

elements, in the context of modern technology. Design has returned to rescue typography from Victorian ugliness and post-Victorian mediocrity.

Design, to define it very briefly, is the art of assembling diverse elements into an organized unit. The problem is just the same in typography as it is in the manufacture of industrial products. The watchmaker must assemble tiny cogs and gears and springs into a circular or rectangular case, the car manufacturer must assemble wheels, engine, transmission, steering apparatus, gears, fuel storage, into a sleek, upholstered living-room in motion. Typographic design, too, takes diverse elements and organizes them into a visual unit. And this brings us back to where we started this chapter: the beginning of a study of the relations between elements.

The objective of typographic design is to organize all of the elements of communication into a harmonious and unified whole, either by achieving a quiet uniformity of similar elements or by the visually exciting use of contrasting ones. What determines the result is the way in which the diverse elements are organized in relation to each other, the contributions each makes to form, texture, and weight, and the effect of their relation with the space in which they exist.

We must ask then: what kind of elements are put together, where, and in what way? These three questions are the basic ones in any discussion of relationships. For simplicity, they may be broken down in this way:

What kind of elements? relationships of concord and contrast.

Where? relationships in space.

In what way? relationships of structure.

The basic form of the relationship between typographic elements is determined when the designer decides whether there is to be uniformity of appearance and form or a contrast of one element with another. Between complete concord and complete, stark contrast there are, of course, many intermediate stages, and an ability to achieve concord in general effect while introducing subtle contrasts in specific effects gives a designer his greatest opportunity for typographic variety.

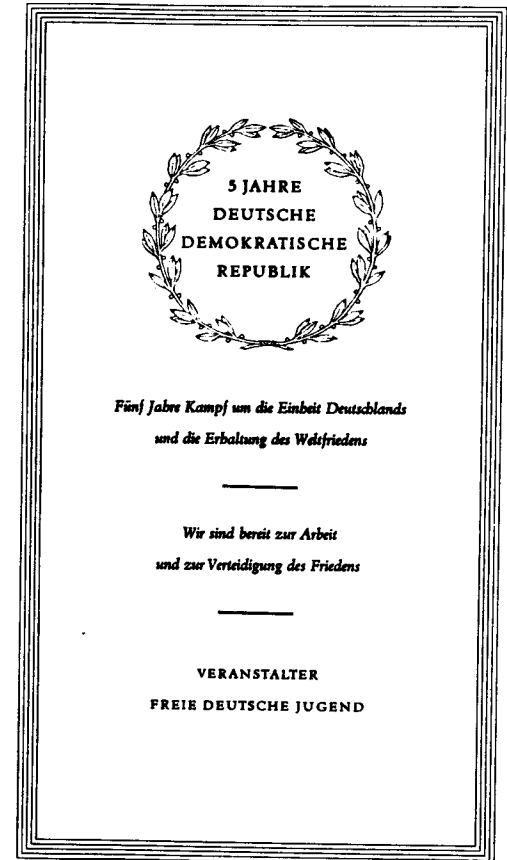
What do we mean by concord and contrast in the context of typography?

Concord is the result of the blending of typographic elements to give a uniform impression; colour, texture, size, proportions and affinity of the type faces combine to produce this effect. The traditional book form is the classic example of concord: it is found in both the uniform, tightly woven, dense pages of the Gutenberg Bible and the light, open, gray pages of the conventional contemporary book set in roman types.

To achieve complete concord, all the elements must have the same characteristics; a single family of type must be used throughout (though sizes may vary), and any borders and decorative material must match this type in tonal value. The relationships of the white areas must be carefully balanced; there must be proper proportion between the white spaces inside the block of type and those surrounding it, so that a harmony is achieved.

Concord does not necessarily imply a light tonal value. If the prevailing tone is struck by the use of a light roman face, then border or decorative material will certainly echo that

A type page which is completely harmonious in all its elements – border, decoration, and type, as well as the white space within it.



DEUTSCHE KUNSTSCHAU



HALBMONATS-ZEITSCHRIFT FÜR DAS GESAMTE
KUNSTLEBEN DEUTSCHLANDS
MUSIK·THEATER·TANZ·LITERATUR·BILDENDE
KUNSTE·VEREINSWESEN·MIT VIELEN BILDERN
HERAUSGEGEBEN VON
HANS WERNER GÖTTIG·FRANKFURT AM MAIN
VERLAG VON J. ANDRE·OFFENBACH AM MAIN
DER BEZUGSPREIS BETRÄGT MONATLICH 1 MK.

*Another setting in which complete harmony prevails,
but this time in greater density of colour, employing
RUDOLF KOCH's hand-cut Neuland type.*

tonal value, and white areas will be generous. Similarly the even gray texture of such a face would be repeated in the uniform lines and density of colour in the illustrations. But concord can be achieved using black-face types, provided again that the density of the type is picked up in the other elements in the composition, and that the white areas are in turn balanced off against it. A type like Bodoni has within itself an interplay of thick and thin lines; a border of parallel thick and thin lines or an illustration with thick and thin pen strokes will be in concord with the type.

Contrast is the opposite of concord; it is based on a unity of differences.

We understand the surroundings in which we live through contrast; all of our senses react to contrast. We understand shadow because we know about light; differences in qualities are measured by contrast; soft and hard, sweet and sour, rough and smooth, cold and warm, light and heavy. Our senses are trained to detect the differences between things in the world about us. The act of reading itself is possible because of contrast: the contrast between the colour of the paper and the colour of the ink, and if the contrasts are weakened through paper and ink being too close in colour, or through the characteristics of individual letters not being clearly defined, legibility is reduced. We depend on contrast for easy reading.

Contrast to be effective must be sharp; timidity in employing contrast will defeat its whole purpose and will result only in conflict. It is a popular belief that matrimonial success depends on a complete contrast of personalities; that people of too similar temperaments will be involved sooner or later in a conflict of personalities. It can be left to the marriage counselors to determine the truth of the adage, but it is most certainly applicable in typography.

Two old-style roman types with only slight dissimilarities will be in conflict; they are not similar enough to establish

typography is an ART

TYPOGRAPHY IS AN ART

TYPOGRAPHY IS AN *art*

At the top, Caslon roman capitals and lower case italic of the same face establish harmonious relationships. The line in the centre is in a state of conflict between the old style Garamond caps and the modern Bodoni display. At the bottom the structures of the sans serif caps and the large old style italics are sufficiently differentiated to create a pleasant contrast.

concord, nor different enough to set up contrast. There can be no compromise between *almost* similar elements, but it is possible to interweave concord and contrast. It is possible, for example, to make use in a design of two letters of the same type face but of substantially different sizes: they are in concord as to size, but their structures are in concord; the result is harmony.

Similarly, a roman type and a script type may have in common a structure based on thick and thin strokes – Bodoni and Bank Script provide an example. Their basic structures are in concord, but the vertical roman type and the strongly sloped and rounded forms of the script produce a contrast of form; the two faces are in complete harmony. One may carry this latter example a stage further. If the italic form of Bodoni were to be used with Bank Script type, the essential harmony would be destroyed; the two sloped letters would be in conflict with

each other, and neither concord nor contrast of form would be achieved, even though the concord of structure (thick and thin lines) was maintained.



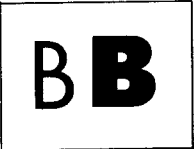


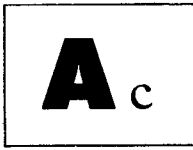
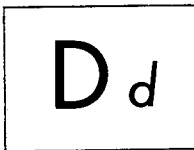

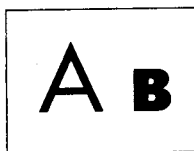

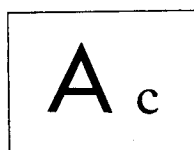
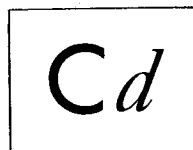
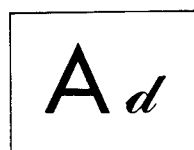
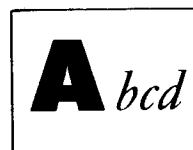
It will be useful at this point to establish all of the dimensions in which concord or contrast can be used with typographical material, and then discuss each of these dimensions individually in their practical application to the daily problems of the design of commercial printing. These dimensions are:

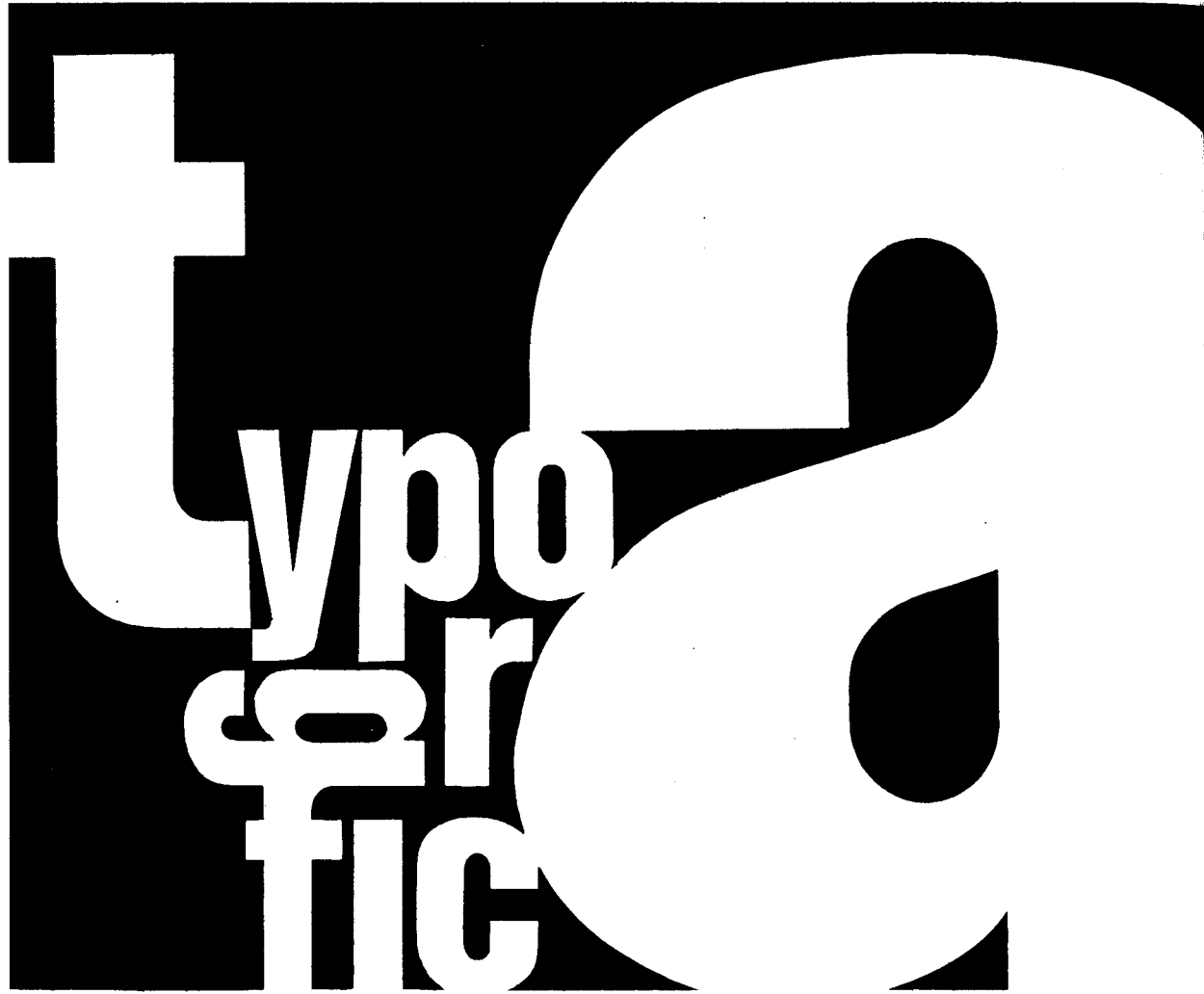
- a* / the dimension of size
- b* / the dimension of weight
- c* / the dimension of letter structure
- d* / the dimension of form
- e* / the dimension of colour
- f* / the dimension of texture
- g* / the dimension of direction.

Like the seven notes of the musical scale, these seven dimensions of concord or contrast can form the basis of the most varied compositions.

The first five dimensions listed are those in which the basic letters can be contrasted to one another; the other two require larger units of words, lines, or masses. If we take just the first four, and study the chart which has been prepared of all the potential combinations of concord and contrast in these four dimensions (fourteen in all), we will see what an important principle of typographic design is embodied in the theory of concord and contrast and what new horizons of design are opened up to anyone who masters it.

The interplay of concord and contrast in the hands of imaginative designers is currently producing some of the most stimulating and visually appealing typography in the history of printing. The student or enthusiast who takes the trouble to analyse the works shown in current catalogues and typographic exhibitions can learn what concords and contrasts the designers employed to achieve their effects.

<i>Contrast of size</i>			<i>Contrast of weight and structure</i>
<i>Contrast of weight</i>			<i>Contrast of weight, structure, and form</i>
<i>Contrast of structure</i>			<i>Contrast of size, weight, and structure</i>
<i>Contrast of form</i>			<i>Contrast of size and form</i>
<i>Contrast of size and weight</i>			<i>Contrast of size, structure, and form</i>
<i>Contrast of size and structure</i>			<i>Contrast of structure and form</i>
<i>Contrast of size, structure, and form</i>			<i>Contrast of size, weight, structure, and form</i>



The very fact that we have the typographic terms 'display size' and 'body size' indicates the integral role in design of contrast of size. Gutenberg cut the first type in a single size, but he employed scribes to set in large initials with his body type: he thus achieved contrast of size. The technique has been employed ever since, right down to the modern tabloid newspaper whose front page lets out a 144-pt. scream to tell the public about the event which has unnerved the editor that day.

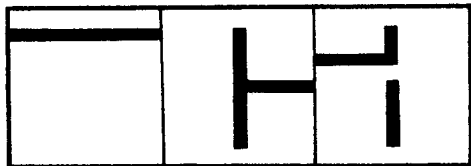
As with contrasts in all dimensions, contrast in size is only effective when used with discretion. Not that the differences in size should be slight – far from it; the caution simply means that effects dependent on size cannot be achieved if there is too much large type; the smaller, and contrasting, element will be unable to break through and contribute its share.

A safe rule of thumb to follow is to make the areas occupied by the contrasting elements approximately equal: for example, a single large letter might be followed by a word or words which have about the same general weight as a unit of the large type, or a large word might be followed by a line which has the same weight. The initial should never exceed the inking area of the contrasting form unless it is cut down in weight through the use of colour. A single letter of 72-pt. Futura Ultrabold, for example, would lose weight without losing size if run in a pale tint, while the smaller unit was run in black.

The cost of fonts of large types often prevents a medium-size or small printing plant from having an adequate selection of large letters for display as initials. However, digging around among old fonts of wood type which are gathering dust in

Opposite page: a typographical exercise by GERHARD SCHNEIDER, a student at the Werkkunstschule, Offenbach am Main.

seldom-used cases of some shops will often unearth striking old letters which are decorative and effective if run in colour. Moreover, large display letters can often be made up from type material with the expenditure of a bit of imagination and a little labour. Type rules and squares are most convenient to use, and they can be worked up into solid letters, shaded letters, shaded letters with shadow edges, or open letters defined only by rules cut to indicate a shadow. Reverse letters can be built up in the same way, by setting the rules or squares in a rectangular shape and cutting away from the rules the shape of the letter, by removing the squares to leave the reverse letter, or by using type material to define only the outer and inner shapes of the letters. The background grid effect created by the



The device used by the Institute of Contemporary Art, London, defines only the outer and inner shapes of the letters with simple rules. Below, an advertisement by THEO DIMSON, Toronto, exploits strong contrast of size and texture, and vigorous opposition of vertical and horizontal.

IN TRUTH A

"Something moves as it has never moved before in this land, moves dumbly in the deepest runnels of a collective mind, yet by sure direction toward a known goal. Sometimes by thought, more often by intuition, the Canadian people make the final discovery. They are discovering themselves. That passion of discovery which once sent birchbark canoes down unmapped waters, pushed railways across the Rockies, and dragged men to the frozen seas turns inward to explore a darker terrain. The nation labors in the travail of self-discovery and, by this labor, proves that it is in truth a nation, the home of a people." This advertisement, commemorating the completion of the St. Lawrence Seaway and Power Project, and its official opening by Her Majesty, Elizabeth II, is published by THE TORONTO-DOMINION BANK

NATION

From "Canada: Tomorrow's Giant" by Bruce Hutchison

Published by Longmans, Green and Company

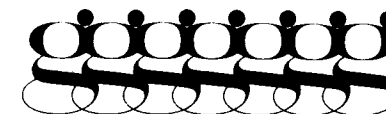
failure of the type squares to meet can be effective in itself. Of course there are always the services of the photo-engraver who can be called upon to enlarge a proof of a smaller face, or to supply a zinc of a hand-drawn letter.

The applications of contrast in size are almost universal; there is scarcely a job where a large letter or word cannot be used to striking effect. To take business stationery, the initial letter of the main name or product name, if set large and run in a second colour, can provide a focal point around which it is easy to organize the subordinate material; this pattern can be used on all sorts of forms, from the letterhead and envelope to the business card. Monograms of two or more initials can accomplish the same purpose and may well serve to establish a striking trade mark.

Cover designs of all kinds lend themselves to this treatment of mass: menus, with the word 'menu' set large as a background to the name of the restaurant using it; catalogues, with either the word 'catalogue' or the name or initial of the firm dominating the cover; price lists, with a similar treatment; house organs, with the name of the publication made large enough to form a solid panel of its own; announcements, with the initial 'A' establishing a starting point for the message.

Very often the repetition of an initial letter at different angles can create a pattern which is interesting either in itself or as a symbol of the business indicated. But each problem calls for the application of ingenuity, and it is only possible here to give fictitious examples. Effective application of the principle of contrast of size can only be made if the designer studies his copy for the clue that will indicate what letter or word can take this distortion and still be effective both as a design and, if possible, as a symbol. Sometimes a little doodling on a scrap of paper will help an idea come to life. At this stage the type indication does not have to be meticulous, so long as a contrast is there to start images of all sorts of possibilities flashing across the mind.

Typographic "doodles" achieved by photo-typsetting at the studio of ALBERT HOLLENSTEIN in Paris.



TONNAGE

When is a heavy weight of advertising dollars bound to succeed? And when is "Tonnage" bound to fail? Is the smartest advertiser the one with the biggest budget? If you look at the history of advertising, you will observe the following facts: There are advertisers who slackened, or weakened their efforts (sometimes at critical times) and the results can be seen in the forgotten trademarks of the past. On the other hand, there are advertisers who mounted massive advertising campaigns—costing many millions of dollars—who have failed to increase their sales. The question of the advertising appropriation should always be preceded by these questions: Do I have an idea which will sell my product? Has my agency been thorough enough to arrive at a sound selling strategy, and ingenious enough to express it in an arresting and interesting way? If the answers to these questions are "yes," advertising tonnage can be regarded as an investment, instead of an expense. Everything depends on the idea. Ideas sell products because—people buy ideas.

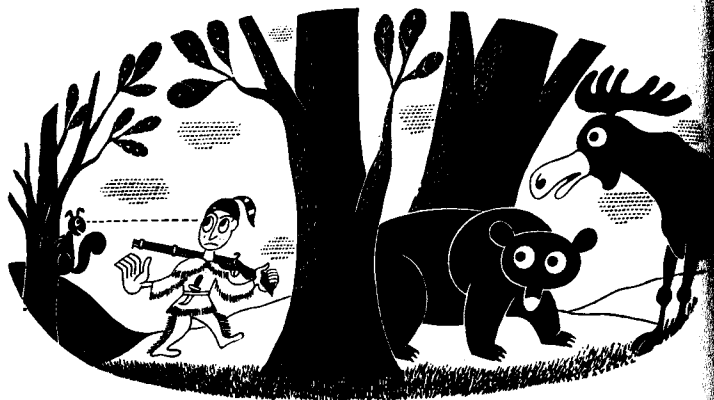
When we speak of the weight of a letter, we are speaking, of course, of the thickness of the lines that compose it; or, to put it another way, of the relation between the printed area and the white of the paper. If the printed area is much less than that of paper which shows through and around it, the letter is considered light; on the other hand, if the area of ink which it deposits almost fills the total area it occupies, as a Futura Ultra bold letter does, it is considered heavy. Light and heavy are contrasts as effective as night and day, as highlight and shadow.

The creation of light and dark areas within a drawing is an effective device used by artists to dramatize their subject, and it is called *chiaroscuro* (from Italian, *chiaro*, light, and *scuro*, dark). In typography the device can be just as effective even if it has not been honoured by such a fine-sounding word.

Just as in the use of contrast of size, there is no real middle ground in the use of contrast of weight; it is black face against light face, or it is ineffective. Fortunately, as in the human family, many members of our type families have their black brothers—Bodoni has its Ultra Bodoni, the sans serifs their extrabold versions, Egyptians have their heavy weight. Besides these members of regular type families, many other black-face types have been designed which will harmonize in structure with standard faces. A word of caution is in order here: the regular run of bold faces which have been cut as companions to some of the old classic faces do not effectively contrast with them; at best they provide a slight emphasis, but more often than not they look as if they had illegitimately sprung from the classic parent face: they appear to be merely battered-down types used too long and ready for the hellbox.

Opposite page: a dramatic example of contrast of weight — with the added impact of direction contrast (see page 74). Designed by DONALD EGENSTEINER of New York.

Contrast of weight, by itself, has many applications, whose chief purpose is to give emphasis. Within a display line, a single word can be given prominence and importance by a change to black-face letters. An initial letter of a firm name or a product name can provide a hub for a signature if it is set in a black version while the rest of the name is in light face, or vice versa.



JOHN AVERILL, the late Chicago cartoonist, typographer, and proprietor of the Molehill Press whose publication, Seed Corn, won international fame, was a master of the use of contrast of weight, as indicated by this advertisement done over a quarter of a century ago.

When you can have more, why take less?

Contrasts of weight can also be brought into play between two different materials. No one has employed this technique more effectively than the artist-typographer John Averill, of Chicago, who used Caslon Old Style accented by a solid black rule in combination with his own inimitable drawings, which are dominantly black, in a series of advertisements.

The relation between a heavy line of black-face type and the ample white space in which it is set can likewise produce a contrast of weight. The effect suggests a comparison with that

produced by a dirty thumb-print against a newly plastered wall – against a background of pristine whiteness the offending print attracts the eye out of all proportion to its size or importance. Similarly, contrasts between headings and text matter and the white areas of paper can create three distinct weights: the black bar of the heading poised against the light gray mass of the text, and the two set in a generous area of white. Some of the simplest and most striking typographical designs have been based on no more than this relationship.

One of the most familiar uses of contrast by means of black-face type is for subheadings in continuous text. The contrast provides direction signs for the reader looking for specific information. Such headings can be handled in two ways: set in an open break between paragraphs or run into the paragraph at the beginning, with the text continuing from the end of the heading. The latter is a useful device where space does not permit sacrificing the area which could be occupied by several lines of type just to let in a heading. If these black-face run-ins are extended slightly into the left-hand margin, they are even more easily picked up by the skimming eye. Or they can be set entirely in the margin, flush right to, and aligning at the top with, the paragraphs to which they refer.

On business stationery and business cards, black-face can be used to bring out an important word or words. Quick identification of the nature of a business form can often be helped when a boldface label in an upper corner proclaims an 'invoice' or a 'purchase order'.

An index is often made easier to use if each new alphabetical grouping starts with a black-face letter, either set on a separate line or simply set as the first letter of the first word of each alphabetic group.

In catalogues, annual reports, price lists, programmes, directories – indeed in any printing job you care to name – weight has an important part to play if used with discretion.

DIRECTIONS: pour the fluid directly on the garment or textile to be cleaned; rub gently with a circular motion while it is slowly penetrating the fabric

taken every step to insure that the tourist will have every convenience.

HIGHWAY ROUTE: Take Number 10 highway to Corners, then turn left along Number 33 until

Tg

Here again a definition is in order, so that there may be no confusion between 'structure' and 'form,' which is taken up in the next section. To clarify the difference between them, take the example of a capital T and a lower case g, both of the Futura family. Their forms are entirely different; one consists of straight lines at right angles and the other of rounded forms; the forms are in contrast. But each of them is composed of lines of the same weight throughout; structurally they are in concord.

Basically, all types fall into either one or the other of two structural groups: (a) the group which includes the sans serif and square serif and also certain monotone scripts whose main distinguishing feature is that there is no variation, or a very slight variation, in the weight of the strokes which comprise the letter; and (b) the group which includes all of those letters, roman, italic, and script, which have a pronounced variation in the weight of the strokes in the individual letters themselves. Individual members of either group do not provide a satisfactory structural contrast with one another but they do contrast with a member of the opposite group. (The principle here reminds one of the taboos of primitive peoples which forbid marriage with a member of the same totem group.)

The chief use of structural contrast is to emphasize an initial of a word or a name, or to emphasize a word in a line, or to add to the contrast between a heading and the text. While it is an effective device in itself, its effect is enhanced if it is reinforced with a contrast of weight, size, or colour.

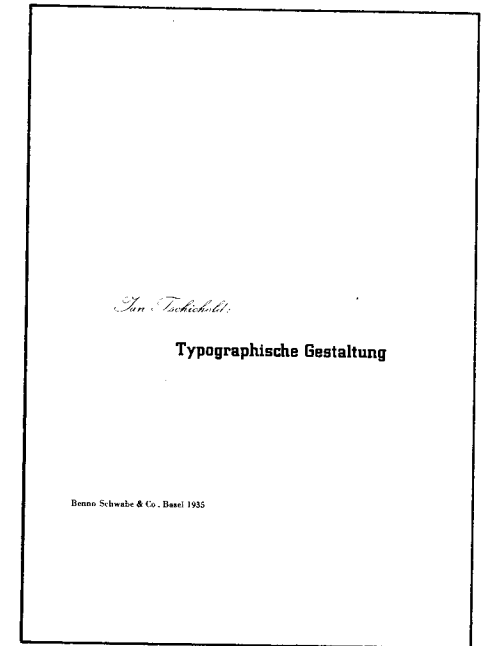
Structural contrast is simple to devise, and requires no more

experience than that which enables one to classify any type face in one of the two groups: in other words, the ability to tell the difference between thick-and-thin and a monotone type. And precisely because the contrasting groups are limited to two, each containing a vast array of different type faces, the number of potential combinations – if a designer has all the type he wants at his fingertips – is both staggering and inspiring.

Starting from a single letter of the sans serif family, we may skim over the surface of members of the other group which will contrast with it: the roman or italic of all the classic faces, Caslon, Garamond, Scotch, Baskerville, Bodoni, to cite a few; any thick-and-thin line script: Bank, Commercial, Brush, Trafton, Legend, etc.; and the free brush scripts.

The classic example of this type mixing, illustrated here, is that of the simple typographic title-page by Jan Tschichold, for his book *Typographische Gestaltung*. Tschichold, one of the greatest typographic masters of this century, employed three different types: a script which harmonized with a Bodoni, and a bold-face Egyptian which contrasted with both. Of course, there is more to this page than just typographic contrast: there are subtle relationships in size and in space that are the marks of a master.

There is scarcely a job that could come into a printing plant where the principle of structural contrast of type could not be employed to the advantage of the appearance of the finished product.



in the beginning was the **word**



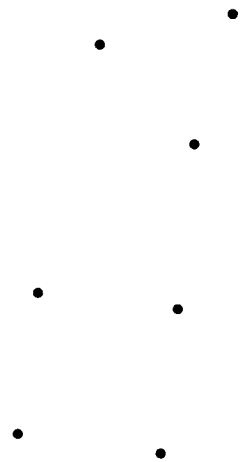
H. N. WERKMAN was a Dutch printer who used his typographic materials and various printing techniques to produce his famous 'drucksels' - little prints. This one emphasizes the nature of contrast of form.

The ability to perceive form, or to create form where it does not already exist, is one of the dominant traits of the human mind, which the science of psychology is just beginning to analyse and understand. Why, for example, did ancient man, staring up at the sky at night, group isolated stars together into forms until the whole sky was a procession of men and animals wheeling in their nocturnal paths night after night? Why does a child see pictures of familiar things in the clouds? Why is it that the three dots in the margin of this page immediately suggest a shape to you, and the other four dots suggest another shape? Why do you not just see seven scattered dots and let it go at that? The answer lies in the tendency of the human mind to group elements into stable forms.

The whole basis of reading is, of course, this ability to recognize form, and so skilled is the human mind at remembering forms that even a child of three years can be taught the rudiments of the abstract symbols that constitute our alphabet. At six or even earlier he can begin to recognize words, and long before he reaches maturity he can skim a line of these symbols, which are meaningless individually, and extract full meaning from them.

Form, to give it a definition, is the shape of a thing. The form of the letter 'a' is different from the form of 'b' and both are different from that of 'c' and so on. The most elementary contrast in typography is the contrast between the forms of letters; without that contrast, our alphabet would be able to convey nothing.

But when we speak of contrast of form in the context of



design, we step from the elementary contrast that exists between letters of the alphabet to the contrast between different type families. At the beginning of this chapter it was noted that Bodoni and Bank Script were structurally the same, but that their *forms* were different: one is a roman letter, the other a script. This is the essence of the contrast of form – the capital against the lower case, the roman against the italic or the script, the tall condensed letter against the squat, fat one.

Just as in every other instance of contrast that has been discussed so far, there can be here no partial contrast. It is not possible to get effective contrast by setting a script letter against an italic one since their points of similarity are too many; both of them derive from the cursive (running) hand, and have the slight slope that is characteristic of handwriting. Conflict, not contrast, is the result.

When contrast of form is employed, it is often advisable to carry it through in every aspect. If Commercial Script, to give one example, is being contrasted with Bodoni, the contrast will be most effective if the script line is in upper and lower case while the Bodoni line is in capitals, so that not only the forms of the types but also the forms of the letters themselves are in contrast. If, in addition, the lower case letters of the script type are larger than the capitals of the roman type, the contrast in the other dimension – size – makes the contrast of form even more effective.

Some individual letters of some of our type families are visually interesting forms by themselves. At one time the writer had a strong predilection for the lower-case Garamond 'a'; the form of the letter is so rich in delicately balanced contours that the temptation to use it in a large size as an initial every time an opportunity presented itself could only be resisted by asking whether the device really helped to deliver the message. Often the answer in such cases is 'no', and the favourite initial has to be abandoned reluctantly for some more functional solution.

DESIGN WITH *type*

Other designers are attracted to the contour of a well-designed lower case 'g', and even the rigidity and direct statement of the lower case Futura 't' can exercise a fascination. These are personal enthusiasms which a designer can enjoy if he does not let them get in the way of the job he has to do. He must also guard against indulging pet mannerisms to the point where both his client and his audience become unresponsive to them.

This principle of contrast in the forms of letters can be applied universally. It is seen in the italicized word in a line of text, by which emphasis is achieved in a quiet way. It is also apparent in the simple relationship between a heading and the text. Monotony is avoided when the type of the heading is in complete contrast to the type of the body of the text. It reaches the extreme in the over-size display letter which possesses a striking form of its own, poised against a mass of type of a contrasting form. In business letterheads, contrast of form will often rescue the appearance from dullness and monotony; the contrast can be injected through the use of a contrasting initial, by contrasting one word of the firm name with the rest of the name, or by setting the whole name of the firm in a type which is in contrast to the informational material – address, telephone number, etc. But, in every case, to be both striking and pleasant, the contrast should be strong: two completely dissimilar and opposed faces should be fused into a unity of opposites.

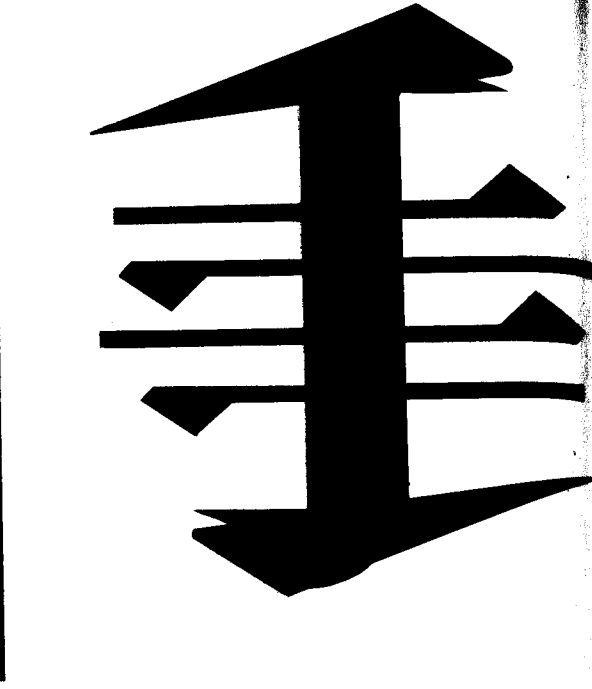
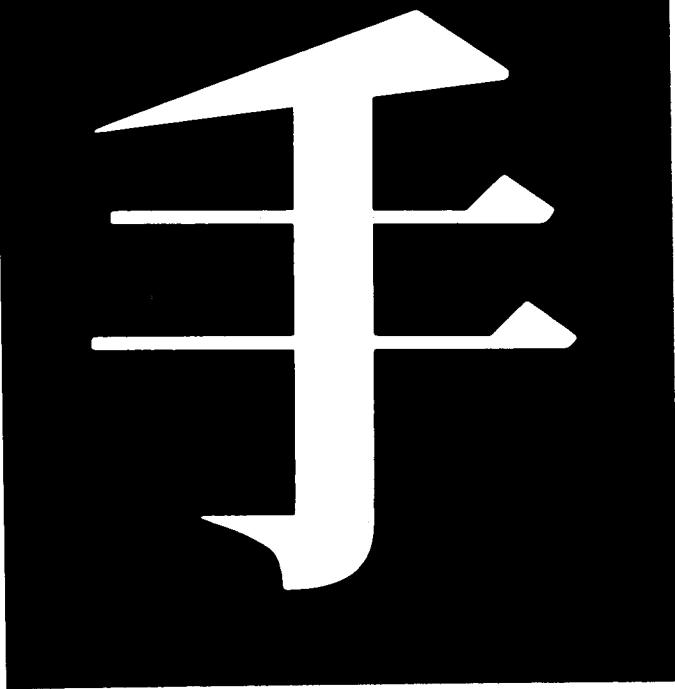
A designer should cultivate an awareness of the variety of forms available in type, and be alert to recognize when the copy presents an opportunity to use it effectively. He will thus avoid monotony in his typography, and at the same time help the reader to grasp the meaning of the message.



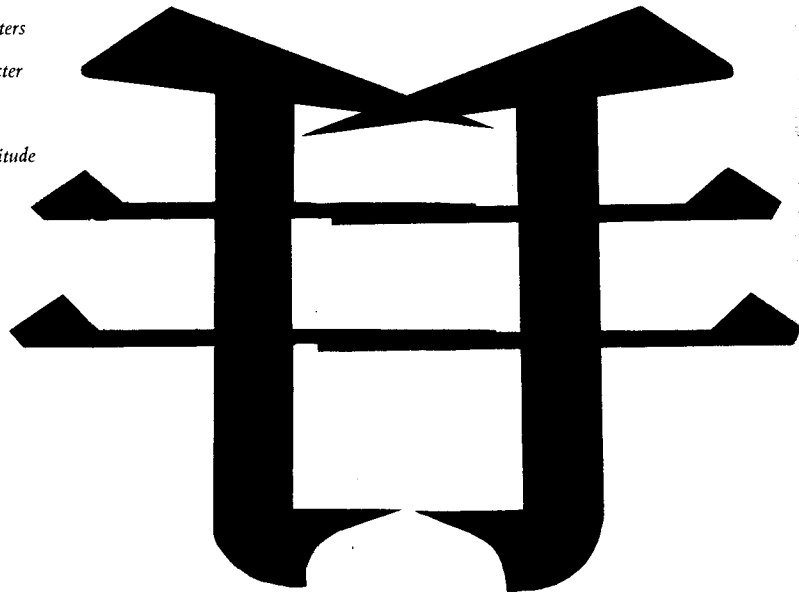
An announcement by BOB GILL plays with the free forms of the lower case 'g', and contrasts them against the rigidity of a small line of sans serif text. Below, BEV LEECH, student at the Vancouver School of Art, contrasts structures to wittily explain a printing term.

WRONG FOUNT

Stupid
Clod
!!!



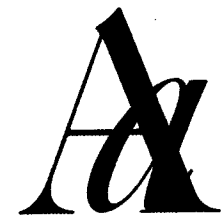
HIDEO SAITO of Tokyo plays with Japanese characters to create new symbolic meanings. He explains the ones shown in this way: 'At upper left is the character for "hand"; beside it is a character I call "thoughtful hands", for clasping one's hands with fingers intertwined and thumbs together, elbows bent and the hands folded upward, is a common attitude indicating contemplation. The one at right I have labelled "large hands". It is meant to convey two hands with the ends of the fingers touching - the position in which one receives or lifts or carries a large object.'



It is significant that the first printed book, the Gutenberg Bible, provided rectangular spaces at the beginning of each chapter for the insertion by hand of coloured and ornamented initials; the second book, the Mainz Psalter, had these initials printed in red or blue. This tradition of employing colour as a contrast on the printed page was carried forward from the manuscript into printing, from the hand-made book into the machine-made product.

Unfortunately, the economy of modern book production does not often allow the use of colour in books except for special editions, and then it is usually restricted to title pages and an opening initial. Children's books are an exception. Extravagance of colour and illustration is generally considered an integral part of children's publications. With some trade books the elegance and luxury of colour in the introductory pages will be considered necessary despite the additional cost. Where additional colour is used to enliven or illustrate a book from cover to cover, careful planning is essential to obtain the greatest effect at the least increase in cost. In this connection it might be appropriate to mention that the second colour in this book is the result of such planning. The two-colour pages were all run together as a 32-page unit, then cut apart and distributed through the book with the normal black and white pages.

The designer should familiarize himself with the methods used by printers in making up signatures of 16, 32, or 64 pages. He should discover how, by inserts into these signatures or by 'wrap-arounds', the visual excitement of the book can be en-



hanced with no great addition to the cost. By knowing these techniques, the designer can assist his client in organizing his material for maximum effect.

In general commercial printing and advertising the use of a second colour can be visually stimulating and thus increase the effectiveness of the message. But its use is a special challenge: to make sure that the extra run on the press that is required results in a positive contribution to the appearance of the entire finished piece and thus to the dramatization of the message. It is not enough just to decide to run a heading in colour and let it go at that; the designer must have in mind the specific colour to be used and the effect he desires to create with it.

The whole subject of colour is too vast to be covered in this book, let alone this chapter, but several fundamental things can be said to clarify what is involved in making the best use of a second colour in a printing job.

First, let us examine the question of effective and ineffective colours. Colours fall into two broad classes, cold and warm. The cold colours are at the green-blue end of the spectrum; the warm colours are at the red-yellow end. The cold colours tend to recede from the spectator, the warm colours to move toward him. Obviously, then, the warmest colour should have the strongest attraction for the eye, and certainly this is true, for a brilliant orange-red is by far the most vigorous colour with black ink and white paper. But while orange-red is the most compelling to the eye, it is not always the psychologically correct colour to use. What a misuse of colour it would be to use a red-yellow-orange in a piece of advertising for an air-conditioning system!

This brings us to the second point: the contrasting relationships of colours. It takes only a small area of red to flame forth from the page and capture the reader's eye, but because of its tendency to recede, a large area of a cold colour is needed to make the reader realize that colour is being used. A single

*A title page by HERMANN ZAPF of Frankfurt showing this designer's mastery of typography of a monumental quality, and especially his discreet handling of colour. (From *Typographic Variations* by Hermann Zapf, Museum Books, New York.)*

The Comedies
and Tragedies
of William
Shakespeare
Complete
and unabridged
with notes and
glossary *
Illustrated by
Fritz Kredel
* Volume II
Random House

annual
hisTORICAL
DINNER

At left, two colours are interwoven to make a rich texture for an invitation to a dinner. Below, a cover of a book designed by EL LISSITSKY employs dramatic contrast of both colour and the forms of the letters.

display word or line on a printed job, if run in these colours, will appear lighter and more distant than the remainder of the type appearing in black. Thus the colour has not been used to advantage since it has not drawn the viewer's attention. Getting around the difficulty might involve the use of larger areas of colour, even to the point where the whole background becomes the colour.

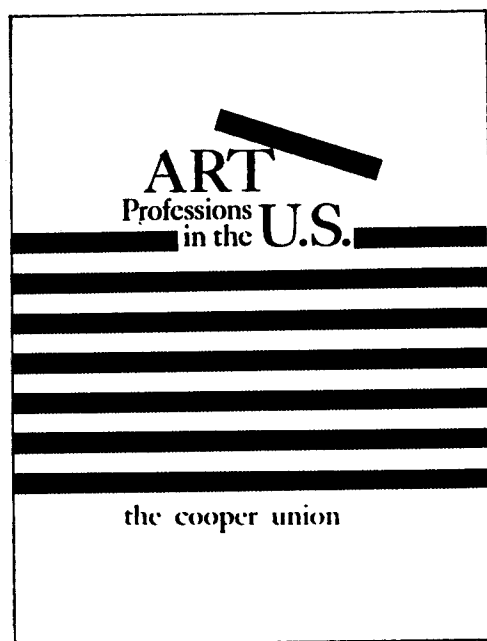
In any case, it should be established as a principle that, no matter what colour is being used, the coloured areas and the black and white areas should never be in perfect balance. Either one or the other should be substantially greater. For the warm colours a small, discreet area is sufficient, but for the sharpest visual impact the colour must dominate; in the case of the cold colours, the coloured areas are more effective if they are larger than the black and white.

The massing of colour elements is also important. It will be an anaemic design if little bits of colour are spotted across the sheet of paper as though some dispirited house painter had wandered about slopping over drops of paint as he went. This comment infringes on a later chapter on integration, but here it needs to be said that the organization of colour in a few potent spots is the only effective way of handling it. When a solid-colour background is used, some white mass should be

NO. 0

Four examples of the use of colour to increase the effectiveness of a message: below, a book title (France); at right, a small ad for a German printer, in which a letter in colour frames the information; bottom left, a cover of a booklet for Cooper Union in New York; and right, below, an inscriptional page by HORST ERICH WOLTER, Leipzig.

INVASION INVASION INVASION
 INVASION INVASION INVASION
 INVASION INVASION INVASION
 INVASION INVASION INVASION 14
 INVASION INVASION INVASION



SOLL
 DEO
 GLORIA
 Fest allezeit
 in Freud
 und Leid
 Arbeit ist des
 Bürgers Zierde, Segen ist der Mühe Preis

let through and countered vigorously with either a black type mass or a black area with reverse type. It is most important in using this technique that the colour used be of medium strength, so that both black and white will show up against it. There is nothing more likely to discourage a reader than being required to decipher black type against a background that is too dark. Properly applied, these simple relationships of colour, white, and black provide the most dramatic way of using colour in printing.

There are times, as was mentioned in a previous chapter, when a very soft colour is needed to shade off the mass of a huge initial, for example on a letterhead. Here is where the pure colours are often too harsh (except for yellow) and the grayed-down tones of pastel shades are preferable. The swatch book of any ink manufacturer, if thumbed through slowly and with attention to the quality of each individual colour, will suggest dozens of unusual shades which can be employed to good effect.

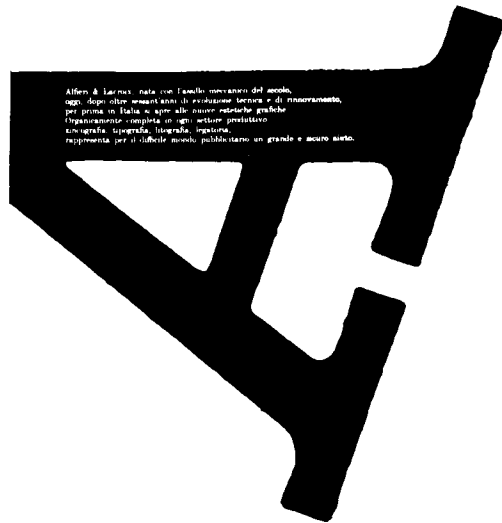
The use of a second colour for contrast can often make a printed job much more effective, and it may be false economy for an advertiser to restrict his printer to a single colour. Since two-colour printing can be profitable to the printer, he would do both himself and his client a favour if he did his utmost to sell the second colour whenever appropriate; such selling will be easier, of course, if it is obvious that his designer knows how to use colours effectively and to get full value for the extra cost.

It is not every customer's budget that can make use of a second colour, however effectively it is chosen. But where the budget does restrict the printing to one colour why is that one colour almost invariably black? Why not a rich, deep gray, or a dark red, or green, or brown? The colour of the ink may be contrasted against either white or coloured paper, and the printed piece will thus acquire an individuality, a visual appeal which distinguishes it from the run of mill.

A human being orients himself in vertical and horizontal terms; he is vertical in his waking hours, horizontal in sleep; he orients himself by the horizon (hence the word 'horizontal'), and the things he erects on the earth's surface are true verticals established by a plumb-line. This being the established order of things, he is disturbed by anything which does not conform to it. He has a sense of insecurity when he looks at the Tower of Pisa. Conversely, when he himself is in an off-vertical position in the seat of a climbing train, the telephone poles that pass him, in the frame of his tilted window, appear to be leaning forward—surely not he, but the outside world, has tipped dangerously!

To a lesser degree, the human sense of balance is disturbed by slanted lines of type or typographic elements; but a real focal point can be created by a direct, ninety-degree angle of intersection of two typographic units. Fortunately for the typographic designer, his material lends itself readily to such vertical and horizontal contrasts; all typesetting is based on rectangular units. But this does not give blanket endorsement for all possible arrangements, such as piling individual letters of a line one above the other, or turning type on its side to make it run up or down. The former is a typographic taboo, since it makes a text illegible; the latter requires the exercise of discretion. No line of type which is of vital importance to the total message should ever be turned to run against the grain of reading habits unless it is strongly dominant and legible. Yet there are often cases when there is an obviously dominant main heading or title and a very subordinate piece of copy which could be

FRANCO GRIGNANI of Milan constructs a full-page magazine advertisement for a printer around a massive capital 'A' with its base tilted, and with the text run in the normally slanted right-hand stroke of the letter.



Alfieri & Larnes, nata con i fratelli mercuriani del secolo, oggi, dopo oltre sessant'anni di esclusiva serietà e di rinnovamento, per prima in Italia si apre alle nuove tecniche grafiche fotografiche, complete in ogni settore prestazionale, e, in questa, diventa, attraverso l'esperienza, l'organizzatore per il difficile mondo pubblicitario un grande e sicuro aiuto.

run vertically and make an effective contrast, but which would not affect the total meaning if it chanced not to be read.

At the point of intersection of two type rules there is a powerful field of attraction that might be compared to a magnetic field. A type composition built around such a point of conflict holds together more effectively as a unit than one which uses the more conventional border to wall in the message and confine it within a typographic cell. There should be no equality between the intersecting rules, either in their thickness or in the areas they define; intersecting rules create four rectangles of space—none of these rectangles should be the same size or shape as any other.

So much for rules and lines of type; what about areas of text matter? We have seen in the discussion on texture that strong horizontal patterns can be created in body type by employing leading. Vertical patterns can also be created, by setting the body copy on a narrow measure and by justifying the line on either the right or the left side. The alignment which this justification will create, plus the vertical nature of the narrow column, will overcome the natural horizontal movement of type and create a visual vertical thrust. Intersect this thrust at any point with a strong horizontal title line, and the type elements will be in visual collision at the point of intersection. Similarly, two masses of body type, either on the same page or on facing pages of a spread, can be made to move in opposite directions by the creation of one vertical column as described above, and one mass in which the horizontal movement is emphasized by heavy leading. Even though there is no actual point of intersection between these two, the direction of movement of the two type masses is in contrast, and a point of tension is established.

The applications of this principle are numerous; perhaps two examples will serve to illustrate the point. If a letterhead is being designed in which a long company name and a group of

lokal
national
international
National
Zeitung

A ninety-degree angle intersection, with the whole composition turned on its point, enables the 'N' and 'Z' of the Swiss daily newspaper National Zeitung to act interchangeably. Designed by GERSTNER+KUTTER of Basle.

elio *architect - architecte* vincelli

429 JEAN TALON OUEST, MONTRÉAL, QUÉBEC TÉLÉPHONE TALON 5366

A letterhead for an architect in a bilingual city permits the structural vertical thrust of a line of type identifying the business.

short pieces of information must be used, the company name may be spread horizontally across the sheet, while the short items are set flush left to form a vertical column which intersects the main line. In a booklet or publication in which vertical columns of type dominate, the intrusion of a strong horizontal line of display sets up a visual tension in the page or spread.

There is one important point to remember when contrasting vertical and horizontal elements: because of its physical structure our eye is capable of greater movement in a lateral direction than in a vertical, and we are prone to misjudge heights in relation to horizontal distances; a vertical line will always look longer than a horizontal one of equal length. Designers have frequently used this accepted fact to increase the effect of small newspaper advertisements by running a strong vertical rule up the side. Whenever there is a dominant vertical or horizontal element in any given rectangular area, either dimension, width or height, can be accentuated through the use of opposition in direction.

Texture, to recall the discussion on the subject in chapters 5 and 6, is the pattern created by the repetition of certain characteristics inherent in the individual letters of a type face. Texture can therefore only exist in a line or a mass, wherever there are enough letters in an area for a textural pattern to take form. Textural contrasts involve the interplay of two other contrasts – those of structure and those of weight. The structure of the letter determines the kind of texture; the weight determines the relative coarseness of the ‘weave’. Both of these characteristics can be emphasized or mitigated by the use of leading between the lines if the texture results from the types being viewed as a mass rather than as a series of lines.

In discussing colour, we used the terms warm and cold to describe the range of our emotional reactions to it; in the case of texture, the terms hard and soft might be applied with equal validity. A line of sans serif capitals is hard and dispassionate; text set in Garamond italic is soft and friendly to the eye. Here, then, is the basis for the play of textural contrasts in typographic design. In a sense, the typographer meets the same challenge as the contemporary architect; the latter, too, tries to play off textural effects, one against the other: he contrasts the warmth of wood with the coldness of stone, and relieves the varying roughness and irregularity of both of them with the smoothness and transparency of glass. But the range of textures at his disposal in building materials is very limited.

The designer of printing has a wider range of textures at his disposal, and a greater degree of control over each individual texture, since he can influence it by letting in white, either in

the line by letter-spacing, or in the mass by leading. Of course to be able to use texture with confidence the typographer should be familiar with the textural values of the type faces at his disposal. Specimen settings of a wide range of type faces appear on pages 38 and 39; each should be studied closely in relation to other faces to discover its particular textural qualities. Adjoining settings show the same type faces with leading between the lines; they should be compared with the solid settings so that the change in textural effect brought about by the introduction of leading will be clearly understood and it will be possible to conjure up mental pictures of any type texture, either solid or leaded.

But what of the texture of the display line itself? Here the letters have more individuality, and they assert it more strongly because of their greater size and because they are comparatively isolated in the white space with which they are, or should be, surrounded. The texture of the display line is emphasized in the same way that the pattern of a woven cloth would be emphasized if it were viewed under a magnifying glass. A certain quality of unity may, of course, be sacrificed when the detail is enlarged. Because the detail—the structural characteristics—is more in evidence, any changes created by letter-spacing will be correspondingly magnified.

The examples shown in the margin will demonstrate this point better than any verbal description could do. The solid line of Futura Ultrabold, for example, has the strength of a solid black bar; with adequate letter-spacing inserted, however, it becomes a series of staccato points which leads the eye along it in the same way as a dotted line.

Or again, consider a condensed Gothic letter: the solid line has a geometric unity that almost overpowers the vertical character of the condensed letter; if the line is letter-spaced, however, the vertical character of the letter dominates, and the line becomes a series of upright elements.

Opposite page: an exercise by a student required to cut up letters of a given type face to destroy recognition, and reassemble them into a texture. A contrasting type is superimposed.

**DESIGN FOR GREATER
DESIGN FOR SA
READY-TO-ASSEMBLE FURN
READY-TO-ASSEM
SALE OF FINE LI
FINE LINE**

FATHER-IN-LAW WHOSE PATERNAL GRANDFATHER HAD MARRIED
HIS SECOND WIFE A YOUNG NATIVE WHOSE BROTHER HE
HAD MET ON ONE OF HIS TRAVELS A GIRL OF WHOM HE WAS
ENAMORED AND BY WHOM HE HAD A SON WHO MARRIED AN
INTERESTING LADY FROM PARIS WHO WAS NONE OTHER THAN
THE NEICE OF AN UNKNOWN FOURTH-CLASS PETTY OFFICER OF
THE ROYAL NAVY AND WHOSE ADOPTED FATHER HAD AN AUNT
WHO SPOKE SPANISH FLUENTLY AND WHO WAS PERHAPS ONE
OF THE GRANDDAUGHTERS OF AN ENGINEER WHO DIED YOUNG
HIMSELF THE GRANDSON OF THE OWNER OF A VINEYARD
WHICH PRODUCED MEDIOCRE WINE BUT WHO HAD A SECOND
COUSIN A STAY-AT-HOME A SERGEANT-MAJOR WHOSE SON
HAD MARRIED A VERY PRETTY YOUNG WOMAN A DIVORCEE
WHOSE FIRST HUSBAND WAS THE SON OF A LOYAL PATRIOT
WHO IN THE HOPE OF MAKING HIS FORTUNE HAD MANAGED
TO BRING UP ONE OF HIS DAUGHTERS SO THAT SHE COULD
MARRY A FOOTMAN WHO HAD KNOWN ROTHSCHILD AND
WHOSE BROTHER AFTER HAVING CHANGED HIS TRADE
SEVERAL TIMES MARRIED AND HAD A DAUGHTER WHOSE
STUNTED GREAT-GRANDFATHER WORE SPECTACLES WHICH
HAD BEEN GIVEN HIM BY A COUSIN OF HIS THE BROTHER-IN-
LAW OF A MAN FROM PORTUGAL NATURAL SON OF A MILLER
NOT TOO RICHLY OFF WHOSE FOSTER-BROTHER HAD MARRIED
THE DAUGHTER OF A FORMER COUNTRY DOCTOR WHO WAS
HIMSELF A FOSTER-BROTHER OF THE SON OF A FORESTER

*A page of text with a monotonous texture done by
MASSIN in Paris to represent a dreary cataloguing of
family relationships in a monologue by a character in
Ionesco's La Cantatrice Chauve.
(See also pp. 148-152.)*

From the foregoing it might be assumed that the only textural contrasts possible are those involving masses of type. But it should not be overlooked that two display lines in themselves can have different textures; that even a word itself may be sufficient, if the type is well chosen, to create a texture which contrasts with its surroundings. Thus textural relations can be employed within a heading alone to create visually stimulating contrasts between the hard and the soft, the rough and the smooth, the tweeds and the silks of typography.

Once the nature of the texture of the display line has been established, whether solid or letter-spaced, the textural quality of the text matter can be designed as its decisive opposite. If the display line is letter-spaced to create a series of vertical elements, the text may be given ample leading and develop a horizontal pattern for contrast. If the display line is solid, the body type may ease off into staggered lines which defy the rigidity of its caption.

In designing books, on the other hand, the designer will start with the text and consider what is appropriate for it. He will use display as a counterpoint in preliminary pages and in chapter heads.

The potential combinations of textural qualities are only limited by the number of type faces which stand in contrast to one another, multiplied by the different effects that can be achieved through varying their texture. The range challenges the imagination and the creative instincts of the printer and designer.

TEST!

*A cinematic handling of type in a promotion
for a typesetting house, Cooper & Beatty Ltd.,
by ANTHONY MANN, Toronto.*

SIZE

DIRECTION

form

COLOR

structure

WEIGHT

*texture
texture
texture
texture
texture*

The seven basic contrasts which are possible with typographic material have already been compared to the notes of the musical scale; if a designer knows how to use them, he can create music. The comparison is not as fanciful as it may sound, for the effective use of typographical contrasts depends on the ability to strike chords. Individually the contrasts are perhaps visually interesting, but in combination they achieve heightened effects. Most basic contrasts need other contrasts to reinforce them; for example, contrast of size alone does not have the visual vigour of a combination which includes contrasts of form and weight.

The latter example is cited at random; the permutations and combinations possible with the seven basic contrasts and an adequate range of type faces at his disposal give to the designer as wide a range of effects as the musical composer has at hand. But just as every musical score has its home key, in typography the contrast of size of the typographic elements is almost a prerequisite for all other contrasts. A strong contrast in the size of the elements is basic, and all other contrasts are extra effects introduced into the relationship.

It would be impossible to explore all the potential combinations in a lifetime. Each printer or designer, within the range of type styles and sizes at his disposal, will constantly find new and exciting combinations if he is looking for them. That, of course, is the crux of the problem; no amount of perusing sheets of type specimens will ever teach a designer to recognize his opportunity, or even to recognize what has made an effective contrast in a specimen of another's work. A sharpening

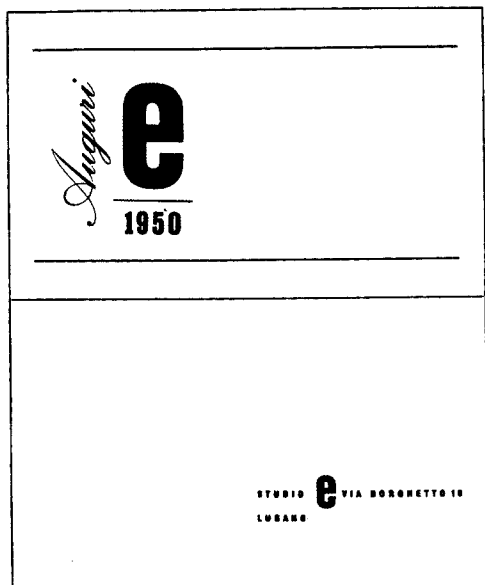
E
Hmne nioe nmhoving ehot obapc
entpo anmnvoh phoamehlmiv ab
pob h pob nioemin novi penotoba
orhia ovoh pho anehlmiva bo ner
minh ponotob an a oemnlipan in



The Interplayers:
A PHOENIX
TOO FREQUENT
by Christopher Fry

Colour is handled discreetly in this handsome small folder announcing a theatrical play, designed by ADRIAN WILSON, San Francisco.

Below, a typographical design by IMRE REINER of Switzerland brings all the contrasts into play in a simple statement. The elements are in total contrast: size, weight, structure, form, colour, texture, and direction. At right, square format business card by KLAUS BURKHARDT of Stuttgart, with many contrasts employed.



of his own visual faculties and his habits of perception will enable him to take a typescript, search out the core of the message, and give it visual expression through typography.

How can perception be trained? One means of stimulating ideas about the application of contrast in the average commercial printing job is the study of examples of typographic design shown in graphic exhibitions. Analysis of these at every opportunity will help the printer and designer to analyse any of his own jobs and learn what will make the result effective.

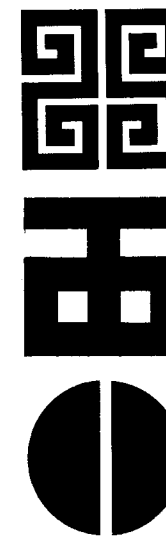
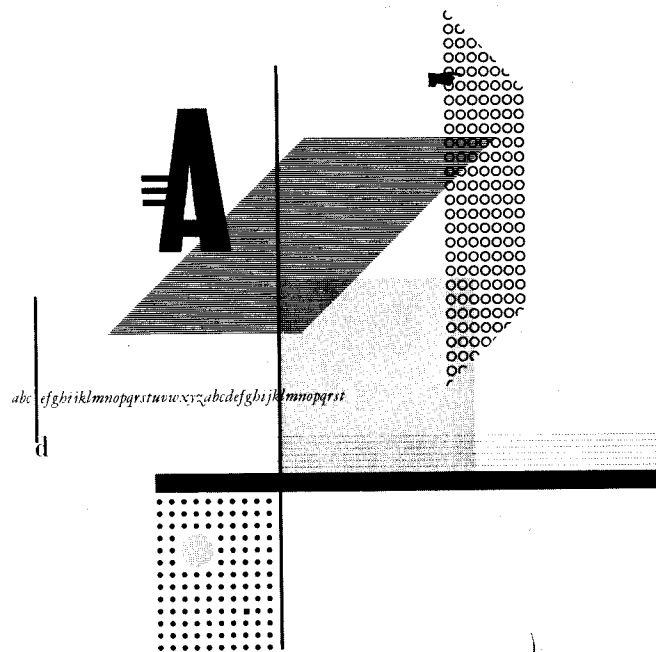
Exhibitions, of course, present the work of the most highly skilled and imaginative designers, usually working with a wide range of type faces and materials and, in many cases, a generous budget. Many printers and designers have to substitute ingenuity for money and work within the limitations of their own typographic resources. However slender these resources may be, the material of contrast exists in every printing establish-



ment; the meanest shop will have more than one size of type, most shops will have more than one type face which, if they have been purchased carefully, will provide contrast.

Printers' rules by themselves can provide typographic emphasis; a skilful compositor can construct oversize initials, background areas, structural divisions, and even stylized pictorial representations with plain rules. A few strips of metal rule, some large type-high squares, a fine file, and a pen-knife can become the raw material for contrasts if used with imagination and taste.

Finally, every printer has the contrast of the texture of his type and the texture and colour of his paper; if there is nothing more than this, good typesetting in a rectangle of interesting proportions placed on the page in an unusual way that will take the greatest advantage of the interplay of paper and type can in itself be visually exciting.



Initials made up of type rules: above, the designer's monogram by SAM SMART, Toronto; centre, monogram of letters 'as'; bottom, the author's monogram CD, a simple typographic spot with a centre bar removed.

At left, an exercise in contrasts done as an abstract typographical 'painting' and executed for the author by students at L'Ecole des Arts Graphiques, Montreal, under the supervision of ARTHUR GLADU in 1947.