Constructivism

Constructivism first appears as a term in Antoine Pevsner and Naum Gabo's *Realistic Manifesto* of 1920. However, as a movement it is generally said to have begun around 1915 by Vladimir Tatlin and Alexander Rodchenko.

Abstract and austere, constructivist art aimed to reflect modern industrial society and urban space. The movement rejected decorative stylization in favour of the industrial assemblage of materials. Constructivists were in favour of art for propaganda and social purposes, and were associated with Soviet socialism the Bolsheviks and the Russian avant-garde.

Constructivist art and architecture had a great effect on modern art movements of the 20th century, influencing major trends such as the Bauhaus and De Stijl movements. Its influence was widespread, with major effects upon architecture, sculpture, graphic design, industrial design, theatre, film, dance, fashion and, to some extent, music.

Self-Portrait (1912)

Vladimir Tatlin (1885–1953) was born in either Moscow or Kharkiv (the second largest city in Ukraine, then part of the Russian Empire). A painter, architect and stage-designer, along with Kazimir Malevich he was one of the two most important figures in the Soviet avant-garde art movement of the 1920s. His mother, a poet and sympathiser of the Narodnaya Volya ("People's Will") revolutionary-terrorist group, died when he was two years old. His father, an hereditary nobleman and mechanical engineer, died in 1904, so Tatlin had to interrupt his studies at the Kharkov Art School and became a merchant cadet. According to his own memories, sea and distant lands gave him both means of subsistence and source of inspiration.

From 1905 to 1910 he completed his studies at the Penza Art School, and In 1911 resettled in Moscow supported by his uncle and began a career as an icon painter. He also played the bandura, a Ukrainian folk instrument and performed abroad as a professional bandurist, accompanying his own singing in Ukrainian.

On a visit to Paris in 1913 Tatlin became familiar with the work of Pablo Picasso, whose cubist relief collages were a direct influence on Tatlin's pre-revolutionary counter-reliefs, regarded as progenitors of Soviet constructivist art.

The Fishmonger (1911)

His three-dimensional constructions made of wood and metal, some placed in corners (corner counter-reliefs) and others more conventionally, were conceived in order to question the traditional ideas of art and sculpture; although he did not regard himself as a constructivist and objected to many of the movement's ideas.

Corner Counter-Relief (with Cables) was first exhibited during the Last futuristic paintings exhibition "0.10" in Petrograd in 1915. This abstract volumetric and spatial composition was supposed to be perceived as a continuation and development of the Non-objectivity idea. The same idea was previously expressed by Tatlin in his "painted reliefs" based on the combination of contrasting textures (paper, glass, plaster, wood, and tin). The novelty of the *Corner Counter-Relief* lied in the artist's desire to abandon the traditional "painting plane" and to bring nonobjective

constructions into space formed by two inclined panes. They were used not only for the hanging of the composition, but also to create an abstract background emphasizing its volume. It was also important for the artist to show all abilities of the materials used by him. In this work they represent opposed yet inseparable notions – flexibility and rigidness, freedom and tension, movement and calmness.

Although colleagues at the beginning of their careers, Tatlin and Malevich quarrelled fiercely and publicly at the time of the 0.10 Exhibition. Malevich believed in 'art for art's sake' and that it was it's own 'spiritual' justification; whereas Tatlin's view was that it in the new soviet era it was to serve a social function with a practical purpose to improve the life of the proletariat. A distinction which, at least in the early days, forms the distinction between Suprematism and Constructivism.

Tatlin's proposal for the ***Monument to the Third International***, commonly known as ***Tatlin's Tower***, which he began in 1919 is considered a key work of Constructivism. It was planned as a towering symbol of modernity to be erected in Petrograd (Saint Petersburg) following the October Revolution of 1917, as the headquarters and monument of the Communist International (the "Third International").

It combined a machine aesthetic with dynamic components celebrating technology such as searchlights and projection screens, and was to be a tall tower made of iron, glass and steel which would have dwarfed the Eiffel Tower. Naum Gabo publicly criticised Tatlin's design saying, "Either create functional houses and bridges or create pure art, not both."

1:42 model in the courtyard of the Royal Academy, London

The tower's main spiral form was a twin helix 400 m (1,300 feet) in height, around which visitors would be transported with the aid of various mechanical devices. The main framework would contain four large suspended geometric structures. These structures would rotate at different rates. At the base of the structure was a cube which was designed as a venue for lectures, conferences and legislative meetings, and this would complete a rotation in the span of one year. Above the cube would be a smaller pyramid housing executive activities and completing a rotation once a month. Further up would be a cylinder, which was to house an information centre, issuing news bulletins and manifestos via telegraph, radio and loud-speaker, and would complete a rotation once a day. At the top, there would be a hemisphere for radio equipment. There were also plans to install a gigantic open-air screen on the cylinder, and a further projector which would be able to cast messages across the clouds on any overcast day.

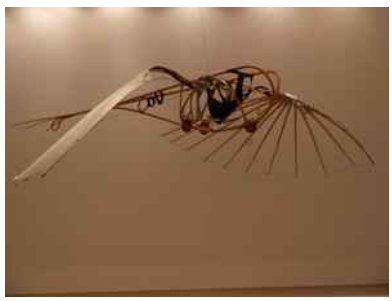
The entire building was to house the executive and legislature of the Comintern, and be a central area for the creation and dissemination of propaganda. For financial and practical reasons, however, the tower was never built.

Tatlin also dedicated himself to the study of clothes, and various objects, and flight, culminating in the construction of ***Letatlin*** personal flying apparatus. He also taught and directed the theatre, film and photography department at the Kyiv Art Institute from 1925 to 1927.

Corner Counter-Relief (1915) Detail

Counter-Relief (1916)

Men's Clothes (1920-24)



Letatlin Reconstruction (1930-32)

Aleksander Rodchenko (1891-1956) was a Russian and Soviet artist, sculptor, photographer, and graphic designer. He was one of the founders of Constructivism and Russian design; he worked as a painter and graphic designer before turning to photomontage and photography, and as one of the most versatile Constructivist and Productivist artists to emerge after the Russian Revolution.

Self-Portrait (1920)

Rodchenko was born in St. Petersburg to a working-class family who moved to Kazan after the death of his father, in 1909. He became an artist without having had any exposure to the art world, drawing much inspiration from art magazines. In 1910, Rodchenko began studies at the Kazan Art School, where he met the artist Varvara Stepanova, whom he later married.

After 1914, he continued his artistic training at the Stroganov Institute in Moscow, where he created his first abstract drawings, influenced by the Suprematism of Kazimir Malevich in 1915. The following year, he participated in "The Store" exhibition organized by Vladimir Tatlin, another formative influence.

Dance; an Objectless Composition (1915)

Rodchenko's work was heavily influenced by Cubism and Futurism as well as by Malevich's Suprematist compositions. While Rodchenko was a student of Tatlin's he was also his assistant, and as his interest in figuration that characterized his early work disappeared, he experimented with the elements of design, becoming more geometric.

Rodchenko was appointed Director of the Museum Bureau and Purchasing Fund by the Bolshevik Government in 1920, responsible for the reorganization of art schools and museums. He became secretary of the Moscow Artists' Union and set up the Fine Arts Division of the People's Commissariat for Education, and helped found the Institute for Artistic Culture.

In 1921 he joined the Productivist group, along with his wife, Stepanova, and the artist, theorist and anarchist Aleksei Gan, to advocate for the incorporation of art into everyday life. He abandoned painting to focus on graphic design for posters, books, and films.

Construction (1917)

Varvara Stepanova said in her Lecture on Constructivism, in 1921: "From here, Constructivism proceeds to the negation of all art in its entirety, and calls into question the necessity of a specific activity of art for the creation of a universal aesthetic."

From 1920 to 1930 he taught at the Higher Technical-Artistic Studios (VKhUTEIN), a Bauhaus organization with a "checkered career". It was disbanded in 1930.

Throughout the 1920s, Rodchenko produced work which was entirely abstract – using a compass and ruler in creating his paintings, with the goal of eliminating expressive brushwork.

In 1921 Rodchenko executed the first true monochrome paintings, first displayed in the 5x5=25 exhibition in Moscow. For artists of the Russian Revolution, Rodchenko's radical action was full of utopian possibility. It marked the end of easel painting – perhaps even the end of art – along with the end of bourgeois norms and practices. It cleared the way for the beginning of a new Russian life, a new mode of production, a new culture.

In 1939 Rodchenko wrote: "I reduced painting to its logical conclusion and exhibited three canvases: red, blue and yellow. I affirmed: it's all over. Basic colours. Every plane is a plane and there is to be no representation."

Rodchenko was not the first to exhibit a completely monochrome piece as a work of art. In 1884 the French writer, journalist and humorist Alphonse Allais (1854–1905) exhibited a piece of red paper which he entitled *Apoplectic cardinals harvesting tomatoes on the shore of the red sea (study of the aurora).*

Another piece was a sheet of white paper which he called *First Communion of Anaemic Young Girls In The Snow* (1883).

Allais was also the editor of the *Chat Noir*, a satirical magazine, and participated in humorous exhibitions, including those of the *Salon des Arts Incohérents* of 1883 and 1884: a short-lived French art movement founded by Parisian writer and publisher Jules Lévy (1857–1935) in 1882, which in its satirical irreverence, anticipated many of the art techniques and attitudes later associated with the avant-garde and anti-art movements such as Dada.

Allais wrote the earliest known example of a completely silent musical composition. His *Funeral March for the Obsequies of a Great Deaf Man* of 1897 consists of 24 blank measures. It predates similarly silent but intellectually serious works by John Cage and Erwin Schulhoff by many years.

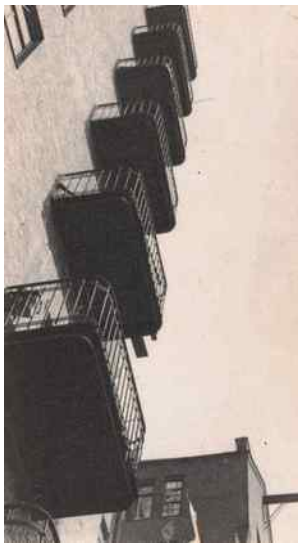
Impressed by the photomontage of the German Dadaists, Rodchenko began his own experiments in the medium, first employing found images in 1923, and from 1924 on, shooting his own photographs as well. His first published photomontage illustrated Mayakovsky's poem, *"About This"*,

Printed in modernist typography ***Poster for the Lengiz Publishing House*** (1924) is probably his most famous poster. It was made as an advertisement for the Lengiz Publishing House. Sometimes simply titled "Books",it features a young woman with a cupped hand shouting “Books in all branches of knowledge”,

The model for the photo was **Lilya Brik** nee Kagan (1891-1978), an author, sculptor and socialite connected to many leading figures in the Russian avant-garde. She was the lover and muse of Vladimir Mayakovsky, even while she was married to poet, editor and literary critic Osip Brik. Pablo Neruda called Lilya the "muse of Russian avant-garde".

Osip Brik (1888–1945) was a Russian avant-garde writer and literary critic, who was one of the most important members of the Russian formalist school. Brik was especially close to Rodchenko and did much to make his photographic work more widely known.

As changes developed in the Soviet Union in the late 1920's, leading to the exile of Leon Trotsky in 1929, along with the rise of Joseph Stalin, so did the form to which Soviet art was expected to conform. In the 1930s, with the changing Party guidelines governing artistic practice in favour of Socialist realism, Rodchenko's art and photography saw mounting criticism from state-sponsored art critics and the Party.



Osip Brik, who had joined the Cheka (secret police, an action which one critic said had ”ruined him”) became similarly entrenched in the politics and evolving art-culture. He offered what was a scathing criticism at the time for the Rodchenko's series on ***The Building on Miasnitskaia Street*** and *Pine Trees in Pushkino*, saying, “one should not depict an isolated building or tree, which may be beautiful but which will be a painting, will be aesthetic.” Similarly to Brik, Sergei Tretyakov attacked his stylized work, saying, “Instead of exploring the whole range of utilitarian goals confronting photography, Rodchenko is only interested in its aesthetic function.

He reduces its activity to simply a reeducation of taste based on certain new principles. We are seeking ‘a new aesthetics’: the capacity to see the world in a new way.”

American literary scholar and Professor at Stanford University, Edward J. Brown said of Brik that he was “A man of surpassing intelligence, he was apparently not strong either in performance or in principle."

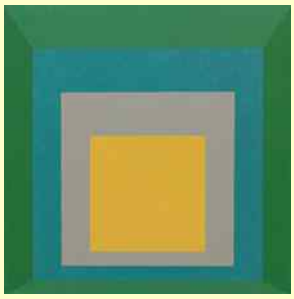
Stairway (1930)

Rodchenko's photography was socially engaged, formally innovative, and opposed to a painterly aesthetic. Concerned with the need for analytical-documentary photo series, he often shot his subjects from odd angles—usually high above or down below—to shock the viewer and to postpone recognition.

He wrote: "One has to take several different shots of a subject, from different points of view and in different situations, as if one examined it in the round rather than looked through the same key-hole again and again."

He joined the October Group (collective of constructivist artists) in 1928 but was expelled three years later, charged with “formalism”, an accusation first raised in the pages of *Sovetskoe Foto* (Soviet Photography) in 1928.

In art history **formalism** is the study of art by analysing and comparing form and style. Its discussion also includes the way objects are made and their purely visual or material aspects. In painting, formalism emphasizes compositional elements such as colour, line, shape, texture, and other perceptual aspects rather than content, meaning, or the historical and social context. At its extreme, formalism in art history posits that everything necessary to comprehending a work of art is contained within the work of art. The context of the work, including the reason for its creation, the historical background, and the life of the artist, that is, its conceptual aspect is considered to be external to the artistic medium itself, and therefore of secondary importance.



Albers,
Homage to the Square- Apparition
(1952)

The historical origin of the modern form of the question of aesthetic formalism is usually ascribed to Immanuel Kant.

The philosopher Donald Crawford has summarized Kant's position stating: "Thus, for Kant, form consists of the spatial... organization of elements: figure, shape, or delineation... In the parts of the *Critique of Judgment* in which form is emphasized as the essential aspect of beauty, Kant is consistently a pure formalist."

The philosopher and architect Branko Mitrovic has defined formalism in art and architecture as "the doctrine that states that the aesthetic qualities of works of visual art derive from the visual and spatial properties."

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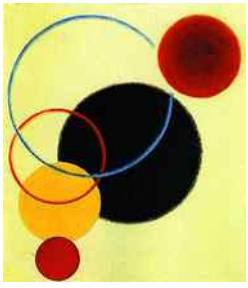


Objectless Composition 65 still-life
(1918)

Red and Yellow.
(c1918)

Pine Trees in Pushkino
(1927)

The Fire Man
(1929)

Realistic Abstraction
(1940)

Antoine Pevsner (born Natan Borisovich Pevzner 1886–1962) was a Russian-born painter and sculptor; and the older brother of scientist and writer Alexii Pevsner and sculptor Naum Gabo. As the originators of Constructivism and pioneers of Kinetic Art, the brothers are considered pathfinders of twentieth-century sculpture.

He attended the Academy of Fine Arts in St. Petersburg and travelled to Paris in 1911, encountering the works of Robert Delaunay, Albert Gleizes, Fernand Léger, and Jean Metzinger; and on a second visit in1913 meeting Amedeo Modigliani and Alexander Archipenko, who encouraged his interest in Cubism. During the war, between 1915 and 1917, the brothers stayed in Oslo. On returning to Russia Pevsner started teaching at the Moscow Academy of Fine Arts, along with Vasily Kandinsky and Kasimir Malevich.

The *Realistic Manifesto* was published by Pevsner and Gabo in 1920; and in 1922 their work was included in the *Erste russische Kunstausstellung* exhibition in Berlin; held under the auspices of the Soviet government. In Berlin the following year Pevsner met Marcel Duchamp and Katherine Dreier.

He returned to Paris in 1923 living there for the remainder of his life, becoming a French citizen in 1930. In 1926 his work was shown in New York. He and Gabo designed sets for the ballet *La Chatte*, produced by Sergei Diaghilev in 1927.

Pevsner started his artistic career as a painter, turning to sculpture about 1923, under the influence, and possible tuition of his younger brother Naum. ***The Ey***e (1923) is a painting in Oil and resin on carved gesso, on cardboard, and shows the artist experimenting with unconventional materials (a prime preoccupation of constructivist art) as well as unfamiliar subject matter. A closeup view shows that it possibly incorporates a photograph of the iris reflecting a street with buildings.

Torso (1926) is constructed of plastic and copper. It shows Pevsner exploring the idea of rendering form without mass; as if making drawings in space of the contours of the figure from various angles, without 'filling in.' This opens the form to a sense of transparency, further enhanced by the translucent nature of the material; a theme taken to further directions by Gabo.The ***Model for the Statue of Aphrodite in the Ballet 'La Chatte'*** (1927) further exploits the theme of transparency. The image of a figure evolves and transmutes as the viewer moves around.

This small (15 cm. high) sculpture was found in a drawer in Naum Gabo's studio after his death. At first thought to be by Gabo, as it had been a joint commissioned to design the set for Diaghilev's ballet *La Chatte*; however, as revealed in an interview Gabo stated "I refused to make any naturalistic sculpture for the ballet as at that time I had already left behind me the period of figurative art and had no wish to return to it."

The symmetry and idiosyncratic structure is more characteristic of Pevsner at that time: the pelvic and bottom area is comparable to *Fountain* of 1925.

Pevsner said: "Art must be inspiration controlled by mathematics. I have a need for peace, symphony, orchestration."

Pevsner advocated the use of pure industrial materials, calling for the unity of art and science. His sculptures resemble the precision of mathematical models. ***Developable Surface*** (1941) has been painstakingly constructed by welding individual bronze rods. The straight lines curve through space, drawing the eye to the core of the sculpture, where an empty oval resides, constantly mutating as the viewer moves around. Pevsner has revealed to us what is normally invisible: that which takes place inside a geometric form. (Label: Peggy Guggenheim Museum)

He was one of the first to use the blowtorch in sculpture, welding copper rods onto sculptural forms.

Maquette of a Monument Symbolising the Liberation of the Spirit (1952) is a model for a much larger work, Pevsner's submission for an international sculpture competition. 'The Unknown Political Prisoner' was a monument commission organised by London's Institute of Contemporary Arts in 1952. Pevsner constructed the intricate organic form entirely from straight elements. He sought to create an abstract monument with an architectural presence and geometric design that could be seen in its entirety from any direction. The repeated lines are 'a symbol of imprisonment. The motive floating in the abyss of the sphere emphasises the image of captivity; it becomes materialised in the shape of a cell.'

Bird in Flight (1953) was a commission by General Motors; situated at The Styling Administration Building at the General Motors Technical Center. It is made of bronze with raised polished lines.

Dynamic Projection at 30 Degrees (1953) is situated at the City University of Caracas. Although the overriding impression is of a sequence of diagonals the whole fits into a notional cube, defined by the vertical and horizontal slicing of the ends of the diagonal rod.

GALLERY

Interior With Cup

Model for a Fountain (1920)

Projection in Space (1927)

Developable Surface (1938-39)

Monde (1942)

Construction in Space (1943)

Phénix (1957)

Construction in Space and in the Third and Fourth Dimensions, The-Hague (1959-62).

Naum Gabo, (1890–1977) was an influential sculptor, theorist, and key figure in Russia's post-Revolution avant-garde and the subsequent development of twentieth-century sculpture. His work combined geometric abstraction with a dynamic organization of form in small reliefs and constructions, monumental public sculpture and pioneering kinetic works that assimilated new materials such as nylon, wire, lucite and semi-transparent materials glass and metal.

Gabo grew up in a Jewish family of six children in the provincial Russian town of Bryansk, where his father, Boris Pevsner, worked as an engineer. Gabo was the younger brother of Antoine Pevsner leading him to change his name to avoid any confusion. His brother Alexei Pevsner, a Soviet scientist, recalls that the family in the remote Russian town of Briansk always said of Naum: "He does not walk, he flies."

In 1910, after schooling in Kursk, Gabo moved to Germany and entered Munich University to study medicine. He then switched to natural science, but also attended art history lectures by the historian Heinrich Wölfflin. In 1912, Gabo transferred to an engineering school in Munich, where he discovered abstract art and met Wassily Kandinsky. A year later, Gabo moved to Paris to join Antoine, who was already established as a painter. Engineering training was key to the development of Gabo's sculptural work that often integrated machined elements.

When war broke out between Czarist Russia and Germany in 1914, Gabo sought refuge in neutral Norway, accompanied by Alexei and Antoine. It was there, according to Alexei, that constructivism was born. "During walks along the shores of the fjords and in the mountains, both by day and during the white nights," he recalled, Gabo returned again and again to "questions of space and time and to a search for means of expressing them." He soon found it. In 1915 he constructed a head from intersecting planes of coloured cardboard, later translating it into plywood, sheet metal and plastic.

It was an experiment that renounced many of the canons of sculpture up to that date. Gabo later wrote in his *Realistic Manifesto*, published in 1920 after his return to Moscow, it was a rejection of sculpture as mass in favour of an expression of "continuous depth," as more befitting what was soon to become the space age. "With the plumb line in our hand, eyes as precise as a ruler, in a spirit as taut as a compass," he affirmed "kinetic rhythms as the basic forms of our perception of real time."

Constructed Head No. 1 (1915) is created purely by intersecting planes, constructing volume without mass, and destroying traditional notions of sculptural surface. Depth, light and shade penetrates the interior, not simply lying on the surface. After Gabo's death in 1977 the work was found in his studio, wrapped in newspaper.

It was constructed in plywood from a cardboard model.

He made the original *Heads Nos. 1* and *2* in order to prove to himself and his friends in Norway that the system of open construction which he had derived from the three-dimensional models made by physicists and mathematicians could be applied to any image and in particular to a traditional subject such as the human figure.

He considered that *Constructed Head No.1* was only a partial success as it was insufficiently concave, especially in the lower section, so he went on to make ***Constructed Head No.2*** which he felt embodied his ideas completely. The first version made in cardboard and then translated into galvanised iron, was developed from a charcoal drawing of 1916, depicting a woman in a hat with a veil, though the hat and veil are omitted from the sculpture itself. The sculpture is built out of pockets of space, with the metal ribs springing from a central axis. There is only a single convex element - a curved, open plane forming the figure's right shoulder. He was particularly interested in the possibility which this spatial freedom afforded of combining several different aspects of the same image If, when viewing the sculpture from the front, one thinks away certain of the shoulder details so that the neck is isolated from its background, the figure appears to be erect and alert, whereas the whole figure is of one of a person leaning forward in a hunched position with her hands resting in front of her. As one moves around the sculpture to the left the head seems to turn also, until seen from the side, there is another complete face looking towards the viewer; the other side showing only a profile view. Although there are certain superficial similarities to analytical Cubism, Gabo said that he regarded his aims, to create in terms of space, as completely different.

He afterwards made four further versions, three in Cor-ten steel (a steel widely used for building purposes which rusts but is self-sealing). The latter three are monumental enlargements all 175cm high, the first of which is in the Tate Gallery. The final one is in stainless steel.

Following the Russian Revolution, which he saw as the beginning of a renewal of human values, he became a leading figure in Moscow's Avant-garde, contributing to the Agit-prop open air exhibitions and teaching at 'VKhUTEMAS' the Higher Art and Technical Workshop, along with Tatlin, Kandinsky and Rodchenko. During this period the works became more geometric and Gabo began to experiment with kinetic sculpture though much of the work was lost or destroyed. His designs had become increasingly monumental but there was little opportunity to apply them; as he commented, "It was the height of civil war, hunger and disorder in Russia. To find any part of machinery … was next to impossible".

In 1920 the brothers published the *Realist Manifesto*, as a pamphlet. Five thousand copies were distributed and posted on hoardings around the city to accompany an open air Exhibition in Moscow. In it, they sought to move past Cubism and Futurism, stating that the spiritual experience was the root of artistic production, and renouncing what they saw as the static decorative use of colour, line, volume and solid mass in favour of a new element they called "the kinetic rhythms (…) the basic forms of our perception of real time."

> "Space and time are the only forms on which life is built and hence art must be constructed. …We renounce in sculpture, the mass as a sculptural element. It is known to every engineer that the static forces of a solid body and its material strength do not depend on the quantity of the mass… example a rail, a T-beam, etc. But you sculptors of all shades and directions, you still adhere to the age-old prejudice that you cannot free the volume of mass. Here… we take four planes and we construct with them the same volume as of four tons of mass. Thus we bring back to sculpture the line as a direction and in it we affirm depth as the one form of space." (*Realist Manifesto*)

Model for Construction in Space, Two Cones (1927)

To define the volumes of mass and space more clearly in his sculpture, Gabo used some of the new synthetic plastic materials, such as celluloid, nylon, and Lucite in order to create constructions whose space seem to flow through, as well as around, the transparent materials. In works such as *Column* (1923) the sculptor opened up the column's circular mass so that the viewer can experience the volume of space it occupies. Two transparent planes extend through its diameter, crossing at right angles at the centre of the implied cylindrical column shape. The opaque coloured planes at the base and the inclined open ring set up counter-rhythms to the crossed upright planes. They establish the sense of dynamic kinetic movement Gabo always sought to express as an essential part of reality.

Unfortunately, and ironically, the sculptures of Pevsner and Gabo, innovative in terms of materials as well as form, have turned out to be problematic when it comes to their conservation. Works which were intended to be 'eternally modern', instead of resisting the passage of time have become distorted and decayed. In particular in rejecting the 'traditional' and eternal sculptural material of bronze in favour of modern plastics they have chosen a material which is subject to distortion and brittleness, and the risk of fragmentation over time. A particular case is the version of Gabo's ***Construction in Space: Two Cones*** (1927) that is in the Philadelphia Museum of Art, and is now almost totally fragmented.

In some of these cases, and with permission of Gabo himself when he was still alive, conservationists sought to rescue the sculptures by making replicas of the original, partially-decomposed sculptures. The procedure, however, has been questioned as it challenges the principle of originality of these works of art,

Kinetic Construction (Standing wave) (1919–20) is often considered the first kinetic work of art. Constructed of a single copper wire attached to a motor concealed in the base, when set in motion it vibrates, oscillating in time and space, occupying both. The movement in time is defining the space by the moving rod: an entirely new sculptural concept.

In the Realistic Manifesto he stressed the relevance of his art to the new social and ideological situation:

> "On the squares and on the streets we are placing our work convinced that art must not remain a sanctuary for the idle, a consolation for the weary and the justification for the lazy. Art should attend us everywhere that life flows and acts…at the bench at the table, at work, at rest, at play; on working days and holidays … at home and on the road … in order that the flame to live should not extinguish in mankind."

Gabo left Russia for Germany in early 1922, as did many artists eager to see creative developments in the West and to escape the increasing constrictions on experimentation. (Gabo was fluent in German, English and French as well as his native Russian. The command of several languages contributed greatly to his mobility throughout his career.)

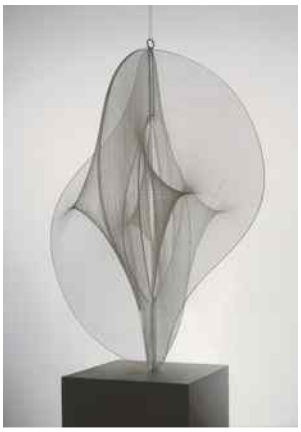
His arrival in Berlin in 1922, which initiated his lifetime emigration from the Soviet Union, has been interpreted as an explicitly anti-Soviet act; a view which is contested. His support for the October Revolution, arguing that he did not initially intend to stay in the West.

Construction in Space (1937-39) encloses the forms, depicting movement in space, in a shallow, off-set box-like form. The side view shows the forms spiralling out into the space beyond the containing box. Transparency adds another (fourth) dimension to our experience of the work.

Linear Construction in Space No. 1 (1943) is made of Lucite (acrylic plastic resin) with nylon thread. The use of nylon filament in his linear construction works creates voids or interior spaces as "concrete" as the elements of solid mass.

Caroline Collier, an authority on Gabo's work, said: "The real stuff of Gabo's art is not his physical materials, but his perception of space, time and movement. In the calmness at the 'still centre' of even his smallest works, we sense the vastness of space, the enormity of his conception, time as continuous growth."

The exactness of form leads the viewer to imagine journeying into, through, over and around his sculptures.



Linear Construction in Space No.2, (c.1949, reconstruction 1976)

Gabo visited London in 1935, and settled in 1936, where he found a "spirit of optimism and sympathy for his position as an abstract artist". At the outbreak of World War II he followed his friends Barbara Hepworth and Ben Nicholson to St. Ives in Cornwall, where he stayed initially with the art critic Adrian Stokes and his wife Margaret Mellis. While in Cornwall he continued to work, albeit on a smaller scale. His influence was important to the development of modernism within St Ives, and it can be seen most conspicuously in the paintings and constructions of John Wells and Peter Lanyon, both of whom developed a softer more pastoral form of Constructivism.

In 1946 Gabo and his wife and daughter emigrated to the United States, where they resided first in Woodbury, and later in Middlebury, Connecticut. Gabo died in Waterbury, Connecticut, in 1977 and his wife in 1993.

Later prominent constructivists included Varvara Stepanova, Manuel Rendón Seminario, Joaquin Torres Garcia and Lázló Moholy-Nagy.

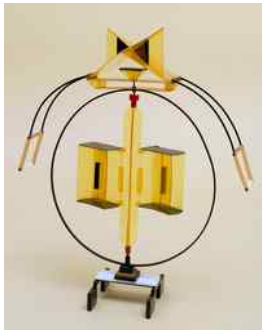
GALLERY

Head of a Woman (c.1917-20)

Column (1923 reconstructed 1937)

Spheric Theme-Black Variation (1937)

Untitled–'The Stylised Flower', Rotterdam (1956-57)



Model for Rotating Fountain (1925 reconstructed 1986)

Linear Construction in Space, Number 4 (1957–58)

Construction with Alabaster Carving (1966)

Revolving Torsion Kinetic Sculpture Fountain at Guys and St. Thomas' Hospital London (1972)

BRITISH CONSTRUCTIVISM

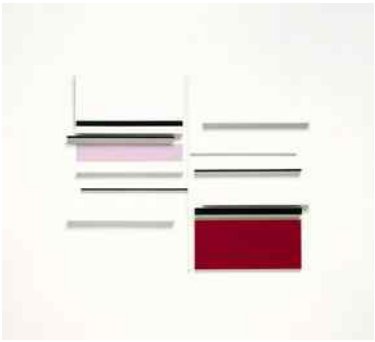
Kenneth Martin (1905–84) was an English painter and sculptor who, with his wife Mary Martin and Victor Pasmore, was a leading figure in the revival of Constructionism.

Though there was a tendency towards abstraction in British post-war art, it often had a representational base, as in the sculptures of Lynn Chadwick or, at first, Martin's own painting "Chalk Farm" of 1949. But Martin swiftly followed this with the purer abstraction of lines and geometrical shapes. Identifying this transition in his *Broadsheet* essay, Martin explained that "what is generally termed 'abstract' is not to be confused with the abstraction from nature and its reduction and distortion to a pictorial form... Abstract painting is the result of a creative process exactly the opposite of abstraction." Because such art was constructed according to scientific or mathematical models, the Martins turned to making reliefs and moving sculptures which they called "constructionist", although acknowledging their link with earlier European Constructivism.

Screw Mobile with Cylinder (1956)

Kenneth Martin's ***Screwmobile*** of 1953, with its brass strips mounted in helical form, is considered a particularly representative example of that approach. Later static constructions with implied kinetic rhythms included the small standing "Oscillation" and the monumental "Construction in Aluminium" for the Cambridge University Department of Engineering, both dated 1967. As he was theorising at the time that he created these works, "An organized series of events, which the constructing process becomes, defines the whole character of a work. The mental and the physical are tied together in the succession of events. So that practical things, through the understanding of their nature, can result in an imaginative edifice." Diversifying from such works, he developed his adjustable "Rotary Rings" (1968) and the curved narrow blades of his motorised "Kinetic Monument" (1977).

GALLERY



Abstract With Black Indian and Violet (1957)

Hill Relief construction (1960-62)

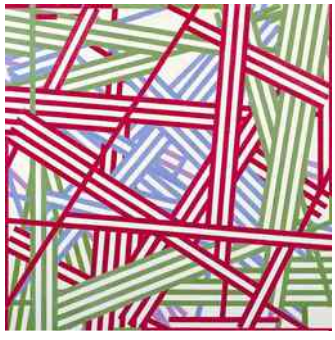
Oscillation A (1964)

Variable Screw (1967)

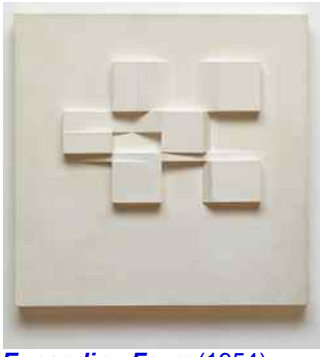
Construction In Aluminium (1967)

Variable Screw (1967)

Variable (Documenta) (1968)



Chance, Order, Change (1980)



Expanding Form (1954)

Mary Martin (1907–1969) was a British artist best known for constructed abstract art and for her collaborations with her husband Kenneth Martin. Martin moved towards pure abstraction in the late 1940s painting her first abstract picture in 1950, made her first reliefs in 1951 and her first free-standing construction in 1956. Martin and her husband collaborated on the *Environment* section of the seminal exhibition *This is Tomorrow.*

GALLERY

Climbing Form (1962)

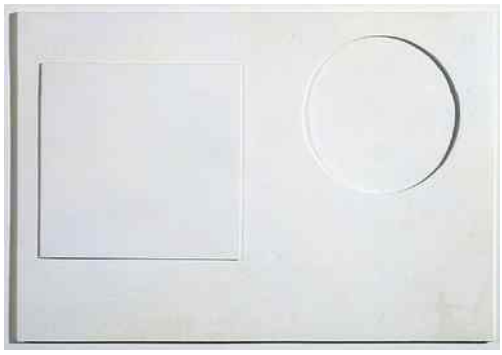
Perspex Group on Orange (1967)

Rotation

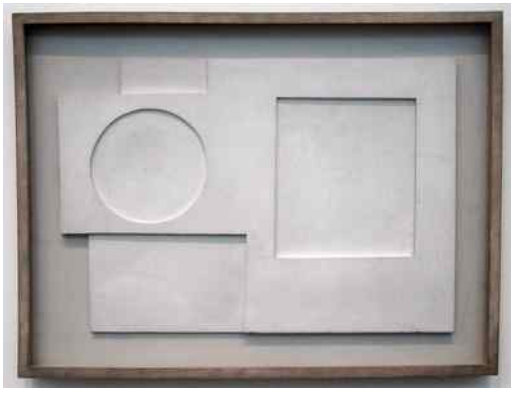
Dispersal-On Black (1967)

Ben Nicholson (1894–1982) was an English painter of abstract compositions (sometimes in low relief), landscapes, and still-life. He was one of the leading promoters of abstract art in England.

In London, Nicholson met the sculptors Barbara Hepworth (to whom he was married from 1938 to 1951) and Henry Moore. On visits to Paris, he met Picasso and Mondrian, whose work in the neoplastic style was to influence him in an abstract direction, incorporating these European trends into a new style that was recognizably his own. In Paris in 1933, he made his first wood relief, ***White Relief***, which contained only right angles and circles. In 1937, he was one of the editors of *Circle*, an influential monograph on constructivism. He believed that abstract art should be appreciated and enjoyed by the general public. In 1939 he moved to St Ives.



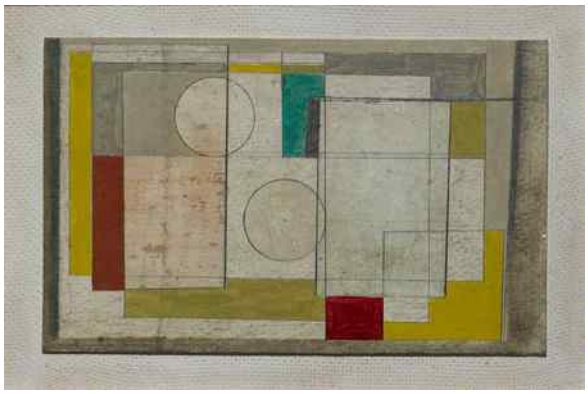
GALLERY



1934 (relief)

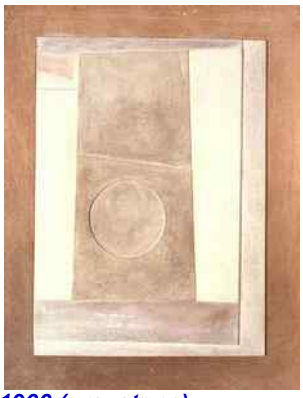
1935 (painting)

1939 (painted relief)



1945 (painting)

1950 (still life – Dolomite)



1966 (greystone)

Barbara Hepworth (1903–75) was an English artist and sculptor. Her work exemplifies Modernism and in particular modern sculpture. Along with artists such as Ben Nicholson and Naum Gabo, Hepworth was a leading figure in the colony of artists who resided in St. Ives during the Second World War; and was one of the founders of the art movement Unit One.

At the beginning of the Second World War Hepworth and Nicholson moved to St Ives, Cornwall, where she would remain for the rest of her life.

Pierced Form (1932)

GALLERY

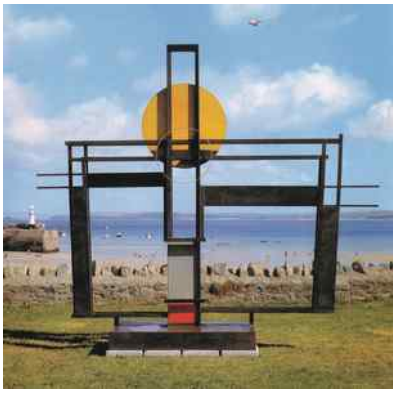
Stringed Figure (Curlew), Version II (1952)

Corinthos (1954-55)

Sphere with Inner Form (1963)

Sculpture with Colour and Strings (1961)

Winged Figure (1963)



Construction Crucifixion (Homage to Mondrian) (1966)

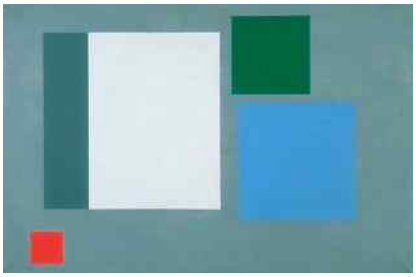
John Wells (1907–2000) was an artist and maker of relief constructions, associated with the St. Ives group. After the Second World War he decided to pursue a full-time career as an artist and settled in Newlyn, Cornwall, He was the co-founder of the Crypt Group and the Penwith Society of Arts. He worked with Barbara Hepworth from 1950 to 1951 and exhibited regularly in London, the provinces and abroad. His works of geometric abstraction were influenced by Gabo, Ben Nicholson and Hepworth

Untitled Painting (1961-63)

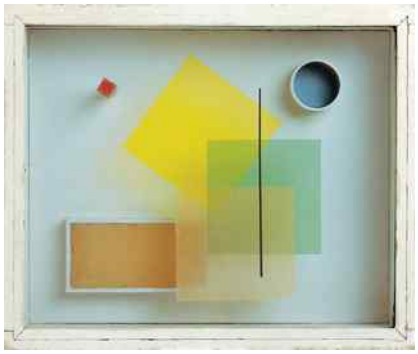
GALLERY

Harbour Façade (1961)

63/11 (1962)



Composition (1968-76)



Box Construction (1939-40)

Peter Lanyon (1918–1964) was a British painter of landscapes leaning heavily towards abstraction. Lanyon was one of the most important artists to emerge in post-war Britain. Despite his early death in a gliding accident at the age of forty-six he achieved a body of work that is amongst the most original and important reappraisals of modernism in painting to be found anywhere. Combining abstract values with radical ideas about landscape and the figure, Lanyon navigated a course from Constructivism through Abstract Expressionism to a style close to Pop. He also made constructions, pottery and collage.

GALLERY

Porthleven Boats (1950-51)

Construction for ' Lost Mine' (1959)

Offshore (1959)

Heather Coast (1963)

CONSTRUCTIVIST ARCHITECTURE

Public Assembly Buildin, Dnipro, Ukrain (1912) A precursor of Constructivism

Alexander **GINZBURG** (1876-1949)

Rusakov Workers' Club, Moscow (1927–28)

Konstantin MELNIKOV (1890–1974)

Zuev Workers' Club, Moscow (1928)

Ilya GOLOSOV (1883-1945)

The print shop of Ogonyok magazine, Moscow (1932)

EL LISSITZKY (1890-1941)

White Tower, Yekaterinburg (1931)

Moisei REISHER

House and studio of Diego Rivera and Frida Khalo, Mexico City (1932)

Juan O'GORMAN

Krasnye Vorota Metro Station Ground Pavilion (1935)

Nikolai LADOVSKY (1881–1941)

Maxim Gorky Theatre, Rostov-na-Donu, Russia (1935)

Vladimir SCHUKO (1878–1939) **and Vladimir GELFREYKH** (1885–1967)

Apollo Pavilion, Peterlee, UK (1969)

Victor PASMORE (1908–98)

University of Leicester Engineering Building (1963)

James STIRLING

Pompidou Center, Paris (1971-77)

Richard ROGERS (1933-2021)
Renzo PIANO (1937–)
Gianfranco FRANCHINI (1938-2009)

Seattle Central Library

Rem KOOLHAAS (1944–)

Zaha Hadid (1950–2016) was an Iraqi-British architect, artist and designer, recognized as a major figure in architecture of the late-20th and early-21st centuries.

in 1972. In search of an alternative system to traditional architectural drawing, and influenced by Suprematism and the Russian avant-garde, Hadid adopted painting as a design tool and abstraction as an investigative principle to "reinvestigate the aborted and untested experiments of Modernism [...] to unveil new fields of building".

Her former professor, Rem Koolhaas, described her at graduation as "a planet in her own orbit."

Her AA graduation thesis, ***Malevich's Tektonik***, was a concept and design for a 14-level hotel on London's Hungerford Bridge executed as an acrylic painting, inspired by the works of Kazimir Malevich's suprematist paintings.

Hadid was the first woman to receive the Pritzker Architecture Prize, in 2004. She received the UK's most prestigious architectural award, the Stirling Prize, in 2010 and 2011. In 2012, she was made a Dame by Elizabeth II for services to architecture, and in February 2016, the month preceding her death,she became the first woman to be individually awarded the Royal Gold Medal from the Royal Institute of Architects.

GALLERY

Vitra Fire Station, Weil am Rhein, Germany (1991-93)

MAXXI National Museum of the 21st Century Arts, Rome (1998-2010)

Evelyn Grace Academy, London (2006-10)

London Aquatic Centre
(2012)

Capital Hill Residence, Moscow
(2006-18)

King Abdullah Financial District Metro-station, Riyadh, Saudie Arabia (2012-24)

Port Authority Building, Antwerp (2009-16)

Galaxy SOHO, Beijing, China (2012)

BEEAH Headquarters United Arab Emirates (2022)

Jinghe New City Culture & Art Centre

Shenzhen Science and Technology Museum (2019-25)