

spontaneously along this hallowed path, our labours in the workshop building revealed how the figures of 3, 5 and 7 kept recurring in the most various guises and relations. Feeling acted first, and reason registered the result. And as with form, so too with colour. The triad of fundamental colours red–blue–yellow, the further extension to five through the non-colours black and white, and the resulting numerical series of possible combinations, have their counterpart in the elementary and fundamental forms of surface and plastic volume, although they only provide the rudimentary framework for the incalculable resonance that is sought.

■ The type is the elementary principle in the figurative sphere. And its creation is the ultimate and supreme task, one that it may well seem impudent even to approach when fate casts such a shadow over the possibilities of its execution. The potential variations of the figural subject can be realized in sculpture (relief), colour and line. As abstractions the figural proportions are correspondingly intensified, presented as much larger or much smaller than the human body; but the latter should still define the general centre and measure of things.

■ The technically required use of opaque (non-chemical) earthen colours produces a colour scale with its own intrinsic harmony. As primary colours: English red – ultramarine – ochre (with white and black for priming). As secondary colours: caput mortuum, burnt umber, indigo. To these we must add the metallic colours: gold, silver, copper, blue-silver, purple-silver.

15 Walter Gropius (1883–1969) ‘The Theory and Organization of the Bauhaus’

The author was the founder and first Director of the Bauhaus, established in Weimar in 1919. Though Gropius shared Itten’s commitment to ‘release the creative powers of the student’, he always had the well-designed building as an end in view, and he was increasingly concerned that the work of the school should be assured of a productive outcome through contacts with industry. Originally published as *Idee und Aufbau des Staatlichen Bauhaus Weimar* by the Bauhaus Press (Bauhausverlag), Munich, 1923. The present extracts are taken from the translation in Herbert Bayer, Walter Gropius and Ise Gropius (eds.), *Bauhaus 1919–1928*, New York (Museum of Modern Art), 1938, pp. 22–31.

The dominant spirit of our epoch is already recognizable although its form is not yet clearly defined. The old dualistic world-concept which envisaged the ego in opposition to the universe is rapidly losing ground. In its place is rising the idea of a universal unity in which all opposing forces exist in a state of absolute balance. This dawning recognition of the essential oneness of all things and their appearances endows creative effort with a fundamental inner meaning. No longer can anything exist in isolation. We perceive every form as the embodiment of an idea, every piece of work as a manifestation of our innermost selves. Only work which is the product of inner compulsion can have spiritual meaning. Mechanized work is lifeless, proper only to the lifeless machine. So long, however, as machine-economy remains an end in itself rather than a means of freeing the intellect from the burden of mechanical labor, the individual will remain enslaved and society will remain disordered. The solution depends on a change in the individual’s attitude toward his work, not on the betterment of his outward

circumstances, and the acceptance of this new principle is of decisive importance for new creative work.

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The 'academy'

The tool of the spirit of yesterday was the 'academy.' It shut off the artist from the world of industry and handicraft, and thus brought about his complete isolation from the community. In vital epochs, on the other hand, the artist enriched all the arts and crafts of a community because he had a part in its vocational life, and because he acquired through actual practice as much adeptness and understanding as any other worker who began at the bottom and worked his way up. But lately the artist has been misled by the fatal and arrogant fallacy, fostered by the state, that art is a profession which can be mastered by study. Schooling alone can never produce art! Whether the finished product is an exercise in ingenuity or a work of art depends on the talent of the individual who creates it. This quality cannot be taught and cannot be learned. On the other hand, manual dexterity and the thorough knowledge which is a necessary foundation for all creative effort, whether the workman's or the artist's, can be taught and learned.

Isolation of the artist

Academic training, however, brought about the development of a great art-proletariat destined to social misery. For this art-proletariat, lulled into a dream of genius and enmeshed in artistic conceit, was being prepared for the 'profession' of architecture, painting, sculpture or graphic art, without being given the equipment of a real education – which alone could have assured it of economic and esthetic independence. Its abilities, in the final analysis, were confined to a sort of drawing-painting that had no relation to the realities of materials, techniques or economics. Lack of all vital connection with the life of the community led inevitably to barren esthetic speculation. The fundamental pedagogic mistake of the academy arose from its preoccupation with the idea of the individual genius and its discounting the value of commendable achievement on a less exalted level. Since the academy trained a myriad of minor talents in drawing and painting, of whom scarcely one in a thousand became a genuine architect or painter, the great mass of these individuals, fed upon false hopes and trained as one-sided academicians, was condemned to a life of fruitless artistic activity. Unequipped to function successfully in the struggle for existence, they found themselves numbered among the social drones, useless, by virtue of their schooling, in the productive life of the nation.

With the development of the academies genuine folk art died away. What remained was a drawing-room art detached from life. In the 19th century this dwindled to the production of individual paintings totally divorced from any relation to an architectural entity. The second half of the 19th century saw the beginning of a protest against the devitalizing influence of the academies. Ruskin and Morris in England, van de Velde in Belgium, Olbrich, Behrens and others in Germany, and, finally, the Deutsche Werkbund, all sought, and in the end discovered, the basis of a reunion between creative artists and the industrial world. In Germany, arts and crafts (Kunstgewerbe) schools

were founded for the purpose of developing, in a new generation, talented individuals trained in industry and handicraft. But the academy was too firmly established: practical training never advanced beyond dilettantism, and draughted and rendered 'design' remained in the foreground. The foundations of this attempt were laid neither wide enough nor deep enough to avail much against the old *l'art pour l'art* attitude, so alien to, and so far removed from life. [. . .]

Analysis of the designing process

The objective of all creative effort in the visual arts is to give form to space. . . . But what is space, how can it be understood and given a form?

. . . Although we may achieve an awareness of the infinite we can give form to space only with finite means. We become aware of space through our undivided Ego, through the simultaneous activity of soul, mind and body. A like concentration of all our forces is necessary to give it form. Through his intuition, through his metaphysical powers, man discovers the immaterial space of inward vision and inspiration. This conception of space demands realization in the material world, a realization which is accomplished by the brain and the hands.

The brain conceives of mathematical space in terms of numbers and dimensions. . . . *The hand masters matter* through the crafts, and with the help of tools and machinery.

Conception and visualization are always simultaneous. Only the individual's capacity to feel, to know and to execute varies in degree and in speed. True creative work can be done only by the man whose knowledge and mastery of the physical laws of statics, dynamics, optics, acoustics equip him to give life and shape to his inner vision. In a work of art the laws of the physical world, the intellectual world and the world of the spirit function and are expressed simultaneously.

The Bauhaus at Weimar

Every factor that must be considered in an educational system which is to produce actively creative human beings is implicit in such an analysis of the creative process. At the 'State Bauhaus at Weimar' the attempt was made for the first time to incorporate all these factors in a consistent program.

[. . .] The theoretical curriculum of an art academy combined with the practical curriculum of an arts and crafts school was to constitute the basis of a comprehensive system for gifted students. Its credo was: 'The Bauhaus strives to coordinate all creative effort, to achieve, in a new architecture, *the unification of all training in art and design*. The ultimate, if distant, goal of the Bauhaus is the *collective work of art* – the Building – in which no barriers exist between the structural and the decorative arts.'

The guiding principle of the Bauhaus was therefore the idea of creating a new unity through the welding together of many 'arts' and movements: a unity having its basis in Man himself and significant only as a living organism.

Human achievement depends on the proper coordination of all the creative faculties. It is not enough to school one or another of them separately: they must all be thoroughly trained at the same time. The character and scope of the Bauhaus teachings derive from the realization of this.

The Curriculum

The course of instruction at the Bauhaus is divided into:

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The Preliminary Course (Vorlehre)

Practical and theoretical studies are carried on simultaneously in order to release the creative powers of the student, to help him grasp the physical nature of materials and the basic laws of design. Concentration on any particular stylistic movement is studiously avoided. Observation and representation – with the intention of showing the desired identity of Form and Content – define the limits of the preliminary course. Its chief function is to liberate the individual by breaking down conventional patterns of thought in order to make way for personal experiences and discoveries which will enable him to see his own potentialities and limitations. For this reason collective work is not essential in the preliminary course. Both subjective and objective observation will be cultivated: both the system of abstract laws and the interpretation of objective matter.

Above all else, the discovery and proper valuation of the individual's means of expression shall be sought out. The creative possibilities of individuals vary. One finds his elementary expressions in rhythm, another in light and shade, a third in color, a fourth in materials, a fifth in sound, a sixth in proportion, a seventh in volumes or abstract space, an eighth in the relations between one and another, or between the two to a third or fourth.

All the work produced in the preliminary course is done under the influence of instructors. It possesses artistic quality only in so far as any direct and logically developed expression of an individual which serves to lay the foundations of creative discipline can be called art.

Instruction in form problems

Intellectual education runs parallel to manual training. The apprentice is acquainted with his future stock-in-trade – the elements of form and color and the laws to which they are subject. Instead of studying the arbitrary individualistic and stylized formulae current at the academies, he is given the mental equipment with which to shape his own ideas of form. This training opens the way for the creative powers of the individual, establishing a basis on which different individuals can cooperate without losing their artistic independence. Collective architectural work becomes possible only when every individual, prepared by proper schooling, is capable of understanding the idea of the whole, and thus has the means harmoniously to coordinate his independent, even if limited, activity with the collective work. Instruction in the theory of form is carried on in close contact with manual training. Drawing and planning, thus losing their purely academic character, gain new significance as auxiliary means of expression. We must know both vocabulary and grammar in order to speak a language; only then can we communicate our thoughts. Man, who creates and constructs, must learn the

specific language of construction in order to make others understand his idea. Its vocabulary consists of the elements of form and color and their structural laws. The mind must know them and control the hand if a creative idea is to be made visible. The musician who wants to make audible a musical idea needs for its rendering not only a musical instrument but also a knowledge of theory. Without this knowledge, his idea will never emerge from chaos.

A corresponding knowledge of theory – which existed in a more vigorous era – must again be established as a basis for practice in the visual arts. The academies, whose task it might have been to cultivate and develop such a theory, completely failed to do so, having lost contact with reality. Theory is not a recipe for the manufacturing of works of art, but the most essential element of collective construction; it provides the common basis on which many individuals are able to create together a superior unit of work; theory is not the achievement of individuals but of generations.

The Bauhaus is consciously formulating a new coordination of the means of construction and expression. Without this, its ultimate aim would be impossible. For collaboration in a group is not to be obtained solely by correlating the abilities and talents of various individuals. Only an apparent unity can be achieved if many helpers carry out the designs of a single person. In fact, the individual's labor within the group should exist as his own independent accomplishment. Real unity can be achieved only by coherent restatement of the formal theme, by repetition of its integral proportions in all parts of the work. Thus everyone engaged in the work must understand the meaning and origin of the principal theme.

Forms and colors gain meaning only as they are related to our inner selves. Used separately or in relation to one another they are the means of expressing different emotions and movements: they have no importance of their own. Red, for instance, evokes in us other emotions than does blue or yellow; round forms speak differently to us than do pointed or jagged forms. The elements which constitute the 'grammar' of creation are its rules of rhythm, of proportion, of light values and full or empty space. Vocabulary and grammar can be learned, but the most important factor of all, the organic life of the created work, originates in the creative powers of the individual.

The practical training which accompanies the studies in form is founded as much on observation, on the exact representation or reproduction of nature, as it is on the creation of individual compositions. These two activities are profoundly different. The academies ceased to discriminate between them, confusing nature and art – though by their very origin they are antithetical. Art wants to triumph over Nature and to resolve the opposition in a new unity, and this process is consummated in the fight of the spirit against the material world. The spirit creates for itself a new life other than the life of nature.

Each of these departments in the course on the theory of form functions in close association with the workshops, an association which prevents their wandering off into academicism.

The goal of the Bauhaus curriculum

... the culminating point of the Bauhaus teaching is a demand for a new and powerful working correlation of all the processes of creation. The gifted student must regain a

feeling for the interwoven strands of practical and formal work. The joy of building, in the broadest meaning of that word, must replace the paper work of design. Architecture unites in a collective task all creative workers, from the simple artisan to the supreme artist.

For this reason, the basis of collective education must be sufficiently broad to permit the development of every kind of talent. Since a universally applicable method for the discovery of talent does not exist, the individual in the course of his development must find for himself the field of activity best suited to him within the circle of the community. The majority become interested in production; the few extraordinarily gifted ones will suffer no limits to their activity. After they have completed the course of practical and formal instruction, they undertake independent research and experiment.

Modern painting, breaking through old conventions, has released countless suggestions which are still waiting to be used by the practical world. But when, in the future, artists who sense new creative values have had practical training in the industrial world, they will themselves possess the means for realizing those values immediately. They will compel industry to serve their idea and industry will seek out and utilize their comprehensive training.

16 Theo van Doesburg (1883–1931), El Lissitzky (1890–1947), Hans Richter (1888–1976) ‘Declaration of the International Fraction of Constructivists of the First International Congress of Progressive Artists’

The relations between Soviet Constructivism and similar avant-garde tendencies in the West are obscure and tangled. Evidence of Russian work began to be available in Berlin from around the end of the civil war in 1921. El Lissitzky, who arrived in Berlin at the end of that year, reputedly had with him a copy of the Programme of the First Working Group of Constructivists (which was not published until 1922; see III D6). Lissitzky, along with Ilya Ehrenburg, also published the tri-lingual journal *Veshch/Gegenstand/Objet* in Berlin in 1922 (see III D8). Also in 1922, the first official exhibition of post-war Russian art took place. Despite these contacts, however, Western responses to Russian art generally entailed a degree of depoliticization. In the Soviet situation ‘constructivism’ was part of a broader project to participate in the building of a new society. In the West it was a tendency of abstract art and design. This is the context for the ‘Congress of the International Union of Progressive Artists’ held in Düsseldorf in May 1922. The proposed Union has been referred to as a half-way house between a ‘meta-Novembergruppe’ (see III B8) and a ‘proto-Abstraction-Création’ (see IV A6). A more radically minded grouping dissented from this stance, however. The Russian Unovis artist El Lissitzky (see III C11 and 12) joined forces with Theo van Doesburg of the Dutch De Stijl group (see III C4 and 5), and the German Dadaist painter and film-maker Hans Richter, to publish a ‘Declaration’ on 30 May, in which the authors counterposed their own more militant programme to the idealistic stance of the Union. The text was subsequently published in *De Stijl*, V, no. 4, Scheveningen, 1923, pp. 61–4, from which the present translation has been made by Nicholas Walker.

We came to Düsseldorf with the firm intention of establishing an International Society. The consequences are as follows: