

**KARL GERSTNER CREATED A RATIONAL, SYSTEMATIC APPROACH TO GRAPHIC DESIGN. AS A BOY IN BASEL THIS PIONEER OF SWISS TYPOGRAPHY LONGED TO BE A CHEMIST.** Unable to afford the extensive training, he turned instead to the visual synthesis of graphic design. Gerstner merged art with science. He developed a comprehensive system capable of generating a broad range of design solutions, and he connected this system to the evolving field of computer programming. Gerstner detailed his approach in *Designing Programmes*, a book that became a 1960s cult classic. For three decades he ran G&K, the advertising agency he founded with Markus Kutter in 1959. His early work with systems-oriented design reveals, in his words, “How much computers change—or can change—not only the procedure of the work but the work itself.”<sup>1</sup> Gerstner’s parallel career as a fine artist steeped in the Concrete Art movement consistently informed the precision of his commercial work.

<sup>1</sup> Manfred Kröppli, “Status Quo at 66,” in Karl Gerstner, *Review of 5 x 10 Years of Graphic Design etc.* (Ostfildern-Ruit, Germany: Hatje Cantz, 2001), 242.

## DESIGNING PROGRAMMES

KARL GERSTNER | 1964

### PROGRAMME AS LOGIC

Instead of solutions for problems, programmes for solutions—the subtitle can also be understood in these terms: for no problem (so to speak) is there an absolute solution. Reason: the possibilities cannot be delimited absolutely. There is always a group of solutions, one of which is the best under certain conditions.

To describe the problem is part of the solution. This implies: not to make creative decisions as prompted by feeling but by intellectual criteria. The more exact and complete these criteria are, the more creative the work becomes. The creative process is to be reduced to an act of selection. Designing means: to pick out determining elements and combine them. Seen in these terms, designing calls for method. The most suitable I know is the one Fritz Zwicky has developed, although actually his is intended for scientists rather than designers. (*Die morphologische Forschung*, 1953, Kommissionsverlag, Winterthur.) I have produced the diagram below in accordance with his instructions and, following his terminology, I have called it “the morphological box of the typogram.” It contains the criteria—the parameters on the left, the relative components on the right—following which marks and signs are to be designed from letters.

The criteria are rough. As the work proceeds, of course, they are to be refined as desired. The components are to be made into parameters and new components are to be specified, etc. Moreover, they are not only rough, they

I APPRECIATE THE MORAL IMPERATIVE THAT NO TASK IS SO INSIGNIFICANT THAT IT NEEDN'T BE ACCOMPLISHED IN KEEPING WITH THE HIGHEST STANDARD.

KARL GERSTNER  
*Review of 5 x 10  
 Years of Graphic  
 Design etc.*  
 2001

are also not self-contained. The component “something else” is the parcel in which the leftovers are packed if the parameter does not break down neatly. The designations are imprecise in some cases. There are many imperfections. But it is precisely in drawing up the scheme, in striving for perfection, that the work really lies. The work is not diminished; it is merely transferred to another plane.

The inadequacy of this box is my own and not inherent in the method. Even so: it contains thousands of solutions that—as could be shown by checking an example—are arrived at by the blind concatenation of components. It is a kind of designing automatic.

a Basis

1. Components	11. Word	12. Abbreviation	13. Word group	14. Combined	
2. Typeface	21. Sans-serif	22. Roman	23. German	24. Some other	25. Combined
3. Technique	31. Written	32. Drawn	33. Composed	34. Some other	35. Combined

b Colour

1. Shade	11. Light	12. Medium	13. Dark	14. Combined	
2. Value	21. Chromatic	22. Achromatic	23. Mixed	24. Combined	

c Appearance

1. Size	11. Small	12. Medium	13. Large	14. Combined	
2. Proportion	21. Narrow	22. Usual	23. Broad	24. Combined	
3. Boldness	31. Lean	32. Normal	33. Fat	34. Combined	
4. Inclination	41. Upright	42. Oblique	43. Combined		

d Expression

1. Reading direction	11. From left to right	12. From top to bottom	13. From bottom to top	14. Otherwise	15. Combined
2. Spacing	21. Narrow	22. Normal	23. Wide	24. Combined	
3. Form	31. Unmodified	32. Mutilated	33. Projected	34. Something else	35. Combined
4. Design	41. Unmodified	42. Something omitted	43. Something replaced	44. Something added	45. Combined

## SOLUTIONS FROM THE PROGRAMME

(Not all the solutions were found with the aid of the morphological box. But all those found can be assigned to a place in it and analyzed.)

If all the components contained in the trademark *intermöbel* are added, we obtain the following chain:

- a 11. (word) - 21. (sans-serif) - 33. (composed)
- b 14. (shades combined, viz. light and dark) - 12. (achromatic)
- c 12. (size immaterial, therefore medium) - 22. (proportion usual) - 33. (fat)
- 41. (roman)
- d 11. (from left to right) - 22. (normal spacing) - 31. (form unmodified) - 43. (something replaced, viz., the face of the letter r by superimposition of the two parts of the word).

Not all the components are of equal importance; only two are actually decisive: b 14 + d 43.

The importance of “combined” is shown in example b 14: the components light-medium-dark are not very expressive in themselves because they do not represent an assessable value (apart from black always being dark). But if letters of varying degrees of darkness are combined (as here) the parameter of shade may be the point at which the solution crystallizes out.

Parameters as points of crystallization: I will illustrate all those in the section “Expression” by the following examples:

“Reading direction” determines the expression of the typograms Krupp and National Zeitung. In both instances the component d 15 (combined) forms the basis. In Krupp d 11 (from left to right) is combined with d 14 (otherwise, i.e., from right to left).

In the case of National Zeitung the components are d 12 and 13.

“Spacing” once again combined in the component, is determining in Braun Electric and Autokredit A.G.

22

**intermöbel**

23

**1181 990ЯK  
KRUPP 1961**

24

**National  
Zeitung**

25

**B r a u n Electric International SA**

26

**A U T O K R E D I T**

## PROGRAMME AS GRID

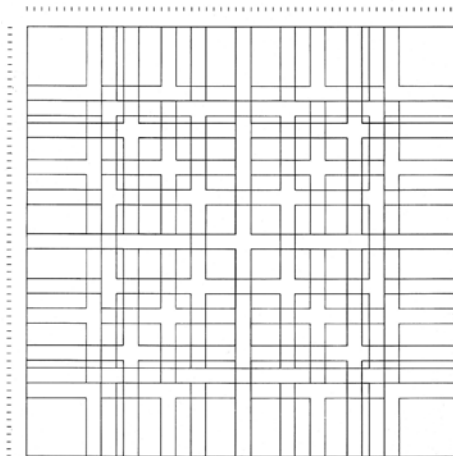
Is the grid a programme? Let me put it more specifically: if the grid is considered as a proportional regulator, a system, it is a programme par excellence. Squared paper is a (arithmetic) grid, but not a programme. Unlike, say, the (geometric) module of Le Corbusier, which can, of course, be used as a grid but is primarily a programme. Albert Einstein said of the module: "It is a scale of proportions that makes the bad difficult and the good easy." That is a programmatic statement of what I take to be the aim of "Designing Programmes."

The typographic grid is a proportional regulator for composition, tables, pictures, etc. It is a formal programme to accommodate  $x$  unknown items. The difficulty is: to find the balance, the maximum of conformity to a rule with the maximum of freedom. Or: the maximum of constants with the greatest possible variability.

In our agency we have evolved the "mobile grid." An example is the arrangement below: the grid for the periodical *Capital*.

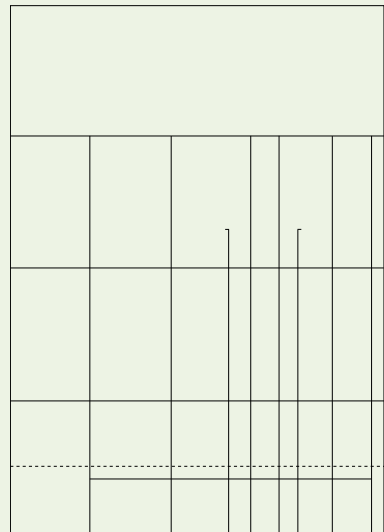
The basic unit is 10 points; the size of the basic typeface including the lead. The text and picture area are divided at the same time into one, two, three, four, five, and six columns. There are 58 units along the whole width. This number is a logical one when there are always two units between the columns. That is: it divides in every case without a remainder: with two columns the 58 units are composed of  $2 \times 28 + 2$  (space between columns); with 3 columns  $3 \times 18 + 2 \times 2$ ; with 4 columns  $4 \times 13 + 3 \times 2$ ; with 5 columns  $5 \times 10 + 4 \times 2$ ; with 6 columns  $6 \times 8 + 5 \times 2$  10-point units.

The grid looks complicated to anyone not knowing the key. For the initiate it is easy to use and (almost) inexhaustible as a programme.



**JOSEF MÜLLER-BROCKMANN DIVIDED AND ORDERED GRAPHIC DESIGN INTO THE GRID OF SWISS TYPOGRAPHY. HE TOOK DESIGN ELEMENTS THAT WERE SUBJECTIVE, IRRATIONAL, AND CHAOTIC AND BROUGHT THEM UNDER TIGHT, MEASURED CONTROL.** He delved deep into form and content, spending his life in Zurich paring down his work to the essentials necessary for what he considered an objective—even timeless—method of communication. The grid was key to this pursuit. As Müller-Brockmann's notes in the essay at right, "Working within the grid system means submitting to laws of universal validity." He popularized the grid while spreading the principles of Swiss typography internationally through graphic design, lectures, and publications. In 1958 he founded *New Graphic*, an influential trilingual magazine promoting Swiss typography. He embodied the expansive precision of this movement. When asked about David Carson, postmodern designer and surfer, in 1996, Müller-Brockmann replied, "I don't surf, I dive."<sup>1</sup> His intense quest to achieve a universal system of communication calls to contemporary designers seeking ideal global forms for the world of new media.

<sup>1</sup> See Kerry William Purcell, *Josef Müller-Brockmann* (New York: Phaidon Press, 2006), 277.



**JOSEF MÜLLER-BROCKMANN**  
 The "musica viva" poster is built up on a grid 4.5 fields wide and 4 fields deep. The two words "musica viva" are arranged in a cross, the letters of "musica" being set at irregular intervals so that a rhythm is produced. The lines of the program in small type align with the letters

of "musica viva." In this way an impression is created of a severe but elegant architecture. Format: 128 x 90.5 cm, upright. Colors: blue-green-white.

Illustration and caption from *Grid Systems in Graphic Design* by Josef Müller-Brockmann.

# GRID AND DESIGN PHILOSOPHY

JOSEF MÜLLER-BROCKMANN | 1981

The 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.

Constructivist design that is capable of analysis and reproduction can influence and enhance the taste of a society and the way it conceives forms and colors. Design that 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 that are also vital in sociopolitical life.

Working 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.