# VISUAL COMMUNICATION

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## Introduction

Graphic communication has been used for centuries under a variety of names, using a visual language as a means of practical communication rather than as a means of personal expression as found in other areas of graphic art.

The earliest cave paintings could be viewed as being not only decorative additions to the environment of the man of those times but also as a practical statement of fact regarding information necessary to the well-being of the community as a whole.

The advantage of a graphic/visual means of communication is in the maximum effective spread of information that can be made at any one time - irrespective of the language, culture, educational status or age of the recipient. It is however important that the choice of graphic image and its use in conjunction with other images is suitable, not only for its intended purpose, but also that it is capable of being understood in its purposeful role.

It could be assumed that if one group is attempting to communicate with another, using common visual images, success should be achieved. In practical terms this is proved not to be the case. Research conducted by Bernard Shaw of the African Medical and Research Foundation in the form of a visual symbol survey among Kenyans, shows up this misconception. Although all the drawings and symbols used in this survey were graphically accurate and common to all participants, some misunderstandings occurred due to the manner in which the illustration was viewed. A tortoise, for example, was identified as being (a) an elephant, because of its feet, (b) a crocodile, because of the pattern on its shell and (c) a snake, because of its head. These responses were due to the fact that not everyone sees the complete image but rather a series of details, and on any one of these details bases the answer. In a similar manner a goat was described as being a cow by 53% of a certain group of participants due to their seeing a head, horns, legs and a turned down tail. The fact that all details shown on the drawing were of a goat was missed by these participants who based their answer on the single fact that all local goats have tails that turn up so it must be a cow. The theoretical capability of visual communication can be near to achievement if the various methods of perception employed by the social or ethnic groups taking part in the communication process are investigated before work is started.

Any person whose work demands explanation, must attempt to see their own specialist activity through the eyes of those whose understanding of it is limited or non-existent.

One of the first objectives in any communication process is finding a common denominator. If there is no such thing readily available in the natural context of the communication then one has to be contribed in order that the difficult path to complete understanding is navigated. An unknown subject is similar to finding oneself in a foreign city with no knowledge of the language or street plan, no money and surrounded by a people displaying strange and threatening attitudes. If you move, it would be easy to lose yourself and get further from your destination of say, your national embassy or consulate. You are wary of trusting the local taxi service or guide and long for a familiar face to appear around the corner. If one did, you would be quite happy to place your trust in him irrespective of the devious route taken in reaching your destination.

As communicators, it is our duty to provide this familiar, identifiable figure as a means by which we can lead people through unfamiliar, unidentifiable surroundings.

## Figuratively speaking

Whilst text speaks with words, the graphic figure speaks with form, and just as words are the flexible units, or vocabulary, of spoken or written language, so the point, line, shape, value and texture are the equally flexible units of vocabulary of form. The use of this vocabulary is essential in the preparation of a visual, graphic language.

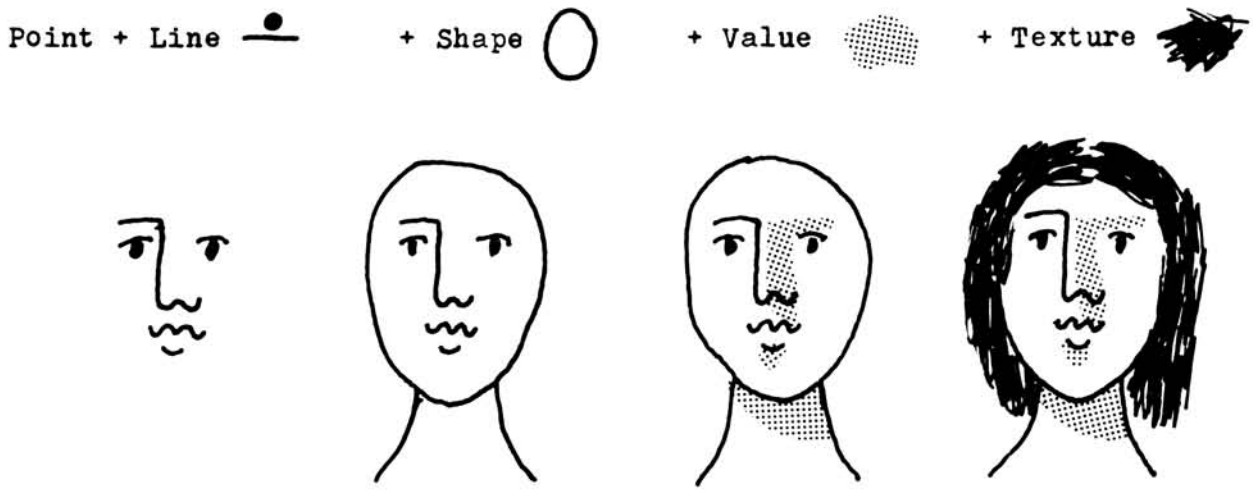
The Point Theoretically non-dimensional showing location, position or focus. In practice, a point can vary with respect to its size, shape and value, and can also act as a symbol representing a specific subject or idea.

The Line One-dimensional in character and shows direction, extension or movement. Linear form can vary in weight, length, structure, character, value and course. A major quality of the line is in its directional capability. In this role it can also indicate motion. Lines can be complete or broken, and, varying in width, can also indicate changes in magnitude.

Shape Two-dimensional in form, it shows contour, area, outline, enclosure or edge. Shape quality derives from the structure of its edge, and varies with respect to size, distribution of weight, position, regularity (or irregularity) of its edge. Shape can be constructed in solid or outline form.

Value A quality of colour which refers to the degree of darkness or light and in practical use could reflect the quantitative aspect, distance etc. Made up of a concentration of dots which at a distance appear to blend with the intervening white spaces, graduations of tone are dependent upon the relative size and density of the dots.

Texture The quality of surface structure or pattern. In practical terms, the use of texture as an aid to differentiation of individual aspects is invaluable and should be considered in conjunction with other form elements, especially colour value.



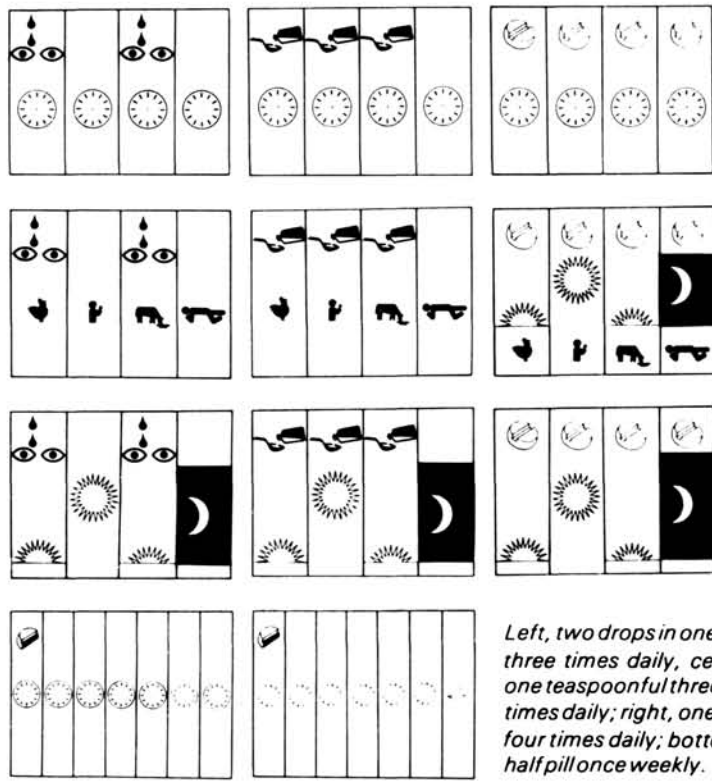

The Graphic statement

Visual language is not an end in itself, but simply a means by which to visualise ideas and have those ideas understood. The visualization of ideas begins with the definition of purpose.

Relevant subject matter is applied to this purpose and translated into logical visual concepts.

In everyday life the meaning of a thing can vary in relation to the way in which it is seen and understood. The farmer for instance sees the wheel of his wagon as a physical object, the engineer who designed it sees it as a mechanical problem and the merchant who sold it sees it as a financial profit or loss. Thus while the farmer's view is objective, the engineer's is symbolized into a plan and the merchant's into an abstract of monetary terms. Similarly, the subject of the graphic figure can be seen and represented in different ways, depending upon its communicative aim-subjective, symbolic or abstract.

Pictorial Diagram



*Left, two drops in one eye three times daily, centre, one teaspoonful three times daily; right, one pill four times daily; bottom, half pill once weekly.*

Objective translation shows the idea in terms of visual reality. The photograph is possibly the purest example of objectivity, although often requiring visual modification in order to simplify or exaggerate the character of the object.

Symbolic translation removes the idea from the context of natural reality, retaining only the visual features which are essential to its identity.

Abstract translation presents the idea in terms of pure visual logic, independent of any associations with specific objects in the real world. It also lends itself to problems in which the technical content, or its interpretation, is itself abstract. Abstract form can also act as an organizing device without special meaning.

## Designing the statement

The visual communication of information takes three distinct forms, Statistical, Explanatory, Locational (maps), and is represented graphically in the form of diagrams.

Statistical information can be shown visually in various ways. One of the most common is the use of the graph, whether it be in the form of line, divided line (which shows the value of the total and its constituent parts on the same frame), bar graph (which shows quantitative values more clearly than line), block diagram, divided rectangles, circular graphs, divided circles and pictorial graphs.

Explanatory diagrams explain stages in a manufacturing process, the structure of an organization or events related to each other in time. They do not usually make quantitative statements although adaptations could make this possible. The main design problem in explanatory diagrams is in reducing information to the essential without distortion. This can be done in many ways from the objective to the abstract or near abstract viewing.

Locational diagrams and maps also make full use of form vocabulary as well as the objective, symbolic and abstract method of presentation. Certain characteristics found in graphs are also to be found in the presentation of maps, especially when statistics regarding geographic areas are required to be shown.

The important difference between the statistical diagram and the locational diagram is that the map provides the framework on which information can be shown. In giving statistics in diagrammatic form there may be several ways open to the designer or communicator to use or modify shape to suit the requirements of the information. The one main problem in map design is that of getting inflexible information into inflexible shapes, a problem increased when labelling of the information is required. To superimpose population pyramids for various countries on a map of Africa may be easy for Zaire, Nigeria and the Sudan but impossible for Togo, Lesotho or Sierra Leone on a map of the same scale and if the map lines and superimposed information are to be kept readable. Maps can be in the form of explanatory, route, statistical, non-quantitative (political, physical, racial etc.)

Various factors will have a bearing upon the method of presentation used: type of information, type of audience, sources of reference, the type of media used (slide, overhead projector etc.) and the skill of the presenter.

Production of visual aid material is a highly specialized field, but the communicator should be in a position to discuss effectively with the designer as to what and how to express information graphically. In other words, the communicator must have sufficient background knowledge of graphic design to be able to assess the communication requirements and to issue a comprehensive brief regarding the visual aspects of these aids in order that he can fully exploit the potential of the information being presented. The communicator should therefore have some knowledge of the physical requirements of organizing and presenting information in a graphic form.

## Organization

The same type of questions must be asked when preparing visual material as when organizing a meeting. (1) What is the purpose of the meeting? (2) What type of information is to be presented? (3) Who is the audience? (4) How many expected in the audience? (5) Where is the meeting to be held? (6) What facilities does the venue offer? (7) What is to be the method of presentation? and (8) What costs are likely to be involved? All of these questions must be answered in the early planning stages in order to get the best results from the time, effort and expenses involved.

In establishing the purpose of the meeting, it is necessary to consider the type and size of audience, subject of presentation and finance available for the production of visual material. For example, if the meeting is aimed at a specialist audience then the visual presentation and its spoken commentary can be more technical than if the audience is for the non-specialist, even on the same subject. By establishing the expected composition of the audience at an early stage, the depth of detail and explanation of the subject matter to be presented, including the degree of complexity of the graphics, can be decided upon. The size of the audience will have a bearing on the type of visual equipment to be used. The amount of effort to be expended on the preparation of graphic material will not only be determined by finance available, but will be influenced by the type of equipment to be used and whether or not a permanent record is required for future presentation.

## Audio-visual systems

There are several aids suitable for the presentation of visual material:

Slides

In 5cm x 5cm mounts
Colour or Black and White
Picture size: 36mm x 24mm

Advantages include:
Easy to use
Readily available
Easy to make

Advantages include: (contd)
Can be presented in any sequence
Storage and transportation easy
Can be combined with sound
Automatic and remote control is easily arranged

Disadvantages include:
The need for electric power
The need for blacked-out room
Once projector is switched-off the image has disappeared and no longer available for study

Filmstrips

35mm single frame (18mm x 24mm picture)
35mm double frame (24mm x 36mm picture)

Advantages include:
Correctly threaded into the projector the pictures will be presented correctly and in sequence
Very transportable
Easy to use
Copies are cheap

Disadvantages include:
The need for electric power
Projection Equipment is required
A blacked-out or dimmed room
Inflexible in so far as the sequence of presentation is fixed and it is impractical to insert local or alternative material
Material disappears when equipment is switched-off

Overhead Projectors

$9\frac{3}{4}$ x $7\frac{3}{4}$" (25cm x 20cm)
$9\frac{3}{4}$ x $9\frac{1}{4}$" (25cm x 25cm)
Standard sizes

Advantages include:
Easy to use after a few minutes basic Instruction
Flexible in that transparencies can be varied in sequence, added or omitted
Can be used in normal lighting
Colour can be easily introduced
Presenter faces audiences (Good eye contact)

Disadvantages include:
Need for electric power
Large size of transparencies compared to 35mm slides

Episcope

An instrument for projecting flat copy (book pages etc. straight onto a screen without having to make transparencies)

Advantages include:
Cheapness. Because the image is projected from the original there is no expenditure of time

and money in making slides i.e. there is an instant projection

Disadvantages include:
Need for power
The machines are not easily available
Light output is very poor and use dictates a completely blacked-out room

Cinefilm — 8mm, 16mm or 35mm with or without sound
Colour or Black and White

Advantages include:
Movement
Sound
Great impact

Disadvantages include:
Need for power
Need for equipment
Need for specialist operator
Films may have to be booked well in advance
Expensive

Flannel Board (Felt Board) — Usually a piece of dark felt cloth stretched over a board such as hardboard or an existing blackboard
Size can vary, but 3' x 4' will be suitable for most purposes
The images can be produced on coloured flock paper, which can be used piece by piece at whatever speed the presenter considers best

Advantages include:
Materials easy to obtain and make-up
Easily transported

Disadvantages include:
Need to be kept clean and dust free to maintain smart appearance
The presenter cannot introduce new facts or ideas on the spot as he could with a blackboard

Flip Charts — Loose sheets (clipped, pinned or taped up)
Sheets mounted on hardboard with easels
3' x 4' approx.

Advantages include:
Can be economical (hand lettered or drawn on cheap newsprint)
Can be produced very quickly
Can be tailormade and topical
Needs no power
Full daylight use

Disadvantages include:
Needs special display arrangements e.g. board, easel, pins etc.
In some cases, charts may have to be large and unwieldy, numerous, heavy to handle and transport

Blackboard Whiteboard, chalkboard with chalks or liquid markers
Immediate production of images in the presence of an audience

Advantages include:
Cheap
Familiar to majority of audiences
Colour easily introduced
Visuals created the moment they are required

Disadvantages include:
Temptation to include too much information
Is liable to be badly used and present illegible information
Cleaning does not necessarily remove the last set of information and 'ghosting' can occur
The use of chalk and the cleaning covers the presenters hands and clothes with dust

The following information will assist in arranging the positions of audience members and projectors in relation to the screen

Slide projection

With a lens of 5cm focal length:

| | | |
|---|---|---|
| Screen distance of | 10' | will give a picture size of 7'6" x 5'0" |
| | 13' | 9'6" x 6'4" |
| | 16' | 12'0" x 8'0" |
| | 20' | 14'4" x 9'6" |

With a lens of 8cm focal length:

| | | |
|---|---|---|
| Screen distance of | 10' | will give a picture size of 4'6" x 3'0" |
| | 13' | 6'0" x 4'0" |
| | 16' | 7'6" x 5'0" |
| | 20' | 9'0" x 6'0" |

Overhead projection (10" x 10" transparencies)

| | | |
|---|---|---|
| Lens to screen distance | 5'6" | Picture size 39" x 39" |
| | 6'0" | 46" x 46" |
| | 10'0" | 78" x 78" |
| | 20'0" | 156" x 156" |

Audience numbers in relation to screen size and seating

| Screen width | Seating Area | Practical Seating |
|---|---|---|
| 5'0" | 20' x 17' (340 sq ft) | 50 |
| 5'10" | 24' x 20' (482 sq ft) | 75 |
| 7'0" | 30' x 22' (654 sq ft) | 100 |

## General guide for seating positioning in relation to screen

No person to be nearer than twice the screen width.
No person further from screen than six times its width.
No person on either side more than 30° from axis of projection.
General guidelines as to the size of image in relation to projection distance for maximum legibility could be taken as being a symbol (either drawing or lettering) of 1" high for each 30' of projected distance (from the lens to the screen).
This would mean that at a distance of 60' the eight of a projected symbol or letter would have to be 2".
This size could be reduced to $\frac{7}{8}$" if the image is clear and well defined.

When preparing transparencies in the form of lines of lettering, the distance between the lines should be equal to 1/36 of the overall height of the transparency.

## Sequential steps in the preparation of material

1. Determine the main and subsidiary purposes of the presentation
2. Prepare rough ideas of the visual aspect in association with the spoken commentary
3. Prepare visual images
4. Arrange sequence - decide on changes
5. Rehearsal for both time and continuity with the script
6. Modify, if necessary, to conform to the time limit or parts of the commentary that are found to require greater emphasis.

## Important facts in presentation

1. All visual material should be of the same, good quality
2. Spoken commentary should be clear and concise
3. Visual and spoken commentary should be in synchronization
4. The overall presentation should be professional, to the point, and have a beginning, a middle and an end
5. Time should be allowed for questions. The speaker must decide beforehand whether questions can be asked during as well as the end of the presentation. Questions interposed in the course of a delivery requiring sequential presentation of ideas in building up a reasoned case could be distracting. On the other hand, the speaker may wish to have active audience participation, and comments and questions would then be encouraged. The audience should be aware of the speaker's wish before the oral delivery is started.

Remember that pictures or visual images are static. An approximate guide as to the length of time a single image is in view should be no longer than 15 seconds, unless it is the subject of prolonged discussion.

Further Reading List

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