
Jaques Lipchitz sculpture examples





Anton Lavinsky sculpture examples



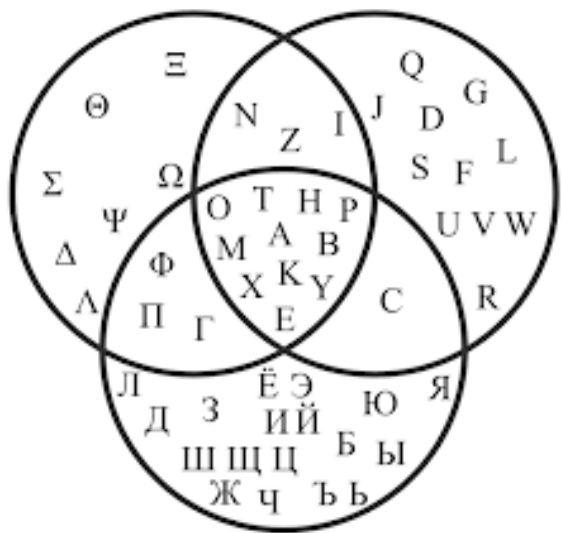


Henri Laurens sculpture





Anton Lavinsky textural finish



Letters in the Cyrillic alphabet , note the E is in the latin format.

The traditional cyrillic letter L

Л



Lavinsky signature

Ⲁ	Ⲃ	Ⲅ	Ⲇ	Ⲉ	Ⲋ	Ⲍ	Ⲏ
a	b	v	g	d	ε	ž	dz
Ⲑ	Ⲓ	Ⲕ	Ⲗ	Ⲙ	Ⲛ	Ⲝ	Ⲟ
z	i	i	ǵ	k	l	m	n
Ⲡ	Ⲣ	Ⲥ	ⲧ	ⲩ	ⲫ	ⲭ	ⲯ
o	p	r	s	t	u	f	x (kh)
ⲱ	ⲳ	ⲵ	ⲷ	ⲹ	ⲻ	ⲽ	ⲿ
o	ts	č	š	št	w/ə	i	y
ⲁ	ⲃ	ⲅ	ⲇ	ⲉ	ⲋ	ⲍ	ⲏ
æ/e	yu	ž	yž	ǝ	yǝ	f	i/v

Glagolitic alphabet and the 13th century letter E. see Babichev signature below

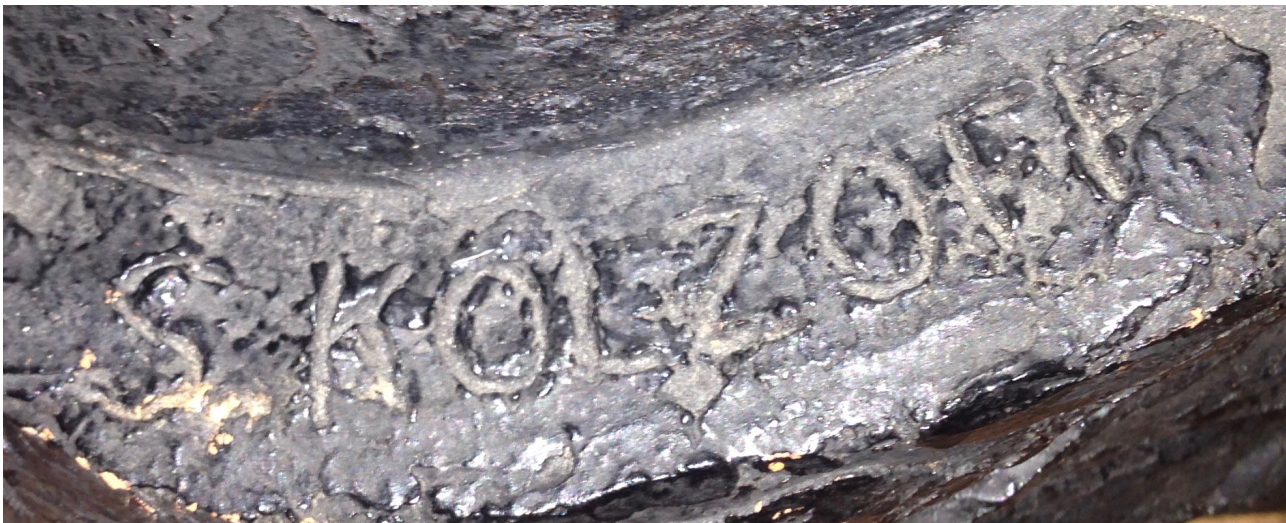
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Signature on art nouveau period sculpture

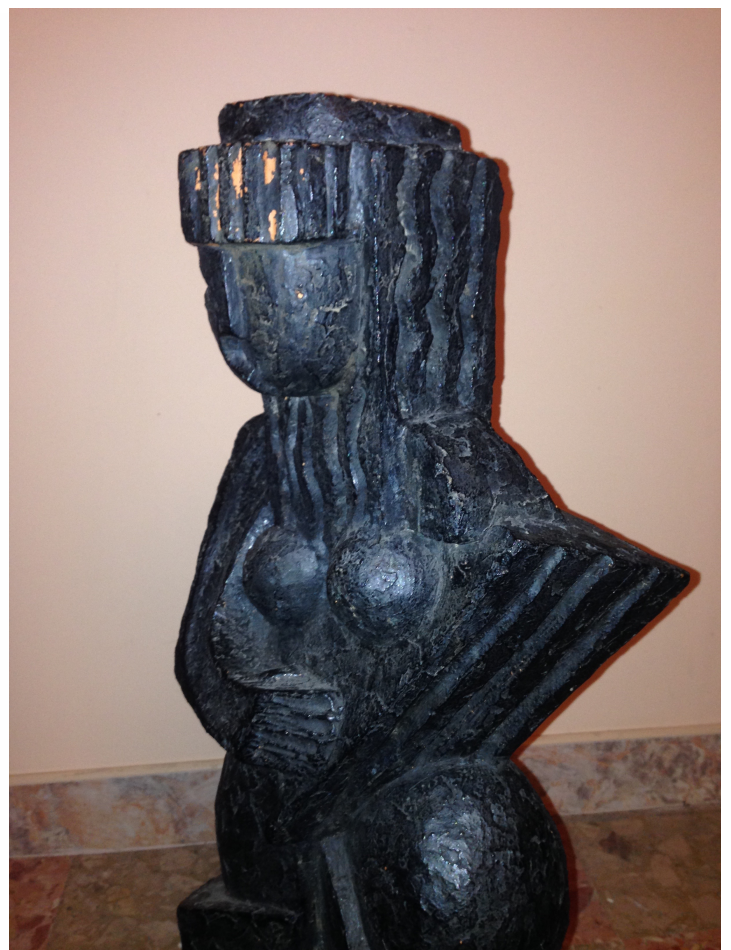
cubist works below



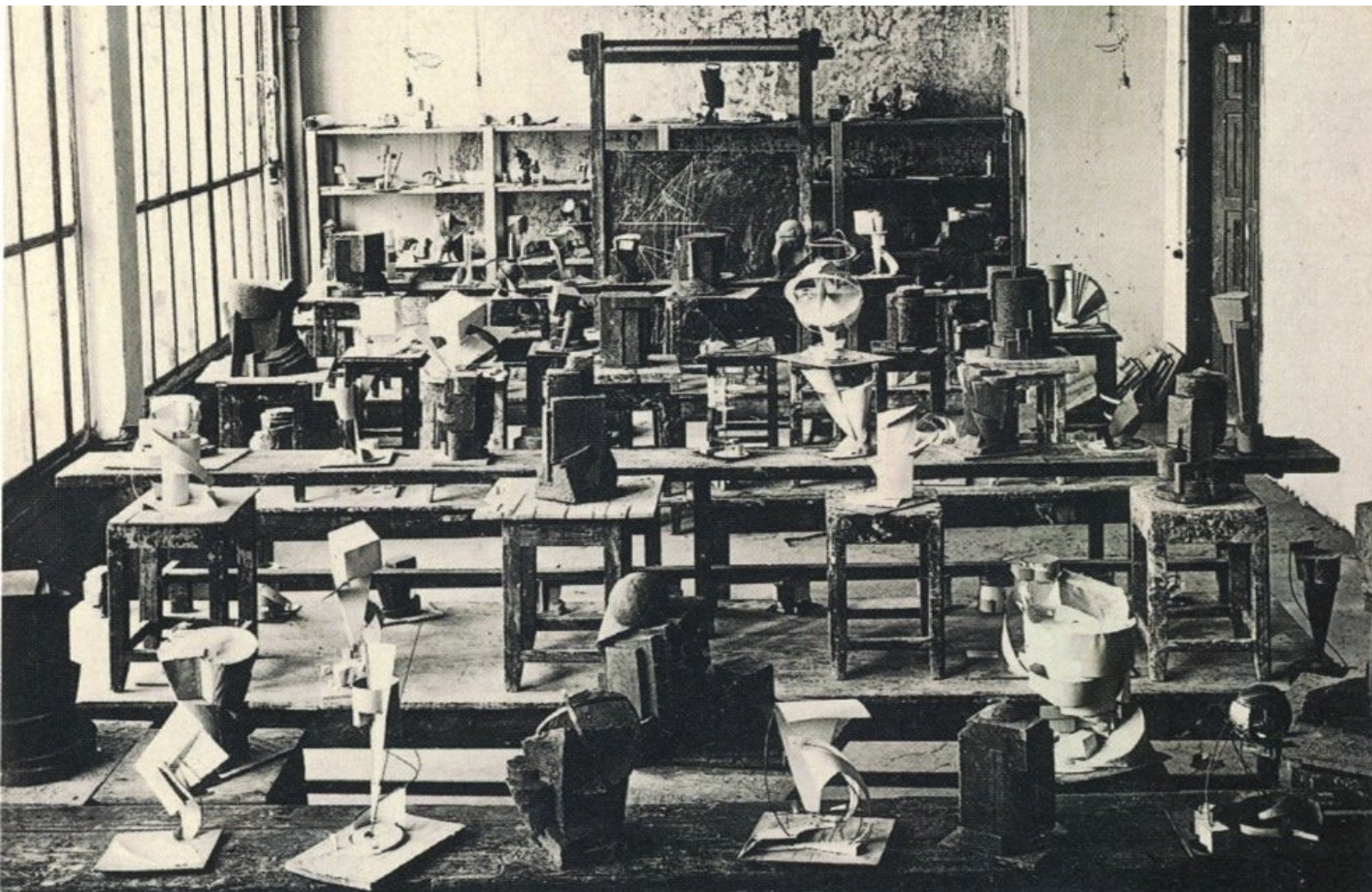
Signatures on Bone plaques Kolzoff and Lavinsky



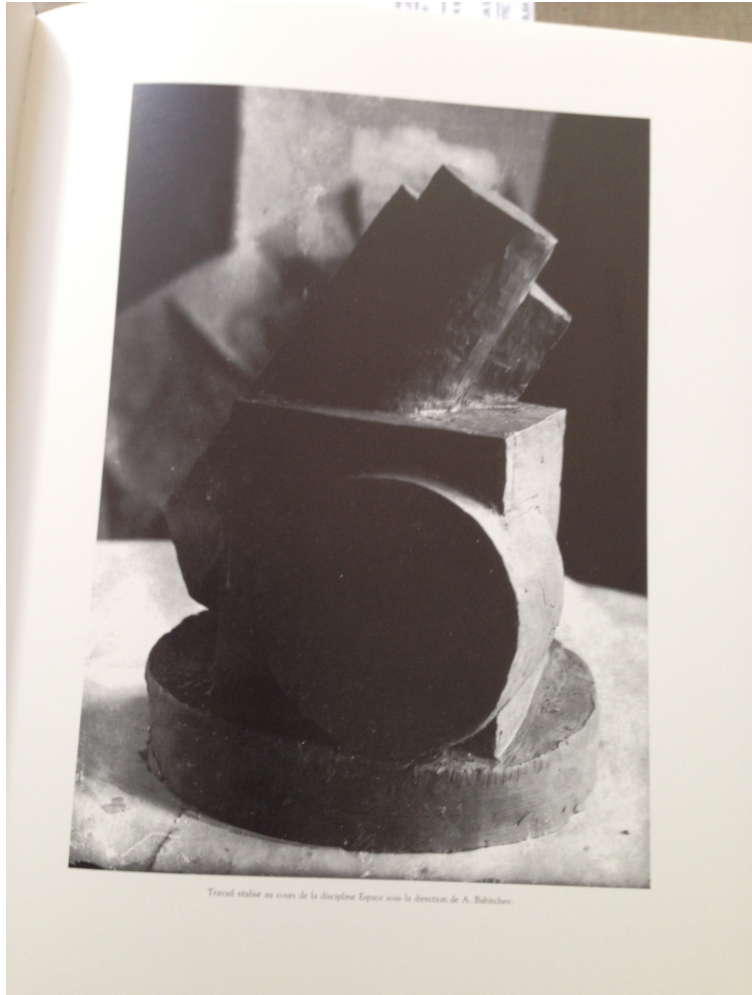
Serge Kolzoff sculpture examples



Photographs of the Architecture dept Vkhutemas 1920s



Sculpture attributed to students of Babichev and below studies in volume from the Architecture dept, note the similarity in form and material texture. Bottom left surviving examples at the Vkhutemas museum Moscow.





Alexi Babichev sculpture examples



Technical appendixes

*T app 1

Many Slavic languages (Russian included) use what's called the Cyrillic alphabet. But before we talk about Cyrillic, we need to talk about what came before it: Glagolitic. Glagolitic was developed by two brothers, St. Cyril and St. Methodius (Cyrillic is named after St. Cyril), at the request of the Byzantine Empire. See, the Byzantine Emperor wanted to spread Christianity to the Slavic people but the Slavic languages didn't have a written alphabet. The Empire would be dependent upon either the Pope or the Franks to help with converting the Slavs, something he very much did not want. Cyril and Methodius were tasked to come up with a writing system so that religious texts could be written in Slavic languages. They took some letters from Greek, Hebrew, Coptic, and possible Armenian alphabets. Some of the letters are so weird their origins are still being debated. They made all the letters into a similar style and translated some Bibles.

A few decades later, at the end of 9th century, the First Bulgarian Empire made Christianity the state religion. They faced the same problem of writing Slavic sounds. For a while, they wrote Bulgarian using Greek letters. The Greek alphabet was all well and good, but Greek has fewer sounds than Slavic languages. So they took the Greek alphabet and added about 10 letters from the Glagolitic bibles they had.

English is written using the Roman, or Latin, script. The Latin alphabet also developed from the Greek alphabet. That's why some letters from Latin and Cyrillic look very similar (those are the Greek-derived letters) and others look "backwards" or very different (the Glagolitic-derived letters).

The letter ⟨ѣ⟩ originated in the thirteenth century as a variant of ⟨е⟩, at first, according to Đorđić[1] in superscripted line-final position, but by the end of the century elsewhere as well.[2] In the following centuries it continued to appear sporadically as an uncommon variant of ⟨е⟩, but not later than in the fifteenth century amongst the Eastern Slavs it began to be used to indicate initial (un-iotated) [e]. According to Yefim Karskiy, "Western Russian ustav knows ⟨ѣ⟩, e.g. in Miscellany of the 15th c. from the Public Library (manuscr. #391) (экѣсеквѣ etc.), chronicles of 15th-16th cc., Miscellany of Poznań (16th c.),[3] Statut of 1588... It is difficult to say whether it has been developed here independently or it came from South Slavic manuscripts, where ⟨ѣ⟩ occurs as early as in 13-14th cc." [4] Although the revision of Meletius Smotrytsky's grammar published in Moscow in 1648 does not include ⟨ѣ⟩ in its alphabet, it does consistently write Ѧтѡмолѡгїа (Etymologia), in contrast to Ѧтѡмолѡгїа in the first edition of 1619. It was by no means confined to this function in the period, however, as the prevalent spellings реѡстрѡ, маѡорѡ.

*T app 2

Grog

- Crushed or ground particles of fired clay graded in various sizes of particles. Added to the clay body to help in drying and to add strength and texture.



Grog is used in pottery and sculpture to add a gritty, rustic texture called "tooth"; it also reduces shrinkage and aids even drying. This prevents defects such as cracking, crow feet patterning, and lamination. The coarse particles open the clay body to allow gases to escape. It also adds structural strength to hand-built and thrown pottery during shaping although it can diminish fired strength.

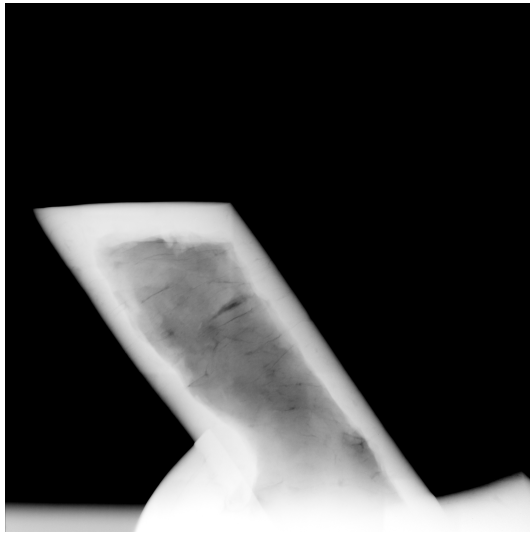
The finer the grog particles are, the closer the clay bond, and the denser and stronger the resulting fired product. "The strength in the dry state increases with grog down as fine as that passing the 100-mesh sieve, but decreases with material passing the 200-mesh sieve." [2]



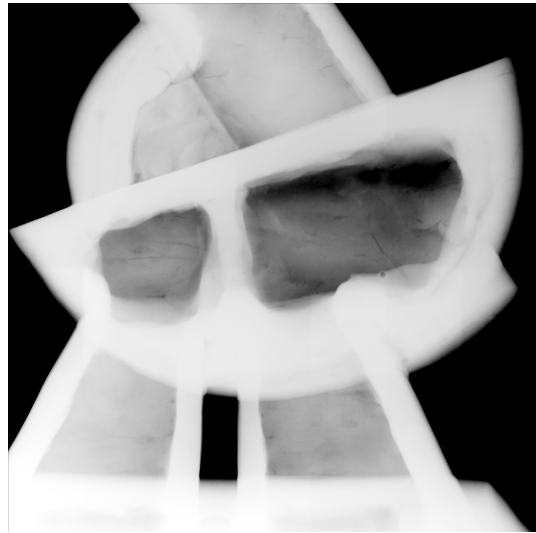
Left internal appearance of a Babichev sculpture showing the grog



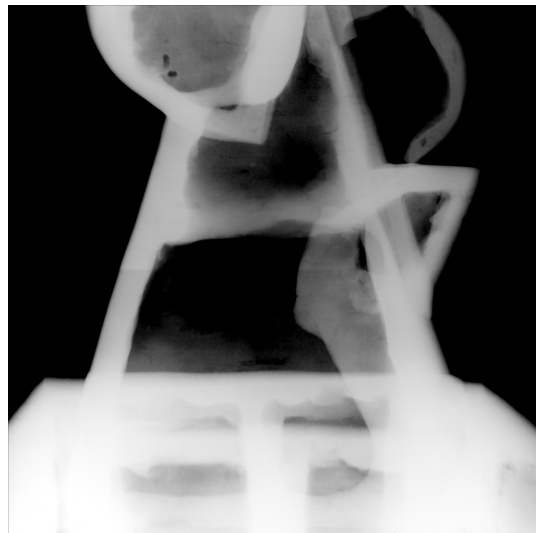
Below. Effect of grog on the external finish



Sc14 - Tension 110kV - Courant 900mA



Sc15 - Face - Tension 110kV - Courant 500mA



Sc15 - Côté - Tension 110kV - Courant 500mA

