
Is Moholy-Nagy's Design Pedagogy

RELEVANT FOR TODAY'S GENERAL EDUCATION?

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THE PHILOSOPHY BEHIND THE PICTURES

This morning we all heard Lloyd Engelbrecht tell us that he has been studying Moholy for more than 25 years. For my part, I would say that I have been *practicing* Moholy for more than 15 years. This is indeed a little different than being an art historian (which I am not), because a design educator is closer to the practice of design. So please don't ask me any questions about art history, because I don't feel competent to answer them.

A more provocative title of my talk this afternoon could have been "Why Moholy Was More Postmodern than Anybody Would Think." By "Postmodern," I don't mean the style we see everywhere in architecture and design, with those expressive and sometimes enigmatic features that characterize the outer shape of the products. By "Postmodern" I mean the breakthrough in theory and philosophy that has challenged the so-called modern way of looking at the world. This is sometimes also called *the new paradigm*.

The title of my talk actually refers to one of Moholy-Nagy's quotes and deep convictions. He used to say that he was convinced that

the educational aims of the Bauhaus were still universally valid. My purpose is not only to prove that what Moholy said in the forties made sense; I am trying to demonstrate that what he said and what made sense in the forties can still be valid, relevant, and useful in the nineties. In other words, my working hypothesis is that Moholy's deep and challenging philosophy contains some very useful concepts and a way of looking at things that could enrich not only design and architectural education, but education in general.

Let me start with an observation drawn from my own experience in design education. That the Bauhaus has been thrown out of the window everywhere in architecture and design schools, except in history courses, is quite easy to observe. Basic design courses have disappeared; studio teaching has gone back to the very traditional Beaux-Arts style. The concept of the *atelier* has made a comeback with the big boss in the front and the students trying to imitate what the big boss is (or was) doing, or copying what was published in architectural magazines, and so on. But how did we come to believe that Bauhaus educational and pedagogical principles could not or should not continue to be valid today? The reason we tend to believe that Bauhaus education is not good anymore is, I believe, because we have seen too much visual material, too many pictures of and about the Bauhaus. It is possible that the Bauhaus *style* is somewhat outdated today (but isn't that the fate of any style?) and that a Postmodern style was timely in furniture, architecture, and so on. But a change in style doesn't necessarily mean that the philosophy behind the objects must be changed as well and that the philosophy is not valid. Indeed, even in the German years, Bauhaus director Walter Gropius insisted on the fact that the Bauhaus should not be considered a style but rather a new way of looking at and acting in the world. I'm afraid that by throwing the Bauhaus out of the window, we've thrown the baby out with the bath water.

The problem is that the philosophy behind the picture takes more time and trouble to catch than the picture. You just can't "see" Moholy's philosophy at a glance, like a photograph. Moholy left us with about two thousand pages of written material, and in order to really understand the philosophy behind the text it is not enough to read it, even closely; it is necessary to *experience* it deeply, that is, to *practice* it literally. Only by studying and interpreting Moholy by this method can one answer some of this morning's questions, for example, the following. It is indeed hard to believe that the style of abstract and geometrical painting

Moholy did in the twenties is in line with the biocentric worldview Oliver has so convincingly described to us. Quite to the contrary, nothing seems to be more foreign. But if we consider Moholy's philosophy, it becomes easier to understand, as I will try to demonstrate in my talk.

The latter will consist of three parts. A short history of the New Bauhaus/School of Design/Institute of Design will first be presented as context. I will then outline three central concepts of our Postmodern paradigm—phenomenology, complexity, and ethics—and finally I will try to show how these concepts relate to Moholy's philosophy and art.

AN AMERICAN BAUHAUS IN CHICAGO

As you know, Moholy was called to open the “New Bauhaus” in Chicago in 1937. (fig.36) During its first years, the institution moved five times to different areas of Chicago and its name was changed twice, a sign of an extremely difficult birth. First called the “New Bauhaus,” it was renamed “The School of Design in Chicago” a year later when it relocated to a downtown loft, a building still existing today. In 1949, under Serge Chermayeff, it lost its autonomy to become a department of the Illinois Institute of Technology, after its name had been changed in 1944 to “The Institute of Design,” by which it is still known today. Moholy was, of course, not alone in running the school. He hired a very impressive faculty of lecturers, teachers, and assistants. Three other important persons were behind the founding of the New Bauhaus in Chicago: Walter Gropius, first director of the German Bauhaus, who acted as pedagogical consultant, especially during the first years; Walter Paepcke, president of the Container Corporation of America, who first secured the survival of the school after the withdrawal in 1938 of its original sponsors, the Association of Arts and Industries, then stabilized it in 1944 when he became president of the board, and finally facilitated its integration into IIT in 1949; and finally György Kepes, a good friend of Moholy since the Dessau period and reportedly one of the most respected teachers at the School of Design. Kepes became particularly famous later as founder of MIT's Center for Advanced Visual Studies.

The structure of the curriculum was very much like that of the four-year structure of the original Bauhaus curriculum: a first-year preliminary course that would lead into four, five, or six workshops, depending on the period we're considering. There are, however, various

differences in content between the German and the American Bauhaus, two of which I would like to emphasize.

Although the circular image illustrating the centripetal progression of the students through the curriculum remained identical, Moholy radically reconceived and updated the specialized workshops. (figs. 37, 38) At the German Bauhaus, the workshops were eventually named after the specific material the student-apprentices were working with (wood, clay, glass, etc.), a feature which gave it a kind of medieval atmosphere, whereas in Chicago, the workshops were named according to the respective design *professions* they were leading to, such as product design, graphic design, architecture, textile design, photography, and so on.

The second important difference lies in the very basic concept of the curriculum, in its core philosophy. The original Bauhaus concept Éva just mentioned and discussed, “Art and Technology: A New Unity,” was conceived by Gropius as a fundamental polarity. (fig. 39) At the New Bauhaus, Moholy transformed it into a ternary model, in which science was added to art and technology. The difference is radical both in theoretical and pedagogical terms. The model is much more dynamic than a polarity, which has consequences for the underlying theory of design. This model was influenced and introduced by pragmatist philosopher Charles Morris of the University of Chicago, who not only lectured at the New Bauhaus, but was also in charge of the “intellectual integration” (Morris’s own term) of the three central poles of its curriculum. “Art, Science, and Technology: A New Unity,” such was the central concept of Morris’s philosophy. (fig. 42)

As in Weimar, the first published curriculum started with a manifesto, a feature that has somehow disappeared in our contemporary schools. We don’t have time to read the manifesto here, but I must admit it is still a good idea to read it again in 1995, and maybe find some fresh inspiration there.

FORM DOES NOT FOLLOW FUNCTION

What, then, was the central design idea discussed in the studios in Chicago? It all revolved around the relationship between form and function. The legend goes that “form follows function” was the holy gospel of the Bauhaus, and that Sullivan’s famous dictum found its strongest field of application there. This is misleading. It is correct that there is

indeed a relationship in any design product between form and function; however, the relationship need not be of a causal, deductive, and deterministic nature. In other words, form does not *follow* function; the matter is more complex. The central problem of the workshops at the Bauhaus was to find out what kind of relationship existed between form and function. In order to determine this relationship, said Moholy, you have to think about the “essence” of the product.

Now, what did he mean by the essence of the product? Let's take the following example. If you go to a farmers market, you will find these nice little baskets of wood, and let's say, for some reason, you have to design a new kind of basket. There can be many reasons for that redesign, but that's not what interests you now. So, let's say you have to make a new design, and this is your design workshop assignment for today. Moholy said you have to find the essence; not the function, but the essence of this product. If you use a new material, like plastic instead of wood, there is no reason to come up with the same shape, color, and manufacturing process as with wood, since this would be a mere imitation of what it was before, only in a new material (*speaker exhibits two baskets: a traditional one of wood and another of red plastic of the same shape*). The red basket is bad design because you were not looking for the essence. It is mere imitation, lacking both imagination and theoretical work. In order to find the essence, one has to look at things in a different way. And this is where Moholy's philosophy comes in.

MOHOLY-NAGY'S EARLY POSTMODERNISM: PHENOMENOLOGY, COMPLEXITY, AND ETHICS

One of the first concepts of Postmodernism that can be related to Moholy's philosophy is the idea of a new phenomenology of perception or of vision. Moholy first called it “New Vision,” later “Vision in Motion.” (fig. 18) He maintained that if we want to change the world (and designers do indeed want to change the world!), we must first look at it in a different way. Only then can we act responsibly in it. In order to look at the world in a different way, more “objectively,” we must become like children and forget what we already know or think we know. This principle can be found in Husserl's philosophical phenomenology, a philosophical framework much valued in Postmodernist social science.

Let's take an example. Here is one of Moholy's photographs. (fig. 40) Everybody will recognize a tree, its shadow, and so on. Wrong! Moholy would say it is not about a tree and its shadow. The way we should look at this photograph (*speaker asks picture to be put slightly out of focus*) is to forget what we know about this familiar scene and look at it as if we had never seen it before. And Moholy would add that if you look at the world in this way, you will discover a new world not only outside, but also inside, in your inner world. Moholy's photographs tell a more objective story than the anecdotal one pictured by the figurative scene: the story of polarity, of black and white, of shadow and light, and so on. The same holds for the films we saw this morning. He even stated a bit provocatively that you can look at his pictures any way you want, upside down for instance, that it didn't really matter because the artistic value of the picture remained the same. According to Moholy, one may use any visual medium—photography, photogram, painting, or whatever else—in order to reach the New Vision. In his writings he gives many clues for interpreting his own and the students' visual production. In substance we read that "one should see with the eyes, not with the mind" or "vision should be visual, not literal" or "pictures are not narratives, they are purely visual." This is why he thought, as Éva told us earlier, that the camera should be preferred to the human eye and mind in order to see objectively, to acquire the New Vision. Indeed, Moholy would say, the camera is a lifeless artefact. It has no biography, no cultural background, no feelings.

Another typical example is the light modulator. We look at light modulators as sculptures, as plastic experiments, experiments with (new) material. Well, that's not correct. (figs. 32, 41) A light modulator should be considered a scientific instrument that reveals essential features of the world, like light qualities for instance (*speaker exhibits a plexiglas light modulator he made for the conference and moves it in the beam of the slide projector*). Play around with it, look at light reflections, moving patterns, and so on. This was Moholy's concept: use whatever you feel is right in order to acquire the New Vision and make the familiar strange.

Another aspect of the New Vision is that it has to be dynamic, it must be vision in motion, be simultaneous. This idea of vision in motion and of simultaneity, which Moholy adapted from Cubist principles, brings us to a second central concept of Postmodern theory: complexity. Complexity was central in Moholy's writings and teaching. The point is

that the world is too complex to be understood analytically; one must grasp it in a more global, “organic” way. On page 42 of his book *Vision in Motion*, we read the word “complex” three, four, or five times, pointing to an interrelated whole, which reminds us of what Oliver talked about this morning. In this context the organic idea has an epistemological status.

Let's look at a design project, any design project. It is complex by nature because it has numerous, usually mutually conflicting dimensions: economic, technological, social, aesthetic, cultural, and so forth. You cannot understand a design project analytically, by breaking it into parts, by cutting it into slices. You have to look at it organically, topologically, so to speak. Here are pictures proposed by contemporary mathematicians in order to try to understand complexity, because complexity is beyond the reach of analytical thinking (*speaker shows mathematical curves and diagrams that look like geographical landscapes with peaks and valleys*). This is precisely why Moholy insisted we educate contemporary man (*sic*) as an “integrator.” An integrator is someone who has this New Vision, this vision in motion, someone who can grasp and understand contemporary complexity. Moholy believed that intuition is the only proper way of looking at problems. The “whole man,” who is capable of “thinking in relationships,” is a key concept in *Vision in Motion*. To paraphrase him: if one doesn't adopt such organic way of looking at the world, if one looks at it in an aggregative way, the world will remain meaningless and useless for the biological and cultural nourishment of man. There is only one page in his book where he uses italics and bold characters to emphasize a passage, something which should therefore be considered the key phrase of the book: “*the key to our age—seeing everything in relationship*” (p. 68).

One pedagogical way of experiencing complexity is working with photograms, an exercise practiced by students during the preliminary year. (fig. 47) Aesthetic qualities of a photogram are not especially important, and this is true for all basic design assignments. Basic design has been widely misunderstood because emphasis has been put on the formal qualities of the student's work. Again, this is the result of looking at photographs without inquiring about the underlying pedagogical assignment. Basic design is a preparation for the understanding of systemic theory and complexity.

Here, as an example, is a first-year assignment (*speaker shows a Mondrian-like picture composed of two horizontal lines and one vertical line crossing each other*). Students are asked to arrange the three lines

so that the system is in equilibrium. Then we ask them to add a second vertical line. This will disturb the previous system, so that they have to find a new equilibrium by rearranging the lines. With such an extremely simple exercise one can discuss central issues of complexity, objectivity, subjectivity, organicity, wholeness, gestalt, aesthetics, all matters having to do with a biocentric approach. We may go on with this exercise and add colors to the rectangles, that is, add complexity to the picture. This explains, I think, how very abstract Constructivist art can be biocentric. Many other exercises could be considered along the same line. With this in mind, one is bound to understand Moholy's projects, art works, and propositions in a new, more integrated way, in "totality."

The third concept characteristic of our Postmodern sensibility is the concept of ethics. Ethics was very central to Moholy's philosophy, although the term rarely appears explicitly. But by *practicing* Moholy, one understands the following: It is difficult to teach ethics to young people, since ethics cannot be taught like history or mathematics. Ethics has to do with practice and therefore must be experienced; otherwise one doesn't really understand what is at stake. The same is true for art, says Moholy: "Art cannot be taught," it has to be experienced. According to John Dewey, who praised the Chicago Bauhaus, the main task of educators is to make such experiences possible by providing adequate contextual conditions, both material and intellectual. (fig. 42) What holds for art holds for ethics. However, it is more difficult to design pedagogical situations for experiencing ethics. The idea, therefore, is to consider ethical decisions somehow analogous to aesthetic decisions. Both are value judgments, both deal with complex situations, and both need a kind of intuition to reach a satisfactory decision followed by action. A moral decision is indeed difficult to make, because the complexity of the situation is due to the influence of many conflicting factors. Although the analogy between aesthetic complexity and ethical complexity is formal, not substantial, what Moholy says between the lines is that if you educate young people in aesthetics, you prepare their education in ethics. This was a fundamental aspect of his pedagogical philosophy.

But, as we all know, ethics and the responsibility of designers were also substantially present in Chicago long before the issue of ethics emerged in the Postmodern world. Here is how things were considered by Moholy. We are used to looking at objects completely abstracted from their environment, like in these glossy magazines (*speaker shows photograph of a product in a typical design magazine*). Again, we must beware

of pictures! Products stand here in a completely abstract world, like on a cloud, detached from the context of the contemporary world. But for responsible designers this is the wrong way of looking at objects. Design products aren't art works or merely technological performances. Design criteria are not restricted to technology, for instance, or aesthetics. To understand a design product, it must be put in its social, political, and cultural context. This is precisely what Moholy meant when he wrote that in design and therefore in design education "not the product, but man was the end in view," because, eventually, the product was meant to be used by humans, individually and collectively, not to be put under glass in a gallery. A product, said Moholy, has to be both useful and meaningful. He didn't say form has to follow function, he didn't say a product has only to be functional and useful; it must be meaningful, too. Meaningfulness has to do with culture, with the spiritual dimension of human social life. Moholy maintained that, due to the tremendous changes in the contemporary world, a new morality, a new ethics, was necessary for designers and artists. They must be socially conscious and concerned with their moral obligations toward the entire society. Art can press for social/biological solutions to problems, writes Moholy, just as efficiently as political action. I could present numerous quotes where terms like "responsibility," "essential duties," and so on appear in Moholy's writings. Only by a careful examination of his pedagogical philosophy can we imagine how they were put into action in educational situations and thereby understand why the practice of art, and even the contemplation of art works, can have a political dimension.

MOHOLY THE VISIONARY

I have tried to show that Moholy-Nagy the educator was even more visionary in his worldview than the avant-garde artist praised by most art historians. Key concepts of his philosophy have only appeared recently in our Postmodern world. My argument has drawn heavily on a close consideration of his own writings when put into pedagogical situations, that is, the actual practice of his key concepts.

Of course the seemingly provocative and iconoclastic title of my talk should be qualified. Moholy would certainly have disagreed with many aspects of Postmodern design and, more generally, with the relativistic and sceptical character of our Postmodern worldview.

Utopian ideas were too important to him. But I hope I have shown that—when subsumed under concepts like the New Vision, complexity, and the social responsibility of the designer—his utopia could still be relevant for us today.