CHAPTER 2
THE LANGUAGE OF CONSTRUCTION
by Briony Fer

Introduction

In 1924 two metal constructions were illustrated side by side in L’Esprit Nouveau, the Purist magazine that we discussed in Chapter 1. One was by the Russian Constructivist Konstantin Medunetsky (Plate 77), the other by László Moholy-Nagy (Plate 78), a Hungarian artist then working at the Weimar Bauhaus. No title or context was given for either of the works, but the juxtaposition suggested that they had something in common.

That common ground is my starting-point. For here we have two works produced in quite different circumstances but that were thought to share something significant in their appearance – in the way in which they were put together, in the materials they were made of and in their geometric form. The connection between them was not simply that they were two pieces of sculpture, but two objects of construction. And that idea – of the modern art work as construction – is one of the issues I’ll be discussing. For ‘construction’ was a loaded term, and it pervaded the language of art in the inter-war period. It implied a particular view of modernity, not only in terms of what was considered ‘modern’ in art, but of how modern art related to a rationalized, modern culture.

Medunetsky’s work is now lost, but it may have been made of more than one metal, and even painted in parts, like his Spatial Construction (Plate 80) of about the same date. Moholy-Nagy also used metal, attaching a spiral to a vertical plane (Plate 79 shows this more clearly). Although both artists arranged and shaped the metal elements, they made no attempt to mask the fact that these were modern industrial materials: Medunetsky used metal rods, which he either left straight or bent at an angle; Moholy-Nagy used nickel-plated iron. These were materials that did not conventionally belong to the realm of art, but that did conventionally belong to the realm of industrial production. What each artist made with these materials was an abstract construction concerned with basic formal elements, the line or the spiral, in space. This begs the question, to which I shall return, of what marked these works out as constructions, and why certain types of material were considered appropriate to ‘construction’, while others were not.

L’Esprit Nouveau (‘the new spirit’) claimed these works as the products of un esprit de construction (‘a spirit of construction’), where art was harnessed to the larger processes of modernization – industry, science and technology. Whatever their differences, they shared certain features in that they, like the other art works and industrial products illustrated in the magazine, expressed the ‘constructive’ as the ideal form of the modern; their formal similarities were more significant and of greater value than the differences in the material and ideological conditions in which they were made. What mattered in this ideal form of the modern were order, clarity, discipline, control and the Classical, which won out over the negative terms of the decorative and the ornamental, the fugitive and the incidental. David Batchelor discussed in Chapter 1 how the Purist aesthetic was bound to the rhetoric of the post-war ‘call to order’ and the French tradition. Yet the language of construction was by no means circumscribed by this rhetoric, or by Paris. And my aim in this chapter is to consider why the language of construction was so compelling to a much wider range of artists, working in radically differing social and political contexts.

For example, although Russia, Germany and the Austro-Hungarian Empire had all experienced revolutions at the end of the First World War, the results of these upheavals differed considerably. Following the successful Bolshevik Revolution of 1917, Lenin drew Russia out of the war, having won victory on the platform of ‘peace, land and bread’. The German revolution that followed almost a year later in November 1918 was defeated, but it brought down the Kaiser and put in place, not Communism – as many on the German Left, as well as in Moscow, had hoped – but an unstable social democracy. In both countries, the overthrow of authoritarian rulers was accompanied by acute problems of recovery from the war; and in Russia, the dismantling of the Tsarist autocracy and the transformation to Communism entailed massive social and political upheaval.

For many artists on the Left in the 1920s, including Moholy-Nagy, the single most significant reference point was no longer the Parisian avant-garde but the revolutionary connotations of construction, with revolutionary Russia as the new symbol of advanced culture. Yet what Moholy-Nagy understood by construction was in practice at odds with what it meant to Medunetsky and the Russian Constructivists themselves. Despite the ground shared and the similarity of appearance, Moholy-Nagy’s Nickel Construction was still produced as an art object, whereas Medunetsky’s, ostensibly at least, was not.
Plate 80  Konstantin Medunetsky, *Spatial Construction*, 1920, tin, brass, iron and aluminium, 45 cm high. Yale University Art Gallery, New Haven; gift of Collection Société Anonyme.
Medunetsky’s constructions had been exhibited in Moscow in 1921 at an exhibition of so-called ‘laboratory work’. This was the third exhibition of the OBMOKhU group, the Society of Young Artists (see Plate 81). The photograph appears to show an installation of an exhibition of art works; yet the rationale behind the group show was that these pieces were ‘experiments’ in the scientific sense. They were not shown simply as art objects, but as work in progress that did not fit into the category of ‘art’; they may have been exhibited like art works, but they were not to be read as art works. Aiming to show ‘practical ways of working and using new materials’ (Vladimir Stenberg, quoted in C. Lodder, *Russian Constructivism*, p.96), the OBMOKhU group used industrial materials to make ‘constructions’ rather than ‘art objects’ (by which they meant easel painting and figurative sculpture).

In this context, Medunetsky’s work in three dimensions was an experiment on the basic material and spatial elements of construction. The premise behind it and the other works in the exhibition was that a rational, calculable system of construction could be investigated scientifically, and that the principles established could then be applied in utilitarian work, in what we would now call design. This investigation was considered specialized work, whereby artists could become involved in the processes of production under the transformed conditions of the new society. After the Revolution of 1917, art had increasingly come to be questioned as a viable category; easel art was seen by many avant-garde artists and theorists as the product of individualist, bourgeois societies, and inappropriate to a society organized on collective, proletarian bases. In March 1921, the First Working Group of Constructivists had produced a programme outlining their strategy, in which they identified their aim ‘of achieving the communist expression of material structures’ (‘The Programme of the First Working Group of Constructivists’, 1921, quoted in Lodder, *Russian Constructivism*, p.94). The basic structural tenets established in ‘laboratory work’ would be applied to produce useful goods; and this work in
‘intellectual and material production’ would play a vital part in the construction of communist culture.

Moholy-Nagy, as I’ve said, took a somewhat different approach. He did not seek to abandon ‘art’ altogether in the way that some of the Russians did, but instead advocated a new unity between art and technology. He saw himself as part of a far wider ‘constructive’ movement, in terms that were loosely compatible with the way in which his work was represented in L’Esprit Nouveau. In The Book of New Artists that he wrote with Lajos Kassák in 1922, he juxtaposed one of his own works with a construction by the Russian Constructivist Aleksandr Rodchenko and a photograph of the OBROK exhibition (Plate 82). Though his work was identified with the Russian Constructivists, Moholy-Nagy worked with different resources – with a Constructivist vocabulary but also with elements of a Dadaist mistrust of the authentic aesthetic object. Although still within the realm of art, Nickel Construction seems fairly close to the edge of how far art could go in the direction of technology without losing its identity completely. This aspect is accentuated if we look at Moholy-Nagy’s work in the context of Theo Van Doesburg’s Dada magazine Mecano, where it had been entitled Nickel-Plastik (Nickel Sculpture) (Plate 83). Here it is the incongruous figure of the spiral that assumes priority, rather than the ‘constructive’

Plate 82 Double-page spread from L. Kassák and L. Moholy-Nagy, Új Művészek könyve (The Book of New Artists), 1922, showing (left) work by Aleksandr Rodchenko and the third OBROK exhibition, and (right) a work by László Moholy-Nagy. National Art Library, Victoria and Albert Museum, London.
In L'Esprit Nouveau, on the other hand, Medunetsky's and Moholy-Nagy's constructions appeared as part of a series of illustrations that included a safe door of a bank vault (Plate 84) and Purist paintings by Charles-Édouard Jeanneret (Le Corbusier) and Amédée Ozenfant. Although the links were only implicit, these images followed on from Ozenfant and Jeanneret's article 'Formation de l'optique moderne' ('Formation of a modern optics'), where analogies were drawn between Roneo filing cabinets, dental equipment (Plate 85) and modern works of art. The selection of images may appear highly idiosyncratic, but it corresponded to a view of modernity exemplified in a wide range of artefacts. Analogies operated on a number of levels - between formally similar types of object, and more broadly between modern utilitarian objects and modern works of art. Where contrast was intended, it was spelled out clearly. For example, the geometric typewritten form, which corresponds to 'our natural functions', was contrasted with the (disparaged) handwritten 'tortures de l'informe' ('the tortures of formlessness') (Plate 86). Fear of the 'informe' or 'formless' was the constant underside of the preoccupation with construction. The comparison was made on the assumption that human beings function rationally, like a


machine; the typewriter is a kind of prosthetic object that improves on the human hand as an instrument for writing; the ‘informe’ is tortuous and needs to be suppressed, because it does not correspond to use.

It has been suggested that only the aesthetic dimension, the formal trappings, of Russian Constructivism were assimilated in the West, and not its utilitarian base – in short, that Constructivism was understood wrongly. The way in which Medunetsky’s work was almost casually placed next to Moholy-Nagy’s in L’Esprit Nouveau appears to confirm this, by suggestion at least. The juxtaposition seems to confer the status of an art object equally on both works, and to show them as examples of a ‘constructive’ tendency that extended across national boundaries. Certainly the intention was to identify a common purpose, and to this end Le Corbusier in particular made many contacts with artists and commentators outside France and gave their work exposure in L’Esprit Nouveau. The magazine was to be a showcase of new work from home and abroad, and not simply a consolidation of a French tradition. Notably, it published articles on the changes in revolutionary Russia at a time when, in France in particular, such information was hard to come by. Simply to say that Russian Constructivism was understood ‘wrongly’ does not really help us to explain the powerful affinity that was perceived between the works as ‘constructions’. Nor, I think, should we assume too hastily that the Constructivist rejection of ‘art’ per se was straightforward, when it may be that the status of objects as ‘laboratory work’ was at least ambiguous. And while L’Esprit Nouveau did not reject art in favour of utilitarian work, it celebrated – and made central to its aesthetic – utilitarian, everyday artefacts. It is also doubtful that the Constructivist works produced in the West, such as Moholy-Nagy’s, were ‘simply’ art objects, if that is to imply that their status is entirely secure. Moholy-Nagy may have produced his work in different circumstances, but it may also have fitted uneasily with established ideas as to what an art object should be and how it related to other utilitarian objects.

Some real or imagined relationship between ‘art’ and ‘utility’ seems to be at stake in all these examples, despite the diverse ways in which the relationship was proposed. More generally, construction can be seen as a redefinition of the art object in these symbolic terms, but in ways that varied according to context. The question we shall consider here is why the language of construction seemed so powerful, and could translate into different cultures – although, as with all translations, its meaning was transformed in the process. Why was geometric form considered not only appropriate but such a potent expression of the modern? These questions hinge on the relations between ‘high’ and ‘mass’ culture, utility and decoration, the art object and the manufactured object, geometric form and ‘formlessness’, pure form and the capacity of forms and materials to trigger associations. I begin by looking at Russian Constructivism and the various meanings of ‘construction’ current in the years that followed the Bolshevik Revolution of 1917, when the language of construction was identified with revolutionary change. I go on to consider ‘construction’ in the broader European context as the site of a mythology of the modern, in which ideas of technological change and social liberation were interwoven with a belief in the power of geometric form, and in which a geometric, abstract art was part of a Utopian project.
Art as construction

The specific character of the Russian context can be at least partly gauged by the ambiguous status of the objects shown at the third ОВМОКHU exhibition. Another photograph of the installation (Plate 87) shows a little more clearly how the objects were exhibited. There were works hung on the walls, free-standing constructions, and constructions suspended on wires from the ceiling. One of the free-standing constructions was Georgii Stenberg’s Construction for a Spatial Structure No.11 (Plate 88) made of iron, glass and wood; the metal elements were assembled with bolts and welded: it was a construction made in modern industrial materials using industrial processes of assembly. Like the works by Medunetsky we have already looked at, it was not conceived of as a piece of sculpture; yet neither was it an industrial product. It had been exhibited a few months before at a show called The Constructivists in January 1921, also in Moscow. This seems to have been the first appearance of the term ‘constructivist’, and the artists involved, Medunetsky and the two Stenberg brothers, declared ‘art and its priests outlawed’ (quoted in A. Nakov, 2 Stenberg 2, p.66). Constructivists did not see themselves as artists in the conventional sense, and the objects they produced were not to be construed as art. In March they signed The Programme of the First Working Group of Constructivists, joining with the Constructivist group focused around Rodchenko and Varvara Stepanova.

Although Rodchenko had not previously been part of the ОВМОКHU group, he participated in their third exhibition, where he showed a series of hanging constructions including Oval Hanging Construction No.12 (Plate 89). Rodchenko had begun this series well before the decisive commitment to utilitarian work was declared in the programme.

Plate 87  Installation of the third ОВМОКHU exhibition, Moscow, May 1921. ‘Veshch’ no.1/2, 1922, British Library Cup.4085.g.25. Reproduced by permission of the British Library Board.
but it was included in the exhibition as ‘laboratory work’. That is, after it had been made it came to be thought of as ‘research’. These shifts are never cut and dried, but it is significant that Rodchenko produced this construction as an art work, and exhibited it as a piece of research. The practice of art came to be characterized by, and even became, a continual process of re-definition. This re-definition of even recently produced work according to shifting categories of art, research and production shows the insecure and transitional character of these works and of the world in which they were made. They were open to reinterpretation even by those who had made them: something that may have been made as an art object could cease to be seen as one. (And they were open to further reinterpretation: later on, under a different set of pressures, Rodchenko looked back critically and saw all these ‘experiments’ as, once again, art.)

These shifts indicated how ambivalent the work was – an ambivalence that can apply, I think, to the exhibition as a whole, in which, as we’ve seen, works were shown like art objects but not strictly speaking as art objects. It was not a matter of artists simply changing their minds, but of genuine contradictions in the transition of one form of practice to another. In the circumstances, contradictions were inevitable and even necessary. Constructivists refused the category ‘art’, yet used an art exhibition as a forum; they rejected art as a viable practice, yet set themselves up as artistic specialists, working in the laboratory. Any set of refusals and negations only makes sense through what is refused and negated. Although ‘laboratory work’ was not produced as art, it still worked with and against the available conventions, just as Medunetsky used a fairly conventional plinth for his construction (Plate 77), but pierced it with the metal rod, invading the secure, separate status of the base of a sculpture. This ambivalence demonstrates the problematic status of the work at this period (both as art and as ‘not art’).
Plate 89  Aleksandr Rodchenko, *Oval Hanging Construction No.12*, c.1920, plywood, open construction partially painted with aluminium paint, and wire, 61 x 84 x 47 cm. OBMOKHU 3 Collection, The Museum of Modern Art, New York; acquisition made possible through the efforts of George and Zinaida Costakis, and through the Nate B. and Frances Spingold, Matthew H. and Erna Futter and Enid A. Haupt Funds.

The constructions exhibited at the OBMOKHU show related back to work done before the Revolution – for instance, to Vladimir Tatlin’s use of industrial materials such as zinc and lead in his reliefs and counter-reliefs (Plate 90). But the conditions underpinning exhibitions had changed, with the loss of a private market for art after 1917. Artists who had previously sold to private collectors now relied on other means of economic support, working in arts administration in the new ministry of culture, NARKOMPROS, and in the new art schools set up in the reorganization after the Revolution. Avant-garde artists moved from the margins of Bohemia to play central roles in the reorganization of culture. Their previous work on abstract form and materials was taken as the basis for a new kind of practice that would be relevant to a new society. After the Revolution, artists also became involved in all sorts of agitational and propaganda work – for example, designing posters, street decorations for revolutionary festivals, and street kiosks. This work was produced during the period of civil war that followed the Revolution and lasted until 1921 when the White Russian Forces were finally quashed. ‘Laboratory work’ was harnessed to production from 1921, when Constructivists directed their work on the material and formal elements of construction into utilitarian projects. This shift was not simply the inevitable outcome of the crisis of art and the insecure status of painting. For, however much the move to produce useful goods appears a logical conclusion to the problem of
the artist's role after the Revolution, it was only after 1921, when there was some recovery in industrial output to feel part of, that an involvement with production became feasible. It coincided with what many saw as the betrayal of the aims of the revolution: with the New Economic Policy of 1921, Lenin introduced some private enterprise into the devastated economy, producing a renewed demand for consumer goods.

The interval characterized as 'laboratory work', though fairly short-lived, draws attention to some of the problematic and shifting aspects of art as construction that I want to pursue, and to 'construction' as a multi-faceted term. So far, I have looked at 'construction' in three-dimensional works. 'To construct' means to put together, to build, to assemble; and work in three dimensions might seem most obviously to use a process of construction. As we've seen, in Stenberg's *Construction for a Spatial Structure No.11* (Plate 88), iron components are literally bolted and welded together using industrial processes. Yet these techniques were displaced from their normal usage and assimilated into the idea of artistic construction. The work was listed in the Constructivists' catalogue as *Konstruktziya prostranstvenovo sooruzheniya*. Stenberg used the term *konstruktziya*, a

technical term derived from building; prostranstvennoe means 'spatial'; sooruzheniya, translated as 'apparatus', was a technical term for a system or structure. The term 'artistic construction' (khudozhestvennoe konstruirovanie) was also used to apply the technical aspects of construction to art. 'Construction' was applicable to two-dimensional surfaces, to paintings, or to reliefs such as Tatlin's. Both terms, konstruktsiya and konstruirovanie, originated in architecture and the building industry, but had come to describe the art object. Discussing the way in which construction could be understood in painting, the critic Nikolai Tarabukin wrote:

The painter could only adopt the general structure of the concept from technology, and not by any means all its elements. The concept of construction in painting is composed of entirely different elements from the same concept in technology. By the general concept of construction ... we mean the whole complex of elements which are united into one whole by a certain kind of principle and which, in its unity, represents a system. Applying this general definition to painting, we should consider the elements of the painterly construction to be the material and real elements of the canvas ...

(N. Tarabukin, 'From the easel to the machine', p.140)

Tarabukin traced this use of 'painterly construction' back to Cézanne, but the art-critical use of the term in Russia seems to have derived largely from its currency in French Cubist theory, with which the Russian avant-garde was familiar.

Tatlin had called his works 'reliefs' and 'counter-reliefs', and 'selections of materials' – although they were no less 'constructed' than later Constructivist works. The sympathetic critic Sergei Isakov, writing in 1915 ('On Tatlin's counter-reliefs', p.335), stressed the 'principle of constructiveness' so manifest in Tatlin's counter-reliefs (for example, Plate 90). And for the Russian Formalist critic Viktor Shklovsky, the single most important quality of an art object, as a constructed object, was its faktura, its surface texture, the evidence of its having been made: as he put it, again in an article on Tatlin, 'Faktura is the main distinguishing feature of that specific world of specially constructed objects the totality of which we are used to call art' (Shklovsky, 'On faktura and counter-reliefs', p.341). As a literary critic, Shklovsky could talk about poetry in the same terms, and we shall return a little later to the question of how a verbal text could be classified as a particular kind of 'constructed object'. Faktura, or the material aspect of the surface, was seen as the peculiar property of the art work, while the external world 'is perceived as a series of hints, a series of algebraic signs, as a collection of objects possessing volume, but not a material aspect, a faktura' (Shklovsky, p.341). The work, for Shklovsky, referred to the world (by hints and signs), but its distinctive character was as an artistic construction.

Although the term 'construction' had appeared in art criticism in the pre-revolutionary period, it took on additional meanings after 1917. It came to be associated with the idea of the artist as constructor, which had connotations of the engineer and of useful work. Mikhail Kaufman's photograph of Rodchenko, with his hanging constructions folded on the wall behind, represents him in this guise – as a constructor, wearing a constructor's suit designed by himself and made by Stepanova (Plate 91). In 1918 in the journal Art of the Commune, the critic Osip Brik wrote that the artist was 'now only a constructor and technician, only a supervisor and a foreman...'.1 The important point here is that art was seen, not as 'creation' but as a particular kind of work, which was analogous to other kinds of work in industry and production. The term 'construction' was powerful because of its multiple associations, as we shall see – with language, with industry and with the construction of socialism. 'Foremanism', to pick out one of Brik's other analogies, hardly had the same ring.

1 quoted by C. Lodder (Russian Constructivism, p.77), who identifies this as almost certainly the first use in print of the term 'constructor' in connection with art. In my treatment of the Russian material in this chapter, I am indebted to her wide-ranging, detailed and impressive research.
Construction versus composition

One way in which ‘construction’ came to be defined was in opposition to ‘composition’, and in the spring of 1921 INKHUK held a series of debates to look at this distinction. INKHUK was the acronym for the Institute of Artistic Culture, set up in 1920 as a centre for theoretical research. In practice, it provided a fairly informal forum where artists, critics, theorists and other interested parties could meet to discuss pressing issues and argue out priorities. Drawings were produced for discussion, such as the two pairs by Medunetsky and Vladimir Stenberg (Plates 92–95). As Christina Lodder has discussed (Russian Constructivism, p.83), conflicts emerged between those who thought that construction must be related to utilitarian work and ultimately industrial production, and those who thought of it as an artistic category. The examples shown here are by two artists committed to utilitarian work, who believed that certain principles and methods could be established in ‘laboratory work’. For them, the aesthetic was irrevocably linked with the idea of composition, and was therefore retrogressive. Medunetsky’s Composition (Plate 92) is framed by ruler-drawn lines; within that frame, geometric elements such as the circle are supposedly composed rather than constructed on the surface. His Construction (Plate 93), on the
other hand, is a drawing of a three-dimensional object, a construction in space. Stenberg’s drawings (Plates 94 and 95) show the same distinction between two and three dimensions. Both received some criticism for their constructions, which were thought to be drawings of technical constructions, a consequence of their view that construction was most effective in three dimensions.
Plate 93  Konstantin Medunetsky, *Construction*, 1920, brown ink on paper, 27 x 19 cm; on reverse, INKhUK stamp no.27. Costakis Collection.
In an INKUK paper setting out the position of the Constructivists, the real crux of the distinction between composition and construction was not just a matter of whether a work was made in two or in three dimensions, but of a far broader contrast of approach:

*Construction is the effective organization of material elements.*

The indications of construction:

i. the best use of materials

ii. the absence of any superfluous elements.

The scheme of a construction is the combination of lines, and the planes and forms which they define; it is a system of forces. Composition is an arrangement according to a defined and conventional signification.

(quoted in C. Lodder, *Russian Constructivism*, p. 84)

Here the virtues of construction are set against the negative terms of composition: construction uses materials economically whereas composition uses superfluous and merely decorative forms; construction is a ‘system’ that is, by implication, not subject to the ‘defined and conventional signification’ characteristic of composition. We could interpret this to mean that construction is not subject to any kind of signification or meaning, but that is not exactly what is said; the text refers specifically to *conventional* signification, such as might be found in figurative painting. Other modes of signification, other ways of meaning, may be at work, but they are neither clearly defined nor fixed. So, despite the contrast set up, we should not necessarily see ‘system’ and ‘signification’ as mutually exclusive.
After all, it is hard to argue that these constructions are inherently any more systematic than other possible configurations: they are constructions only by association. They drew on a currency of contemporary references – to three-dimensional constructions, to the methods of technical drawing, and to the work of the scientist or engineer. We could say, therefore, that for a work to signify as a construction depended on the ‘hints’ and ‘algebraic signs’ (to which Shklovsky had referred) being set in train in the first place. Shklovsky's emphasis had been on the art work’s resistance to these references and signs, a resistance that ensured art’s specially ‘constructed’ character: only hints, only signs, they did not betray the full effectiveness of a work as art. Yet the point of our discussion here is to try to retrieve some of that suggestiveness in terms of then current beliefs about the world, to see those hints and signs as playing a positive rather than negative role in the production of meaning, while we retain a sense of the effectiveness of artistic construction.

‘Construction’ seems to have been such a powerful frame of reference because it interlocked with other areas of social experience. For example, in political discourse the ‘building’ of socialism was a recurrent term. The Constructivist programme of 1921 referred to the part to be played in the ‘building up’ of communist culture, echoing the constant use made by Lenin of the metaphor of ‘communist construction’. Lenin believed that communism had to exploit for its own ends the science, technology and culture left behind by capitalism: ‘We must build socialism out of this culture, we have no other material – we have bourgeois specialists and nothing else. We have no other bricks with which to build’ (V.I. Lenin, ‘The achievements and difficulties of the Soviet government’, p.70). This metaphor was current at this period. For instance, Plate 96 shows the ‘building

Plate 96  Anon., The Building of Socialism, 1919, black and white lithograph, 71 x 104 cm. Uppsala University Library BS207.
of socialism' (zdanie sotsializma) as a classical building; it depicts the various stages of economic development, from the Middle Ages to the Revolution, as layers built one upon the other, moving through Marx and Engels to Lenin. However, despite the similarities of language, the Constructivists were not concerned with providing a picture of the building of socialism in this way, or indeed with building upon the cultural traditions indicated by Lenin. For instance, when Tatlin in the Monument to the Third International (Plate 97) symbolized the development of Socialism, he used the forms of an abstract construction, envisaged on a huge scale where, according to Nikolai Punin, 'the spiral represents the movement of liberated humanity' (Punin, 'The monument to the Third International', p.346). The monument was built only in model form, but it was designed to be made in modern technological materials using advanced engineering techniques - the supporting structure in iron, the suspended 'rooms' in glass. As a symbolic structure it combined an avant-garde vocabulary of artistic form with technology and utility. (See Chapter 4 for further discussion of Tatlin's monument.)

The drawn line

In order to say something more about the force of the idea of ‘construction’, I shall focus on just one of its elements – the drawn line. We should not be surprised, perhaps, that drawing was such a central concern, given its associations with the elementary composition of painting in the fine-art tradition and with the kind of technical drawing used in industry.²

Lyubov Popova’s Spatial Force Construction (Plate 98) is an example of how certain techniques were used to signify the working of a rational system of construction. The

² M. Nesbit has done some extremely interesting work on the line and the geometric in France, discussed in her series of Durning-Lawrence lectures, The Language of Industry, given at University College London in 1931. See also her article on drawing, industry and mass production, ‘Ready-made originals’.
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broken, ruler-drawn line of the diagram refers to diagrammatic drawing of the kind found in Plate 99. Like the materials and technical methods that were borrowed from the realm of industry in the three-dimensional constructions we looked at earlier, the diagrammatic line is derived from the realm of science and technical drawing. In one of the studies for this work (Plate 100) this diagrammatic layout is more obvious, but still the final work has elements of that notation. The works do not represent the world by 'conventional signification', if that is taken to be the model used in figurative art, but they contain allusions to the world in which they were produced through a currency of associations of materials and methods.

One of the most important features of artistic construction was that it was treated as a system that could be broken down into component parts. Its elements could be analysed, dissected and put back together again. The basic building bricks of construction were broadly formal in character and included faktura (surface texture), line, colour, plane,
space and material. Each element in the system could be worked on and analysed separately from the others. So Rodchenko, for example, could concentrate in one series of works on the line – the line as far as was possible exclusive of all other concerns, minimizing evidence of surface texture or colour. His *Non-Objective Painting* (Plate 101) of 1919 was made up of lines on an unobtrusive brown surface – lines of different lengths, in different combinations. In a notebook drawing of the same year, this work is shown as one of several possibilities, each using lines in different permutations (Plate 102). Works such as Plate 101 were produced as paintings, to reiterate a point I have already made, but were later redefined as research – as the idea of painting became increasingly hard to defend. In 1921, Rodchenko identified the line as a basic element in the system of construction: it was ‘the carcass, the skeleton, the relationship between different planes; it could also show movement, collision, conjunction, break and continuation’ (‘The line’, p.293). The line could be isolated (Plate 103) and then deployed in various combinations. As an element in the system of construction, it was treated as ‘raw material’, a basic component; but it was also seen as a ‘device’, as a forming element that could implement a variety of effects, for example where the line demarcated areas of pictorial space or suggested recession. In *Linear Construction* (Plate 104), the line as a perspectival device for showing recession in space is at the same time hinted at and denied by concentrating attention on the line as an element in the construction of the surface. Like the carcass or the skeleton, where only a structure is left, the line is one of the basic elements of construction to remain when all the superficial elements of composition have been removed.

Plate 103  Aleksandr Rodchenko, sketch for the cover of the booklet The Line, 1921. Rodchenko Family Archive, Moscow.
Plate 104  Aleksandr Rodchenko, Linear Construction, 1919, oil on panel, 47 x 36 cm. Private collection. Photograph by courtesy of Musée d'Art et d'Histoire, Geneva.
The line in both these works by Rodchenko has, of course, been drawn. And it has been drawn in a certain way, to take on a particular character. It has not been drawn free-hand as in Vasily Kandinsky’s *Abstraction* (Plate 105), where cross-hatching, dots, curves and angles display purposefully the hasty marks of the artist’s hand. The effect of these marks was interpreted by Kandinsky, and by his opponents, as both psychological and expressive. Kandinsky had returned to Russia from Germany in 1915 and was involved in the INKHUK debates in 1920–21, until he was ousted by the Constructivists – subsequently moving back to Germany, and to the Bauhaus. Kandinsky’s commitment to the expression of emotion was taken by the Constructivists to be retrogressive. For Rodchenko, the inaccurate, trembling line traced by the hand cannot compare with the straight and precise line drawn with the set square, reproducing the design exactly. Handcrafted work will have to try to be more industrial. Drawing as it was conceived in the past loses its value and is transformed into diagram or geometrical projection.

(Rodchenko, ‘The line’, p.294)

The old role of the line in composition is transformed in the language of construction. The laxity of a ‘trembling line’ drawn by the artist’s hand is considered less precise and therefore of less value than a line drawn using a set-square, as if the hand plays no part. Industrial techniques could serve as correctives to the arbitrary character of the hand-made. The brush, for Rodchenko, had formerly had a use in conveying the illusion of an object; but its value was now exhausted, a sign only of servitude to an anachronistic model of illusionistic art. The Constructivists’ attempt to ‘depersonalize’ practice, to take it out of the realm of individual artistic expression, made it necessary to mediate the hand of the
artist as much as possible. Thus, 'Faktura in painting (impasto, glaze, etc.) has been superseded by mechanical tools (roller, press, etc.) which make possible a scientific analysis of form and material' (Rodchenko, p.294). The way in which the lines were drawn was itself suggestive: straight, ruler-drawn lines signified in part the tools that had been used to draw them, tools that were associated with draughtsmanship and technical drawing. Stepanova talked of 'mechanized factures', where the spray-gun or the roller mediated the hand of the artist (Plate 106). The point here is that the spray-gun no more mediated – in any literal sense – the artist’s hand than, say, the more conventional brush, but the use of 'mechanized' techniques signified difference from the conventional techniques of painting. Art becomes here, not a matter of depicting new symbols but of renegotiating itself as a symbolic practice, in a continual state of redefinition through the means that it uses.

In 1923, in an article published in LEF (the journal of the Left Front of the Arts), Brik wrote about Rodchenko’s move into production:

Rodchenko was an abstract artist. He has become a Constructivist and a production artist. Not just in name, but in practice.
(O. Brik, 'Into production', p.130)

He compared Rodchenko with other artists who had merely adopted the fashionable jargon of Constructivism:

Instead of ‘composition’, they say ‘construction’, instead of ‘to write’ they say ‘to shape’, instead of ‘to create’ – ‘to construct’. But they are all doing the same old thing …
(Brik, p.130)
'The same old thing' was painting pictures, or applying ornament in applied art (whether it be flowers or Suprematist circles), or working on abstract aesthetic problems in a vacuum. 'Not just in name,' Brik stressed, 'but in practice'. As Brik says, this re-naming was not merely a matter of preferring one term over another, but part of a fundamental change in how art was perceived – and a re-description that involved a change in the terms of reference. Rodchenko's ruler-drawn lines were meaningful if they were seen as components in a system of construction: the lines were represented as part of that system; to talk about works such as these as 'non-representational' obscures this fundamental point.

Underlying Brik's comments was the idea that changes in the forms of linguistic description are bound to changes in the practice of art. There is a relationship between them, and yet one is neither superfluous to, nor simply synonymous with, the other. Next, I want to consider further how art, as an autonomous system of signs, was understood to be both analogous with, as well as distinct from, the formal character of language.

The language of construction and the construction of language

Art and language

When I compared Rodchenko's and Kandinsky's line drawings, I noted their differing character – one ruler-drawn, one traced unevenly by hand – and the connotations that each held in a given context. It is worth bearing in mind, however, that the claim for the expressive value of a painting made up of abstract forms – over and above a 'pattern' and the merely 'decorative' or 'utilitarian' value attributed to design – had been fought for by Kandinsky and others in the early 1910s. Now, in changed circumstances, the ruler- or compass-drawn line symbolically reinstated a utilitarian basis for art; precisely because of its utilitarian connotations, the line could trace an intersection between art and industry. It was still vital that work in construction be distinct from the ornamental patterns of applied or decorative art, but it was also set squarely against the spiritual significance with which earlier abstract artists had sought to imbue artistic form – which came to be linked by the Constructivists with retrogressive notions of individuality, psychology and subjectivity. The line, for Rodchenko, could serve as the sign of a 'red farewell' to all that, and could usher in the new conditions of collective work. The gesture was made technically (just a line, or a series of lines on a surface of board) but the gesture was politically inflected – a symbolic point of intersection, too, with Bolshevism.

These were important ideological differences, yet we should not lose sight here of the common ground over which they were fought. Both Kandinsky and the Constructivists declared a commitment to the idea that art was part of a revolutionary programme. They described artistic form in similar terms – for instance, in their mutual insistence on a basic formal vocabulary of line, surface, plane, space, colour, texture. They shared the belief that art was a kind of language, made up of formal components, and not dependent on resemblance to objects in the world. Yet their respective approaches depended on different models of the kind of language that art might be. It is one thing to agree on a structure, another to agree on the value and significance of its component parts. The question I want to pursue here is how it was the Constructivist model that won out.

In 1920 the INKULK programme was initially set up on the basis of a plan devised by Kandinsky, who at that time was centrally involved in its activities. The effects of the formal properties of art were to be examined as 'a bridge to the explanation of their

3 See C. Harrison's discussion of the emergence of abstract art, in Chapter 3 of Harrison et al., Primitivism, Cubism, Abstraction.
4 See Harrison et al., Chapter 3.