

Techniques for Planning Advertising and Printing

of Advertising and Printing

TECHNIQUES far planning, designing and production of oll types of printed motter, bosed on the practical application of the principles of design to the creation of odvertising and printing. Written in a concise, "down-taeorth" style, it contains patterns and procedures that are os applicable to the small printer's rough as to the art director's visual. Involuable to the artist, copywriter, composing room apprentice and croftsman. Fully illustrated with hundreds of sketches and "how-to-da" illustrations. Chapters and lettering and type faces. Deluxe letterpress edition of 132 pages and cover, cloth bound.

By Charles J. Felten

Toble of Contents on Bock Flop









































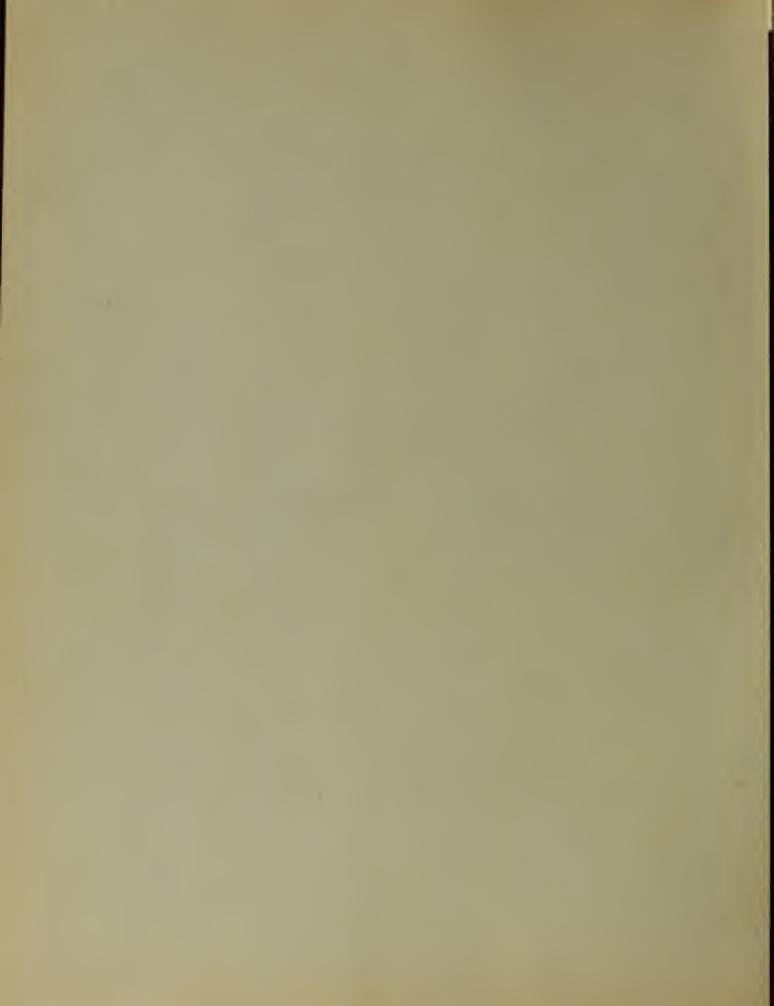




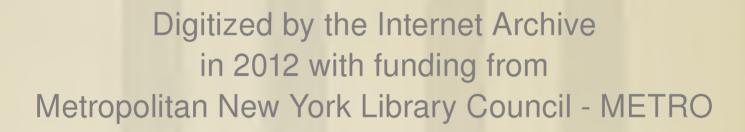












http://archive.org/details/layoutpract00felt

LAYOUT

By Charles J. Felten

The Practical Application of the Principles of Design to Advertising and Printing

THE HILLA VON REBAY FOUNDATION
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Foreword . . .

MANY PRINTERS, writers, artists, and others to whom the creation of advertising and printing offers an incentive, may aspire to master layout but perhaps consider it an art to be practiced only by the professional.

The question is often asked: "Must I be a gifted artist, skillful letterer, or expert typographer to be a successful layout man?"

The answer is, that to practice layout in its fullest sense, as in the rendering of top-flight visuals for presentation purposes, one must have an abundant natural artistic ability and be highly trained in all phases of design, lettering and typography. One must also develop the faculty to coordinate these talents and accomplishments successfully. Anyone, however, who is adept at simple lettering, has acquired a comprehensive knowledge of the mechanics of typography and has learned to apply the elements of design, can render practical composing room layouts.

Realizing that a large percentage of layout enthusiasts may not be naturally proficient in drawing but nevertheless are creative-minded, the author has attempted to present this discourse on layout in an elementary yet informative manner, so as to benefit every printing planner.

Those whose artistic or typographical ability is more fully developed will also find in these pages much helpful material to augment their knowledge and talents.

The theories expounded and the techniques and procedures described are the result of many years of study and experience, and are based on that indispensable and time-proven factor—practicability.

THE AUTHOR

ACKNOWLEDGMENT

I hereby express sincere appreciation to my many friends and fellow craftsmen who have helped in the preparation and production of this volume.

To them, and to my wife, Peggy, I dedicate this book.

C. J. F.

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LAYOUT OF ADVERTISING AND PRINTING



PART ONE

Purpose, Functions of Layout

avenue through which we comprehend all objects. Through this avenue impressions, reactions and desires are created in the mind.

To create favorable reactions, printing must be attractive in design; it should arrest the eye, hold the attention, impress and stimulate the reader, thereby fulfilling its fundamental purpose.

Everyone has an innate esthetic sense and appreciation of good design. The success that well-designed advertisements and printing achieve in stimulating interest is obvious.

Layout is the method of applying design to printing. It is the arrangement of all component parts, such as headlines, subheadings, text masses, illustrations, and signature into a unified, attractive pattern.

It is the accepted method in modern salesmanship and production of worthwhile advertising and printing. Through a comprehensive layout, ideas and copy become concrete plans for presentation, discussion, cost estimating and production procedures.

Layout is used in printing production as is an architect's blueprint in the construction of a building. As the erection of a beautiful home or any worthwhile structure stems from a well-planned combination of the artistic and utilitarian, so the effectiveness of printing and advertising depends upon the soundness of design and practicability of the layout.

Since printing and advertising are not stock-shelf commodities they must be custom-built to meet the needs of the product or service in which the reader is to be interested.

Every piece of copy has a theme or presents an idea around which an experienced layout man patterns an attractive design. No composition is too insignificant or unimportant to benefit from proper planning.

There was little need for layout in pre-historical times when the only method of visual communication consisted of chiseling figures in stone or inscribing characters on papyrus. With the invention of printing from movable type by Gutenberg in 1440, however, came the means and inspiration for artistic expression with ink and paper. The evolution of layout as an art stems from this era and has developed progressively with each advancement in typographic design.

The development of modern type-casting machines and high-speed precision presses has brought wide opportunities to the printing designer. It has made possible vast production of quality publication, direct-by-mail advertising and commercial printing. The need for top-flight designing and for efficient planning of mechanical procedures by means of accurate, detailed layouts is obvious.

Layout and design have kept step with modern mechanical developments. The current trend is toward simplicity of treatment and streamlined techniques. There is no time now for the leisurely hand-setting of frivolous ornamentation, or for the use of outmoded styles and techniques. Finer paper surfaces, highly-developed typographical equipment, improved photoengraving, offset and gravure techniques have given the printing planner modern tools and processes of inestimable value. Layout techniques are constantly being elaborated and the opportunities for their application are becoming more widespread.

All successful layouts must be built on sound structural lines and embody the fundamental layout requisites. Styles in typography and artistic techniques may change from year to year, but the fundamentals of good design remain the same.

Printing and advertising successfully compete for attention only when correct design is utilized in their production. Thus, every piece of printed matter can lift itself from mediocrity and accomplish its primary purpose—to be seen and read.

Scope of Layout

THE MECHANICS OF LAYOUT are adaptable to all branches of advertising and printing. The basic principles of design and the underlying procedures are as applicable to a business card as to a full-page advertisement. Practicability demands, however, that an appropriate design technique be applied to each individual format.

As a knowledge of many widely divergent types of layout is essential, we shall review briefly the scope of advertising and printing design.

Newspaper Advertising

Under this classification come the many types of advertisements appearing in daily and weekly newspapers. Here an advertisement competes for attention with a wide assortment of other ads, a large amount of reading matter, pictorial elements, a variety of headlines, subheads, boxheadings and other unrelated typography.

Considering fast production schedules and the constant remaking of daily newspaper pages for various editions, it is obvious that this type of layout presents more visual problems than does the planning of individually printed advertising matter.

Mindful of the cost of advertising space and the comparatively short time in which the reader must be attracted, it becomes apparent that topnotch newspaper layout is both an economic necessity and the most graphic means of imparting attention value to copy.

The outstanding qualities that effective newspaper layout should possess are attractiveness, individuality, appropriateness, and effective design and typographical contrast with surrounding advertising and text matter.

Mechanical limitations impose many restrictions on the layout of newspaper advertising, but the ad which combines the above qualities and effectively utilizes the fundamental design requisites in its construction has a better chance to be seen and read than a haphazard setting of so much type to fit a given space.



Full-page newspaper advertisements which have been made effective by sound planning, forceful layout and pictorial interest.



Ingeniously shaped "step-down" ads that bound the sides and bottoms of text columns utilize newspaper space to the utmost advantage. Note the store name, repeated at top of each section, in center ads.

Newspaper advertisements that employ white space effectively create attention by contrast. Lower left ad is formally balanced. Fop right ad is informally balanced.





Attention compelling display elements predominate in these two, three- and lour column newspaper ads. Excellent examples of how interest may be directed by shapes and directional movement in pictorial elements. The girl at the left typifies an outside left-hand page position. The man's head and airplane ads are typical outside right-hand page ads.

The size of an advertisement is no criterion of its effectiveness. Many small advertisements have more attention value than their larger neighbors because the space has been better utilized by careful planning. Advertisements combining big, heavy type and blatant display elements, prevalent in much commonplace newspaper advertising, are often less effective than characterful advertisements that utilize conservative types and distinctively toned display units and masses that are properly displayed and accentuated. Interesting white space, also by contrast to an overcrowded composition, emphasizes a message which it surrounds and distinctly sets off.

Attention-compelling photographs and illustrations, with effective tone values, properly placed and skillfully cropped, add much to the effectiveness of newspaper advertising. Obviously, if the layout man can divert the attention of the reader from the news columns to the sales argument of a good picture advertisement, he gives that ad an initial advantage.

Department stores and other consistent users of newspaper advertising space seek to individualize their ads by adopting ingenious shapes of areas, novel treatments of name logotypes, trade-marks, borders and backgrounds, distinctive lettering and art techniques, and individualized typography.

Many advertisers have their newspaper layouts interpreted typographically by "ad agency shops"—typographers who specialize in the setting of advertisements to rigid standards of craftsmanship and refinement. These settings are then electrotyped, stereotyped or photoengraved in sufficient multiples to insure identical reproduction in all newspapers which print the advertisement. Thus a tabloid may print an ad, identical in all details, with one in a full-sized paper.

The average modern daily newspaper composing room, however, has a fairly comprehensive assortment of advertising display type, which offers the trained layout man wide opportunity to secure maximum results from advertising space.

Weekly newspaper advertising which in the past was generally limited in style and attractiveness because it was usually produced with a minimum of layout and more restricted typographic facilities, is constantly being improved. Progressive weekly newspaper printers are continually adding Right—Trade paper advertising becomes effective if appropriate layout, correct typography and other reproductive phases are harmoniously coordinated.

Below-Full page magazine ads which utilize the utmost in layout, art techniques, typography and pictorial reproduction. Note the left- and right-hand page interest-directing elements in ads on both sides of the center ad.

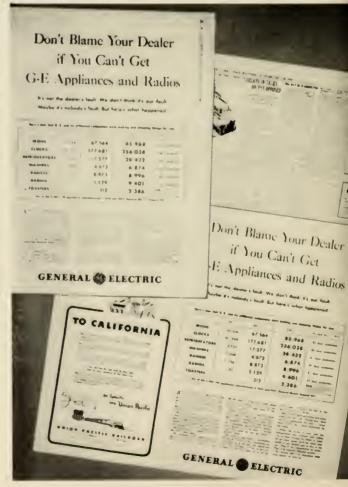






Those—Ariennon compelling pictures, interestingly cropped and loccefully displayed, give smaller magazine ads "reader interest" and "sales appeal"

Right=Advernsement set by an "adagency typographer" for simultaneous reproduction in a full sized paper and a tabloid



modern typographic equipment which makes possible a wider application of layout techniques.

Regardless of mechanical limitations all newspaper advertising reflects the amount of planning used at its inception. That which is fundamentally sound in design will always be attractive, effective and successful.

Magazine Advertising

The vast assortment of advertising in popular magazines, periodicals, trade journals, house organs and other publications is included in this category.

Advertising competes for attention under more favorable conditions in a magazine than in a newspaper. Here more flexible production schedules and a wider variety of printing methods permit more colorful and elaborate presentations. Finer paper surfaces, likewise, enable a wider application of layout techniques and more latitude in art work, reflected in the use of finer screen tints, more elaborate reverse and combination plate treatments, and more detailed halftone presentations. As in newspaper layout, the same basic qualities of attractiveness, suitability, distinctiveness and contrast should predominate in every effective magazine advertisement.

In the quality magazines, artistic layout and modern craftsmanship in the graphic arts receive their fullest interpretation and here the national advertiser uses the ad-agency typographer even more extensively than in newspaper work.

The purchaser of costly advertising space has long since recognized the importance good layout plays in the presentation of his message. He regards it as a sound investment to use only the best photography, retouching, lettering and art work, fine typography, and highest quality photoengravings.

Through the medium of fine color photography, color-process plates and highly developed multi-color printing, the layout man has a practically unlimited sphere for graphic presentation and originality. Full-color inserts, double-page spreads and other ingenious devices have enlarged the field of design possibilities in magazines immensely. The attractive color pages of the smarter magazines offer much inspiration for the study of contemporary styles and techniques in layout. The progressive layout man will find it advantageous to collect outstanding examples of magazine advertising containing unique art, lettering, photoengraving and typographical techniques, for reference and inspiration.

Layout of magazine text pages involves an endless variety of procedures and requires individualized treatment to suit specific requirements. Adaptations of the basic design principles treated in subsequent pages are applicable to magazine text page layouts; likewise to the many diversified layout problems encountered in trade papers, house organs and other publications.

Direct Mail Advertising

To receive favorable attention today, direct mail advertising material, which includes folders, booklets, pamphlets, broadsides, blotters, and other mailing pieces, must be more attractive than ever before. With the vast amount of matter being sent through the mails, and the competition a mailing piece meets on the prospect's desk, it is essential that its physical appearance arouse enough interest to insure its perusal and retention by the recipient.

In the design of direct mail advertising the layout man has increased opportunities in the many sizes, colors, weights and finishes of paper stock. He likewise has the advantage of a practically unlimited choice of format, more controllable methods of reproduction and wider latitude in typesetting, photoengraving, presswork and bindery procedures.

That the design of direct mail advertising should reflect the individuality and character of the product or service it represents is obvious. Likewise, every structural element, such as size, shape, and color should accentuate the design.

The evolution of a mailing piece that is unhampered by the restrictions of conventional commercial envelope sizes allows great freedom. This does not suggest that stock paper sizes and press restrictions should be ignored. They are practical factors in the economical production of all printing.



Magazine editorial layouts that have graphic expressiveness in pictures, headlines, subheads and text, create attention and readability.



In designing a book, its functional purpose should be emphasized throughout the treatment of cover, title and text pages.



The design of direct mail printing utilizes the most individualized type of layout and reproductive processes. Several of these specimens have been die-cut and varnished.

While most direct mail advertising is designed to produce immediate results, the institutional type may be planned to develop and maintain good will over a period of time. Success in this form of advertising is achieved by continuity in design and constant repetition of some pleasing general theme or identifying format.

Successful direct mail advertising stems from a careful analysis of purpose, searching study of the copy mood, correct choice of format, layout style and treatment, proper choice of stock, fine typography, good art work, the best obtainable photography and proper reproduction procedures.

Container Design; Display Advertising

This classification embraces the design of labels, packages, containers, display cards and posters.

This style of layout and design demands a faster tempo and more dynamic appeal than that which is read more leisurely.

The success of a label or container depends on the instant "eye appeal" it has to a passerby, in a window, on a counter or shelf. Likewise, a display card or poster must be of such forceful design and compelling display as to impress the reader at first glance.

Much research is necessary in this highly specialized phase of design. When one considers the wide variety of cosmetics, foods and other products, preparations and commodities, it is obvious that the size, shape, color and design technique of both container and display advertising must promote a definite quality, characteristic of other sales appeal under widely varying conditions and amid changing surroundings.

As fullest utilization should be made of all printing, gravure and lithographic processes in combination with die cutting and other specialized finishing processes, the designing of containers and display advertising should be done only with the co-operation of reproduction experts whose technical advice and recommendations should be highly regarded.

Commercial Printing

Under this classification come letterheads, cards, envelopes, billheads,

forms, hand bills, tickets, programs, and other miscellaneous items, commonly termed "job printing."

Most important is the letterhead. It is through this medium that the recipient usually receives his first impression of the sender. If it is poorly designed, shoddily printed on a cheap paper, sent in an unmatched envelope, the reaction is invariably unfavorable. On the other hand, a well planned, nicely balanced, tastefully composed letterhead, colorfully printed on a characterful paper stock, creates a favorable impression and imparts confidence.

In the layout of an effective letterhead, great care must be exercised to keep the general treatment characterful but not obtrusive. Uniqueness and smartness are desirable but restraint should be practiced in range of type sizes, tonal values and utilization of space. Most effective results can be obtained by skillfully accentuating name, product or trade-mark, in relation to other minor type blocks, while maintaining harmonious balance and tone.

Letterhead design should never interfere with utility. Practicability dictates that ample room should always be allowed for the writing of the message. The address and phone number should be prominently displayed.

In many cases, the change from the usual letterhead to the smaller "Monarch" size adds dignity, particularly for lawyers, architects, or other professional clients.

Colored stock should be used only when it fits the character of firm or service. A pastel pink letterhead is fitting for a flower shop, but would not be appropriate for a dentist or a lawyer.

Once a design has been established for a letterhead, the accompanying envelope, billhead, and card should evolve from the same idea and embody the same general treatment in design, typography and color combination.

Tickets, posters, hand bills, programs and journals for dances or entertainments are generally produced at competitive prices, but there is no need to neglect design in their preparation. It is surprising what can be accomplished through the application of the basic layout requisites, intelligent use of color, and careful type choice in this kind of printing.

Attractive compositions, carefully planned on the drawing board, outweigh in attention value and appearance the ones set "right out of the case." A simple tissue-paper layout, designating type sizes, text masses, borders, etc., will save much guessing and resetting in the composing room.

Designing business and office forms is primarily a matter of utility, but layout can play an effective part in intelligent planning of space, and adaptability to purpose. Much time can be saved in composition of rule forms and making of wax plates if the form is accurately ruled beforehand.

Book Design

The design and layout of books is most deeply rooted in tradition. The treatment of title pages, chapter headings, margins and other functional design elements has seen little material change in the many years since Gutenberg printed the first Bible. Few books have excelled those of the early bookmakers in basic design and beauty. Most contemporary book design is original mainly as to typographical usages and novel adaptations of materials and processes.

Application of sound modern layout techniques in certain types of books is refreshing and adds sparkle to the graphic presentation. The layout style, however, must be definitely suited to the theme and purpose of the book. A novel which is mostly typographical, obviously demands different treatment than an educational book which is largely pictorial. The novel requires an attractive typographical treatment to interest the reader continuously through the entire story with only an occasional pause for change in literary pace. The book you are now reading was designed to direct particular interest to the pictures, which, by their straightforward story-telling technique, demand the unadorned simplicity of a modern layout that tells the story in a concise, forceful manner.

The scope of book design encompasses a practically unlimited array of novels, textbooks, reference books, manuals and other diversified books.

Choice of layout should be made only after careful consideration of the title and purpose of the book and the most practical interpretation of its copy, illustrations and other elements.



Left—Formally-balanced layout Right—Informally-balanced layout

Layout Styles

Fundamentally, there are but two distinct layout styles—the formal, or symmetrically balanced, and the informal, or non-symmetrically balanced.

The former is based on the traditional design principle of controlling harmonious balance in a centered arrangement. The latter typifies the dynamic design principle of maintaining both movement and equilibrium in a non-centered arrangement.

Formal Layout

This style of layout is used primarily in compositions of a conservative, dignified and reposeful nature. It imparts a sense of restraint and stability.

The design basis for formal layout is the placing of all display elements such as pictures, display lines, text masses, signature cuts, etc., in an absolutely centrally balanced arrangement within the layout area.

To explain more fully, if a vertical line is drawn absolutely in the center of an area, every display element must be so centrally placed thereon, horizontally, as to be an equal distance from both left and right extremities; and each element that appears on one side of this vertical line must be duplicated in a corresponding position on the other side to maintain harmonious balance.

Design in a formal layout is achieved by correctly accentuating certain display elements, harmoniously contrasting their sizes, shapes and tones, properly proportioning the widths of display lines, correct grouping and leading of headings and text masses, proper use of margins and white space,

effective ornamentation and proper placing of the composition vertically, within the layout area.

Formal layout usually predominates in financial, professional and institutional advertising: likewise in ecclesiastical, social and other formal printing where reserve and tradition are exemplified.

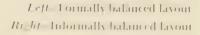
Informal Layout

This style of layout embraces the many varieties of off-centered arrangements that depend, to one degree or another, on the momentum of the design to attract attention, invite interest and activate the reader.

Informal layout was developed in comparatively recent years to meet the demands for newer design techniques and faster tempo in advertising and printing. It stems from the principle of creating movement in a design by placing all units and masses in a lively, orderly progression, and, by so doing, dividing a layout area into unusual and interesting patterns of tone and white space while maintaining an optical balance.

Adaptations of the informal layout style are practically limitless and may be applied to a composition in varying dynamic degrees, depending on the results to be accomplished.

The so-called "modern" layout is an extreme evolvement of informal layout which was developed from geometric design. Its chief characteristics are simplicity of line and movement. The combination of units and masses into interesting geometric arrangements, the division of white space into forceful contrasting elements and the elimination of fussy ornamentation are other distinguishing features of this style. It is further accentuated by the prolific use of sans-serif types, bleed illustrations, reverse panels, screen tint backgrounds and other contemporary design devices.





The thumbnail sketches in this panel and on the next page show a cross-section of the wide variety of patterns adaptable to newspaper, magazine direct mail and poster advertising.

Informal or assymmetrical layouts predominate in the showing as this type of layout is more generally used in modern-day advertising because it typifies a faster-moving tempo than does the formal or symmetrically-balanced style of layout.

The formal style is illustrated in the layouts titled "Charm" at upper right, "Formali" and "Distinction" at lower left. In these small crayon roughs the principle of balancing all display elements on a central vertical axis is exemplified. If an element is placed to left or right of this vertical, it must be counterbalanced by a unit of similar size and weight on the opposite side of the vertical. Limited movement may be attained by ingenious arrangements that create interest, but still maintain

Continued on next page





Continued from previous page

balance, as illustrated by the "Formali" layout.

The various types of informal lavouts stem basically from lively interesting space divisions and ingenious, contrasting patterns. Movement may be slow, fast, or of an intermediate tempo dependent upon the design pattern, the directional shapes of the elements and their arrangement. Slow movement in informal arrangements is exemplified in the layouts titled "Flower Show," "Fishing" and "Pattern" at the upper right. Faster moving examples are the miniature roughs titled "Flavor," "Gracious Living" and "Parkay" at the upper left. In the "Outdoors" and "Interiors" sketches in the lower right, action is stimulated by the directional movement of the products shown. Intermediate action is typified by layouts "Comfort," and "Men Who Care."

A layout which is fundamentally formal in arrangement, but by virtue of informal placement of one or two elements becomes informal in style, is illustrated by the "Integrity" layout at bottom left.

Working Materials Techniques



WHILE IT IS TRUE that layouts are evolved in the mind, the physical process of rendering them can be facilitated immeasurably with the aid of proper instruments and equipment. The layout man who is handicapped by poor tools is at a distinct disadvantage.

Not all of the items listed below are absolutely essential to the beginner, but real need will be found for all of them as advancement is made in the many diversified layout techniques.

The layout kit should contain:

Drawing board

T-square

Triangles

French curves

Metal-edge ruler and pica gauge

Protractor

Ruling pen and compass set

Pads of tracing paper

Thumb tacks

Cellulose and masking tape

Drawing pencils

Drawing pens

Water color brushes

Plastic eraser

Set of opaque water colors

Fixatif and atomizer

Color-mixing pans

Waterproof black India ink

Transparent colored inks

Colored pencils

Colored pastel sticks

Sandpaper pencil pad

Grease marking pencil

Razor blades

Type gauge

Reducing glass

Enlarging glass

Screen finder

Slide rule

Rubber cement and dispenser

Shears

Cropping angles

A wide assortment of paper of various textures, colors, and weights should always be kept on hand. Paper manufacturers have experimented extensively with color and design possibilities and their agents will furnish sample sheets and dummies for layout purposes on request.

Foundry type, linotype, monotype and Ludlow type specimen books should be collected until one has a comprehensive library of every type face in reasonable use. If a layout man works closely with any one composing room, he should have proofs of all its type, set in a convenient measure of about five inches in width, for quick computation of display lines and text, and for tracing purposes. Proofs of ornaments, fancy initials and other accessories likewise will facilitate sketching same on layouts.

Specimen sheets showing the range of halftone screens and the variety of Ben Day shadings available in photoengraving and offset are invaluable for reference when planning tone values on layouts.

Printing ink color specimens, from which proper color tones can be evaluated and specified, should be included in the layout kit.

A "morgue" or clipping library is an inspirational source for ideas when layouts are hurriedly demanded. In it may be filed samples of interesting layout styles, type arrangements, color treatments, initial letters, unusual photoengraving and offset techniques and other interesting artistic specimens. It should contain, likewise, a wide assortment of pictorial reproductions rendered in various artistic mediums, which may often be adapted to layouts by tracing or copying, with necessary modifications or elaborations.

The successful layout man constantly profits by emulating the successful experiences of fellow craftsmen. By continuous study and use of time-tested formats, procedures and methods, he eventually acquires many invaluable ideas which will assist him in making a sound analysis of each layout problem as it arises.

Distinctiveness for a layout is many times achieved by coordinating its essential design elements according to the pattern of a previously successful composition. The helpfulness of a complete reference file is obvious.

Many layout men accumulate collections of "befores and afters" which contain the initial roughs, progressive working layouts, intermediate proof sheets and the finished printed jobs. They offer an excellent basis for study of idea development through both the artistic and mechanical phases.

Authoritative books on photography, lettering, art techniques, typography, color application, photoengraving, presswork, and other branches of the graphic arts should always be handy for ready reference. One should

likewise subscribe to the leading technical periodicals of the printing and allied industries to keep abreast of constantly improving mechanical processes and techniques.

Suggestions for Layout Procedure

The layout beginner who constantly takes pains in perfecting apparently inconsequential details will find his layouts gradually attaining a professional look. This is not to say that they should be mechanically stilted, but they should embody a combination of artistic expressiveness and preciseness.

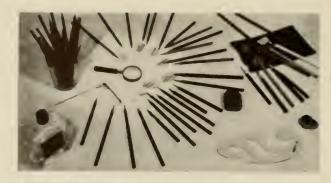
It is practically impossible to lay down rigid rules for the layout beginner to follow in the utilization of the various materials and equipment. In every creative endeavor there are limitless ways in which one may apply himself and each individual finds from experience alone in what manner he can work to best advantage. However, the following rudimentary suggestions may be helpful:

One should select a medium-sized non-warping drawing board and learn to adjust it to suit his own individual drawing posture. It should be placed in the lap, resting against a table or desk, at an angle that allows utmost freedom and dexterity.

As one progresses in layout, it will be found advantageous to use the more elaborate table-type drawing stand which can be adjusted to any desired angle.

The tracing pad or paper dummy should be fastened to the board in a high-centered position parallel to the top and sides of the board so that lines drawn with the T-square and triangle will be uniform to the edges of the paper. When ruling the dimensions of a layout area and other rectangular lines thereon, use the T-square placed along the left edge of the board for horizontal lines and the right angle triangle placed against the T-square for vertical lines.

When sharpening pencils, expose about a quarter inch of lead, and use the sandpaper pad to keep the required point for the style of lettering or rendering to be done. For drawing thin-serifed types and other delicate



Here are some tools of the layout man. Shown are various types of pencils, colored crayons, a plastic eraser, a French curve and other appurtenances.



Among other necessary layout instruments are pica rule, compass, pens, slide rule, rubber cement, brushes, water colors and inks.



hregularly shaped paste-ups can be trimmed best with the shears. A razor blade against a steel rule cuts rectangular shapes best.



The layout man must familiarize himself with the techniques of drawing and painting on various paper stocks in all mediums. Shown are pencil, crayon, pen and brush treatments.



Placing a tracing tissue over type specimens and tracing them is good practice for the beginner.

Every layout man should keep abreast of typographical and reproduction trends by reading the leading technical publications of the graphic arts industry.



lines one should use a fairly hard pencil with a sharp point. For drawing sans-serif or even-tone types and designating broader tones a softer pencil with a flat point should be used. Always use a hard pencil for denoting trim sizes of layouts and keep the lines comparatively faint.

One will become accustomed to favorite gradations of pencil lead, but it will be found that the B grade is the most practical for casual roughing of thumbnail sketches and for suggesting pictorial elements on layouts. Where broader, less detailed tones are desired the 2B, 4B or 6B grade is recommended.

Parallel horizontal lines are generally used for designating type lines in a text area. Their weight should suggest the approximate type tone, the space between these parallel lines suggesting the point size of the type. Type masses may also be drawn with strokes of a broad-pointed sketching pencil sharpened to the proper width.

Tracing paper offers an inviting surface for a drawing pencil and its gray tone enhances the artistic quality of a rough. Its transparency simplifies the application of color on its reverse side, which produces soft, pastel tones in the colored areas.

The advantages of working on transparent tracing tissue are many, If, for instance a layout is pretty well established, and proportions, sizes, shapes, groupings, spacing or margins are not satisfactory, a new tissue may be placed thereon and units reshaped, resized and shifted to improve the composition. Pictures, type, initial letters, trade-marks, or other elements which have been traced may be transferred to a dummy by rubbing the reverse of the tracing with a soft graphite pencil, placing it in positive position and going over the desired area on the front of the tissue with a well-pointed pencil. The tracing should be handled gently so as not to smudge the dummy. Excess graphite may be removed with the plastic eraser.

In the rendering of lettering or sketches on presentation visuals some layout men are highly proficient with the pen, while others prefer the brush. Use of the medium that best suits one's technique is logical.

Drawing pens are available in every conceivable style and one should have a good assortment, varying from the needle-pointed crow-quill for delicate work, to the broad-pointed speed-ball type for the uniform heavy strokes.

Brushes that have a pointed tip. Nos. 1 to 6, are best for inking and coloring on layouts. Show-card brushes of the rounded variety are good for simplified one-stroke lettering, for filling in areas, and other work of this nature.

Opaque show-card water colors are best for average layout work. One should avoid over-diluting colors to prevent the painted surface from becoming streaked, uneven in tone and messy in appearance.

Water color of the proper consistency can be applied successfully to most papers with the ruling pen or compass. Wherever possible these instruments should be used to get sharp, clean edges to the edges of broad color areas. Certain types of lettering on visuals may be constructed basically with the ruling pen but proficient free-hand finishing will give a more artistic appearance.

The rougher paper textures may, at first, tax the ingenuity of the layout student, but by constantly experimenting with pencil, crayon, pen and brush on various types of papers, he will solve these problems eventually.

Where large areas of color are to be shown on a layout and lettering or other elements are to be superimposed thereon, paper of the selected color can be cut to the size of the area, pasted in position and drawing done thereon more readily than by drawing over a painted surface. Lettering done directly on transparent cellulose may also be effectively placed over painted areas of a layout.

"Punch" can be added to a finished layout by adding well-placed strokes of a medium-soft dark-lead pencil to emphasize display lettering and other important elements. One should avoid the use of heavy pressure on the pencil, rather attaining depth of tone values by repetitious uniform strokes. Where water colors are to be applied over pencil lettering, use the pencil lightly as the graphite tends to darken the color and give a muddy effect. This applies also to drawing or lettering that is to be finished in ink or colored crayon.

Rubber cement is practically indispensable to the layout man. It is



Left-The four illustrations show in consecutive order:

With the tracing pad held firmly in position with thumbtacks, the proper alignment of the T-square and right-angle triangle will insure a rectangular unilormity in dimensions.

Text masses are designated with parallel horizontal strokes of the correct width of pencil.

By placing a straight piece of paper over the irregular edge of a ruled text area and erasing the superfluous graphite, a clean, straight edge results.

Puncturing the four corner points of the established type area through the entire dummy with compass point or pin facilitates ruling identical areas on all subsequent pages.









The diagonal method of enlarging an area proportionately consists of extending the diagonal drawn from top left to bottom right of the picture, to either the height or width wanted and then drawing a parallel to the other dimension.



To draw an enlargement of a picture by the "square" method, rule rectangles on a tissue covering the entire picture (extreme left). Rule the same amount of squares on the enlarged area and use each square as a guide in sketching the elements within it. used for pasting photostats, pictures, proofs and practically any porous material. Good quality cement is stainless and excess applications may be rubbed off with the finger when dry. For a temporary adhesion, one coating to either object suffices. The paste-up may later be lifted for change of position. For permanent adherence, apply cement to both objects and join when each has dried. Care must be exercised, however, to place them in exact position before bringing them together, as the two dry coatings have permanent affinity for one another and cannot be shifted.

Dividers are invaluable for checking alikeness of margins, spacing and other measurements on layouts, proofs and press sheets.

The plastic eraser is best for eradicating fingermarks and messiness caused by excessive pencilling and smudging. If minor mistakes occur in ink or color applications, light, dexterous touches of the razor blade can correct them, but care must be exercised lest the paper surface be ruined.

One should never use a razor blade against a triangle, T-square or other valuable instrument. Instead, use the metal edge of an inexpensive ruler for guidance when cutting or trimming paper, pictures or photostats. Keep the hands and fingers out of the range of the blade at all times. Shears should be used for cutting irregular shapes.

Use of a reducing glass aids in visualizing reduction possibilities and limitations in photographs, art work, lettering, and type proofs.

The enlarging glass is invaluable in checking type, halftone screens and color proofs, press sheets, and the numerous details of reproduction.

The transparent screen finder, which, when placed over printed halftone proofs, portrays their correct screens, is useful in checking the printability of cuts on a contemplated stock.

The slide rule is an invaluable instrument for quickly establishing dimensional ratios, such as in enlarging and reducing areas, photographs and other elements.

The layout student will find experimental layout exceedingly helpful. Printed pictures cut from magazines can be used as a basis for constructing layout studies in areas of various shapes and sizes. Headlines and type masses may be rearranged and sketched in by hand. Thus, by reconstruc-

tion and comparison with original compositions a sense of relative values is gradually acquired.

There are many ingenious methods and procedures for attaining forceful, attention-compelling layouts, and as the student progresses he should study constantly the styles and techniques of the leading layout craftsmen. He should always remember that the successful layout man is the one who thoroughly evaluates all available materials and processes and utilizes them to their utmost.

Specialized art courses are available to those who strive for proficiency in illustration and other phases of art. To do reasonably professional-looking layouts, however, it generally suffices for the layout man to have a comprehensive working knowledge of art techniques and the ability to portray them adequately for presentation purposes.



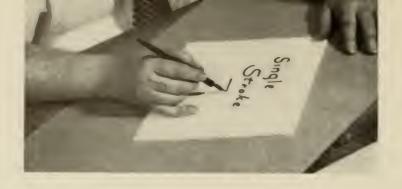
Above are some typical layouts that forcefully convey the character of type and hand lettering.



The layout student can improve his technique in figure sketching by tracing examples from printed advertisements.



Here are some "befores" and "afters." The layout and the finished job often prove helpful in evaluating reproduction of a layout.









Left—The four illustrations show in consecutive order:

Single stroke lettering with a ball-pointed pen or pencil is the simplest to draw.

The individual characteristics of the various lettering styles demand the use of pen points of suitable style and flexibility for fine lettering.

Some letterers prefer a well-pointed brush for certain styles of free-flowing lettering.

A flat brush is ideal for broad lettering.



The French curve may be used in formulating and perfecting curves in swash letters.



The copying of sound lettering styles from type specimen books is highly recommended.



Fundamentals of Lettering

LETTERING ON A LAYOUT should be so well drawn that it expresses the character and feeling of the words it interprets, accentuates the typographical style, and accelerates the design construction of the composition. Fundamentally, this can be accomplished if one acquires a thorough understanding of the basic construction of lettering, the ability to clothe these structures with characterful surface rendering and the skill to compose them correctly. To attain the utmost proficiency in lettering, however, one must also possess a natural aptitude for artistic expression, inherent good taste in design, a steady trained hand and an eye for perfection in details.

The art of lettering being such a broad study, we must limit ourselves here to as much of its historical background, its influence on typographical design and its application in layout as serves the purpose of the beginner.

The fundamentals here set forth, combined with continued practice in copying from type specimen books and other sources of sound lettering styles, will aid the student in acquiring a lettering technique sufficient for average layout purposes.

Historical Background

A brief resume of some historical aspects of lettering will give one a more intimate understanding of the various forms and functions of letters.

In seeking some means of visual communication, prehistoric man originated pictographs which he drew on the walls of a cave or on the stony side of a hill.

The Egyptians perfected the pictorial process by the introduction of hieroglyphics, a decorative form of picture writing, which was developed into a system of lettering symbols, each representing a word.

The Greeks, by adapting and elaborating the Egyptian hieroglyphics, eventually developed a crude original alphabet. It was named "Alpha-Beta" after the first two letters of their alphabet. This alphabet was composed of capitals only.

Throughout years of usage and refinement the Romans perfected the complete alphabet of Roman capitals, which is used to this day as the basis for all our standard letter forms. The lower case letters were a later development.

All of these alphabets originally were constructed of serif-less strokes. The Romans found in the development of chiseled inscriptions, however, that a sharper, more uniform termination could be given to the vertical strokes of capital letters by a horizontal right angle chisel cut, extending slightly beyond the width of the stroke and thus the serif was born. It also served the purpose of overcoming the tapered optical appearance of the upper parallel vertical outlines of letters. Gradually, curved serifs were developed which gave added grace and beauty to lettering.

The original Roman inscriptions at the base of the Trajan column in Rome, cut in the first century, still are used as unequalled samples of classical form and design.

Traditional lettering and type design of today, refined and elaborated through centuries of usage, differ little structurally from the ancient Roman design. The surface treatment of the various alphabets may vary but their fundamental structures remain unchanged.

As type designers of recent years have taken wide latitude in the creation of new styles to fit modern advertising techniques, so the medieval scribes elaborated and embellished the classical Roman design to meet utilitarian needs. They created the Gothic Text style which could be drawn with more flexibility with the quill and reed. Use of the Gothic Text style of lettering then became widespread and it was logical that Gutenberg should have copied this style in his first movable types.

The Gothic Text design influenced all subsequent typography until in later years a demand for more legibility prompted Jenson, Garamond, Caslon and other type designers to revert to the original Roman alphabet. The typographical reincarnation of the Roman style provided a more flexible means of expression in printing because of the many design advantages of this classical alphabet. It has since exerted its influence on all types of design and lettering.

Three Basic Lettering Styles

While letter styles are seemingly endless, any lettering style in the English language can be identified as being distinctly in one of the following structural categories: *Roman, Script and Gothic*.

Many contemporary styles may appear to defy classification but their fundamental structures stem primarily from one of these three styles or a combination of their main characteristics.

Roman Capitals

The twenty-six letters of the alphabet can be segregated into distinctive width and height groups. The purpose of this classification is to acquaint the lettering student with the measurements that control the structural design of each letter so that it will be harmoniously related to the others when composed in a line.

The following calculations, as are many other specifications for artistic construction, are variable to some degree in the hundreds of lettering styles, but it will be found that they are applicable in general to all letter forms that stem from the basic Roman construction.

The crossbar of the letter A, for example, may be moved higher or lower in certain alphabets to conform to the body weight of the letter. Likewise, the central horizontal bars of the letters E and F may be shortened or lengthened to serve specific design purposes.

Expanded or condensed styles are excluded from these calculations as they are distortions of the basic forms, and were designed to serve limited typographical purposes.

Using the dimensions of a perfect square as a basis for measurement, capital letters may be segregated into the following width categories:

Letters filling slightly more than the square in width-M and W

Letters filling the entire square in width-AVGOQ

Letters occupying about three-quarters of the square in width-C D U H N T X Y Z

Letters occupying one-half of the square in width-BEFJKLPRS

The space occupied by the letter I is dependent on its thickness and extent of serifs.

While it appears to the eye that all capital letters are of equal height, such is not the case.

Rounded parts of the letters C G J O Q S U and the apex or meeting points of the diagonals in the letters A V and W slightly exceed the top and bottom extremities of the square, to overcome the optical illusion of being smaller if drawn to fill the exact height of the square.

The letter Z is drawn a trifle less in height so it will not appear too full. In the letters A E F H, the horizontal crossbars should be placed slightly above center to attain optical centering. Likewise, in the letter X the point of crossing of the diagonals should be drawn high center.

In the letter K, the diagonals should meet at a right angle and the apex should join the vertical at a high center point.

The letters B D P R are composed of semi-circular sweeps which gracefully blend into short horizontal strokes that join the verticals at right angles.

In the numerals the same general principles used in capitals prevail. Excluding the numeral 1, all the other nine characters occupy approximately the same width, generally about one-half the width of the square. In height, the rounded portions of 2 3 5 6 8 9 0 and the apex of 4 extend a trifle over the horizontals. This applies to all "modern" or lining figures. "Old style" figures are characterized by upward protrusion of the characters 6 and 8 and the lowering of 3 4 5 7 and 9 from the height of figures 1, 2 and 0.

Roman Lower Case

In comparison to the capitals, many more of the lower case letters are constructed with circular forms. Their curved contours contrast pleasantly with the angularity of the capitals.

Due to the varying lengths of ascenders and descenders in the many different alphabets it is advisable to confine our calculations momentarily to the body or main portion of the letters.



The three basic lettering styles are Roman, Script and Gothic. Each has capitals and lower case.

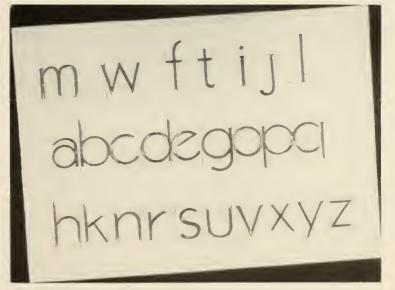
These specimens are rendered in pencil, in what is known as "built-up" lettering.

M AVGOQ CDUHNTXYZ BEFJKLPRSI

Capital letters are divided into 5 width groups. Top line shows M and W occupying more than the full square in width; A V G O Q occupy the full square; the center line shows the letters occupying approximately three-quarters of the square in width; the letters on the bottom line occupy approximately one-half the square width, except I, whose measurements depend on the weight of letter style.



The utmost expressibility in the variety of lettering techniques is graphically illustrated by this wide range of styles and treatments, also rendered in pencil on tracing tissue.



Lower case letters, likewise, are divided into width groups, using the main body for measurement. Top line shows m and w slightly wider than the square. Each of the center group of letters fills a full square. All letters in the bottom row occupy approximately three-quarters of the square width; the letters f t i j and l, occupy space according to their style construction, as shown on top line.

Comparatively speaking, the height of the main body of lower case lettering is generally three-fifths of the capital height. Type designers usually divide the height of the entire type body, including ascenders and descenders, into seven parts. The capitals occupy the top five parts: the main body of the lower case the three central parts: the ascenders the two top parts and the descenders the two bottom parts.

As in capital forms, the letters m and w are approximately one-fourth wider than the square.

The bodies of the following letters, which are basically circular, fill a full square: a b c d e g o p q.

The following letters fill about an eighth less than the width of the square: hknrsuvxyz.

The bodies of f and t being slightly more condensed occupy about one-half of the square.

The letter i and its companions j and l, fill space according to their vertical thickness.

Six of the lower case letters—s u v w x and z—retain the main distinguishing characteristics of the capitals.

The general rule that rounded letters or rounded portions of letters and the apex or meeting points of diagonals should exceed the horizontal extremities is applicable likewise to lower case. As in the capitals, the rounded body structures of such letters as c and o should occupy a slightly greater vertical area than normal letters such as i and x. Likewise, the angular portions of v and w should go below the bottom horizontal line.

In letters such as f and j, the curved parts should appear to spring from the verticals in a graceful curve. They should join the verticals at the junctions as the leaves of a plant stem gracefully from the body. They should have the appearance of sprouting gracefully from the verticals, rather than butting against them abruptly. Much of the grace and charm of the letter form can thus be retained.

The ascenders of the letters b d f h k l normally are aligned evenly at the top, but the letter t terminates approximately half way between this alignment and the top of the body of the lower case letters.

The descenders of the letters g j and y normally are aligned alike at the bottom, as are p and q.

Italics

Most every Roman type design has an italic counterpart. The italic font broadens the scope of the alphabet and is used for emphasis and contrast.

The italic font carries out the essential characteristics of the Roman in body structure, weight, contour, style of serif and other identifying characteristics. However, the vertical lines become diagonals slanting to the right and the anatomy of curved letters is redesigned accordingly. Most italic styles become more condensed in the transformation and assume an air of delicacy and momentum, as compared to the Roman.

Due to the innumerable styles of italic interpretations, it is practically suggested that one be guided generally by the comparative measurements outlined for Roman lettering, referring to specimen sheets of specific alphabets as occasion demands.

Script

Script styles simulate handwriting. Having no emphatic relation to the basic Roman alphabet they should be used sparingly as their ornateness and delicacy limit their use to compositions of similar character.

The measurements of individual letters in script styles being far more variable than the Roman and italic, they are more difficult to classify. It is suggested, therefore, that the lettering student consult specimen books for guidance when lettering a specific script style.

In drawing script styles, as in the italic, one should maintain a uniform degree of slant in the lettering. The weight of the main body strokes and the thin connecting lines should be uniform and the contour and direction of the many curved elements should be harmonious.

Script should never be letter spaced and the letters should be tied together with the thin strokes so a continuous flow, similar to handwriting, is achieved.

The complete body height of the average letter may be divided into seven equal parts. All capitals, except J occupy the top five parts. The main portion of lower case letters occupies the three central parts, letters with ascenders occupy the five top parts; those with descenders, the five bottom parts. This drawing shows "built-up" lettering under construction.





The I square and ruler may be used to form the basic construction of certain straight elements of fettering.



A uniform degree of slant in italic lettering may be maintained with the T-square held firmly at the proper angle to guide the triangle.



Characteful "built up" lettering is achieved by careful allocation of each letter in light strokes and the gradual refusement and definition of contour by heavier snokes as correct placement is attained.



Colored crayons applied to the reverse side of a layout-tissue create a soft, pleasant pastel effect. The grayness of the tissue tones down the vividness of strong colors.

Gothic Text

The use of Gothic Text lettering is very limited in layout practice. However, the lettering student should familiarize himself with its main characteristics so that it may be utilized advantageously when occasion arises. Gothic Text lettering has a decided boldness in the main body structures, the verticals of which have curved or angular terminations, devoid of the conventional Roman style serifs. The vertical structures are connected with thinner angular strokes or curved sweeps, while the rounded structures taper from thin extremities to bold curves, which terminate abruptly at angular elements or graduate again to thin extremities.

The general structure of Gothic Text lettering simulates the thick and thin strokes of the easy-flowing hand lettering of the early scribes which was drawn with the quill and reed.

Again it is suggested that the lettering student consult specimen books when the use of Gothic Text is contemplated.

Spacing

The readability and pleasing appearance of lettering depends on correct spacing. No matter how skillful one may become in drawing individual letters this ability is ineffective unless one can compose them harmoniously in a line or other grouping.

Correct spacing cannot be attained by applying the yardstick. It comes from the ability to place letters in such relation to each other that the optical appearance of the spacing is uniform and a free-flowing interpretation of the wording is attained.

Unharmonious spacing unnecessarily arrests the eye and disturbs the reader. Common examples are the wide gaps of white space commonly formed by letter combinations such as AT AV LA VA WO. These combinations must be equalized in relation to the balance of the lettering, either by a reduction of space between them or by letter spacing the other letters in the line.

Likewise, spacing between words should be optically uniform and adroitly allocated. Capital lines require more word spacing than lower case lines. In no case, however, should spacing cause unusually wide gaps anywhere to interrupt readability.

In roughing out lettering, the first crude division of the width allowed for the lettering should be done lightly. In going over the first roughout, try to give letters form and placement by gradually weighting their defining lines. Heavy, definite strokes at the outset are visual barriers to reshaping or shifting of characters.

One should not distort the structure or any detail of a letter to equalize spacing. Rather retain true proportions and shift letters in their entirety to right or left. Even color should be maintained in the thick and thin parts of lettering and the serifs should be drawn uniformly.

All lettering rendered in pencil, crayon or other medium that may smudge in handling should be protected by applying fixatif immediately on completion.

Review of styles

The design possibilities of the thousands of lettering styles simulated in modern type designs are practically unlimited. From this assortment, the layout man can select a suitable style to fit almost any purpose, to harmonize with any treatment and to express any mood or characteristic.

Any one sound type style with its capitals, lower case, small capitals and italic forms, in light, medium and bold faces, has in itself a wide range of expressiveness. It is suggested, therefore, that one adhere to lettering that simulates a type style exclusively at the start rather than attempting to draw freehand lettering creations of his own.

Type founders have overcome most of the mechanical restrictions that formerly prevented exact duplication of certain lettering styles in type-casting and are constantly introducing fresh, novel designs. The specifications of these type faces on layouts is generally to be recommended instead of the mediocre originations of the lettering beginner.

The beginner is particularly cautioned to avoid copying any of the distorted lettering styles prevalent in many of the books on "modern" lettering. They serve no useful layout purpose as they are impractical typo-

graphically and costly to reproduce. Likewise, he should avoid adopting any of the modern theories that advocate complete revolutionizing of all traditional laws of design. For example, there are some who would eliminate capitals from our alphabet entirely.

People are influenced strongly by habit and custom. Any drastic deviation from traditionally accepted styles is not readily welcomed. The use of capital letters has received the approbation of typographers and artists for centuries, and the eye has been trained to accept these forms as correct.

There is too much structural effectiveness, beauty and design in our fundamental alphabet (all capitals) to sacrifice its use to a passing fad or fancy. True, lower case with its irregularity of line and contours pleasingly relieves monotony. In some display forms it is more readable than capitals and it is the logical choice for text areas. Full advantage should be taken of this legibility, but there is to the experienced designer a very evident lack of structural strength in an all lower case composition.

Lower case letters do not lend themselves well, except in rare instances, to letter spacing; and by their openness and irregularity disport themselves too freely to be controlled as well as capitals in constructing designs.

The advantage of using capitals in reverse plates, as structural bases in logotypes and trade-marks, and in achieving the utmost contrast and display emphasis when used with italics and other type forms, are evident in some of the illustrations throughout this volume.

Through years of continuous application and study, a deep appreciation for all design possibilities and limitations is acquired. The beginner is advised, however, to enter the study of lettering with an open mind. Eventually, by constantly solving problems as they arise he will evolve his own individuality and technique.



Lop left panel shows that the basic construction of all Roman lettering is alike. The change in surface weight and contour, and the style of serif distinguishes a style. Top line in right panel further emphasizes the surface distinctions of various letter styles. The center line compares lining figures with old style figures. On the bottom line the alikeness of slope in italic lettering is emphasized. The incorrect and correct spacing of AVE is demonstrated. Lower left panel illustrates the optical rule which decrees that certain portions of letters must extend above or below the horizontal lineup so that all letters in a line will appear uniform in height. Lower right panel illustrates the surface transformations, possible also in the basic Roman lower case.



Thumbnails, Roughs, Visuals

THUMBNAILS are small fundamental sketches which are made to arrest basic layout ideas as they crystallize in the mind, and from which the actual-size layout will evolve.

These miniature sketches should be of an all-inclusive pattern, conveying the layout style and treatment without defining minute details.

As the name implies, thumbnails are drawn usually several square inches in area, in the same proportion as the anticipated actual-size layout. They are made with a medium lead pencil in a broad, sketchy treatment, usually on tracing paper.

As thumbnails are highly creative evolvements, no specific rules apply in their rendering. Some layout men carefully rule uniform areas and conform their designing thereto, while others swiftly sketch vague outlines which they may expand or contract proportionately as creative procedure suggests.

In the first light skeleton draft, the predominating display elements such as pictures, headlines, trade-marks, etc., are shaped and positioned in a phantomlike manner and text areas are faintly outlined. By working over this initial attempt with slightly heavier strokes, the elements may be enlarged, reduced, reshaped or repositioned; the groundwork given shape and the display elements correctly evaluated. Gradually, as the structure of the design is emphasized and tone values are added by still weightier strokes the composition develops and the layout idea takes definite form.

The amount of thumbnails necessary to arrive at a correct layout choice is problematical. Sometimes a few sketches will suffice, while at other times chough layout possibilities will prompt a dozen designs.

One should give vent to originality and enthusiasm and explore every idea to its utmost, but should not waste time with designs which do not crystallize spontaneously, or which seem too complicated or unpromising as they evolve. It is better to discard these efforts entirely and begin anew, always reconstructing, shifting or otherwise evaluating display elements.



Thumbnails used to develop a type layout for a magazine advertisement and the enlarged rough from which type was set. The selected layout is a combination of the two checked thumbnails in the lower right of the top panel. The pattern stems from the final thumbnail but is activated by the type style of the other. Note how the word "Pasigraphy" is accentuated and echoed by "Typography" in type similarity.



MAYBE IT'S Pasigraphy

KIRT IN OLK - Emperoples

When making thumbnails one should always keep the size and proportions of the eventual actual-size layout in mind together with a rough computation of the amount of text, otherwise these small sketches may lose their artistic casualness and practicability when enlarged. Areas that seem pleasing in thumbnails may not always conform typographically to the text on hand; pictures may not warrant the designated display values, or other shortcomings may influence the effectiveness of the enlarged layout, unless these eventualities have been anticipated.

The rendering of the average actual-size rough, while not requiring the artistic finesse of the presentation visual, should be basically correct in draughtsmanship and portray all design elements effectively.

A rough that explicitly defines specific type faces, correct spacing, margins, etc., imparts to the typesetter a sense of confidence and facilitates its mechanical reproduction. Likewise, if the type and cut areas have been calculated by a careful analysis of the manuscript and pictures the work of the makeup man is simplified.

Compositors may have widely divergent conceptions of layouts that are inaccurate or carelessly rendered, therefore, the more exact the layout, the more accurate will be the reproduction. Likewise, a rough that explicitly conveys the theme of a design to the artist, photographer, photoengraver, and printer facilitates their workmanship and improves their product.

In the drawing of a visual, or artistically finished layout for presentation purposes, an actual size rough may first be made on tracing tissue and transferred to the visual paper stock after all refinements have been made.

Photostats or photoprints of original photographs and drawings, scaled to proper sizes are often pasted in position on visuals. Proofs of display type lines and small blocks of text type, likewise, may be added to help visualize the typographical treatment.

The particular purpose of every layout should be foremost in mind. For presentation purposes, the draughtsmanship of a visual should be painstakingly done. For strictly mechanical uses, roughs need not be artistically elegant but they should be precise and practical.



At left are the thumbnails which styled this book—embryo layouts for the cover, backbone, and title pages. Also specimen pages for treatment of illustrations and beginnings of chapters.



PART THREE

Analyzing the Copy

In Seeking inspiration for a successful layout, one should pause long enough in the elementary analysis of copy and illustrative material to evaluate some very pertinent functional questions.

It may not seem esthetic to go commercial when formulating design, but the fact remains that the main purpose of advertising and printing is to sell something. And the client is primarily interested in results.

A successful layout man must not be merely a competent designer, he must also possess a diversified knowledge of human reactions and salesmanship of the highest order.

A thorough analysis of the following questions will aid materially in establishing an effective layout formula.

What are we trying to sell? Whom are we trying to interest? Through what medium and in what form can we best present the message?

If it is an advertisement in a newspaper or magazine, how much space will the layout require to tell the story effectively?

What about its position in relation to other advertising?

Is the layout to be designed for a left- or right-hand page? Has it an outside or inside column position? Is a horizontal shape more suitable than a vertical one?

Must the format for this and all future advertisements be alike in style and treatment or is this a "one time" insertion?

If the layout is for a direct-mail piece, shall it take the form of a broad-side, folder or pamphlet?

Does the nature of the message or the proper portrayal of the product require the use of color? Will color materially improve the illustrative values in pictures or art work?

What type of paper stock is to be used? Should it be colored, have an antique or coated surface? Will the anticipated size cut from standard paper sizes or will a special size or finish be economically feasible?

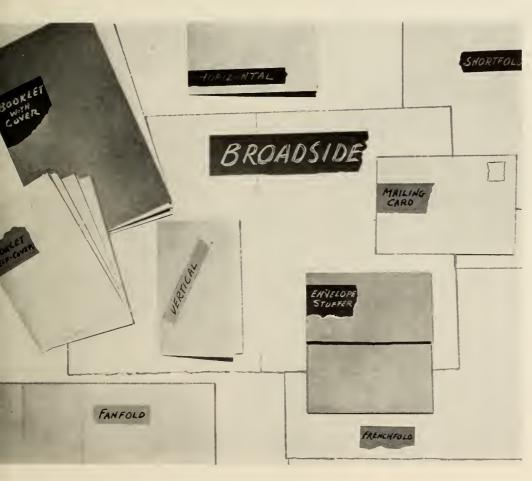
What is the method of reproduction? What are the other mechanical requirements and limitations?

How about size and mailing weight to meet postage and budget limitation? Can it be a self-mailer? Should it enclose in a standard-size envelope or one of unusual size and color? Will a government postcard size suffice for a return mailing card?

If it is a booklet, should it be a "self-cover" or clothed in a distinctive heavier stock? Can it be short-folded, die-cut or embossed to improve attention value? Will spot varnishing improve color appeal?

Besides these, there are still further elementary questions that must be considered. For instance:

Has the copy been reduced to the absolute minimum or can it be



When analyzing the copy for direct mail, the size and shape of the projected piece becomes an important factor. Shown are some of the forms possible in the many types and sizes of sheets, cards, folders, and booklets.

edited further to fit certain layout areas? Can liberty be taken with continuity to serve typographical expediencies? Must type alone tell the story—or may the layout suggest art work, hand lettering or photography?

How many pictures shall be used—which should predominate?

Has the client a type preference which must be respected?

Will the trade-mark or logotype fit the style of layout suggested or must it be changed in shape or tone, subdued or omitted entirely?

These are but some of the questions that may need to be answered before thumbnail sketches are begun. They present fundamental problems, the correct solution of which will materially influence the effectiveness of the layout.



"Should the shape be horizontal or vertical?" An elementary question which prompts evaluation of the copy in varying forms of display emphasis. This type of thumbnail rendering is worthy of presentation for client preference as to proportionate size and shape.

"One full-page ad or ten smaller ones?" The roughs below were made for the discussion.



Choosing the Layout Style

When one considers the wide range of layout treatments applicable to the advertising of furniture, food products, cosmetics, real estate, building equipment, clothing and other tangible items, and contrasts their specific appeal with that of such intangibles as insurance, travel, financial, political, organizational and institutional advertising, it becomes obvious that the selection of the correct layout style and treatment needs more than a perfunctory study.

It becomes apparent, likewise, that the layout style must not only interpret the character of the specific product or subject to be advertised, but it must also be designed to appeal to the type of audience it reaches.

Obviously, the primary question is whether to use a formal or an informal style. The chosen style must then be decisively accentuated or subtly restrained in both structural pattern and surface treatment according to the degree of emphasis required.

In formulating a layout for a tangible item, the layout man thoroughly analyzes the product and its trade-name; what its functions are; its origin and historical significance; its physical appearance; its label, package or identifying trade-mark; its specific appeal—dynamic or subtle, liberal or conservative, masculine or feminine—and evaluates the relative design importance of these factors.

Likewise, in a layout for an intangible subject, the main objective is the same—to discover some function, quality, characteristic or appeal from which the design may evolve, pictorially or typographically. One dramatizes the elements that are outstanding and subordinates those that are of less importance.

The layout pattern may suggest swift action, limited movement or definite repose. Likewise, it may suggest strength, conservatism, daintiness and innumerable other characteristics. Rugged, masculine compositions are sketched with strong, structural patterns, accentuated with decisive tone contrast; placid; reserved compositions with conservatively built struc-



Layout style may be accentuated by the physical construction, surface rendering, and style of lettering and typography. In each of these four examples the contrasting sketches symbolize the emphatic opposites. Strong masculine layouts require vigorous rendering of rugged patterns. Obviously, delicate, feminine patterns require lighter treatment.

Layout style may often be accentrated by subtle introduction of typical design vehicles and other casily recognized artistic mediums of expression that characterize periods, seasons, time, climate and vogues. They must be introduced adroitly and spannigly. Their presentation here is mainly to illustrate that the portraval of liabits, tastes, styles, customs and other physical properties create a subconscious reaction to layout style.





tures and more even-toned contrasts; dainty, feminine or ornate patterns with skeleton-like constructions and delicate surface treatments.

Layout style can be accentuated further by the treatment of pictorial elements. For example, a delicate woodcut or etching suggests antiquity and formality; a contrasty, bleed halftone or reverse plate typifies modernism and informality. Lettering and typographical techniques, likewise, can accentuate the layout style.

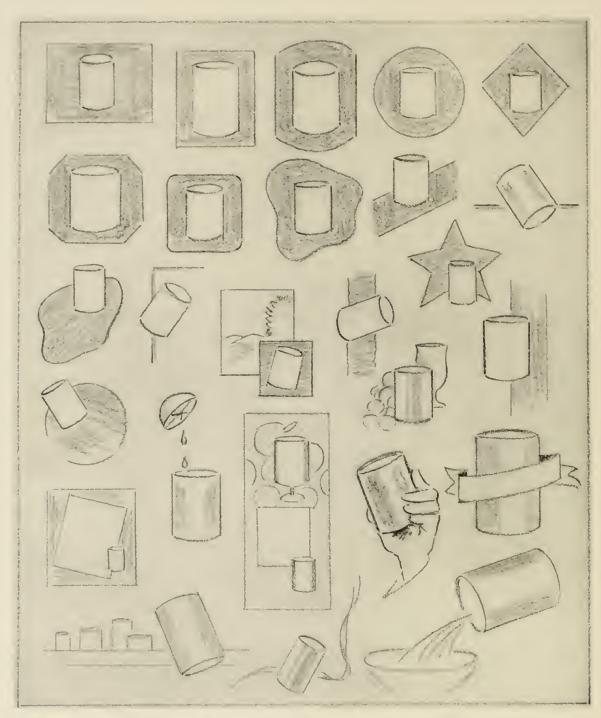
Size and shape of a layout area may indirectly influence layout style. For example, when limited copy and much white space prevail, as in a wide horizontal area, an informal, off-centered arrangement seems to suggest itself automatically. Besides activating the layout by dividing it into interesting patterns of space, an informal arrangement directs better attention to the display elements than if in a staid centered arrangement. A great amount of copy and a narrow deep vertical area on the other hand, seem to suggest a more reserved, formal arrangement.

The decision to use an informal layout or the faster-moving tempo of informal layout, with its many variations and adaptations, should never be made arbitrarily. The divergence of taste and the unlimited possibilities for expressing one's creative ability should always prompt many experimental thumbnail sketches before definite conclusions are reached.

The main object is to achieve a layout that attracts attention, inspires favorable reaction, and reflects the character of the product or subject by the appropriateness of its graphic presentation.

Two examples which illustrate how lettering style and illustrative technique can accentuate the layout pattern. The formal layout at left with its conservative old-style type treatment and similar period illustration is contrasted by the informality of the sans-serif types and free-flowing lines of the informal rough at the right.





These experimental roughs illustrate the many possibilities for activating a simple object such as a can, in order to evaluate display importance. At first the can has a rectangular background which changes into various interesting shapes; the can then progressively becomes a silhonette in many changing positions with varying backgrounds, panels, and borders, and then becomes an integral

mit of a grouping with other elements or masses. The sketches showing juice dropping in the can and being emptied suggest utmost action. In the layout near the bottom center of the panel the can takes a subordinate reposeful position in relation to the other predominating elements such as a tempting glass of the juice, with fruit in the background to create atmosphere.

Evaluating Display Importance

Before a design pattern is definitely formulated, the relative display importance of all units and masses must be established. The display unit that is to predominate must be selected and the attention values of the remaining units correctly evaluated. The purpose of this procedure is to formulate a logical display continuity and proper visual sequence in the layout.

It is obvious that if the display values of units are weak and unemphatic, monotony prevails and the visual progression is indecisive. Likewise, if display values of units are overemphasized they will attract undue attention to themselves and cause confusion.

The experienced layout man intuitively analyzes a layout problem as it arises and accentuates display importance by skillfully sizing, shaping and positioning the units and carefully regulating their tones.

The layout student must develop this ability by acquiring an appreciation for the many intangible display qualities in pictures and pictorial compositions; the expressiveness and movement of shapes and tones; the subtle characteristics of lettering, typography and ornamentation; and the endless possibilities in space divisioning and allocation.

In a typographical layout, the initial objective is to "break down" copy into forceful display units and text masses that will emphasize the important points of the message in logical order. This analytical process is one of the most essential in establishing display importance.

Words as they are spoken can be accentuated by tone of voice and change of pace in their delivery. The printed word, likewise, needs visual emphasis and accentuation to make it effective and the different letter forms, such as capitals, small capitals, lower case and italics, in a wide variety of display patterns may be employed for this purpose.

The proficient layout man thoroughly evaluates every phase of the display copy at hand. He roughly analyzes the construction of headlines and subheads and transforms them into properly contrasting typographical pat-



The expressiveness and movement of shapes and the directional qualities in pictures and compositions are hereby illustrated. The many display qualities of objects become apparent when activated in small experimental thumbnails as shown. In the first sketch, depth and

perspective is emphasized, and the tire gets prime attention in the foreground. In the rough to its right, the ball of varn interestingly brings the eye to the rectangular picture. The other roughs show interest being directed and space divided by functional elements.

terns. Likewise, he studies the text matter and transforms it into experimental type masses of various sizes, shapes and tones, choosing those that can best be combined with the other display elements.

Pictures may serve as predominating display units; as backgrounds or other ingenious design devices for varying degrees of typographical display; or as subtle, subordinate elements according to their relative importance in a layout.

Where there are a number of pictorial elements in a layout that have similar importance they should be grouped together and their collective display value appraised as one. Thus, by reducing the number of elements, evaluation of display importance is simplified and the design procedure facilitated. This technique is likewise applicable to type units and masses, lettering and other elements that are related.

Below—Preliminary "breaking down" of the copy to achieve the proper degree of emphasis and pattern is done roughly at first. When the form is acceptable, exact type style, tone, size and spacing are later refinements.

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Four experimental roughs to decide another elementary question—"which should predominate, the product, slogan or trade-mark?"

The left layouts show the product and trade-mark predominating; the right layouts subordinate the product to the display copy.

PART FOUR

Basic Design Requisites

Previous chapters were designed to inculcate an understanding of the purpose and scope of layout, the many factors that influence the choice of format and layout style and the fundamentals for applying materials and techniques.

Our study progresses now to an evaluation of the five basic design requisites for a successful layout, whether it be a thumbnail sketch, an actual size rough or an elaborately drawn visual.

These basic design requisites are proportion, balance, contrast, rhythm and unity.

Their functions in layout are predicated on the basic principle that certain harmonious combinations of shapes, masses and tones create favorable impressions on the mind, while groups of unrelated and unharmonious elements produce unpleasant reactions.

While definite mathematical calculations may be applicable to architecture and certain other arts, the planning of contemporary advertising and printing is such a widely variable creative process that it is inadvisable to advocate rigid rules for applying the basic design requisites. Rather, one should acquire a sound fundamental understanding of the basic purpose of each design requisite and the principles which govern its application.

Success in layout is achieved mainly by establishing in the mind a diversified vocabulary of sound design formulae, effective construction patterns and successfully tried procedures.

How to position a display unit correctly and how to regulate its size, shape and tone effectively depends on a sense of correctness and good taste developed by experience rather than by strict adherence to mechanical rules and measurements.

Proportion

An object is said to be well-proportioned, if its shape is optically inter-

esting, its structural parts harmoniously related yet not monotonous in size, and the whole a combination of the artistic and the useful.

In nature, there is much evidence of such structural harmony. Trees and plants, stars and planets, the human body itself—all are examples of good proportion.

Being influenced by a naturally developed sense of correct proportion, the eye reacts favorably to layouts that are well-proportioned and rejects those which have mathematically obvious dimensions or which place together unrelated sizes and shapes.

In an absolute square, the four equal sides may be said to be harmoniously related, but the area is static, monotonous, and uninteresting because the eye quickly perceives the equality of dimensions. Likewise, any rectangular shape is inartistically proportioned if one dimension is an easily recognized multiple of the other.

It is obvious then, that the basic rule for attaining correct proportion is to regulate the dimensions of the area or object so that the eye does not readily fathom the mathematical relation of its measurements.

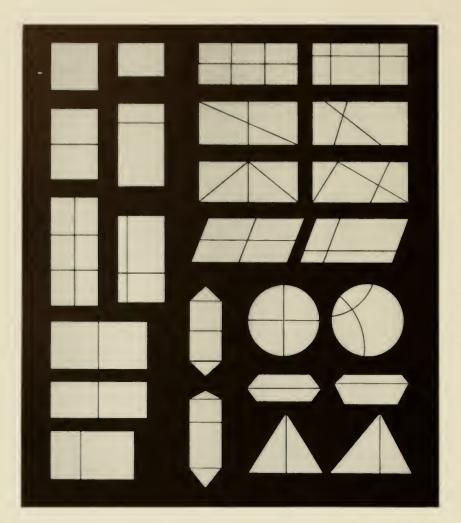
The page sizes of standard newspapers and magazines as a rule are correctly proportioned. However, certain space allocations therein are often badly proportioned and when this design handicap prevails the height or width of the layout area should be reduced optically. Rules, Ben Day borders, panels, ornamentation and many other ingenious devices may be utilized to secure a better proportioned area.

Good proportion is more readily accomplished in the design of direct mail and other individually printed advertising because of wider latitude in size and shape of layout area.

In the planning of folders, booklets and pamphlets the use of unusual folds, die cutting and other devices are often used to improve proportion.

All possibilities should be explored to achieve an interesting, well-proportioned layout area at the outset. Having accomplished this, the units and masses within the area should be sized, shaped and positioned to conform harmoniously to the area.

Initial outlines of units and masses should be penciled faintly to obtain



In this panel are shown paired examples of how static areas and monotonous space divisions may be improved in interest by changing mathematically obvious dimensions.

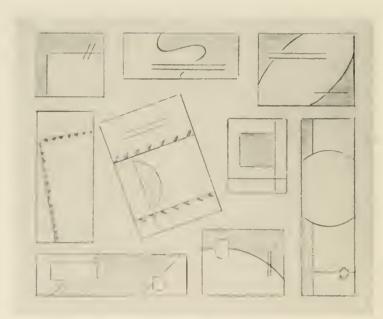
The uninteresting square at top left becomes a better proportioned and more pleasing area by reducing its height, as shown at its right.

The next two pairings directly beneath demonstrate how both areas, and space parterns within areas, may be improved by altering dimensions so that the eye does not readily perceive their mathematical relationship.

The two patterns at extreme lower left illustrate two ways of improving the double square directly above them.

At top right, the four pairings show basic examples of how proportion is improved in horizontal patterns by interesting rectangular and diagonal divisions.

The four groupings at lower right illustrate how angular and circular areas may be more interestingly proportioned and divided.



When outside dimensions of areas cannot be altered, the areas within may be made more interesting and activated by utilizing borders, panels, rules, ornamentation and other design media to achieve better proportion of white spaces.



Skillful placement of initial letters, rules, ornaments, type lines and masses divides an area into lively, activated areas.

an experimental allocation of elements. These outlines should be emphasized gradually with heavier strokes as correct proportion is achieved. However, before the final emphatic strokes accentuate the definite contour and position of the units and masses one should again evaluate thoroughly their size and shape harmony.

Variety in size and shape of units and masses should be accomplished without sacrifice of underlying relationships. Shapes whose dimensions are too extreme and unrelated should be avoided.

Balance

As the eye reacts favorably to well-proportioned areas, units and masses, it likewise is impressed by layouts in which these units are composed in harmonious balance.

Balance is one of Nature's most fundamental laws. It is defined as repose, resulting from the equilibrium of equal weights, or of unequal weights placed in properly balanced positions.

In early childhood we learn the significance of attaining balance in our movements, and as we subconsciously observe the proper distribution of weight in the objects of nature, we gradually develop a sense of optical balance. It is logical then, that we prefer layout compositions that are harmoniously balanced rather than those that are not.

In a layout, balance is attained by carefully regulating the size, shape, tone and position of the units in relation to the optical center of the area.

To be optically balanced, a composition of units need not be of a formal or centered arrangement, but units and masses should be so positioned that the entire composition appears naturally balanced in the layout area with the optical center as a pivot.

The optical center should be used because if a composition evolves from the exact mathematical center, the composition will always appear low to the eye and seem unbalanced vertically.

The basic principle for maintaining balance in a layout can best be illustrated by the following example: Assume that two rectangular units of equal size and tone are balanced on the central pivot. If one is enlarged in

size, its tonal weight must be reduced to retain its optical balance. Likewise, if one is reduced in size its tonal weight must be increased to maintain balance. If either is moved to right or left, its size or tone must be regulated according to its relative position from the pivotal point. Thus, fundamentally, by the control of size, tone and position of units balance is regulated.

The shape of units also must be considered, as irregularly shaped units such as silhouettes, vignettes and the like, exert more influence on the eye than do rectangular units and therefore may be said to be of greater weight.

The mechanics for controlling the tone of units lie in regulating tonal values in art work, photography, lettering, screen tints and reverse plates; composing type areas of varying weights and sizes; and spacing type lines and masses to achieve definite tonal patterns.

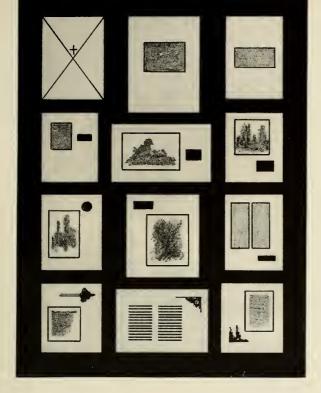
As successful balance in layout stems mainly from an inherent sense of balance, developed by constant study and application, it is essential that the layout student never cease his experiments in attaining optical balance.

Experimenting with cutouts of black and various shades of gray cover stock, placing them in a given area, shifting, cropping and manipulating them to evaluate results in balance, will inculcate a sense of size. shape, tone and position values.

Likewise, other factors such as margins, space divisions and allocation of white space may thus be evaluated. They assist materially in maintaining balance when applied correctly.

Balance in a layout is often upset by details that are seemingly inconsequential, such as an initial letter that is of improper weight, unorthodox shape or in a freakish position; a photograph whose cropping calls undue attention to detracting elements and values therein; hand lettering or typography that is of freakish construction; text masses that have too many accentuations, indentations and irregular lines; improperly chosen values in reverse and screen plates. These are a few of the unfavorable elements that can destroy the equilibrium of a layout that appeared structurally balanced at the beginning.

Obviously, then, the layout man must not only concern himself with



The cross in the first example in this panel shows the approximate position of the optical center, somewhat above the mathematical center. The next example places an element approximately in the optical center, while the third illustrates that an element appears too low and unbalanced vertically when in exact center,

The remainder of the experimental sketches illustrates the principle that when elements are unequal in size, optical balance must be maintained by regulating shape, tone and position of elements in relation to the optical center.

Circular shapes exert more attraction than do similarly toned rectangular shapes of approximate size; likewise, irregularly shaped objects attract the eye more than either and must be skillfully placed to maintain optical balance.

the major obvious factors that influence optical balance, but he must control all minute details that affect the equilibrium of a layout.

Contrast

Contrast is that quality in a layout which imparts life, sparkle, variety and emphasis to a composition. It eliminates monotony and accentuates display values.

As similarity of dimensions is to be avoided to attain correct proportion so is monotonous similarity in size, shape, tone and direction of units incongruous to good contrast. Proper contrast is achieved by subordinating inconsequential elements and giving display emphasis to the more important units.

The ideal layout is one in which one specific display element predominates. That element may be a picture, headline, trade-mark or slogan.

While monotony of height and width of display units is to be avoided, variety of sizes and shapes must be limited as overemphatic contrast defeats its purpose and results in a spotty, discordant layout.

Restraint should be used in the number of display type sizes and contrast should be attained by fullest use of capitals, small capitals, lower case and italics in each font.

Contrast in width of display lines can be controlled by proper divisioning of copy and the correct introduction of letter spacing, word spacing and other typographical expedients.

In a group of pictures, one may be enlarged slightly to serve as a contrasting element to the others but its size should be restrained so that relative proportions are maintained.

Contrast in shape should be achieved without effecting too many unrelated, irregularly shaped elements. Rectangular masses should predominate over odd shapes such as silhouettes, vignettes, ovals and circles, which should be used sparingly.

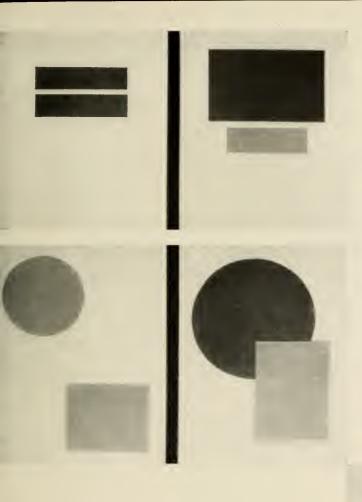
Again we advocate the practice of cutting rectangular and irregularly shaped elements in black, white and the various tones of gray paper, for experiments in contrast of size, shape, tone and position.

Black and white creates the sharpest tonal contrast, but the most interesting compositions are those that contain the two in combination with limited intermediary gray tones.

Some of the simple mechanics for achieving contrast in tone are: balancing strong display lines against lighter-toned text masses; placing black reverse areas against screens of various gray tones; reducing or intensifying values in halftones and placing these contrasting tones in striking emphasis; superimposing properly accentuated type with contrasting values of illustrations, toned backgrounds, ornamentation, rules and borders; skillfully controlling the tonal values in text areas by proper selection of type weight, spacing and leading.

As in the shaping of elements, contrast in tone likewise must be carefully controlled as too many tonal values are apt to cause a spotty, jumpy appearance, confuse the eye and divert attention incorrectly.

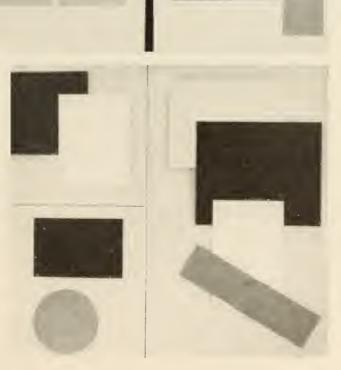
Contrast in direction is achieved by regulating the shape of units and masses. The eye follows the vertical shape of a cut, rule or text mass downward, a horizontal mass to left or right, an initial letter in the direction of its slope and an irregular shape to the point of interest it best emphasizes. Thus contrast in shape can be utilized to carry the eye in the desired direction, to visualize all elements in their proper order.



Two display elements of monotonous alikeness in size, shape and tone are uninteresting. Examples at top show how contrast is achieved by emphatically cularging one element and reducing the tone value of the other. The bottom examples illustrate the same basic principle and also how their overlapping increases contrast and creates unity.

The two areas in the first panel may be visualized as text masses, panels of pictures, tint backgrounds for type, or other elements in a layout. At the extreme right utmost contrast has been created by emphasizing size, shape, tone and position of the predominating element.

Black and white are the utmost in contrast, but more interest is created when intermediate tones of gray are added. These three panels are experimental pasteups of paper to evaluate the above principle.



Rhythm

In a composition of poetry or music, rhythm is the medium that imparts action, variety and interest, by measuring and balancing the movement of sound. In layout, likewise, rhythm is the medium that instills action, variety and interest, by measuring and balancing the movement of vision. Rhythm in layout should give expression to the theme of the subject. It may be slow, fast or intermediate, according to the tempo desired. Obviously, the mechanics of movement must vary accordingly.

In a composition the eye is attracted naturally to the display element that is in the most dominant position or has the greatest attention value. It then progresses according to the visual sequence of the remaining elements, either completing the cycle of the layout pattern effectively or becoming confused and losing interest. It is logical that if the size, shape, tone and position of every element is regulated correctly, the design flow of the layout is facilitated and the eye is carried throughout in a logical progression. The natural direction of reading is from left to right, from top to bottom, from top left of a page to the right bottom. A design that leads the eye from the upper left of a composition, through all elements, to a successful terminus at the lower right accomplishes its purpose in a most logical manner. That is not to say, however, that every design must follow this procedure.

A design may evolve from many different points in the layout area, and the design flow may be interpreted by a variety of patterns, but it is well for the layout student to adopt practices which conform with basic optical procedures and allow the unusual and more complicated layout processes to evolve from later experiences.

One controls the visionary direction of units or masses by sizing and shaping them to properly accentuate the design qualities of their elements: also by proper toning and positioning. For example, a vertically shaped element directs attention downward or upward, a horizontal element to either right or left and an angular, circular or other irregular element in the direction of its influencing characteristics.

The direction of a narrow horizontal mass can be changed by placing



The decided rhythmic movement in the layout at the left is accomplished by the repetition of similar, yet contrastingly smaller, units placed in proper optical sequence. The eye is led from top left to bottom right, thence by the rules to the element at the left. In the right layout, rhythm is stimulated by directional movement of display lettering, illustration and reverse panel at bottom.

near its terminus, a vertical mass, trade-mark, ornament, initial letter or other element, that will lead the eye in the direction suggested by the added element.

The monotonous rhythm of identical, deep vertical masses can be interrupted by placing a narrow horizontal element across the bottom margin to relieve the continuous downward movement and create interest by changing optical direction.

The attention value of smaller elements may be increased over larger ones by emphasizing their tonal values, altering them to effect unusual, irregular shapes and by surrounding them with large white areas. Thus, by utilizing the influence of another basic layout requisite—contrast—rhythm can be accentuated.

Contrast should prevent monotony but must not be overemphasized. For example, a repetition of many uniform elements or masses can be skillfully accentuated by changing certain logical elements in size, shape, tone or position. However, if any element is overemphasized, disorder will prevail and the correct movement of vision will be upset.

Unity

Casually glancing at a tree, whose elements are normal and properly grouped, we comprehend it as one unified object. We do not visualize each individual leaf, twig or branch. Likewise with an architecturally correct building, our immediate attention is not drawn to doors, windows or other structural elements, but all are assimilated as one unified structure. In each

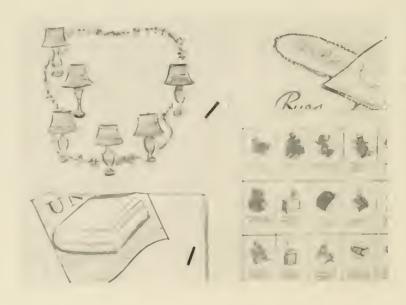
instance, correct grouping together of well-proportioned essential elements combines them into a harmonious unit.

A layout, likewise, should be constructed so that its component parts are harmoniously combined and it is comprehended at first glance as one unified composition.

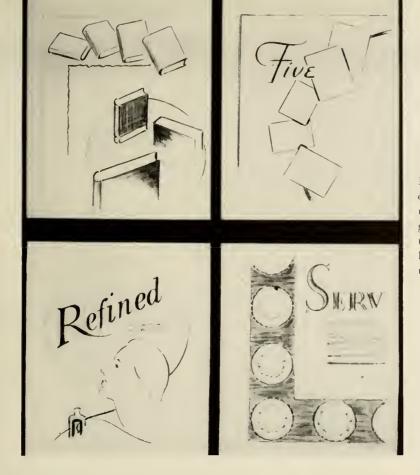
As the incorrect shaping and placing of windows, doors or other structural elements may affect the unified appearance of a building, by calling undue attention to these units, so may the unharmonious shaping and placing of units and masses in a layout disturb the unity so essential to secure concerted attention and interest.

Unity holds a design together. It prevents looseness and disorder when a number of variable units and masses must be combined in a layout. The fundamental objective is to simplify the number, shapes, sizes and positions of display units by grouping them in an orderly, unified composition.

In an all-type presentation, this simplification is primarily achieved by careful analysis of the copy for the purpose of grouping all related text, eliminating all unnecessary paragraphing, indentions and other unimportant accentuations in type sizes, styles and measures. When the copy has been segregated into a minimum number of masses, the problem of unifying them in a composition is simplified.



Simple sketches of newspaper ads showing how objects may be unified by means of decorative devices, background panels, overlapping of pictures and by rule boxes. Thus display elements are reduced to a minimum

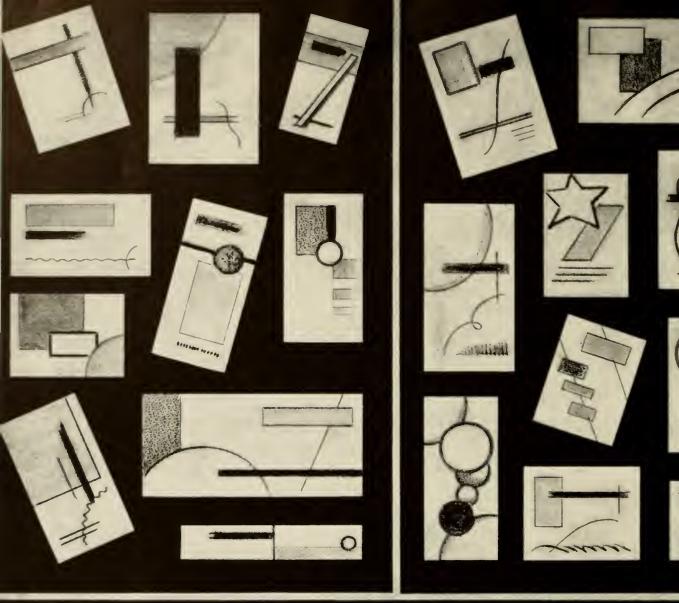


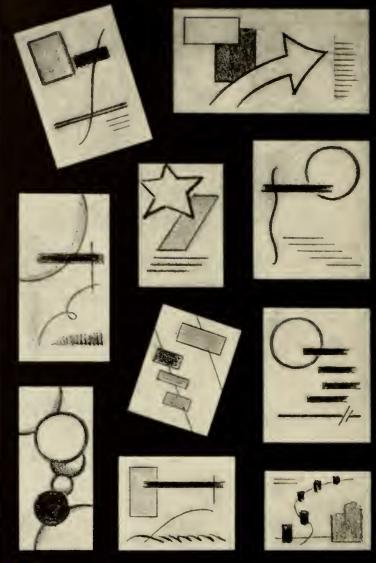
Examples of unity, achieved by coordinating related elements by the use of borders, panels and backgrounds. In the layout at left bottom the circular background unifies heading, subhead, picture and product in one subtle grouping.

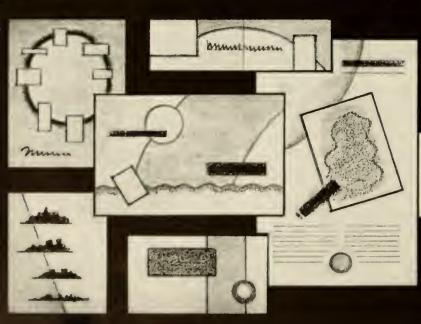
When illustrations, type and other elements are combined, the same fundamentals are applicable. Individual display units that have a common interest and are of equal importance should be grouped together and the design importance of the collective group should be evaluated as a unit.

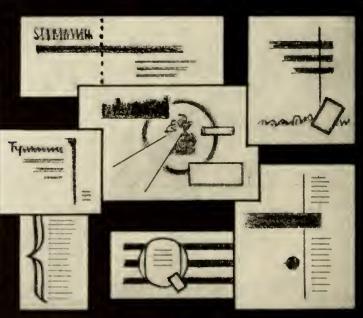
There are many techniques for arranging related illustrations in orderly combinations. They may be grouped to form one pictorial element, alone or in conjunction with related type masses, with Ben Day backgrounds, screen panels or borders. They may be combined in a panel down the side, across the top of a page, diagonally or in other orderly succession. Combining a trade-mark with a signature, address and other related copy accomplishes the same objective. These are but a few examples of rudimentary procedures for attaining unity.

Of all design requisites, unity is of the greatest importance, for if we achieve *proportion* and *balance*, *contrast* and *rhythm*, and fail in the combining of all into a unified and harmonious composition, attention-value is scattered and interest is disintegrated.









THE THREE PANELS on the opposite page contain basic diagrammatic sketches which illustrate the subtle influences that size, shape, tone and position of elements exert on the pattern of a layout.

These elements are purposely drawn in a vague style to symbolize masses and units as they may be interpreted in line or halftone plates, reverse and screen tint areas, type lines and masses, rules, panels, borders, logotypes and combinations of these elements.

CONTRAST-Top left panel

The top three examples illustrate how contrast in direction may be achieved by placing horizontal, vertical, circular, diagonal and irregularly shaped elements so that the movement of the eye is influenced by the directional shape of the element. The first example illustrates the natural movement of the eye to the right caused by a horizontal shape, then the downward vertical movement, into the circular form, thence to the left horizontal lines. In the second example the top semi-circular form is a focal point from which the eye gravitates downward vertically, then to the right and into the irregular element at extreme bottom right.

The third example follows naturally from left to right, then diagonally downward to lower left, and horizontally to the right.

The remaining examples in this panel show how contrast is emphasized by regulating the size, shape and tone of elements.

RHYTHM-Top right panel

The top left example emphasizes the function of contrasting shapes and the introduction of a

rhythmic touch that connects the top and bottom elements with its graceful sweep.

Rhythm in the top right example is emphasized by the swift directional movement of the arrow placed in accentuation to the rectangular horizontal and vertical elements. It carries the eye emphatically to the text at extreme right.

In the other examples, extreme shapes are used to illustrate the emphatic movement exerted by these elements. Movement emanates from a circular form more smoothly than from an element that has sharply accentuated features, such as the points of a star. Likewise, diagonals create more movement than horizontal and vertical shapes.

Repetition of similarly shaped elements, such as the circular forms in the lower left example, or the horizontal display elements in the lower right, creates rhythm when they are placed in an orderly, logical pattern for the eye to follow.

UNITY-Panel across bottom

The basic fundamental for attaining unity is the grouping together of all related elements, thus reducing the number of display elements and simplifying the pattern.

All the elemental examples in the bottom panel are themselves unified by placement together.

The examples at extreme left show how related elements may be grouped by means of borders, background panels and overlapping of elements.

The examples at the right illustrate how unity may be achieved by a simple device such as a rule, initial letter, border or bracket, which may be used as an axis or focal point for grouping type masses and other elements.



The placement of this panel in a large area of white space emphasizes the attention-value, contrast and accentuation that white space generates. The roughs in this panel further illustrate these qualities.

PART FIVE

Allotment of White Space

WHITE SPACE is the medium through which relief and freedom are imparted to a layout; through which it gets interesting "breathing space," and without which overcrowding and stiltedness might prevail. White space, when correctly applied, prevents monotony, helps direct attention, contrasts or emphasizes elements, and assists in stimulating optical rhythm.

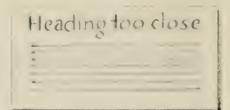
The influence that white space exerts on a layout may be likened to the introduction of open spaces for sunlight, ventilation and recreational areas in the plan of a community.

The layout expert, by experience, will have acquired a subconscious sense of space division and allocation, and this influences him as he shapes and places the units and masses. The student, however, should pause often as a layout progresses to make a detailed check of all white space to evaluate its effectiveness.

At this point it is well to explain the advantages of working with tracing tissue. Having ascertained that some of the units in a fairly completed layout seem crowded, or the white areas incorrectly proportioned or allocated, the layout can be placed under another tissue on which the dimensions of the layout area have been ruled. The original layout can then be moved about, new patterns evaluated on the top sheet and refinements made to secure better distribution of white space.

Minor cropping or changing of contours of certain illustrations, slight enlargement, reduction or reshaping of type masses, re-arranging of display lines or shifting of certain elements may often improve the effectiveness of white space.

One should be careful, however, not to deviate materially from the original basic design, to destroy any of the subtle creative qualities that may already have been achieved, or to impair proportion and balance of the units. If improvement is not readily attained without undue distortion of elements it may be advisable to discard the entire layout and revert to making a new thumbnail.



Head looks O.K











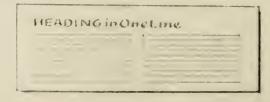






TOO WIDELY SPACED

Batter grouping



Heading..

Every layout has many potentialities for correct space division and distribution. One should not be dismayed if the copy seems inconsistent with the layout area. There is always some graphic method by which an interesting design may be accomplished.

Where copy is limited and space plentiful, the layout area may be divided subtly into smaller areas by the ingenious use of rules, ornamentation, type lines, screen tint patterns, reverse panels, initial letters and other elements—and the various units interestingly shaped and positioned within these smaller areas.

Obviously, where copy and illustrations are plentiful and space is limited, all elements should be reduced to their minimum—unimportant units subordinated, related units and masses combined, and all positioned in the layout area to achieve the most effective allocation of white space.

In the text masses of a composition there are many seemingly inconsequential elements that exert great influence on the structural qualities and tone of a layout. They are the spaces between letters, words, paragraphs and lines of type; likewise paragraph indentations, spaces between type and rules, type captions and cuts and between columns of text matter. These should always be carefully regulated and instructions precisely designated on the copy and layout for the guidance of the typographer.

No element of white space should be considered too unimportant to receive proper attention. Even when the layout has been processed by the typographer, minor corrections in spacing ofttimes may be made on the type proofs to make the finished product more effective.

Opposite page

Seven pairs of analytical pencil roughs showing improved use of white space in the redrawn version of each initial attempt. In the first revision, the heading is pulled away from the top edge, equalizing margins and improving display value. In the pair to the right, improvement in balance is shown by the transposition of space to the bottom margin. The left center pair shows how the monotony of centered heads and equal side margins can be eliminated by placing subheads at side and indenting the text masses more at the left. The units in the first rough "Big Display" crowd the area too

much. Better emphasis is given smaller elements by more white space. The pair directly beneath show how two widely separated elements placed too low in an area, can be unified and properly placed by redistribution of space to side margins and to the bottom. These units may be visualized as two facing text pages, or illustrations that are related. The lettering in the bottom left pair is self-explanatory. The last pair shows a more informal re-setting that directs attention to the heading and activates the composition by lavish use of white space.



Positioning the Trade-mark

THE DEVELOPMENT of the trade-mark and its use in layout is a most interesting chapter in the progress of the graphic arts. A brief evaluation of its purpose will assist in formulating methods for proper positioning of the trade-mark.

In the early days, a craftsman placed his "mark" on printing to distinguish it from his competitors. Today an advertiser utilizes his trade-mark in many more diversified ways—but the objective is still the same. Through constant association with a firm or organization, the trade-mark becomes a symbol of individuality for its owner and his product.

In determining the proper position for the trade-mark the elemental factors to be considered are the ultimate objective of the copy theme and the relative importance of the trade-mark in the layout pattern.

Obviously, if an advertisement is of an institutional nature, which aims to publicize the trade-mark primarily, it should be placed in the most conspicuous position to dominate the layout. When the purpose is to accentuate some quality or function of the product itself, the trade-mark must accordingly be placed in a less conspicuous position; its size, tone value and position subtly subordinated in the design.

Positioning of the trade-mark should be done adroitly, with proper regard for the size, shape and tone values of both the display units and the trade-mark itself.

The trade-mark should be studied carefully and then so positioned that it accentuates the design qualities of its elements. Trade-marks having design qualities that are formally balanced may be placed in reposeful positions. The details of others suggest motion in a particular direction and the position of these trade-marks, obviously, should be in accord with their design elements. Likewise, the movement in pictures or other display elements should be studied so that in grouping them with a trade-mark, visual direction is properly coordinated.

Positioning a trade-mark so that it will subtly combine two harmonious

display elements obviates the trade-mark being loosely placed. This further assists in reducing the number of design elements and helps achieve unity.

Placing a trade-mark alone in a large area of white space gives it more attention value than if it is placed close to type masses or illustrations. Care should be taken, however, to keep its size dignified and proportionate to other elements in the composition.

Where color is employed in printing, it often enhances effectiveness of the trade-mark. The symbol itself, some interesting or forceful part thereof, or its surrounding area or embellishment may be accentuated with color, according to the emphasis desired.

Due to the varied uses required of a trade-mark, it is essential that it be of sound design and simple artistic expressiveness.

Many trade-marks of ancient heritage are constantly being refined artistically to meet the needs of modern creative and reproductive processes. Basic designs are retained while contours and other features are revamped to conform to improved layout techniques. Many old trademarks, however, which are still being used in their original form often tax the ingenuity of the layout man.

Such an outmoded trade-mark requires subtle treatment. Toning its weight with a halftone screen, placing it on a screen tint background, reversing it on a solid or screened background, surrounding it with properly associated type or subordinating it pictorially, can often bring an outmoded trade-mark into better relationship with the art work, typography and general theme of the layout.

The Logotype

A logotype is an unusual lettered or typographical interpretation of a name, slogan, service or product, which is used as an individual display symbol, the purpose and functions of which are somewhat similar to those of the trade-mark.

The logotype can be used in conjunction with a trade-mark, widely separated in the layout or combined with the trade-mark to form one unit.

While the trade-mark must always retain its fundamental design, styles

and treatments of logotypes may vary with the style and pattern of the layout. The variety in design and application of logotypes is limited only by the ingenuity of the layout man and the spontaneity which the layout process develops.

Logotypes of simple design may be incorporated in display lines, text masses or used as signatures. Those of more ornate design must be used sparingly. Their design features should be critically analyzed and their tone and position in a layout regulated accordingly.

The value of a trade-mark or logotype is increased tremendously if its style is readily adaptable to the many varied formats and different methods of reproduction. Should the layout man have any part in creating a trademark or logotype, he should regulate its design, contours and reproductive qualities to serve this purpose.

Collecting distinctive and unusual trade-marks and logotypes from magazines and newspapers will aid materially in evaluating the unlimited possibilities for placing trade-marks and logotypes.



Individualized trade marks and logo types, as used by consistent advertisers to distinguish and individualize their advertising, are shown here in a cross section of metropolitan New York advertising.

Ormale

Ornamentation

Ornamentation when applied correctly, relieves monotony and adds touches of charm and relief to a composition which otherwise might appear rigid and severe.

Ornamentation has gone through many phases of development since the flowery era of Gutenberg but its fundamental purpose prevails. The lacy trimmings, curlicues and shaded rules of yesterday have been replaced with a more simple decorativeness that better fits the modern tempo.

True, certain modern treatments are not always applicable to every layout style, but perusal of the pages of leading periodicals will prove that the current trend toward simplicity and restraint in ornamentation is worthy of emulation.

There are but few fundamental rules to guide one in achieving correct ornamentation. Continued experiments and practice will do most to develop in one the ability to sense when a layout needs decoration, the good taste to choose the proper ornamentation, and the ability to limit its application to the required minimum.

Restraint in ornamentation is of prime importance. A fault which is common with the beginner is that of overemphasis in decoration and the desire to fill all available white space with ornamentation.

A composition that is embellished with an overabundance of rules, borders, ornaments, or other freakish decoration calls attention primarily to the ornamental qualities and subordinates the message.

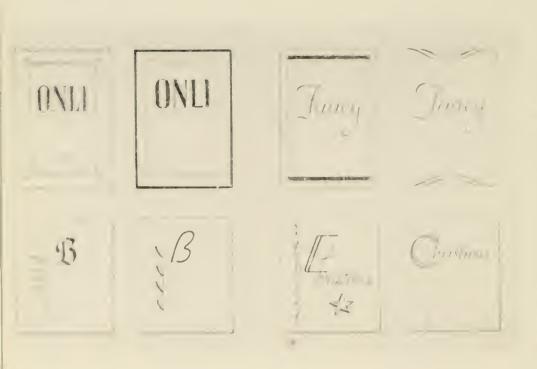
Ornamentation should be unobtrusive. It should be subtly felt, rather than blatantly seen. The tone value of ornamentation must be harmonious with the display units and typography. In general, no detail of the ornamenting element, be it a type ornament, rule, border or background pattern, should have greater display value than the display units or masses which it adorns. Neither should its values be, by comparison, weak or inharmonious.

As a simple illustration, a rectangular border around several display

lines may be relatively weak and ineffective or blatant and overemphasized. according to the weight of the border. Likewise, a screen tint background for type or lettering can be an effective contrasting element or it can be a detracting feature, according to its tone value.

The techniques, tonal values and distinguishing characteristics of art work, lettering, halftones and accompanying typography, should also govern the selection of ornamentation. For example, a layout containing a colonial-type illustration, delicate Caslon type, swash initials and other elements of similar character requires decorative ornamentation to accentuate the old-style pattern.

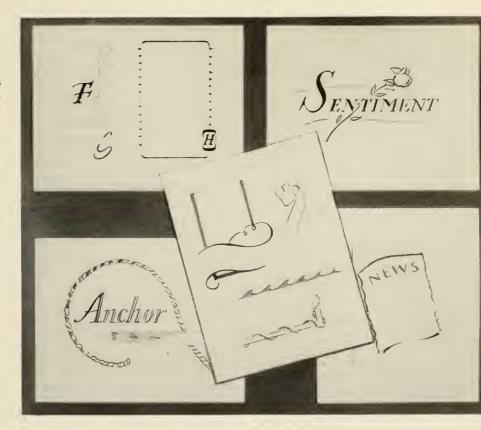
A layout containing broad bleed illustrations, reverse panels, bold sansserif types and other elements exemplifying the modern trend, obviously requires a treatment that emphasizes the strength and simplicity of that style. Every layout, therefore, should be thoroughly evaluated to ascertain the proper style, tone and other accentuating characteristics required of its ornamentation—once it is definitely established that the layout pattern requires ornamentation.



Top row—The first rough shows the incorrect use of a flossy, weak, over decorative border and ornamentation with a rigid style of type. The next example utilizes a border in keeping with the type style. The third rough incorrectly panels a decorative type with the severity of a heavy rectangular border, while the fourth shows ornamentation of the proper style and emphasis in a resetting.

Bottom row—The fancy decoration in the first example is in keeping with the Gothic Text letter, as is the simplicity of line of the ornamentation with the letter in the second rough. In the third layout the lettering style and decoration is inharmonions, while in the last layout a more traditional combination is evident,

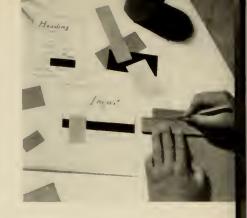
Experimental sketches showing initial letters in combination with decorative borders, lettering subtly ornamented with appropriate illustrative symbols, and other typical decorative panels and borders. This type of ornamentation must be applied sparingly and with due regard for reproductive limitations. Most of these sketches require hand lettering and cuts—a cost factor that must be considered.



Where color is applied for ornamentation, particular care must be taken to coordinate its color value with the tone of all other elements. Decoration that may appear harmonious in black will appear weak and ineffective if printed in pastel or light colors. Similarly, backgrounds that may be correct in light colors will overshadow type that overprints them if they are printed in deep shades of color.

Initial letters, rules and decorations that are to print in color should be specified in a proportionately heavier weight than the remainder of the layout that is to print in black.

Practicability in mechanical reproduction should govern typographical ornamentation. There is available in the modern composing room an almost unlimited variety of rules, ornaments, dingbats, and other typographical decorators, which together with screen tint patterns, reverse plates and other photoengraving processes may be employed to achieve effective ornamentation with a minimum of art work.



Reverse Backgrounds Toned Areas

REVERSE BACKGROUNDS and toned areas have many diversified design and ornamental functions in modern layout techniques. The fundamental objective behind their use is the creation of emphatic tonal contrasts and gradations which add interest and sparkle to a composition.

An almost unlimited variety of tones and patterns is possible through the utilization of the many types of positive plates and screen tints available in photoengraving, gravure and offset.

The "positive" plate is one in which type, lettering or a line illustration appears in white on a solid black or screened background.

Halftone screen tints of many shades may be used as background patterns for type, lettering, ornamentation or line illustrations in black or white; as borders, panels and as toning mediums for type and line illustrations. Positives and screen tints of varying tones, likewise, may be combined to form a variety of interesting patterns. The principle that limited gray tones added to black and white makes for more interesting contrast is the basis for using these combinations.

Effective patterns are achieved by ingenious control of shapes and tone values in positive plates and screen tints and their proper combination with type, rules, pictures and other elements.

Restraint is to be advocated in specifying large black areas, both for design and reproductive reasons. The eye will absorb large areas of gray more comfortably than expansive black masses which ofttimes create a funereal atmosphere.

Large black areas may also create undue makeready and presswork problems which may be obviated by utilizing screen tints. Large solid areas or positive plates printed in proper colors, however, add interest and attention value. The same fundamental principles which govern the placement of type and other elements in a specified area should be used in positioning elements in a positive plate or screen tint background. Correct positioning, with proper margins, is most essential in preparing reproduction copy for photoengraving because the finished engravings cannot be altered.

Generally, script or other delicate type with fine lines and serifs should be avoided in positive plates.

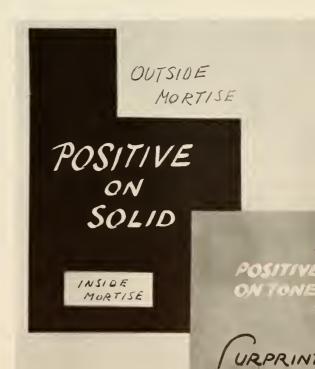
Before definitely deciding values for reverse backgrounds and toned areas evaluation may be made with black and gray paper of various shades which conform to the tonal values of tints available in photoengraving, offset or gravure. The various elements can be trimmed to size, pasted down and sketched thereon to evaluate different techniques.

Reverse and toned areas may be designated in roughs by sketching on both sides of the tissue. For example, black or dark gray elements may be drawn on the front, while the lighter gray areas may be drawn on the reverse side with varying shades of pencil, gray crayon or water color. Proper screen line values should be specified to the engraver, and a sample of the paper stock to be used should be submitted for proofing of cuts. When in doubt his advice should be highly regarded as the effective interpretation of reverse backgrounds and toned areas, as drawn on the layout, depends upon attaining correct photoengraving values in the finished plates.

The modern-type layout with its simplicity of line and movement employs the various engraving patterns extensively for decorative purposes. This seems an appropriate place to familiarize the layout student with some of the technical terms for specifying copy to be engraved.

Screen tint patterns may be designated on the reverse of layout tissue with a broad flat pencil. The similarity of tone in the layout to the specified screen can be fairly well regulated by controlling the pressure and amount of graphite.







Photography, Retouching, Art Work

Some LAYOUT MEN may have ability in retouching, finished lettering, illustration or photography but it is uncommon for one to be expert in all these phases. They are generally executed by artists who have developed distinctive techniques in their respective fields. It is essential, however, that the layout man have an intimate knowledge of art and photographic techniques so that he may specify them intelligently.

Photography is so encompassing as to constitute a profession in itself. However, the layout man may become proficient in specifying general photographic requirements through close association with proficient craftsmen and constant study of their techniques and products.

When given instructions for the taking of original photographs the photographer should be furnished with a rough containing sketches of the pictures wanted in their exact layout dimensions or relative proportions; some indication as to definite objects, figures and details to be featured and those that may be subordinated; their tonal values; the style of backgrounds, and all other helpful specifications. He should be informed if color is to be introduced, what retouching and engraving techniques are to be employed, and of the printing procedures to be followed.

All other reproductive requirements should be carefully analyzed and the general copy theme and illustrative purpose of the pictures explained in detail, as the cooperation of the photographer in providing suitable background and lighting effects can materially reduce retouching costs and increase the attention value of the pictures. In many cases tonal values of objects in a picture and their contrast can be heightened considerably by the color and texture of background material. Various types and shades of characterful paper stock and other backgrounds may serve as colorful expedients to accentuate objects in a photograph.

Contact prints are seldom used for reproduction. Best results are

PART SIX

obtained if an enlarged print is made from the negative, the chosen area retouched and then reduced again in making the photoengraving.

Glossy prints are best for reproduction, but where some particular technique of art rendering or retouching is to be employed, the photographs may be of a "mat" finish.

Photographs should be dry mounted on mat board to facilitate their handling and to prevent rolling, cracking or breaking. If they are to be cropped and mounted in combination with other pictures or art work obviously they should be ordered unmounted.

Care should be exercised in handling and marking photographs for the engraver. Avoid using paper clips in attaching reproduction instructions. They may mark the copy. Do not write on the reverse of photos in pencil or pen. Indentations may show in the print. Use a china marking crayon in the white margins for this purpose.

Brief mention of the "silver print" process should be made here, as its application makes possible many unique treatments.

When a faithful line reproduction is wanted of a photograph, a light silver print is made from its negative. Upon this print the artist works in waterproof ink or grease crayon. When all sketching is completed the print is immersed in a mercury bath which removes all photographic elements and leaves only the art work which is then reproduced as a line cut.

Retouching may be done on a photographic negative or on the print. The former requires the highest technical and artistic skill of the professional photographer and has rigid mechanical limitations. Most retouching of monotone pictures used in layout, therefore is done on prints by painting and air-brushing with water colors. Every phase of retouching is a painstaking procedure and should be done only by a qualified artist who has access to the proper equipment. Discretion must be used in applying retouching to photographs as the photoengraver's camera is highly sensitive and retouching that is amateurishly done will show to disadvantage in the finished halftone.

Most fine detail in a picture requires retouching with a brush, but the delicately blended tone variances of a photograph require the use of an airbrush to blend the tones softly. Subjects with fine structural detail such as mechanical cross sections, pictures of machinery, and other detailed elements must be minutely retouched, or not at all.

Retouching of portraits requires exceptional skill, and in most cases it should be avoided on facial features due to the possibility of distorting the subject's individual characteristics. The honesty of a photograph that is technically weak is always better than the artificiality of a highly retouched portrait that expresses no character or feeling.

A skilled photographer, achieving sharp contrast and effective detail can simplify the task of retouching by carefully regulating highlights, shadows and the intermediate tones. Careful coodination of the work of these craftsmen is necessary to attain the utmost in graphic presentation.

Art work styles and techniques are practically unlimited. They may be classified briefly as pencil, crayon, pastel, ross board and charcoal sketches; pen and ink drawings; dry brush; tempera; wash and water color paintings; oil paintings. Each has its distinctive character, expressiveness and appropriateness to certain reproductive procedures.

The layout man should engage the services of competent artists who are specialists for all finished art work. Usually an illustrator cannot do lettering well, nor can a mechanical retoucher do justice to a figure sketch.

To know when and how to apply proper art work techniques is very essential and the layout man should study and evaluate the utmost possibilities and mechanical limitations of each style in order to save time and cost in reproduction.

A pen and ink drawing or a sketch rendered in dry brush, stipple, ross board or crayon, in which there are definite black elements such as lines, dots or solids, may be reproduced as a line cut. The tonal gradations of wash drawings and paintings, pencil, pastel and other similar techniques require halftone reproductions. Although the former styles may also be reproduced in halftone, the latter cannot be reproduced in line engravings. This is because the line process is incapable of retaining gray tone gradations, while the halftone process reproduces every detail. In reproducing line drawings by the halftone method, however, the entire area

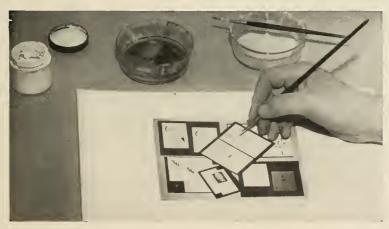
occupied by the drawing will contain a background tone of halftone dots.

The layout man should be familiar also with highlight and vignette halftones and the varied offset and gravure reproduction techniques, as a comprehensive knowledge of these procedures and their relationship to paper and other mechanical requirements is essential in selecting the initial art technique.

The most essential requirement for good line reproduction is copy that is sharp and black. Drawings that are weak and contain gray and indecisive strokes will lose detail in reproduction. Use of a deep black waterproof ink is suggested in their rendering. Certain colors such as red, deep orange, and brown will reproduce like black. Most blues and purples will not reproduce unless the engraver uses a color filter. Light blue, therefore, may be used for guide lines and other markings and will drop out in photoengraving.

Minor irregularities and crudities in pen and brush strokes are refined in reduction and for this reason drawings and sketches are usually made twice the size of the plate wanted.

Tissue paper overlays should be placed over all drawings, paintings, and retouched photographs to keep them clean and to prevent marring their original values. Size of engravings wanted, details of color separation and other instructions should be designated on the overlay.



Fine details on a photographic print require retouching with a brush. Some of the pencil and brush strokes in the illustrations of this volume were retouched as shown.

To attain broad, even-tone values and delicate tone gradations without streaks, the air brush must be used. Parts of the picture that are not to be retouched must be masked.





This "collage" was achieved by silhouetting literally hundreds of pictures and parts of pictures and rubber-cementing them to form emphatic contrasts. It differs from a "montage" which is achieved by surprinting photographic negatives to blend together in a print which in turn is air brushed to refine hard edges and irregularities.





Cropping and Positioning Photographs

THE ATTENTION VALUE and illustrative qualities of all pictures can be increased tremendously by the diversified techniques of cropping, positioning and grouping. Fundamentally, one must develop a sound judgment of pictorial values and an appreciation for the subtle influences that make photographs effective.

If the layout man has the cooperation of a capable photographer in creating original pictures to fit a layout, he has a tremendous advantage, but in many cases he is furnished ready-made photographs from various sources of varying styles, tones, sizes and shapes. He must crop and position these pictures to accentuate their good features and subordinate or eliminate their unfavorable characteristics.

Skillful cropping is the initial expedient for making a photograph effective by trimming it of all unessential objects, superfluous details and detracting elements. Pictures may be cropped to horizontal or vertical rectangular shapes, circles, ovals and an unlimited variety of angular and curvilinear forms. They may also be silhouetted, vignetted, mortised, surprinted and combined in montages. They may be effectively accentuated by contrasting them against illustrative and decorative shapes and patterns, by cropping contours to stimulate objects, and by combining pictures with reverse plates, screen tint patterns and typographical accessories.

Before deciding on a definite shape for cropping, searching study should be made of the basic pictorial elements in a photograph, its composition, tone values, perspective, suggested motion and other influences to evaluate both the functional and illustrative suitability of the picture. Likewise, one should analyze carefully the copy theme and study the caption that may have been written for the picture.

Having determined the shape that will best emphasize the pictorial elements, the size relationship of the objects in the picture to the other

elements in the layout must be established to decide if an enlargement or reduction of the photo is required. Ofttimes layout proportions may be altered slightly to permit purposeful inclusion or elimination of some definite object or element in the picture, without upsetting the original layout scheme.

A set of masking angles is helpful in evaluating rectangular areas. These are two right-angular rules, which are placed together to form a rectangle, laid over the picture and manipulated until the correct area is chosen. The angles are helpful, also, in squaring a picture in which the horizontal or vertical elements are not photographically parallel to the outside edges.

Semi-transparent paper friskets may also be placed over a picture to evaluate various sizes and shapes for the photograph.

Cropping instructions for making rectangular photostats, photoprints or photoengravings may be given by making the cropping dimensions on the edges of the print with removable marking crayon, designating the dimensions with masking tape, or by placing a paper frisket or tracing paper over the entire photo and designating thereon the area to be reproduced. Silhouettes, vignettes and other irregular shapes may be outlined with white water color directly on a photograph or on a tissue overlay.

Mortises, Surprints and Backgrounds

When a photograph is used as a pictorial background for a mortise, the mortise should be shaped and positioned to utilize fully the illustrative and tonal values of the picture. It should be placed in an area of broad pattern, even tone and inconsequential detail and should contrast effectively yet pleasingly with the background. It should not conflict with any objects or details or obliterate any important pictorial elements. Neither should it blend into weak, monotonous tones in the background.

The pictorial background should subtly emphasize the purpose of the mortise and surround it with interesting and appropriate illustrativeness.

A mortise can be evaluated by cutting opaque paper to the desired size and shifting it on the photograph until the proper position is found.

Fundamentally, proper positioning and grouping of pictures is accomplished by applying the basic design requisites. For example, a photograph is correctly sized and shaped in relation to other elements if proportion and contrast are diligently applied. Balance is attained if the light and dark tones of the picture are properly related to other units and masses. Rhythm is stimulated if the attention-directing elements in a picture lead the eye in the proper direction.

Unity is exemplified by combining a picture with harmoniously related elements and grouping it with other units and masses in a unified pattern.

While pictures should be combined harmoniously, monotony in size, shape and tone should be avoided. Dimensions of certain pictures should be enlarged or reduced according to their display importance.

Horizontal and vertical shapes may be interestingly relieved by the use of irregular shapes, such as silhouettes, vignettes, or circular forms.

Monotony in tone is avoided by placing photographs so that their dark, light and intermediary tones contrast effectively with each other. Photostatic enlargements or reductions of pictures may be cropped to fit a layout and then pasted in position. Thus definite dimensions are decided before costly engravings are ordered.

As the layout student progresses, he should acquire an appreciation of pictorial possibilities and a sound judgment of illustrative values. To augment this it is suggested that one constantly study the wide variety of techniques used in magazine and newspaper picture layout, as well as the treatments used in high grade booklets, pamphlets and broadsides produced by leading direct-mail advertisers.

Pencil roughs showing various types of silhouetting, cropping, combining and arranging as practiced in newspaper and magazine makeup. Attention of the layout student is directed to the many diversified techniques of cropping, combining and positioning photographs employed throughout this volume.



Applying Hand Lettering Initial Letters

WHEN INDIVIDUALITY is sought for a headline, signature, logotype, or other textual display unit, and it can not be readily attained with type, obviously it must be hand drawn. Limited use of appropriate lettering imparts individuality and artistic relief from the mechanical limitations of type. It "peps up" what might otherwise be an ordinary composition.

It is advisable, however, to explore thoroughly all the possibilities of available types before creating original lettering. Unless lettering is expertly rendered and its design advantages over type are indisputable, effectively composed type will better serve the purpose.

Each lettering style, through its structural characteristics, tone gradations, and other individual qualities, can convey a mood, suggest a definite atmosphere, and express a feeling. For example, a dainty script suggests grace and delicacy; the rugged Gothic or Old English style conveys a feeling of antiquity: the formal Roman form bespeaks conservatism and distinction; the sans-serif style interprets modernism.

While emphasis and contrast are desirable, care must be exercised to conform the lettering to the style and tone of the typography, and to the character of the other display elements.

Freakish lettering, which calls attention to itself more than to the message it portrays, should be avoided.

One should attain full artistic expressiveness and illustrative freedom when rendering lettering but a uniformity should be maintained in basic form and surface rendering, to accentuate the character of the style.

Lettering on a layout need not be rendered mechanically perfect in all details. Its draughtsmanship, however, should explicitly convey the desired style, tone and expressiveness.

The artist who makes the finished drawing for reproduction can refine any minor imperfections apparent in the layout.

Lettering may be adapted to reverse plates, screen tints, combination backgrounds, and numerous other photoengraving techniques. It may likewise be combined with type, a photograph, trade-mark or other illustrative element.

One should cultivate a deep appreciation for the subtle qualities and influences inherent in various lettering styles.

Lettering styles and techniques continually change with typographical



Certain styles of initials must be drawn for reproduction, as shown in the upper left layout and finished drawing, but the practically unlimited variety of stock type initials offers the layout man a wide selection. The lower right layout utilizes a Raleigh cursive "N" with hand-drawn decoration.

Further showing of initial letters and lettering in layouts and finished form. Demonstrating the preciseness with which the original creative lettering should be duplicated.



A proof of a line of type is curved by slitting it between characters and cemented to fit a pattern for a screen tint background. This often obviates hand lettering.



and layout trends, and the progressive layout man adapts each innovation in lettering as occasion demands. He scans continuously the pages of contemporary magazines that influence the trend so that by constantly increasing his lettering vocabulary he may become more versatile.

Initial Letters

The practice of using decorative initial letters is one of the oldest techniques in the graphic arts, stemming mainly from the works of the early scribes who illuminated book pages by hand.

The use of initial letters in modern layout has been more widely developed but the fundamental function of all initial letters is obviously the same—to attract the eye and direct interest to a desired point.

The size, weight and character of an initial letter should be regulated to conform harmoniously with the lettering, display type, text mass or other element with which it is to be combined. Likewise, the initial should be carefully positioned to insure continuity in reading the text that follows.

The choice of bulky, over-ornate or freakish initials or those whose character and style are not in harmony with its companionate elements should be avoided. Restraint is as advisable here as it is in the application of hand lettering and ornamentation.

Correctly chosen and properly placed initial letters can effectively accent rhythm by carrying the eye to display units in proper sequence. An initial letter may be used to combine display elements and promote unity. An initial letter may sometimes be used as the basic design element from which an entire layout evolves.

The possibilities for unusual treatments and applications of initial letters are practically endless. One should collect printed specimens of unusual techniques featuring initial letters for study and future adaptation to layouts.

As in applying hand lettering to a layout, one should not specify initial letters that require expensive art work and engravings for reproduction, if comparable type initials are available or they can be constructed from typographic material.

Reproduction Proofs Photoprints, Photostats

A REPRODUCTION PROOF is a printed facsimile of any typographical element or composition, from which photographic, photostatic, photoengraving, gravure or offset reproductions can be made. A reproduction proof can be used in actual size, enlarged or reduced to serve specific layout or reproductive purposes.

Usually, these proofs are printed clean and sharp on finely coated paper to insure faithful reproduction of all detail such as letter serifs, fine lines, shading and other elements. Reproduction proofs also may be made from over-inked type or cuts on rough, antique stock, to appear ragged purposely and convey an antique effect for specialized layout purposes.

Reproduction proofs are employed in making line cuts, reverse plates, combination engravings and those of varying screen tint backgrounds in every conceivable size and shape. They may be surprinted on drawings, maps, charts, and photographs. They may also be photostated or photoprinted in various sizes to evaluate type styles and certain layout techniques or roughs before costly photoengravings are made.

Reproduction proofs of type are often used in conjunction with art work to form novel designs and to eliminate costly hand lettering.

There is a wide technical distinction between a photoprint and a photostat. A photoprint is produced by taking a picture of a reproduction proof, drawing or other pictorial subject, on a photographic negative and making a print from it. It more closely approximates the original subject than does the photostat, the print of which is made from a paper negative.

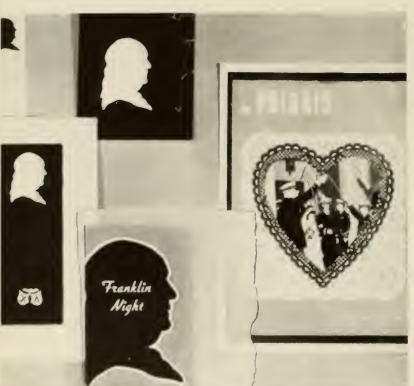
Photoprints are more costly than photostats and take longer to produce but their use is advocated where accurate reproduction is wanted. They reproduce minute details faithfully while photostats do not.

While a photostat may become slightly distorted due to uncontrollable stretch or shrinkage in making it, it generally suffices for visualization purposes in the average layout. Photostats of type proofs or lettering may be reproduced in photoengraving, either as positives (black on white) or negatives (white on black) where minor deviations from the original are inconsequential or where cost is a factor.

Photostats are often made from complete layouts in sufficient number to facilitate simultaneous mechanical production in various departments, and to preserve original visuals.

Photostats for layout purposes may often be made from certain objects, provided they can be placed in proper focus before the photostat camera. These photostats, however, cannot be used for reproduction because they lack tone and detail.

With an intimate knowledge of reproductive processes and skill in the manipulation of reproduction proofs, photoprints and photostats, the layout man with a fertile imagination can achieve many unique effects.



From the original drawing at top left an enlarged photostatic negative was made, which when combined with art work, produced panel at lower left. The die cut head of Franklin at bottom was reproduced from a positive made from the original negative and photoengraved with the reversed type lines. The two color lace patterns on Polaris cover at right was achieved with photostat negatives and positives of embossed paper patterns, engraved with the other elements.

Below—The letter "K" in three experimental photoprint enlargements, both negative and positive. Bottom left—A photoprint enlargement is made of a certain portion of a smaller, more expansive original print. Top right—tracing paper placed over a photoprint with a reproduction proof of type placed in accurate position for combination with photoprint in engraving. Lower right—the larger, original photoprint is reproduced by means of a silverprint over which a pen drawing was made and the print bleached. By this means certain elements may be added or climinated.



Photoengraving Other Reproductive Processes

There are three basic processes for reproducing graphic material in print.

Relief, or letterpress, as it is commonly known, is the printing directly from type, photoengravings, electrotypes and other plates, the printing surfaces of which are raised above the base. It is the most simplified form of printing and is the most widely used.

Planograph, as its name implies, is the method of printing from a plane, or even surface on which a photographic image is etched. It includes lithography, offset, multilith and photo gelatin printing.

Intaglio, is the method of printing directly from plates which have the subject matter etched below the surface. Gravure, rotogravure, steel and copper plate engraving are in this classification.

In order not to confuse the layout student, we will avoid any exhaustive technical discourse on the mechanical phases of each process and suggest that he familiarize himself primarily with the possibilities and limitations of each process.

As the relief process is most generally used, we will briefly analyze the various types of photoengraving as they apply to letterpress printing.

Photoengraving is the method of reproducing drawings, paintings, photographs, maps, type proofs and other copy by photographing on a sensitized negative which in turn is printed on a sensitive copper or zinc plate. The plate is then etched with chemicals so that the printing image remains above the etched part. The finished plate is made type-high by blocking on wood or metal.

Basically there are two kinds of photoengravings—the *line cut* and the *halftone*.

The *line cut* is the simpler to produce and is less costly than the halftone. It reproduces pen and ink drawings, maps, charts, reproduction proofs and other copy which is clearly defined in one tone of black or in any one color that reproduces black. As its name implies, the printing plate is an exact duplicate of the lines, solids and other detail in the copy, which may either be enlarged or reduced.

The average line cut is made on zinc, but for fine work with great detail copper is used, because it etches cleaner and sharper.

Mechanical shadings, known as Ben Day screens, may be applied to line cuts in a wide variety of tones.

Line copy may also be reversed to appear white on black and on screen backgrounds. These are known as "positives." Black on a screen tint is a "surprint."

Line cuts may be made for printing two or more colors, each color necessitating a separate engraving.

Copy must be furnished separated for each color as the camera cannot separate multicolored copy for line work.

The *halftone* reproduces photographs, washdrawings, paintings, and all copy which has variable gradations of tone. Copy is photographed through a screen which breaks it up into a succession of small dots of variable sizes. The dots interpret the tone values of the original on the negative and in turn on the finished plate. The etching and finishing processes are basically the same as for the line cut, but the finished plate has a screen-like surface overall.

Varying paper surfaces require a wide range of halftone screens. The coarsest is made 50 lines to the inch, for use on rougher antique and newspaper stock, and the finest is 250 line screen for printing on the highest surfaced paper obtainable. The finest screen advisable for good commer cial printing on coated stock is usually 133 lines to the inch.

They are generally known in the trade as 50 screen, 60 screen, 80 screen and so on.

When in doubt as to proper screen, the photoengraver should be consulted and given a sample of the paper to be printed.

Halftones are generally rectangular, but they may also be oval, circular, silhonetted or vignetted to any desired shape.

The highlight halftone is one in which the dots in highlights and

other light elements of washdrawings or pencil sketches are toned down or dropped out entirely so no screen appears in these areas.

The combination plate is a combination of line and halftone negatives superimposing and printed as one plate.

Multi-colored copy, such as an oil painting, water color or Kodachrome is reproduced in full color by the four color process. The colors are yellow, red and blue with black plate, which is usually the "key plate." The copy is separated by use of color filters and a halftone plate for each color is made. Multi-colored copy may also be reproduced in three colors—yellow, red and blue.

Duotones are two-color halftone engravings made from colored copy such as tinted photographs, and two-color washdrawings.



Left—Type of multi-tone copy, suitable for halftone engraving, including silhouettes, vignettes and combination engravings. Colored copy of this type is suitable for duotone and color-process engraving.

The art work at bottom center was produced by the airbrush which furnishes the engraver soft, feather-edge copy.

Below—Type of definitely black and white copy suitable for "line" engravings. Note the careful marking of engraving instructions on each.





Specimen sheets of screen tints and Ben Day screens, for guidance in specifying, are available from your photoengraver.



The top photograph has a paper frisket, or mask, placed over it to guide the engraver in securing the proper area and angle. The lower illustrates how removable masking tape may also be used.

Duographs are two-color halftones made from monotone pictures, the second color being produced by photographing at two different angles.

There are many other types of intermediate plates which may be produced by the combination of or adaptation of the foregoing styles. Color prints, for instance, may be made by using solid line colors or screen tints, printed transparently over black halftones or line plates. Likewise in monotone engravings, an almost unlimited variety of techniques and procedures is possible. It is advisable, however, for the layout student to acquire a thorough knowledge of all these processes before specifying them. The alternative is to seek the guidance of a competent photoengraver.

As offset and gravure are both photographic processes employing the same general principles as photoengraving, art and illustrations are prepared basically the same. There are many limitations and advantages in each method, however, and the student is advised to acquire specialized reference books for study of the wide range of reproductive processes.

Preparation of copy for offset reproduction is shown at the right. At top left is the rough of a center spread in a broadside. In the center is the outline drawing with halftone areas designated and type proofs pasted in position. At lower right is the completed printing. In upper right is shown the illustration and type paste-up for the front cover and a reversed reproduction of same.







The offset and gravure processes offer the layout man wide latitude in applying hand lettering.

The predominating element in the panel to the left is a large offset reproduction in several colors on a piece of satin. This type of illustrative copy is ideal for offset. The smaller unit at the bottom is a sample of sheet-fed gravure, also an ideal process for pictorial presentations.



A Short Study of Types Their Functions

THE STUDY OF TYPE and its many forms and functions is so highly specialized that its evaluation in a work of this kind is necessarily limited. We therefore confine ourselves to a brief analysis of the basic type styles, the underlying principles that impart individuality to type, govern its selection and make its use practical and efficient from a layout standpoint.

Type, which interprets the fullest functions of lettering in a mechanical way, likewise can express atmosphere and impart definite character and feeling. It can also emphasize the physical construction and expressiveness of a layout and the message it portrays. Thousands of styles make type adaptable to any subject or manner of presentation.

The layout student should familiarize himself with the origin and evolution of the basic type styles which are classified as: Gothic Text, Old Style, Modern, Sans Serif, Square Serif, Script, Cursive and Contemporary.

Gothic Text is the original type style originated by Gutenberg. It was derived from the hand-lettering of that era. It has a highly decorative character and bespeaks reverence and antiquity. It should be used sparingly, mainly for display, in layouts of a scholarly or ecclesiastical nature. The distinguishing characteristics of Gothic Text are its heavy body forms which terminate in sharp tapering curves and angles. The contrasting thin elements of the letters accentuate the ornateness of the style. Some examples are: Goudy Text, Cloister Black and Old English.

Old Style, which interprets the original classical Roman design, was created to impart more legibility and flexibility to the great volume of printing that followed Gutenberg's invention. It served also to coordinate the style of printing with the style of lettering used for stone inscriptions.

Old Style has limitless interpretations in both display and text and offers the layout man a most versatile design with which to work. It is

PART VII

characterized by a graceful transformation of body weights from heavy to light and has serifs that are curved and slanting. Some examples of this style are Caslon, Garamond, and Goudy. Old Style types print best on antique papers for which they were originally created.

Modern style types are structurally the same as Old Style, stemming basically from the classical Roman also, but differing in serifs and surface form. This style was originated by Bodoni and extended further the structural design possibilities of the basic Roman forms. The chief characteristics of the Modern style are evident in the abrupt termination of the evenly-shaped verticals against thin right-angular serifs and a decided contrast between the thick and thin curved body elements of the letters. The leading examples of this style are Bodoni, Mondial and Onyx. They can be printed best on hard surfaced paper.

Types such as Bulmer, Scotch Roman and Baskerville, whose serifs are of an intermediate character between Old Style and Modern are known as *Transitional* types because they typify the transition from the Old Style to Modern. The text of this volume is set in 14 pt. Linotype Baskerville leaded 4 points.

Square Serif styles follow the basic Roman structure but the relative alikeness of surface weight of body and serifs warrants their separate classification. Some examples are Stymie, Girder and Beton.

Sans Serif styles follow Roman forms, but as the name implies, are entirely devoid of serifs, and the body weight is mainly uniform throughout. The style was originated in comparatively recent years when revolutionary changes in layout and design techniques demanded a more simplified, streamlined type style. Prominent among the Sans Serif types are Futura, Kabel, and Bernhard Gothic.

Script styles are based on decorative handwriting forms. Stemming from the slanting style of lettering used in illuminating by hand, script has developed into many free flowing interpretations. Its ornateness forbids its extensive use and it is used mainly to add a decorative touch. The thin strokes which tie the letters together forbid letter spacing. The style is exemplified by Typo Script, Commercial and Trafton Script.

Cursive styles are derivatives of Script and Italic styles, combining certain characteristics of each. Cursive must also be used sparingly, and should not be letter spaced. Some examples are Bernhard Cursive, Coronet and Mozart.

Contemporary styles are unusual creations which do not fit precisely into any of the above classifications but through their novel characteristics should be grouped independently. The style is exemplified by Lydian. Eve, Cartoon and many other current faces.

Each type style has definite design characteristics which are evident in the construction and form of certain letters and which distinguish it from other styles. The decided shape, curve or angle of a serif, the slant of a cross bar or the contour of a body element makes a certain type style distinctive and individual.

To familiarize himself thoroughly with these characteristics, the layout student will find it advantageous to trace and copy letters from type specimen books.

Many type faces are available in both light and bold face, and are usually accompanied by an italic interpretation which retains the main design characteristics of the font but is designed on a slanting angle. This variance from the horizontal form of the Roman gives italic emphasis, accentuation, motion and other qualities of expressiveness.

Some faces are available in medium and extra bold face also.

Best results are obtained in layout by limiting type styles and sizes to a minimum. The experienced typographer knows what types can be combined harmoniously, but it is well for the layout student to limit his choice to one good series of type in a layout and achieve variety and interest by an intelligent use of accentuating forms, shapes and sizes. Practice will enable one eventually to combine various styles, but good taste and suitability should always dictate the choice.

Weight of type for text masses should be specified carefully to achieve the correct tone value and to accomplish proper contrast and harmony with headlines and other display elements. Skillful use of word and letter spacing, paragraph indentions, and leading between lines influence tone values

Gothic text Goudy Text	Cloister Black	Old English
Caslon	Garamond	Goudy
Bodoni	Mondial	Onyx
Bulmer	Scotch Roman	Baskerville
Stymie Stymie	Beton	Girder
Futura	Kabel B	Bernhard Gothic
Typo Script	Bond Script	Trafton Script
Bernhard Cui	rsive Coronet	Mo≋art
CONTEMPORARY	Lydian	CARTOON

of type masses. Types of the lighter and medium tone are read more easily in a mass than the heavy types. The mechanical adaptability of all type styles should be fully explored before definitely specifying their use. Type prints darker on soft antique paper than on smooth coated stock. Type that has fine hairlines or shaded elements should be printed on hard surfaced stock to bring out all detail clearly.

Reading of type under varying conditions of light and by dissimilar audiences is an important factor, and type sizes for text masses should be chosen accordingly. A study of text masses, in general, will disclose that 9 or 10 point type is most suitable for text masses in publications and pamphlets. Type style, width of line, page size and many other conditions alter this generality, however.

When selecting type for lengthy text masses one should not choose a particular style because of the pronounced design characteristics of the larger display sizes. The appearance and effectiveness of a type style in a mass should rather be evaluated from specimens set in the text sizes.

Modern typographers usually supply specimen sheets showing display and text types set in varying widths and degrees of leading, from which a quick evaluation can be made. Such specimen sheets are invaluable also for ascertaining character count when computing copy in relation to space.

Type should not be set in too wide a measure as there is a theoretical limit to what the eye can read comfortably. A general rule is to set text type in a width of not more than two times its alphabet length.

Types like Forum, Empire and Huxley Vertical are made in capitals only and they necessarily demand a different technique than do the Gothic Text types such as Old English, or Goudy Text which are illegible and unsightly if set in capitals alone.

Some type designs can be leaded more freely than others, due to variations in weight, size of the body and difference in length of lower case ascenders and descenders.

Certain even-toned type styles lend themselves well to photoengraving and other reproductive techniques while others with fine lines or delicate characteristics should be avoided. Reducing or enlarging type or combinROMAN CAPS and lower case

ITALIC CAPS and lower case

Script Caps and lower case

Bothic text Caps and lower case

Basic type structures

At left are the four basic type structures from which all of our type styles evolve. Each has many variations and adaptations in surface rendering but all stem from these basic forms,

BETON Light

BETON Medium

BETON Bold

BETON Extra Bold

Type weights

Many types are made in light and bold, some also in medium, but few in all of the weights here illustrated. Types like this and Futura offer the widest possible tone range for layout purposes.

Cheltenham Bold

Chelt. Bold Exten

NEWS GOTHIC

NEWS GOTHIC CONDENSED

NEWS GOTHIC EXTRA CONDENSED

Type widths

As practicability demands variable tones for emphasis, so does the layout man often use type structures that are expanded or condensed, to fit certain patterns.

36 pt. Nicholas Cochin

36 pt. Caslon 471

36 pt. Caslon 540

36 pt. Mondial Bold

(Types reduced in engraving)

Type heights

Type designs in a given point size may vary considerably in height of printing surface. This is due to the variation of the main body height and the length of ascenders and descenders.

Masculine — Jeminine

Antique — Modernistic
Serious — Frivolous

BULKY — Lelicate
Dignified — Carefree

Monotoned — SPIRITED

POSTERY — Sketchy

Reserved — Relaxed

Expressibility

This cross-section of type styles available in a modern composing room illustrates the wide range of expressibility in the various forms. The type used in each instance should not form any pre-conceived ideas in the mind of the layout student regarding mandatory use.

The use of certain styles above should be limited to display purposes and then only with the proper text type.

Below—This style of basic letter construction is a sound pattern for designating the average Roman type faces on roughs, because it has an ample fullness and character which typifies the general Roman structure. Surface characteristics such as style of serif, change in body weight and other variances may be added when the pattern is completed and the definite type chosen.

For proportionate dimensions of the characters not shown the same general width and height classifications described in the chapter on lettering may be followed.



ing it with screen tints necessitates careful selection of type style for proper accentuation.

Type for reverse plates should be of a bolder face than for regular use, as dark backgrounds tone the value of the reverse lettering considerably.

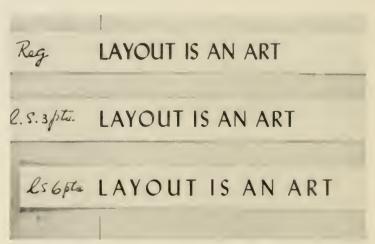
The layout man should be alert to changes in typographical trends and must keep pace with improvements in type design and manufacture. He should know the limitations of hand composition in mass production and should specify Linotype, Intertype, Monotype, Ludlow or other machine composition when practicability demands it.

Practical experience as a compositor is the soundest background for acquiring a knowledge of the mechanics of typography. Lacking this, the layout student should avail himself of every opportunity to visit composing rooms and study at first hand the mechanical procedures so that he may specify them efficiently. Likewise, he should read specialized text books on the subject.

Good typography does not stem from imagination and originality alone, but from a combination of these qualities with an intimate knowledge of sound craftsmanship and a reverence for types and their functions.

A reproduction of two facing pages of Gutenberg's famous bible. This is credited with being the first printing from movable type. Bible was set in a Gothic Text style which has long since been discarded for continuous reading, in our language,





Those—I hree differently spaced lines showing the effect that letter spacing has on the tone and readability of a display line. The introduction of proper white space between letters slows up the reading somewhat but helps the eye assimilate the design of the lettering and softens the tone of closely-fitted letters. Widely letter spaced lines are used mainly to achieve some design function and should be avoided in the normal composition of headings.



Fitting Copy to Text Areas

Having established approximate areas for text masses on a layout, it is essential that the copy for each area be computed to fit into its dimensions in the proper type size and with the correct leading.

The most generally used method for fitting typewritten copy to text areas is that which reduces the manuscript copy to a definite number of lines of a particular type size according to the amount of type characters in the width of the line. The amount of type lines multiplied by the type height in points gives the minimum depth in points needed for the copy. This depth may then be increased by leading between the type lines.

Having selected a style and size of type, refer to a specimen book to ascertain the number of type characters that will fit in the pica width of the text mass on the layout.

On the first line of the manuscript copy place a small pencil mark at the required number of typewriter characters necessary to fill a type line. Draw a vertical line from this point downward on the manuscript. Count the number of lines to the left of the vertical line. Convert the total of all odd characters at the right of the vertical line into type lines by counting all characters and dividing by the line character count. Add both counts and this will give the total number of type lines the copy will make. Cast each paragraph separately and count each space as a character.

In estimating previously printed copy for resetting, count several average lines for character count and multiply this by the total number of lines. This gives the total character count.

Dividing the number of type characters in the new line width into the total of characters in the printed copy, will give the approximate number of new type lines the copy will make.

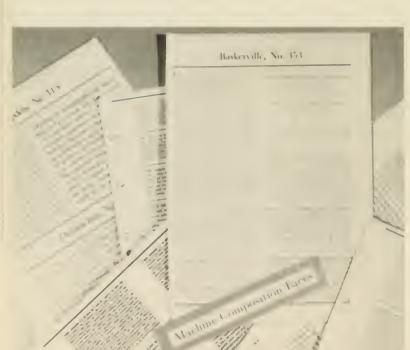
It is obvious that various styles and sizes of type have varying character counts in a line of specified width. To facilitate copy fitting calculations the layout man should use one of the reference charts that list the average character count of the most widely used types in varying widths.



For those who are inexperienced in type measurements, it may be explained that there are 72 points to the inch. The height of type is always specified in points. If the type is of 8 point body there are nine lines of type to the inch. In 12 point type there are six lines to the inch, and so on. Adding one, two or more points of leading between lines obviously increases the amount of space type occupies in depth.

There are 12 points to a pica; six picas to an inch. All typesetting instructions should be given in these terms which are used and understood by all printers.

In approximating the amount of words necessary to fill a certain text area, the following procedure is suggested: ascertain how many type characters there are in a line of the selected type and multiply by the number of lines necessary to fill the area. This will give the total number of characters, which divided by six (characters in the average word) will give the number of words necessary to fill the area.



Above 1 ype specimen books which show foundry faces and slug-casting machine types should always be handy for ready reference.

Left. Type specimen sheets of the most widely used machine composition faces should frequently be consulted to insure accuracy in copy fitting of text masses.

Achieving Effects with Typographical Material



Occasionally the layout man must attain quickly an unusual effect and is limited in time and expense for art work and plates; or perhaps he may evolve an idea that can be interpreted best by some novel typographical treatment. He then avails himself of the practically unlimited typographical facilities in the composing room, such as rules, dingbats, borders, ornaments, tint blocks, and other typographical accessories and creates from them effects that are unique and practical.

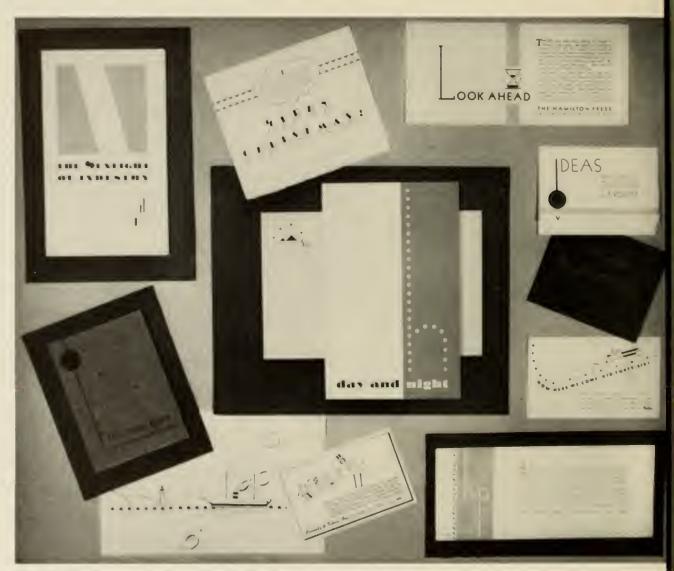
The typographical equipment of the modern composing room offers unlimited inspiration to the versatile layout man, and the ever-increasing supply of new fonts and accessories makes possible apparently unlimited effects.

With a fertile imagination and a thorough understanding of mechanical procedures and limitations, the layout man can create novel layouts that any competent compositor can interpret.

Some of the techniques are: combining type characters and ornaments in decorative shapes and illustrative forms; employing rules to form entire letters, parts of letters or decorative shadings; combining ornamental spots with rules or parts of letters to simulate decorative objects; trimming plates or blocks to unusual shapes, printing them in color and overprinting them with type or accessories.

To be completely effective, each typographical element must be chosen with careful regard for its optical influence and every detail of composition planned with precision.

Layouts of this type need not be meticulous from an artistic standpoint, but they must be essentially practical. A simple rough on tracing paper will suffice if it conveys the idea to the compositor and is based on a practical understanding of composition and available materials.



Examples of printed material produced entirely with type, rules, ornaments, typographical accessories, and an occasional tint block or "positive"

engraving made from a type proof. Absolutely no art work was employed in the production of this material, composed by the author.

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Selecting Paper Stock

THE ADVERTISING of a leading paper manufacturer stresses the wide influence paper stock exerts in making printing effective, by its slogan—"Paper is part of the picture."

Paper stock is indeed, one of the most important assets of the printing planner, if its utmost possibilities are fully utilized.

Distinctive typography, characterful photographs and art work, good plates, the proper ink, and the finest presswork are essential to the correct interpretation of any layout; but they will not be efficiently coordinated unless the proper paper is used.

Paper stocks are available in such a wide variety of colors, finishes, weights and sizes as to make them adaptable to an unlimited variety of layout techniques and fullest advantage should be taken of these elements in the preliminary planning stages.

In newspaper and magazine printing practicability demands a uniform paper stock that is most adaptable to the particular reproductive technique of each individual publication. Broadsides, folders, booklets, brochures, announcements, stationery and other commercial printing, however, offer the versatile layout man wide latitude in specifying color and texture in paper stock. Here he can find expression for individuality and imagination.

The experienced layout man avoids specifying weird and unrelated color combinations of paper and ink, relying on white, or the softer pastel shades of stock, printed in harmonious colors.

Paper manufacturers have done much research in color harmony. The many color combinations advocated in their sample books and promotional material are the result of much experiment and can be successfully followed by the layout man.

There are papers to suit every purpose. Appropriateness, due regard for cost, and practicability should govern the choice. An all rag content paper should be specified if the printing is to be of a permanent nature, while a sulphite or other less costly stock will suffice if the job is to have

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limited usage. Some types of stock lend themselves well to gumming, varnishing, die cutting, embossing and other finishing while others do not. All other mechanical limitations, likewise, must be evaluated in order to secure the utmost in reproduction.

A layout that contains type alone can be interpreted on a wide range of antique stocks, while one with halftones or other fine details must be printed on a coated paper or a highly supercalendered stock if printed by letterpress. When paper cost, mailing weight, or mechanical limitations are factors, the choice may be an English finish. For strict economy, a job may be printed on newsprint, provided cuts are of the proper screen.

The layout man should have a basic knowledge of paper making and if possible he should visit a paper mill to learn paper making at first hand.

It is needless to list the endless variety of paper stocks as the layout man can secure samples from a local supply house.

While many types of paper are rugged and strong, it is highly sensitive to many presswork procedures. Paper is greatly affected by atmospheric changes and will shrink or stretch, curl and wrinkle on occasion. These and other propensities are thoroughly understood by pressroom experts and their advice will often forestall undue mechanical difficulties.

All paper is made with a grain, resulting from the direction in which the long fibers lay on the paper machine. Paper folds better with the grain than against it, and a booklet or pamphlet should always have the paper grain run vertically, or with the binding edge. Similarly, labels, display cards and other printing should be designed to utilize the "way of the grain" to best advantage.

Uncoated paper has two distinct sides, the "wire side" and the "felt side." The "wire side" is caused by the wire screen of the paper machine and is most pronounced on cover and laid stocks. The character and texture of the stock shows to better advantage if printed on the "felt side."

Embossing and fancy finishes are often applied to certain types of paper at the mill. Printing of type or line cuts can be done effectively on these stocks but to obviate mechanical difficulty, halftones should be printed on coated stock and pebbled or embossed later.



"Will it cut out of standard sizes of paper stock?" One of the most pertinent factors in the economical, efficient planning of printing.

Deckle edges are available on a limited type of antique stocks and only on certain dimensions. Care should be exercised in planning deckle edges to avoid waste in cutting paper. The layout man should plan from available stock sizes whenever possible to avoid undue waste.

The better grade papers are made in limited sizes and should be specified cautiously. Any sizable offcuts should be saved as many novel uses can be found for them on small impromptu jobs.

Ample gripper margin should always be allowed on paper. The "gripper edge" is the edge that is fed to the grippers that hold the sheet in printing and upon which register in presswork depends. In planning large solids and bleed cuts, one should allow ample paper margins to forestall slurring, wrinkling and other troubles. In most cases paper grain should be in the direction of the printing cylinder width and not around it, especially in the heavier paper stocks.

Whenever possible, it is advisable to consult the pressman and binder in respect to imposition of pages for printing and folding.

Favored with a layout that respects its limitations and utilizes its utmost possibilities, paper can truly play a great part in the printing picture.



Paper specimen portfolios showing various textures, finishes, weights and colors are very helpful in formulating colorful paper and ink combinations. Catalogs and other reference books, giving sheet sizes, and other useful paper information, should be in every layout man's library.



Color ... Its Effective Application

THE THEORY that there are but *three primary colors*—red, yellow and blue, is the most practical for layout purposes, as the processes of color engraving, ink making and printing are all based on this principle. From these primary colors all other colors are obtained.

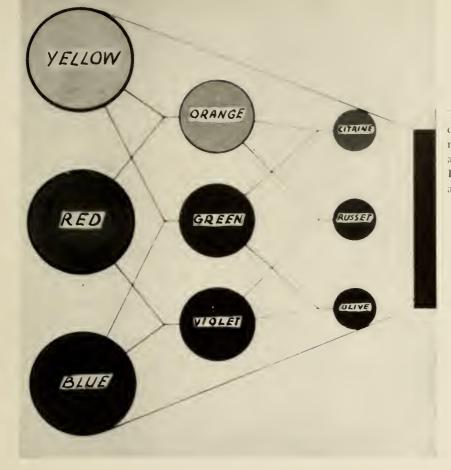
The secondary colors are green, orange and violet. Orange is a combination of red and yellow; green is a combination of yellow and blue; violet is a combination of red and blue.

The *tertiary colors* are citrine, a combination of orange and green; olive, a combination of green and violet; and russet, a combination of orange and violet.

The various hues may be obtained by combining one neighboring color with another, such as red and orange to achieve red orange, blue and green to obtain blue green, and so on. The color that predominates is known as the dominating hue. By adding black or white to a color a *tone* is achieved: black making it a *shade* and white making it a *tint*.

Colors are said to be complementary to each other when they compose together agreeably. Any color in the primary trio is complementary to a combination of the other two colors. For example, red is complementary to green which is a combination of yellow and blue; yellow is complementary to violet, which is a combination of red and blue; blue is complementary to orange, which is a combination of red and yellow. This theory applies, likewise, to the secondary and tertiary groups.

Colors are classified as "warm" and "cold" on the theory that their optical influences create physical reactions. The warm colors are red, yellow, orange, yellow green, and any combinations which they dominate. These colors, by their association with the sun, fire and other warm elements of



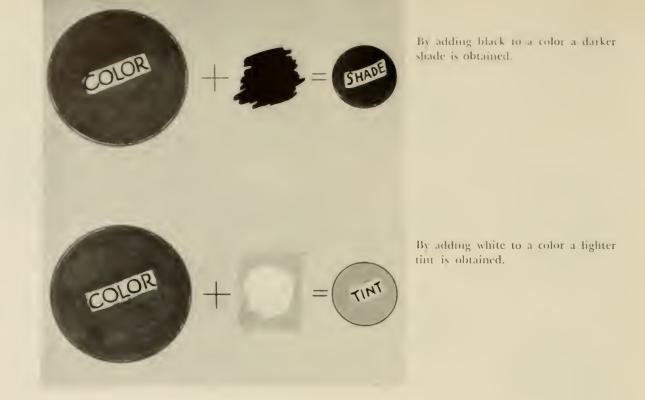
This chart illustrates the basic principles of the use of the three primary colors, yellow, red and blue and the colors evolving from them. Black results from a combination of all colors.

nature, convey to our minds the physical properties of these objects. Likewise the cold colors, such as blue, violet, green, and any combinations which they dominate, suggest the coolness of the sea, the sky and other elements. The pale tints of the warm colors have long been associated with feminine tastes, while the cooler colors are said to be masculine.

Black is not a color but is a combination of all colors. Black, gray, gold and silver, harmonize or contrast with any color. Pure gray has a neutral effect, but can be warmed with yellow or cooled with blue or black.

Guided by these basic fundamentals, the layout man, by constant experiments, intuition and good taste, should develop a keen color sense and appreciation for color harmony and contrast. Restraint should be used and simple color combinations only be attempted by the layout beginner.

The pure primary colors, red, yellow and blue, are strong, blatant colors, and should be used sparingly. They should only be used when sharp attention value and utmost contrast is wanted. Tints and shades of primary colors and the secondary colors are more pleasing for most layout purposes.



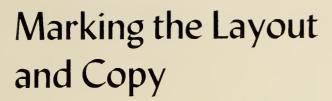
For utmost color harmony it is advisable to use simple combinations of hues, such as dark and light blue, dark and light green, and so on. Dazzling areas of incorrect color distract the eye and lessen attention value.

Introduction of intermediate tones, tints, neutral gray or black, in the proper proportion, gives a composition variety and sparkle.

Color must be positioned skillfully for balance. A warm-colored initial, placed against a cool type mass balances the composition, but if it is overshadowed by large areas of cold color, its value is lost. Likewise if all color is in one part of a layout it is unbalanced. Its proper distribution cannot be fixed by rule but rather accomplished by good taste and the ingenuity of the designer.

The color of paper stock, its relationship to various colors and their printability thereon must be considered carefully, as effects that are painted readily with opaque water colors or sketched with crayons are not always as easily attained with printing inks. When in doubt, the layout man should consult the pressman on the printing of unusual color combinations.

Constant experimentation with color mixing, ink and paper combinations, and the acquisition of a store of workable techniques is the most practical way of mastering color application.





A LAYOUT should be presented for production with typewritten text, photographs, art work and other material properly arranged and explicitly marked to facilitate the mechanics of reproduction.

The typewritten text should be double-spaced with ample margins on letter-size sheets, and numbered in sequence. All display lines should be set off in capitals or otherwise clearly distinguished from text matter. Text areas on the layout should be designated in ringed alphabetical or numerical order and should coincide with identical markings on the typewritten copy. The exact widths and depths of text masses should be clearly marked in pica measures and type sizes and leading specified in points.

In specifying from type catalogs or specimen sheets, the full title of the face and reference number should be given at the outset. Recognizable abbreviations may be used for repeated markings.

Capitals, italics, small caps, indentations, word spacing, letter spacing, ornamentation and other typographic instructions should be marked distinctly on the copy. Colored pencils are recommended for this purpose.

If several mechanical operations are to be done simultaneously, a photostatic copy or rough tracing of the layout should be furnished for each process.

The exact trim size of the finished job should be given in numerals, even though the layout seems obvious.

Instructions for ink matching, presswork, stock size, binding and finishing should be clearly specified.

Photographs should be scaled properly for reduction or enlargement and crop lines marked plainly. Engraving sizes should be requested in pica measurements to facilitate makeup. The screen should be noted as should other essential details such as etching, blocking or retention of bearers for electrotyping moulding.

Photographs and other pictorial matter in set-ups or combinations should be marked alphabetically or numerically to conform to the layout. Art work, reproduction proofs, lettering and other engraving copy should be marked clearly for size and covered with a tissue overlay upon which can be shown Ben Day areas, color separations, and other treatments.

It is unwise to rely on verbal instructions in any procedure and the more specific and understandable reproduction instructions are, the more craftsmanlike will be the interpretation.

The materials and techniques available to the designer are practically limitless. Practicability means adapting them to a layout with minimum mechanical effort. Artistic beauty and attractiveness of design are qualities to be desired but they should be coordinated with practicability.



The actual rissue roughs of this volume on which the precise type and engraving specifications were marked. Besides the complete working dummy, some of the actual photographs and art work are

discernible in the picture, as are some of the printing planner's essential tools, such as a type gauge, type specimen sheets and samples of engraving screen times used in this book.

Practicability and Flexibility

"ART FOR ART'S SAKE" is an axiom that should have no place in the lexicon of the layout man. Many layouts defeat their purpose because their designers give vent to artistic obsessions and ignore the major factor in sound printing planning—practicability.

A layout which demands unwarranted mechanical effort makes reproduction complicated and burdensome rather than efficient and helpful. Therefore, layouts which cannot be interpreted without undue cost for art work, typography, plates and presswork, should be avoided.

Some of the earmarks of the amateur layout man are: lettering display lines that are too condensed for proper composition in the specified type; crowding subheads into widths and depths that are too contracted for proper type composition; specifying line widths that require excessive letter and word spacing, thereby weakening display value, particularly in lower case; ruling widely miscalculated text areas for specific type sizes; suggesting type arrangements that are freakish and unrelated in shape, size, style and tone; cropping or silhouetting pictures to disproportionate sizes or unpleasant shapes and positioning them in impractical arrangements that require extensive make-up procedures.

Further inconsistencies with practicability are: suggesting freakish ornamentation or combinations of unrelated typographic elements, specifying art work and lettering that is tricky, over-ornamented and impractical to reproduce; specifying highly complicated and costly photoengraving techniques; applying lavish, complicated color schemes that require excessive presswork.

The effective advertisements in leading periodicals and outstanding examples of direct mail advertising prove that successful designers understand well the reproductive possibilities and mechanical limitations of graphic presentation. They achieve the utmost in effect with a minimum of effort, both artistically and mechanically.

The attractive and efficient automobile of today far surpasses the one of

decades ago in design and construction because from the T-square and drawing board of the modern designer come models that conform to efficient methods of production. Likewise, the design of printing and advertising must conform to the most efficient techniques in reproduction to achieve utmost effectiveness.

Nowhere is the saying "A little knowledge is a dangerous thing" more appropriate than in the planning of printing and advertising. A thorough practical training in the mechanical processes is the best background for efficiency in specifying reproduction procedures. Lacking this training, the layout student should acquire a thorough understanding of all phases of reproduction so that he will avoid elaborate, intricate designs that may satisfy someone's artistic whim, but only confuse the typographer, photoengraver and printer and add needless expense and delay in the mechanical reproduction.

There are no rubber types or elastic plates in a composing room. Copy and its resultant space occupancy in type should be computed with care before drawing definite areas on a layout. Space for halftones and line cuts likewise should be anticipated with accuracy so that guesswork is eliminated, the mechanical details of makeup facilitated and costly revisions obviated. If the layout man is in doubt about composition specifications, he should consult the typographer who is to interpret the layout. In all cases the width and height of the text and cut areas and other display units should be marked in "picas"—a language the printer understands.

While looseness should be avoided and the typographical details specified with care, a layout should never be so "tight" as to require typographic makeup to a mathematical degree. A skillful typographer will always grasp the significance of whatever flexibility has been allowed in a layout and utilize it advantageously. A layout that is structurally sound will not deviate materially from the basic design pattern by standardization of spacing, margins and introduction of other typographical subtleties.

The Story of The Quick Brown Fox in the Composing Room



From experimental thumbnails, the design for a small booklet cover is chosen. It is enlarged to actual size and it goes to the composing room....



Type sizes are distinctly specified on the layout.



The setting completed, it is spaced horizontally to fit the layout.



The compositor sets the foundry type which corresponds to the layout.



The form is tied up and placed on the proof press.



Deft hands skillfully space out a line of type with low, non-printing spaces and quads.



The first proof matches the layout. Composing room time and effort are saved by proper planning.



Lengthy manuscript for text matter is set on the linotype, or perhaps on a monotype keyboard.





The Ludlow also casts slugs of display type.

After slugs are cast a certain amount of leading, or spacing for depth, is often done by hand.





A composite picture portraying the ultimate objective of typographical layout. The skilled fingers of a compositor setting type with 'the guidance of a layout made by hands that plan with preciseness and practicability.





Ideas worth while are worthy of worthwhile layout

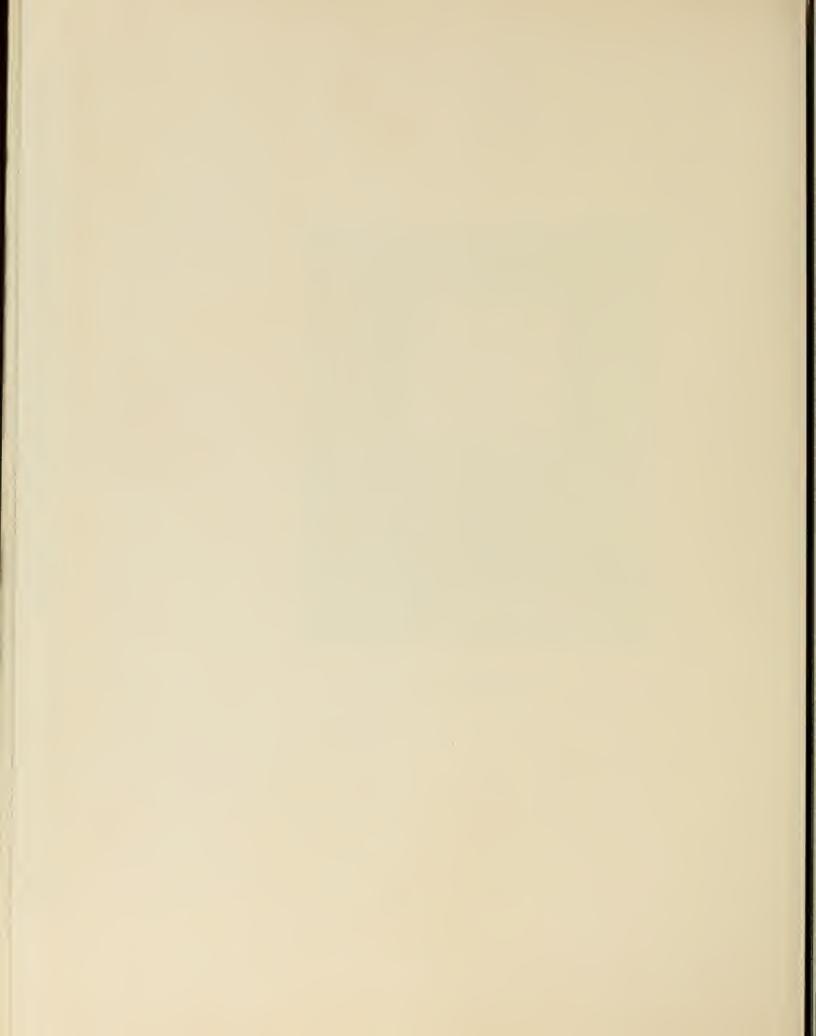








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