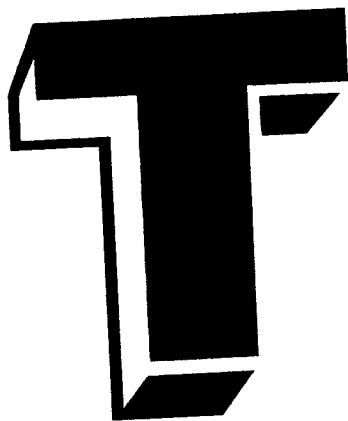


Grid and Design Philosophy

By Josef Müller-Brockmann



he use of the grid as an ordering system is the expression of a certain mental attitude inasmuch as it shows that the designer conceives his work in terms that are constructive and oriented to the future.

This is the expression of a professional ethos: the designer's work should have the clearly intelligible, objective, functional, and aesthetic quality of mathematical thinking.

His work should thus be a contribution to general culture and itself form part of it.

Constructive design which is capable of analysis and reproduction can influence and enhance the taste of a

society and the way it conceives forms and colors. Design which is objective, committed to the common weal, well composed, and refined constitutes the basis of democratic behavior. Constructivist design means the conversion of design laws into practical solutions. Work done systematically and in accordance with strict formal principles makes those demands for directness, intelligibility, and the integration of all factors which are also vital in sociopolitical life.

Work with the grid system means submitting to laws of universal validity.

The use of the grid system implies
the will to systematize, to clarify

the will to penetrate to the essentials, to concentrate

the will to cultivate objectivity instead of subjectivity

the will to rationalize the creative and technical production processes

the will to integrate elements of color, form, and material

the will to achieve architectural dominion over surface and space

the will to adopt a positive, forward-looking attitude

the recognition of the importance of education and the effect of work devised in a constructive and creative spirit.

Every visual creative work is a manifestation of the character of the designer. It is a reflection of his knowledge, his ability, and his mentality.

What Is the Purpose of the Grid?

The grid is used by the typographer, graphic designer, photographer, and exhibition designer for solving visual problems in two and three dimensions. The graphic designer and typographer use it for designing press advertisements, brochures, catalogs, books, periodicals, etc., and the exhibition designer for conceiving his plan for exhibitions and show-window displays.

By arranging the surfaces and spaces in the form of a grid the designer is favorably placed to dispose his texts, photographs, and diagrams in conformity with objective and

functional criteria. The pictorial elements are reduced to a few formats of the same size. The size of the pictures is determined according to their importance for the subject.

The reduction of the number of visual elements used and their incorporation in a grid system creates a sense of compact planning, intelligibility, and clarity, and suggests orderliness of design. This orderliness lends added credibility to the information and induces confidence.

Information presented with clear and logically set out titles, subtitles, texts, illustrations, and captions will not only be read more quickly and easily but the information will also be better understood and retained in the memory. This is a scientifically proved fact and the designer should bear in constantly in mind.

The grid can be successfully used for the corporate identities of firms. This includes all visual media of information from the visiting card to the exhibition stand: all printed forms for internal and external use, advertising matter, vehicles for goods and passenger transport, name-plates and lettering on buildings, etc.

The Typographic Grid

The grid divides a two-dimensional plane into smaller fields or a three-dimensional space into smaller compartments. The fields or compartments may be the same or different in size. The fields correspond in depth to a specific number of lines of text and the width of the fields is identical with the width of the columns. The depths and the widths are indicated in typographic measures, in points and ciceros.

The fields are separated by an intermediate space so that on the one hand pictures do not touch each other and legibility is thus preserved and on the other that captions can be placed below the illustrations.

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The vertical distance between the fields, is one, two, or more lines of text, the horizontal space depending on the size of the type character and of the illustrations. By means of this division into grid fields the elements of design, viz. typography, photography, illustration, and color, can be disposed in a better way. These elements are adjusted to the size of the grid fields and fitted precisely into the size of the fields. The smallest illustration corresponds to the smallest grid field.

The grid for a 1/1 page comprises a smaller or larger number of such grid fields. All illustrations, photographs, statistics, etc., have the size of one, two, three, or four grid fields. In this way a certain uniformity is attained in the presentation of visual information.

The grid determines the constant dimensions of space. There is virtually no limit to the number of grid divisions. It may be said in general that every piece of work must be studied very carefully so as to arrive at the specific grid network corresponding to its requirements.

The rule: The fewer the differences in the size of the illustrations, the quieter the impression created by the design. As a controlling system the grid makes it easier to give the surface or space a rational organization.

Such a system of arrangement compels the designer to be honest in his use of design resources. It requires him to come to terms with the problem in hand and to analyze it. It fosters analytical thinking and gives the solution of the problem a logical and material basis. If the text and pictures are arranged systematically, the priorities stand out more clearly.

A suitable grid in visual design makes it easier

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- a to construct the argument objectively with the means of visual communication
- b to construct the text and illustrative material systematically and logically
- c to organize the text and illustrations in a compact arrangement with its own rhythm
- d to put together the visual material so that it is readily intelligible and structured with a high degree of tension.

There are various reasons for using the grid as an aid to the organization of text and illustration:

economic reasons: a problem can be solved in less time and at lower cost.

rational reasons: both simple and complex problems can be solved in a uniform and characteristic style.

mental attitude: the systematic presentation of facts, of sequences of events, and of solutions to problems should, for social and educational reasons, be a constructive contribution to the cultural state of society and an expression of our sense of responsibility.

Systems of Order in Ancient and Modern Times'

Just as in nature systems of order govern the growth and structure of animate and inanimate matter, so human activity itself has, since the earliest times, been distinguished by the quest for order. Even the most ancient peoples created ornaments with mathematical forms of great beauty.

The desire to bring order to the bewildering confusion of appearances reflects a deep human need.

Pythagoras (580–500 BC) taught that simple numbers and their relations to each other, and also simple geometrical figures constructed to such measures, are an image of the innermost secret of nature. He discovered that the harmony of musical intervals depends on the simple numerical relations of spatial distances on the harp string and in the flute.

The Greeks also discovered the proportions of the Golden Section and showed that it is present in the proportions of the human figure. It was on these that architects, painters, and sculptors based their work.

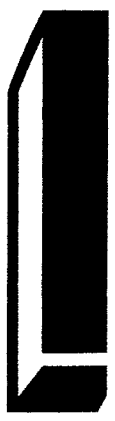
The artists of the Renaissance found the basis for their compositions in measure and proportion. Dürer spent his time in Italy studying the mathematically conceived works of contemporary artists and returned to Germany with the knowledge he had acquired.

Philosophers, architects, and artists, from Pythagoras, Vitruvius, Villard de Honnecourt, Dürer, and others down to Le Corbusier have left behind doctrines of proportion which give us a fascinating insight into the mathematical thought of their time.

"Order Is the Actual Key of Life" by Le Corbusier, *Modulor I*, p. 77.

From *Grid Systems in Graphic Design* (Niederteufen: Verlag Arthur Niggli, 1981).

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