

Proun: see *MOSKAU* 1919, *MA, De Stijl*, no. 6 (1922).

Space: That which cannot be seen through a keyhole or through an open door. Space is there not only for the eyes, it is not an image. It is for living.

Amid the junk in the exhibition hall at the Lehrter Bahnhof, various "spaces" have been boxed in. One box has kindly been placed at my disposal. The 6 planes (floors, 4 walls, ceiling) are given; they need to be shaped. It should not be a living room; after all, it is an exhibition. In an exhibition, one goes around in a circle. Hence the room should be organized such that the room itself encourages us to walk around in it.

The first form that "guides" those coming from the large hall is placed diagonally and it "leads" them to the large horizontals of the front wall and from there to the verticals of the 3rd wall. At the exit — STOP! The square below, the primal element of the whole design. The relief on the ceiling, which lies in the same field of view, repeats the movement. The floor could not be realized, for reasons having to do with the materials.

The space (as exhibition space) has been designed with elemental forms and materials: line, plane and bar, cube, cone, and black, white, grey, and wood; and planes that are painted flat on the wall (color) and planes that are set perpendicular to the wall (wood). The 2 reliefs on the walls establish the set of problems and the crystallization of all the wall surfaces. (The cube on the left wall in relation to the cone on the front wall, and the latter in relation to the bar on the right wall.) — The space is not a living room. — I have shown the axes of my shaping of the space here. In it I want to state the principles that I consider necessary for a principled organization of space. In this pre-

existing space, I try to make these principles visible, with particular attention to the fact that it is an exhibition-display space, that is, for me it is a demonstration space.

The organization of the wall should not, therefore, be understood as an image = painting. Whether we "paint" walls or hang paintings on the wall would be equally wrong. The new room neither needs nor wants paintings, — it is not an image transposed into planes. That explains why painters consider us an enemy: we destroy the wall as resting place for their paintings. When I want to create the illusion of life in a closed space, I do it as follows: I hang a sheet of glass on the wall, but instead of a canvas, I place a periscope device behind it that at every moment shows me actual processes in their true color and real movement.

The equilibrium that I want to create in this space must be mobile and elemental so that it cannot be destroyed by a telephone or normalizing office furniture, etc. The room is there for humans, not humans for the room. The cubic meters that a person needs for calm, work, social life must be brought into unity, and it must be possible to move this unity — when necessary — by means of an elemental system of articulation. We no longer want the room to be a painted coffin for our living bodies.

The Hague, May 1923

Ei Lissitzky

HERE COMES THE NEW ENGINEER.

Unconditional criterion for modern, creative people: the ability to think and produce forms elementally.

The school for the new form-creation: to reveal, radically and irreproachably, the elements of every area of form-creation. — And: to live the modern worldview in its most extreme consequences.

Now the new generation of engineers is growing!

That means: first, the perfection — then the end of mechanistic technology.

The last massive ascent of mechanistic technology, because the requisite laws must be a mastered component of the modern worldview, and the means of elemental form-creation must be completely clear to the new engineer.

Necessary consequences of this clarity and mastery include: simplicity, balance, self-evidence, highly refined economy.

The new engineer does not reproduce forms — he produces forms anew, that is, he does not improve but fulfills every demand in an absolutely elemental way.

In a few years, the new elementally trained generation of engineers will easily meet every demand that can reasonably be made of mechanistic technology.

BEYOND ALL THIS:

Moreover, an enormous, magnificent field will develop for the leaders among the new form producers, a field whose first outlines are already turning up in science and art. In another decade, hypotheses will become theories; — and finally: mastered laws. Only the capacity — transformed into flesh and blood — to meet every challenge in an absolutely elemental manner can lead us forward.

Uninfluenced by the methods of mechanistic technology, the new, magnificent technology — of tensions, of invisible movements, of remote influence, of speeds that cannot yet be imagined in the year 1922 — is emerging.

The new engineer is prepared.

Long live elemental form-creation!

Berlin, December 1922

Werner Gräff

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Theses from the Realist Manifesto Moscow 1920.

Like all manifestations of the spirit art too must be anchored to the firm ground of the real laws of life.

All expressions of life are spatio-temporal. It is the task of art to form these expressions. The realization of the new shaping of life in the exact forms of space and time is the task of our creative efforts.

We reject extension as the form of space. Space cannot be measured as volume just as liquids cannot be measured in ellis. Depth bounded materially is the only form of space.

We reject the thousand-year-old error that sees the static as the only element of art. We affirm the cinematic as a new element of art. It is an essential feature of the expression of our age.

Gabo, Pevzner.

<p>DE STIJL THE HAGUE HOLLAND, Klimopstraat 18, Distribution. Monthly journal. Yearly subscriptions cost 6 fl. Editor: Theo van Doesburg DISTRIBUTION IN GERMANY: through Ernst Wasmuth A.-G. BERLIN W 8, Markgrafenstraße 31. (Special Price for Germany)</p>	<p>MERZ champions the idea. MERZ 4 issues cost 3 marks MERZ X Booksellers registry number (year). Distribution through the MERZVERLAG HANNOVER, Waldhausenstraße 5 II Kurt Merz-Schwitters is the editor. Order today; you will be satisfied.</p>
<p>MA a Hungarian monthly journal Editor: Ludwig Kassak VIENNA, Finalien-Straße 26 II A SPECIAL ISSUE in German has just appeared The next issue will address the tasks of the "Gesellschaft der Freunde des neuen Rußland"</p>	<p>M Appears in a series free of compulsion. E J. K. Bonset and Th. v. Doesburg are C the editors. The yellow issue, the blue A issue, and the red issue have already N appeared. 10 issues cost 5 fl. Dist. O Klimopstraat 18, The Hague, Holland. M E C N O is the international journal for intellectual hygiene and neo-Dadaism.</p>

BOOK NOTICES:

Kurt Schwitters: *Auguste Bolle* (Berlin: Sturmverlag). — hans arp. *Die Wälkungen* (Hannover: Steegemann). — v. Doesburg: *Classique, baroque, moderne* (Paris: L. Rosenberg). — Ei Lissitzky, *Mechanisches Theater* (Album, format 45:60, 10 lithograph sheets with foreword — 75 numbered copies — 150 marks. Standard book number. Subscriptions accepted by the editors of G).

IG Material for Elemental Form-Creation

JULY 1923

The task of this journal: To clarify the general situation of art and of life. We choose materials with that in mind. Articles and works that seek clarity — and not merely expression. Everything that can be of use to creative work and the creative worker (technical, theoretical, ideological, economic, pedagogical, etc.) will be published. We call for photos, transparencies, diagrams, for catalogs and advertisements, for review copies of journals and new publications, for aerial photographs, etc. — to the extent that they may be important for our work. Journals that review G or reprint from it are requested to send sample copies.

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The opposition between modern form-creation (in art) and yesterday's art is one of principle. We do not wish to bridge it but to deepen it.

Weariness with the old artiness and the fact of vital human interests represent the prerequisites of any new form-creation.

Our "emotions" impede us from seeing what is truly essential for us. A lack of prejudice, even about the holiest traditions, is required.

Today, the trend of both artiness and of life is individualistic and emotional.

Operating methodically and impersonally is a cultural challenge today. Art has been struggling toward this capacity for two generations (overcoming the classical prejudice, humanism, and the Middle Ages).

The fundamental demand of elemental form-creation is **economy.**

Pure relation of power and material.

That requires elemental means, total control of means.

Elemental order, regularity.

In France, the land of artistic tradition, the pictorial object was eliminated; in Holland (*De Stijl*) and in Russia (constructivists and Malevich-Tatlin), practical labor emerged; in Germany the latest manifestations have thus far merely provoked the view that we are dealing with a new ism, and, to be sure, one of exceptional barbarism and rawness — especially in regard to everything emotional.

It seems to us entirely impossible that even in Germany there are not more artists who are abandoning the art business — out of inner necessity — in order to devote themselves to fundamental tasks in practice and theory.

Though perhaps we do not have here, as in Holland, great opportunities to build, or as in Russia, opportunities to produce modern things, **until now the call to that which is fundamental has not even been articulated here.** This demand must now be made.

Every work fascinates by means of another. No one can achieve anything today without learning from neighbors or enemies. A subjective attitude is ruinous in all realms of life and the true cause of all catastrophes — in art as well.

The new artists act collectively.

We will first lay out — theoretically and practically — what is to be understood by elemental form-creation, regularity, collectivity, tasks, etc.; and we will document all this with our own works and those of foreign comrades.

Our task is of a destructive and a constructive nature.

The classical prejudice, the basis of the culture now in decline, **must be destroyed.**

Only then will new inclinations and needs take shape.

The elemental task of the creative person means not only:

corresponding to the inclinations and needs of our time, but above all: **creating new inclinations and needs.**

Hence it is not a new direction that we advocate. We direct our appeal not to lovers of art but more generally to those who love the fundamental — in art as in all life's contexts.

We can expect such people to understand our will to solve the problem of art not from an aestheticizing standpoint but from a general cultural one.

We have no need for a beauty that, as a mere flourish, is pasted onto our (precisely oriented) existence — we need instead an inner order for our existence. *Anyone who creates contexts who makes the means for form-creation more profound and more organized will create new life and*

surplus.

On Elemental Form-Creation

I.

It is becoming necessary to distinguish precisely between two opposed modes of expression: the decorative (ornamental) and the monumental (form-producing).

These two modes of expression determine two entirely distinct conceptions of art: that of the past and that of the present. If the decorative principle aims at centralization, then decentralization characterizes the monumental.

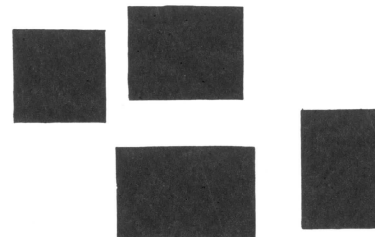
The development of art has passed up to now through all the stages, from individualism to extreme generalization.

Individualism	— Decoration	— Monumentality	Generalization
	— Past	— Present	
	— Centralization	— Decentralization	

Within this tension lies the problem of the modern forming of art, of the new style.

In the decorative conception, creative activity was dependent on personal taste, whim, or intuitive assessment of the elements of the artwork. Such capricious work did not, however, meet the demand of our time: **PRECISION.**

THÉO VAN DOESBURG
BASIS CONTINUUM OF PAINTING



STIJL
IG
Elemental
Form-creation

I. (Demonstration of the Materials)

a = □
b = —

a Construction of space in two different tempos (continuous)

b Construction of surface by contrasting accentuation of the plane (discontinuous)

II. (Shaping (Gestaltung) of the Materials)

a Continually increasing, accompanying b abruptly, so that b always interpenetrates planar conditions into the spatial development.

a decreasing in size and intensity, disappearing sideways

Stop

a alternating in position and intensity, the new theme begins: movement of two qualities of light toward one another (movement of a "plane" in front of and behind a fixed plane)

Growth of the front plane

Disappearance of the back plane

Stop!!!

Combination of all processes in one

conclusion, Maximum quantity and intensity of light

Hans Richter □

monumental artistic production if we do not agree on the elemental means of form-creation.

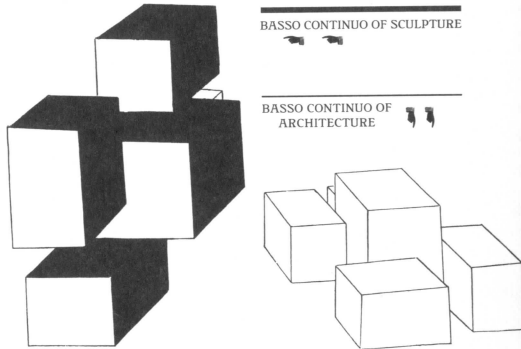
What we demand of art is CLARITY, and this demand can never be satisfied if artists use individualistic means. Clarity can only follow from discipline of means, and this discipline leads to the generalization of means. Generalization of means leads to elemental, monumental form-creation.

It would be ridiculous to assert that all of this is not a part of creative activity, that art is not subject to any logical discipline, or that it grows only from spontaneous, impulsive processes of the individual. The precision, the clarity, that we demand from the artwork has the same roots as the scientific or technical perfection that is revealed in the nonartistic objects of daily use that surround us. From these objects, which arise from the needs of life today, the artist of the present learns that impulsive and speculative work is at an end. **The age of decorative taste is over; the artist of the present has broken entirely with the past.** Scientific and technical consequences compel him to draw conclusions for his own field. The creative consequences force upon him a revision of his means and a regularity that verges on a system, that is, to a conscious mastery of his elemental expressive means.

modern art) we have determined that the form-creating arts must be precisely distinguished. Without this precise distinction (sculpture from painting, painting from architecture, etc.) it is impossible to create order from chaos and to become acquainted with elemental means of form-creation. Until now the means of form-creation have been mixed to such an extent that they ultimately came to seem inseparable. This blurring of means is a relic of the baroque, in which the various arts destroy one another (by proliferating at and against one another) rather than reinforcing one another by means of a clear relationship to one another.

The new form-creation grows out of elemental means. In it the various arts are related in such a way that they are in a position to develop a maximum of (elemental) expressive power.

Théo van Doesburg □



Secondary (Auxiliary) Means — Primary (Elemental) Means

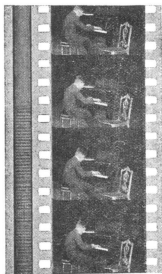
- Painting: Illusion of form (object), anecdote, etc.
- Painting: Form-time-color
- Sculpture: Illusion of form, anecdote, etc.
- Sculpture: Space-time-line, surface, volume
- Architecture: Closed, formal type, decoration, symbol, etc.
- Architecture: Space-time-line, surface.

II.

As early as 1916, we established as our primary and most important demand: **the separation of different areas of form-creation.** In the face of a baroque style that continues to proliferate (even in

From the Sound

Film to Optophonetics.



SOUND FILM STOCK BY VOGT, MASSOLLE, AND ENGEL

The processes that determine light, sound, electricity, warmth, etc., are oscillation phenomena within the bearers of fine particles; these phenomena differ by degree but are similar in terms of the laws they obey. What our ear perceives as sound or noise are simply oscillations at a rate between 16 per second and about 20,000 per second; we perceive light between 760 billion and 360 billion oscillations per second. The fact that acoustics, optics, and electrokinetics are essentially distinguished by their frequency of oscillation (though, in general, they are merely different forms of energy transfer) makes it possible to create procedures that transform one form of energy into another.

That, in turn, provided several inventors with the foundation on which to construct the sound film. The best film of this sort today was invented by Messrs. Vogt, Massolle, and Engel. Vogt, who devised the idea, took an invention by Ruhmer but replaced Ruhmer's selenium cell with a new construction: a photocell with a potassium coating. Even in new films with speech and song, sound waves are transformed into light waves, as Ruhmer had done; these are

captured by photography on the film stock itself and then converted back into sound. The procedure devised by Vogt, Massolle, and Engel represents enormous progress over Ruhmer's photographed music. Above all, it solves a problem that Ruhmer could not: the coordination of a filmed action with completely synchronous reproduction of its sound (in operas, etc.).

The recording of a film with images and sound proceeds as follows: the film stock, which is wider than the normal variety, carries the sound recordings on the same side that has the sprocket holes. As an action is being shot, the trumpet captures the sound waves, which are transformed by the so-called cathophone into amplified electrical currents and conducted to an ultra-high-frequency lamp, where fluctuations in current are transformed into fluctuations of light. The lamp's light fluctuations pass through a slit and are recorded photographically on the film stock next to the sprockets, where they appear as fine horizontal stripes of varying thickness. The combined image-sound film is developed and copied like normal film.

An image-sound film is replayed as follows: a narrow ray of light passes through the sound inscriptions on the film stock and, depending on the widths separating the light and dark transverse lines, falls on a photoelectric device — the photocell with its potassium coating — splitting off electrons in it according to the fluctuations in the light. In this way the conductivity of the vacuum tubes is transformed into a weak alternating current — with the use of resistors. These currents are then boosted by a linear amplifier and now have the ability to drive the statophone — an electrostatic telephone. The statophone, developed principally by Massolle, reproduces the highest and lowest sound frequencies clearly and at volumes previously unattainable, so it can be used even in larger halls.

Another idea for a device forms the basis for the capacitor-based sound film by Waltz-Meusser. In 1920, a patent report was published in *Die Zeitschrift für Feinmechanik* that demonstrated it was possible to create sound films using a capacitance profile. It also gave a practical demonstration of how the sprocket holes of a normal film, when used as a capacitance profile, could be used to produce a musical tone of varying pitch that arose due to the changes in capacitance that occurred with changes in the operating speed. As funds were limited, however, these experiments were pursued along a side route — the route of the transformation of speech and sound into capacitance variations on the scale that will presumably be appropriate for film. This route will pass through the gram-

phone and its capacity to reproduce sound using a small condenser microphone. The scientific proof that even variations in capacitance much smaller than those necessary for film are sufficient for clear reproduction came in 1920 with a small cylindrical capacitor sensor.

However, the step from the sound film to optophonetics is still a large one. The first to treat this question was the inventor of the antiphone, Plenner, in an article titled "The Future of Electrical Television." In it he wrote: "If the light beam can (by means of a selenium cell) be made to produce or vary induction currents, then a telephone plugged into such a current would have to transform the phenomena thus induced into sounds. Hence, that which enters the receiving station as an image would appear in the intermediary apparatus as sound, and when moving images — that is, visible processes — are recorded at the origin, they would have to be revealed in the form of a sequence of sounds, and vice versa. In its acoustic transformation, a rectangular shape would necessarily produce a different sound image than a triangular or a circular one; a cube would necessarily sound different than a cone or prism. Crystals and stars will begin to speak, but in what language, with what intonation? That is still purely a matter of speculation, but someday understanding will rise out of this lack of knowledge."

This idea, like the sound film itself, is based on a naturalism that is no longer a possibility for us today. Music, in its most recent form (even that of the futurists), no longer corresponds to our awareness of the world, just as nonkinetic painting no longer corresponds to it — all this is undeniable. We must therefore find new laws that are valid for us, a new functionality for both. We must communicate in a fundamental way that this functionality of form arises from the intensity of oscillation so that a new formal norm can be put forward that surpasses everything arbitrary.

Berlin

R. Hausmann

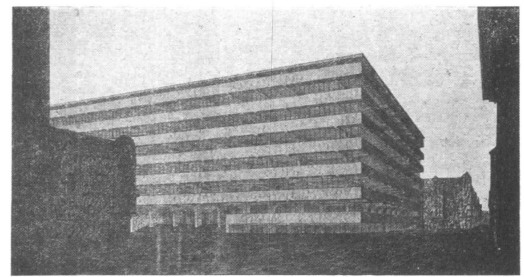
We reject { every aesthetic speculation, every doctrine, and every formalism

The art of building is the will of our time captured in space. Living. Changing. New.

Not yesterday, not tomorrow, only today can be formed. Only this practice of building gives form.

Create the form from the nature of the task with the means of our time.

That is our task.



OFFICE BUILDING

The office building is a place of work of organization of clarity of economy. Bright, wide working spaces, clearly laid out, undivided, subdivided only according to the organism of the firm. Maximum effect with minimum expenditure of means.

The materials are concrete iron glass. Ferroconcrete buildings are by nature skeleton buildings. Neither baked goods nor armored towers. Supporting girder construction; a nonsupporting wall. Hence, skin-and-bone buildings.

The most efficient organization of work places determined the depth of the space, which is 16 meters. A dual-shaft frame spanning 8 meters, with a console on each side that projects 4 meters, was determined to be the most economical principle for the construction. The trusses are spaced 5 meters apart. This girder system supports the ceiling panel, which at the end of the cantilever arm is angled up vertically to form an external skin and a backing wall for the shelves that were moved from the interior into the external walls for the sake of clarity. Above the 2-meter-high shelves lies a continuous band of windows that reaches to the ceiling.

Berlin, May 1923

Mies v. d. Rohe

MATERIAL FOR COMING ISSUES:

Fiat | Element and Invention | New Optics | Building Crafts and Building Industry | Topography of Typography | Luna Park | Photosculpture | Children's Toys | Acrobatics of Actors | i | The New Dwelling | The International Language of Traffic Signs.

Art should not explain life but change it.