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Graphic Design: Fine Art or Social Science?



Fig. 1) Symbols for safety, an area left aside when graphic design is only viewed as an esthetic activity.

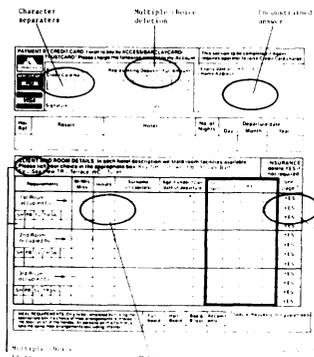


Fig. 2) Structuring communication by design: design of forms based on human factors has been shown to make a difference that conventional designers trained in art schools had not achieved before applied psychologists took the lead. A user-performance-based approach where the analysis of the communication process is at the center.

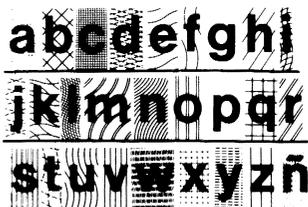


Fig. 3) Design beyond esthetics: alphabet for the learning disabled by J. Frascara and T. M. Nelson. Widely tested, it has proved to out perform other initial reading alphabets as a learning tool.

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Toward a theoretical backbone for graphic design

Graphic design has existed long enough for its role in society to be easily understood. However, unlike architecture, literature, or the fine arts, it has developed without much theoretical reflection. It has evolved into a sophisticated practice in a piecemeal fashion, with scattered efforts aimed at the development of subareas, such as posters or books, but without either the critical apparatus in literature or the discussion present in architecture.

The aspect of graphic design that has attracted some discussion is visual style. But this discussion of style has several flaws:

- It overemphasizes the importance of the visual structure within an esthetic context.
- It omits problems of appropriateness.
- It leaves out certain areas of graphic design, such as signage, forms, timetables, maps, and educational material (Figs. 1, 2, 3).
- It omits the importance of ideas in the communication process, not distinguishing between visual creation and visual manipulation.
- It avoids problems of performance related to visual perception.
- It omits problems related to the impact that graphic communication has on the public's attitudes and ideas.

These flaws have led to several distortions, the most important brought about by the praise of modern avant-garde typography. How long will the praise of El Lissitzky continue? True, he made a strong impact on a few typographic designers whose work in graphic design was closely related to the practice of art and looked very similar to their paintings or the paintings of avant-garde artists of the time. However, was Lissitzky's contribution really positive? His visual language was tremendously abstract (Fig. 4), as inappropriate to mass communication as Schwitters's graphics

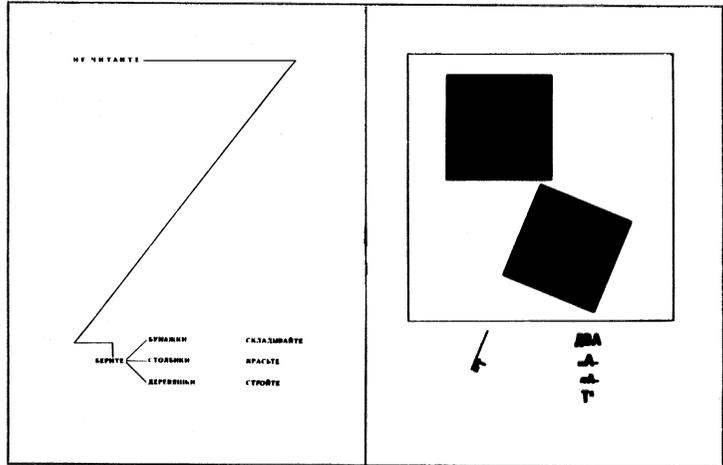


Fig. 4) El Lissitzky, *Of Two Squares*, 1920. Abstract language directed at children.

Pelikan

Fig. 5) The pre-modern Pelikan logo: appropriateness of language, with clear reference to the drawing ink medium.

using Pelikan ink motives were inappropriate for the product (Figs. 5 and 6). Pelikan ink, used for line drawing and calligraphy, was presented, surrounded by geometric typography, black and red bars, and rectangles. Not only did that imagery not express the product, but it did not even relate to the logo or the label. Why did

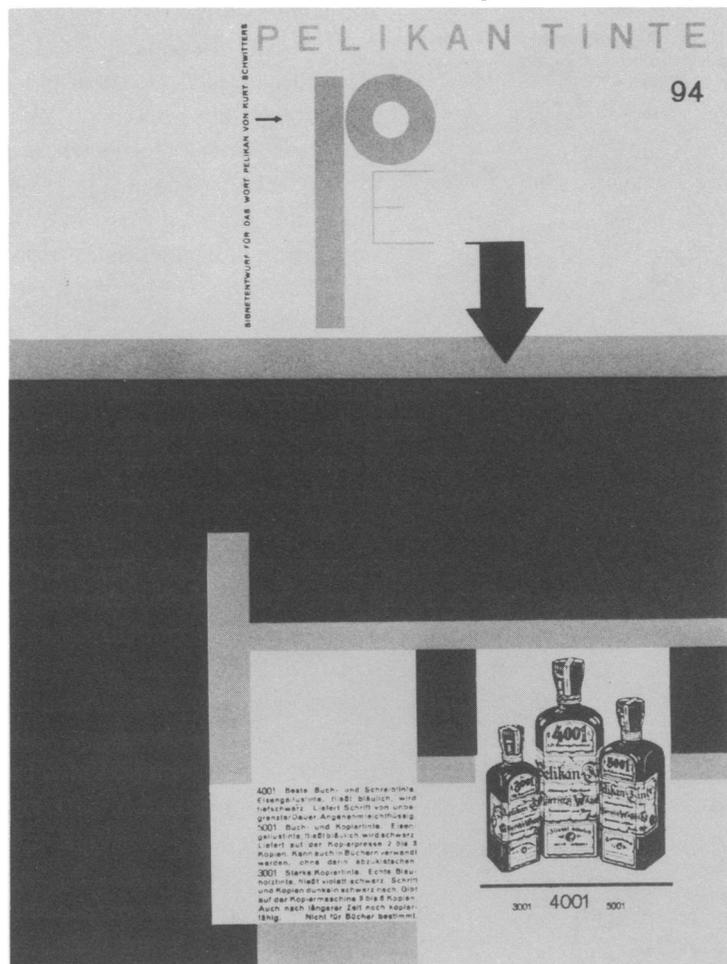


Fig. 6) Kurt Schwitters: Design with Pelikan ink. A case where the created image has nothing to do with the product or its label.



Fig. 7) Kurt Schwitters: Expression that is appropriate on the cover of the first issue of *Merz*.

Schwitters's designs include Pelikan ink bottles when the designs really related to constructivism, not to Pelikan.

Lissitzky was *interested* in improving communication, as his writing shows. This article, however, questions the apparent success of his works reproduced in design history books. He and other avant-garde artists made a major impact in the visual development of graphic design, but they also raised the importance of their esthetic approach to a point where the communication link with the common denominator they were addressing broke down. They seem not to have been aware that communication requires the sharing of codes. Although designers need not rely totally on the stereotypes, they cannot disregard the codes of the public; they should work with the public and improve its visual and conceptual language as much as possible, without breaking the communication link.

Lissitzky worked on a wide range of projects, some of them possibly less flashy and more useful than others, but the Lissitzky worshiped by many contemporary designers and design historians is the person who produced the quasi-abstract, constructivist, red and black pieces.

Although the quality of Lissitzky's, Schwitters's, and van Doesburg's designs in their own exhibitions (*Figs. 7 and 8*), ideas, and publications can be praised, the fact that they failed to realize that their visual language was not appropriate in all possible cases must be acknowledged. The same is applicable to other artists who did some graphic design. Joan Miro was perfectly skillful in the promotion of his own exhibition (*Fig. 9*), but Albers's promotion for a Lincoln Center Film Festival says a lot about Albers and little, if anything, about a film festival (*Fig. 10*).

The excessive importance given to the avant-garde movement in the context of graphic design history is based on the failure of theory to recognize graphic design as something other than an art form. Furthermore, as an art form, graphic design is viewed only from an esthetic perspective, without enough consideration of communication and social significance. Surely, esthetics is important, but it is by no means the sole measure for quality.

Discussion should start with a working definition. Graphic design is *the activity that organizes visual communication in society*. It is concerned with the efficiency of communication, the technology used for its implementation, and the social impact it effects, in other words, with social responsibility. The need for communicative efficiency is a response to the main reason for the existence of any piece of graphic design: *someone has something to communicate to someone else*. This involves, to a greater or lesser extent, a perceptual and a behavioral concern.

The perceptual concern involves visual detection problems sometimes and communication problems all the time. Problems of



Fig. 8) Vilmas Huszar: Logo for *De Stijl* journal. A case of spontaneous appropriateness in visual style usual among artists who express their own ideas.

Fig. 9) Joan Miró: Galerie Maeght. Another example of appropriateness of style.

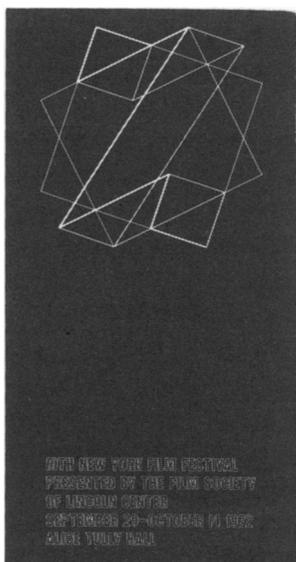


Fig. 10) Josef Albers: 10th New York Film Festival. The poster expresses a lot of Albers and little, if anything, about films. A case of communication failure.

detection and communication include visibility, legibility, and esthetics. The behavioral concern has to do with the way graphic communications affect the attitudes and conduct of their audiences. Advertising design is expected to make people buy products or services; political or ideological propaganda is expected to affect people's beliefs and actions; regulatory signs on highways are intended to organize the flow of traffic; teaching aids are supposed to improve learning performance; bank notes are designed to make forgery difficult and identification of one denomination from another easy. This is the real measure of the performance of any and every piece of graphic design and the proof that graphic design cannot be understood in isolation but only within a communication system.

Social responsibility in graphic design is the concern for the following:



Fig. 14) Armin Hofmann: Advertisement for Hermann Miller, 1962. Coincidence between the graphic designer's style and the product announced.

Fig. 15) Armin Hofmann: An abstract composition intended to represent insects. A strong esthetic paradigm does not allow communication efficiency.

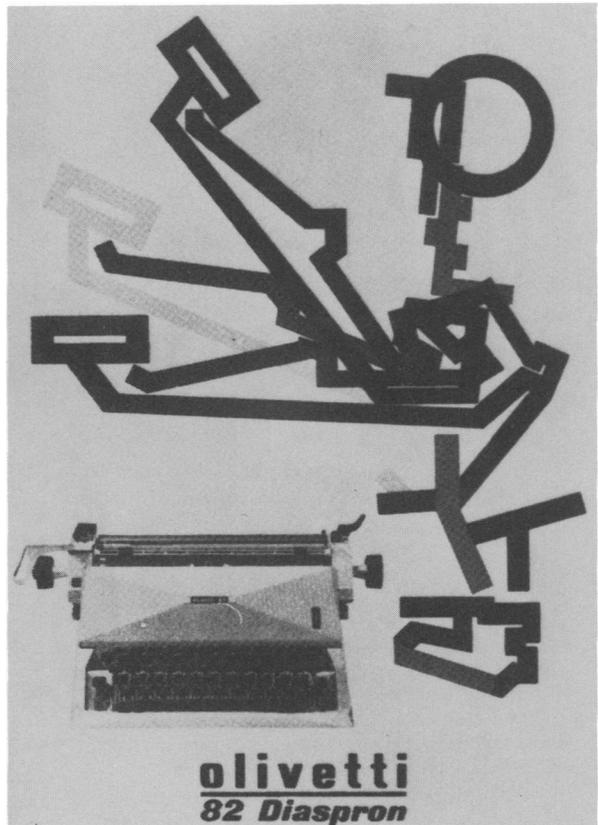
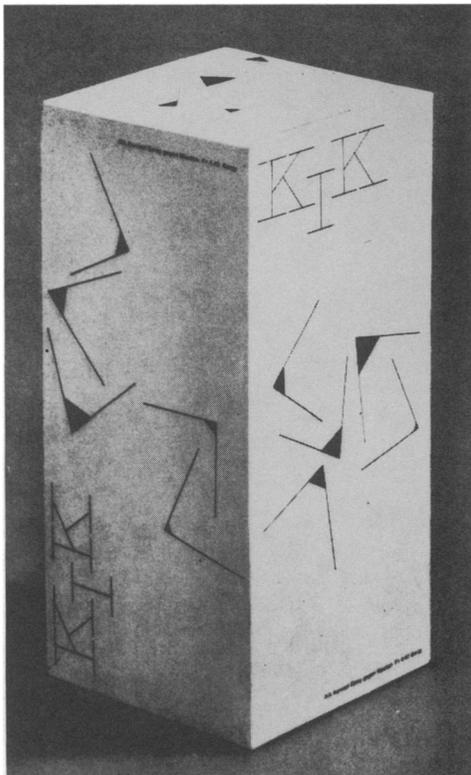
Fig. 16) Giovanni Pintori: Poster for Olivetti 82 Diaspron, 1958. Technological precision and modern elegance in the development of a successful corporate identity.

Although the concepts of communication and technological efficiency are common denominators for all areas of graphic design, several internal differences, depending on the subarea, need developing. The things graphic designers should know to promote the sale of cookies are very different from those they need to know to teach a five-year-old how to read. Every time a graphic designer really wishes to achieve the objectives of the communication proposed, the cross-disciplinary nature of the profession becomes apparent.

Graphic designers are always in need of active dialogue with their clients and with other professionals — be it with an editor, a manager, a marketing expert, or an educator — to really make the best of their practice. This certainly has important implications in relation to the evaluation of graphic design quality and to the education of graphic designers.

The problem of quality in graphic design

Further to the working definition of graphic design advanced above, a definition for quality in graphic design is also necessary: *Quality in graphic design is measured by the changes it produces in the audience.* The movement away from esthetics and stylistic innovation as determinants of quality started when investigations related to perceptual psychology, particularly the Gestalt school,



provided some theoretical concepts for visual fundamentals courses in art schools. These concepts replaced intuitive rules for what was called *composition*. This involved a rationalization of part of the design process and was parallel to developments in the study of legibility. The studies in legibility were the expression of an interest that went beyond the esthetic structure of the visual field and stepped into a concern for communication efficiency.

This concern represented a new factor in the measurement of quality in design. The 1950s and 1960s saw a growing interest in communication throughout the field. The works of Paul Rand and Josef Müller-Brockman are two different expressions of this concern (*Figs. 17 and 18*). Research on labeling of equipment, instruction strategies, and information panels, developed by the United States armed forces since World War II introduced a concern for communication efficiency simultaneous with the development of information theory, communication theory, and semiotics. Signs became signage systems and logos became corporate identities. Buildings, fashion, and life-styles started to be analyzed in communication terms. In addition, the receivers of graphic design messages were then discovered as an active part of the communication process. However, these receivers initially were perceived basically as decoders.

The objective of graphic designers was to produce clear communications. Only designers in the advertising business were



Fig. 17) Paul Rand: Cover design for the American Institute of Graphic Arts. The rebus as a way of communicating to graphic designers.
 Fig. 18) Joseph Müller-Brockmann: Poster for a campaign against noise pollution. The strength of form as a vehicle for communication (typography in red in the original version).



concerned with other elements in the performance of their designs: namely, sales. At least as far back as the 1950s, it became clear that clients' accounts depended on clients' success and that advertising design was a contributing factor to the success of a business. The concern for sales and persuasion in the advertising field led to the constitution of multidisciplinary teams of managers, writers, sociologists, psychologists, and designers who contributed to the establishment of marketing as an indispensable component of the advertising field.

Although understanding the importance of changes in public attitudes as a consequence of design has so far been limited to advertising, a closer look at the whole field of graphic design might suggest that specific changes in attitudes and conduct are, indeed, the final aim of graphic design in most areas. It has been said many times that the designer is a problem solver of visual communications and of clients' needs. *But the solution to a client's need is not the production of the visual communication; it is the modification of people's attitudes or abilities in one way or another.* This modification can be a *change*, as in switching from one product to another or in quitting smoking; a *reinforcement*, as in the case of exercising more, giving more money to charities, or drinking more milk; or a *facilitation*, as in the case of reducing the complexity of reading, operating a machine, or orienting oneself in a new place.

The quality of the designs produced in relation to the above examples will be determined by the number of people who switch to the desired product, who quit smoking, and so forth. Clarity and beauty do not necessarily determine objective achievement, whereas they usually contribute to success. If graphic designers wish to be recognized as problem solvers, it is indispensable that they concern themselves with the results of their work measured by achievement of the objectives that generated the need for the production of the visual communication in question.

I am not advocating the demise of esthetics. Esthetic appropriateness and quality are certainly of high importance, both as factors that affect performance and as responsibilities designers have to the community. My proposition is to place the concept of quality in context and to establish its relativity, as well as to clarify that the esthetic quality of a design does not determine its *overall* quality.

This thesis has wide implications both in terms of the practice of the profession and of education for it. In the case of *practice*, specialists other than graphic designers are required to interpret public responses, to evaluate design performance, and to advise regarding appropriate modification of the communication strategies when better results are desired. The experts required for this task may vary from one professional area to another, but, in general, they should presumably come from the fields of mar-

keting, sociology, psychology, and education, disciplines whose main concerns are the behavior of individuals and groups, and the problems of interpreting, quantifying, and qualifying information, as well as to a greater or a lesser extent, applying the information to practical ends.

The implications for graphic design *education* are just as obvious: the traditional art school cannot provide a full answer. Obviously, the thesis here contends that the designer's job is not finished when the design is produced and delivered, but that evaluation must be an integral part of the design process. In a safety symbols project, for example, the design problem is not the production of symbols but the development of an effective communication strategy for the prevention of accidents. It is not enough for the symbols to be beautiful, clear, and visible; these are useful factors, but the real measure of the quality of the design lies in its contribution to the reduction of accidents.

At best, these considerations will make the evaluation of design quality clearer and will better equip designers to contribute more efficiently to the solution of clients' problems. And not just communication problems, because as already indicated, the final objective of every communication design is some kind of behavioral change in a target population that occurs *after* the communication has taken place.

The education of graphic designers

A basic duality of graphic design becomes apparent when the formation of practitioners is considered: what skills do they need to develop? Graphic design is both a rational and an artistic activity. The decision-making process in graphic design alternates between the consideration of objective information and intuitive leaps. The goal of practitioners should be to base their decisions as much as possible on objective information, but the nature of the field always requires a certain degree of artistic intuition, that is, of decisions made by designers on the basis of experience that is difficult to quantify or explain rationally. (Graphic design in this case is comparable to marketing or psychoanalysis. All are activities in which a body of knowledge has to be applied to specific situations that relate to human behavior.)

The balance between artistic and rational elements in the practice of graphic design poses an interesting challenge to design educators, a challenge that calls for the development of visual sophistication and intuitive abilities to express concepts visually, along with a rational capacity for processes of analysis and synthesis. In addition, graphic designers need skills to listen and interpret the needs and concepts of people in other fields and enough flexibility of mind and visual resources to produce efficient communications.

No school could attempt to deal with all of these requirements in

every area of professional practice. Advertising, information, illustration, editorial, signage, and education design are areas that demand different backgrounds, training, and aptitudes and require both specialized instructors and motivated students for each. Reducing the scope of a program to include only some of the professional areas would be admissible. A school might choose not to deal with three-dimensional design, that is, packaging, signage, and exhibitions; another might concentrate on advertising, which might be excluded by still another.

Whereas, making the above choices would be desirable, removing any of the concerns that should be present in all graphic design work would not be advisable. The teaching should represent all levels of the activity, that is, the emotional and the rational, the communicative, the technological, and the awareness of the social context.

In most cases, emphasis has been placed on the visual aspect in education. There has also been a focus on education as a process of transmission of information and the development of personal skills and style. This trend has led to a reduction of the concerns appropriate to graphic design.

In this context, an important distinction can be made between undergraduate and graduate education in graphic design. Undergraduate education must be centered on developing individual student's skills; graduate education should do the same at a higher and more conceptual level, while also contributing to the advancement of knowledge in the field.

Research and advancement of knowledge in graphic design require the support of senior educational institutions. Professional practice does not usually allow for research time, and, when research is developed, practitioners do not share information with others. Market research in advertising is very common, but it is case specific and difficult to apply to different situations. Perception psychologists develop basic and applied research of wider application, but many times psychological research is so removed from reality that placing its results in applied contexts requires additional research efforts.

I am not supporting the idea that universities should directly serve industry, but that those interested in the advancement of knowledge cannot expect from industry inquiries other than those connected to its immediate benefit. It therefore follows that visual communication problems that relate to noncommercial human needs have only the university as a resource for developing solutions. There is a need to work on several fronts:

- Reference centers where existing information can be stored and retrieved should be developed.
- More information should be generated through two kinds of research activities: experimental, and critical discussion of both present and past work.

- Communication networks should be developed among researchers, leading, at best, to coordinating efforts and, at worst, to avoiding duplication.

Graduate programs in graphic design should either work along the preceding lines or generate design solutions for specific projects that clearly surpass the usual level of quality in the professional field and that become models of excellence for practicing graphic design. This practical work however, should be developed hand in hand with a sound, theoretical analysis of design solutions.

Although due regard should be paid to visual sophistication, and although design solutions cannot be based solely on the rational organization of objective information, the profession needs to move away from being a purely artistic endeavor toward becoming one in which visual solutions are based as much as possible on explicable decision processes.

In order to direct graduate graphic design studies toward the development of new knowledge, educators should conceive them as qualitatively different from undergraduate studies and not as mere continuation, whatever the increased degree of complexity and ambition might be. In undergraduate studies, the teachers instruct and create learning situations that help students make discoveries and develop their skills, but those discoveries and that development do not necessarily expand either the knowledge of the instructors or the advancement of the profession as a whole. Students can make new, surprising, and exciting syntheses, and teaching at the undergraduate level is therefore not necessarily repetitious, but the central task is the learning process of the students who require some years before they can make significant contributions to the profession. Nevertheless, undergraduate studies should not be seen as a mere preparation for integration into industry; in other words, undergraduate studies should not be merely job training, nor is it possible to believe that four years is all that is needed for a professional education. Undergraduate programs should aim at graduating persons who are ready to *begin* a professional career and whose conceptual preparation will allow them to progress rapidly and to enrich the practice of the profession.

Developing an awareness of the essential problems of graphic design in undergraduates is important. Graphic design is first and foremost *human communication*. A graphic designer is a person who constructs a pattern in order to organize the communication link between the piece of design and the viewer. In most cases, graphic designs are meant to be seen or read. These activities happen in time, as well as in space. Although designers work in two dimensions or in sequences of two-dimensional pieces for the most part, the enactment of these pieces occurs over time. As with the playwright or the composer, the designer produces a piece (score, play) that only comes into full existence when the communication with the audience

takes place.

My emphasis on this aspect shifts the designer's center of attention from the interrelation of visual components to that between the audience and the design, recognizing the receiver as active participant in the construction of the message. It follows that decisions relating to visual aspects of the design should be based not only on compositional concerns, but also, and chiefly, on the study of human communication. This emphasis on the receiver within the conventional scheme of transmitter- receiver opposition places visual communication design opposite to the romantic conception of art as self-expression, thus avoiding one of the distorting conceptions of the profession.

Given the above, the time has come to understand that the education designers cannot be satisfied by the resources of traditional art schools and that several branches of psychology, verbal communication, sociology, computing science, marketing, and other disciplines should be called upon to develop in students the required awareness. This seems to be the only choice if a theoretical understanding of graphic design is to develop and if the field is to take on the responsibility for the conception and production of effective and conscientious communications and for the education of graphic designers. This specific operational dimension must be qualified by a concern for professional and social responsibility that includes ethics and esthetics.