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<u>**Design 101: Teaching Now**</u>

According to the American Institute of Graphic Arts (AIGA), "Graphic design is

a creative process that combines art and technology to communicate ideas. The

designer works with a variety of communication tools in order to convey a

message from a client to a particular audience. The main tools are image and

typography." This process is becoming more and more part of other professions

who are not necessarily "graphic designers." More and more because of lower

costs or technology, ease, and speed the desktop revolution continues give the

masses the power to engage in design communication in various levels of

involvement. Design is everywhere and a part of everyone's life, for the better or

the worse. Such an education is necessary to provide an appreciation for good

design and to recognize flaws in bad design because of the amount of information

one is confronted with on a daily basis. Learning to see the world with open eyes

to the power of design, from the natural environment to the built, is a skill that

should be open for all.

I see a need in education to offer to non-design majors a course, Design 101, become a fundamental college requirement as a general course. This course should include information historical, theoretical, formal, and technical information about the processes and products we call graphic design. This would not be a substitute for a professional design course at all and would not create a "do it yourself" mentality, but an appreciation for good design and the ability to critically analyze the designed artifacts. Like the Bauhaus, this is a time where industry, technology, art and design are colliding and a new manifesto needs to be written. In this manifesto, the vernacular as well as the "high" design needs to be valued and accessed. As design educators I think we need to survey our past teaching methodologies, particularly those of the Bauhaus, and look at the "way" we teach and seek to adopt a more learner-centered approach and open to the "non" professional art student. In creating such a course, we need to consider that teaching is most effective in learning environments that encourage individual experiences and accommodate a variety of learning styles and examine various pedagogical models. To make this course, relevant to design students as well as the general student body, such a course, would have to examine design through a broad array of artifacts and cultures.

Such a course would seek to embrace an understanding of the nature of design and its relationship to many disciplines. "Too often, the increasing tendency toward specialization has had fragmenting consequences for the mind. It has sheltered men and women…behind narrowly drawn disciplinary boundaries,

thereby discouraging them from becoming educated in the fullest sense of the term" wrote James O. Freedman, former president of Dartmouth College. Additionally, in such a course, I think that it is of absolute necessity that we address the impact of technology and the rate of change it has. It is imperative that students master how to continue to learn on their own once out of the academic environment to keep informed in how to work in the world and its evolving technologies.

Looking back at the many of the goals of the Bauhaus, although many were not achieved as originally envisioned by Walter Gropius, none could argue the impact of the Bauhaus on design, art, and pedagogy. Over the years many artists and designers have asked what is the relevance of the Bauhaus to design pedagogy of today. What has been agreed upon is that the Bauhaus had had a significant impact on three general areas. 1. The understanding of the relationship between design and technology. 2. The ongoing discussion of the relationship between design practice and design theory; and lastly 3. The reorientation of design pedagogy.

I would like to examine how the Bauhaus program in design education, which was a direct response to the challenge of emerging technologies, can help us to formulate a design pedagogy that incorporates recent developments in digital technology in responsible and creative ways. As I see it, there is a direct correlation between the Bauhaus's position in relation to manufacturing technology and our present situation in design in relation to information

technology. In this age of information, speed, and the democratization of design, many of the issues the Bauhaus explored between craft, technology, and art have some correlation to issues that we face today. Like the Bauhaus, we have developed areas of specialization within our disciplines that try to come to terms with the technological developments. In particular, I will address the attempt of the Bauhaus to unify art and technology in its teaching practice-a teaching practice that was, in fact, founded on a clear division between making and thinking. We can progress only through change, and by looking at the Bauhaus's attempts to bridge the gap between design and technology, we can better understand our own attempts.

How can a unified idea of art and technology help teachers of design deal with the problems that we face today in design education and practice within current technology: the overabundance of information, the development of "content," the telecommunications industries, and constant flux. The democratization of design through technology (i.e. the computer) has opened up the "craft" of typography and design. The process of democratization has generated a rift similar to the handicrafts/manufacturing dichotomy that the Bauhaus was attempting to unify. Similar divisions arose with the other technologically based inventions: As Bertolt Brecht observes in "The Radio as apparatus," "the Gutenberg technology had produced a new kind of visual, national entity in the sixteenth century that was gradually meshed with industrial productions and expansion. Telegraph and radio neutralized nationalism". Brecht

called for innovation for the invention, the machine (the radio) was not a duplication of speech or music, but to make something new from that; that is; the new technology needed a new purpose or function.

In the early 1950's, Martin Heidegger argued "the essence of technology is by no means anything technological… Technology is a means to an end. Technology is human activity" Heidegger's pronouncements share much with Gropius's attempts three decades earlier to define technology and to unify it with art. Gropius believed that the machine was to be the modern medium of design and that part of the role of the Bauhaus was to come to terms with it and how to use it (technology) to create new forms. The "machine" was the technology. The Bauhaus mission was trying to overcome the distinction between the factory and the handicrafts. Gropius did not blame the factory itself for the loss of creativity, but that the loss of creative unity (the relationship between the designer and the product) was the result of the mentality of the assembly line. The unification of the craftsmanship and industry was one of Gropius's goals for the Bauhaus. He saw such a union essential to creative work. "The teaching of a craft," Gropius states, "is meant to prepare for designing for mass production. Starting with the simplest tools and least complicated jobs, the artist gradually acquires the ability to master more intricate problems and to work with machinery, while at the same time he keeps in touch with the entire process of production from start to finish, whereas the factory worker never gets beyond the knowledge of one phase of the process of production." The machine-economy was not fulfilling to the artist or

craftsperson and Gropuis felt it was essential to the freedom of the individual, that is the machine needed to be a way of freeing the intellect from the burden of labor, that is mechanical labor. Gropius saw that the individual would remain enslaved and culture would not progress to a higher state of enlightenment unless the individual's attitude toward work and acceptance of the new mechanical principals were embraced and empowering.

In the Bahaus manifesto, "Programme of the State Bauhaus in Weimar" in 1919, Gropius proclaims that the mission of the Bauhaus will reform in art education, the elimination of the differences between the artist and the craftsman, and to establish ties to manufacturing. Later in 1923 Gropius adds to the mission, that the education of the artists was to prepare them to be capable of conceiving objects that were ultimately to be made by machine, thus the designer, thus the unity of art and technology. This proclamation was directly related to the modernist movement as the process of industrialization, urbanization, and mechanization and the growing institutions of the factory, city, and nation were spreading. The unification of art and technology would free that laborer, the common man, so that his process of work became a creative endeavor instead of mere mechanical production.

The initial pedagogy of the Bauhaus, however, did not manifest such a unity. In the early years of the Bauhaus, each studio had a "master of form" and a "master of applied art," each of who would instruct students separately. The Bauhaus curriculum was structured so that one instructor taught the making and

manufacturing of an object and how to use technology and another instructor would teach the art of design. The separation of art and craft was reinforced by such a separation. The separation of the arts and crafts perpetuated a class stem: "The "masters of form" had the upper hand in decision making, more leave time, and did not have to teach in the summers. The "workshop masters" resented this and companied frequently about the inequality and criticized the "masters of from" for not taking interest in the workshops and having an inadequate understanding of the craftsmanship" states Frank Whitford in his book *The Bauhaus.*

In an article written by Vilmos Huszar in the 1922 issue of De Stijl shows an example of the criticism that the Bauhaus was receiving due to the separation of art and craft: "Where is there any attempt to unify several disciplines at the unified combination of space, form and colour? In order to reach the goals aimed for by the Bauhaus in its manifestoes other masters are required, masters who know what the creation of a unified work of art entails and can demonstrate their ability to create such work."

This structure is contradictory to Gropius's proclamation of "Art and Technology: A new Unity," that is if we think of technology as human activity in the creation of art. Of the instructors at the Bauhaus in the preliminary course, two, Moholoy-Nagy and Albers, were committed to the unification of art and technology. Moholy-Nagy clearly had a strong relationship that embraced "technology."

"The reality of our century is technology: the intentions, construction and the maintenance of machines. To be a user of machines is to be of the spirit of this century. It has replaced the transcendental spiritualism of past eras. Everyone is equal before the machine. I can use it, so can you. It can crush me; the same can happen to you. There is not tradition in technology, no class-consciousness. Everyone can be the machine's master or its slave." Wrote Moholy-Nagy in *Constructivism and the Proletariat.* The reality of our century too is technology and everyone can use the machine.

Albers, too, was interested in pushing the synthesis of art and technology through the use of materials. Albers thought of the "factory" as an area for exploration in creative uses of materials, forms and processes and that contextually they were living in an "economically oriented period and that cost determined much of the creative possibilities." "In technical science technical training often consists of a continuation and acceptance of accepted work methods. This kind of training kills creativity, and restrains inventions." Albers propagates that all comes from the material, and if able, one should just use the material without tools. In this way, it is possible to truly develop new techniques and new possibilities. "Many important discoveries originate with non-professionals–innovations are usually rejected by professionals–pioneers are usually not professionals." Albers thought that by taking away the predispositions of those "trained" in a field would allow for new inventions in forms and materials that are not ordinarily considered in art making such as rubber, plastic,

cardboard, and numerous other materials. Today, we need to encourage this type of discovery and methods of inquiry to encourage new inventions.

Heidegger insists that, in our modern culture, "everything depends on our manipulating technology in the proper manner as a means." Albers had similar thoughts about technology and who uses it. In his view the "non-professional" may be able to harness the machine in innovative ways that the "professional" may overlook.

Moholoy-Nagy and Albers followed in Johannes Intten's footsteps in instructing in the preliminary course. Itten designed the course structure where students explored relationships between things looking for contrasts; such as, light/dark, warm/cool, etc. using texture, color, form, rhythm and materials as vehicles for exploration. Students were encouraged to use intuition as well as specific methodologies of exploration. The course explored two aspects of the design process: plastic elements (line, shape, color, texture, structure, volume, motion, space etc.) and specific tools (technology) to create the form (brush, pen, power machine, camera, pigment, paper, clay, wood, plastic, etc.) Students became familiar with the two categories through assignments. One set of problems focused on technology and the other set focused on esthetics/theory. Moholy-Nagy later replaced Itten when economical and philosophical differences lead Itten to resign. Albers, who had been a student of Itten's assisted Moholy-Nagy and later replaced him in the teaching of the preliminary course. How can

we provide the "non" professional with a preliminary course in design that covers the process and technology?

In Alber's class the use of materials was rational. Albers would tell his students "Each material is used without any waste, if at all possible, and without any loss in its full exploitability." Past students of Albers recall that on the first day of classes, Albers would distribute to the students a stack of newspapers and state the following:

"Economy of form depends on the materials we are working with. Notice that often you will have to do more by doing less. Our studies should lead to constructive thinking. All right? I want you now to take the newspapers…. And try to make something out of them that is more than what you have right now. I want you to respect the materials and use it in any way that makes sense–preserve its inherent characteristics. If you can do without tools…and without glue, so much the better. Good luck."

The economy of the material, for Albers, was a way to create new structures with new forms. He would speak of material and space, the relationship between them, and the composition. Like other Bauhaus instructors, Albers focused on opposition and contrast. Dualistic approach was used to look for "an idea of a universal unity in which all opposing forces exist in a state of absolute balance."

Where does the idea of the "unification of art and technology" fit in today's design curriculum? How are we preparing students to be able to interface

with our present shift to the "information age"? How can we encourage inventions in forms and new purposes for materials and technologies?

The Bauhaus encountered difficulties in its pedagogy because of the separation between making of the object and thinking of what the object is or could be. I believe that these problems still exist in design curricula today, where there is a separation of "the making" and the "ideation/creation". The other separation that we need to address is the "non-professional" design student and the general student. The early Bauhaus separation of "master of applied art" and "master of forms" has come back to design programs because of the prevalence of the computer. This technology is/was feared, even loathed, and educators did not know how to use or how to teach students to use machines. Hence instructors were hired just to teach "the machine" whereas the "professor" would teach the "design."

According to Lorraine Wild, in graphic design education today, the technique (technology) is an unstable thing. As Wild states, most of today's students understand the "technique" of the computer better than their instructors. Wild goes on to say that what design instructors can pass on to the students is "learning how to learn, methods of research, questioning, awareness, techniques of visual rhetoric, syntax and semantics…" This list was absent form the Bauhaus curriculum and this absence proved to be problematic. In our present-day teaching, too, there needs to be a balance between technique, form and theoretical work. The balance of specializations in technology, craftsmanship in digital or

analog fashions, and generalization of knowledge and critical thinking skills in education that we see today is not unlike the separation of arts (design and form) and crafts (the making and technique) for the students at the Bauhaus.

The example of the Bauhaus demonstrates that unification of design and technology, as well as, design practice and design theory, cannot be achieved through pedagogical separation. Educators need to rethink our relationship to technology in the curriculum, and the Bauhaus's failure can help us avoid similar pitfalls. Technology has radically changed the process of design and the way new generations of students think about design processes and practice. The precept for thinking about design was developed when the process of design was separated into the processes of design, typesetting and printing. This has now been unified through the technology of the computer and we need to embrace this liberation and examine new ways of defining the process of design. This is a challenge in examining our methods of teaching students "how to learn to learn," technology and craftsmanship, theory, history, and the practice of design. No one aspect of the process can override the others; only a holistic approach can truly benefit students to prepare them for today as well as the future in which technologies will be as radically different as they seem to us today as humankind forges ahead with new inventions that we can't possibly foresee.

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