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ROCHESTER INSTITUTE OF TECHNOLOGY

A Thesis Submitted to the Faculty of
The College of Fine and Applied Arts
in Candidacy for the Degree of

MASTER OF FINE ARTS

A SEMIOTIC APPROACH TO THE STUDY OF SYMBOLS

by

Susan M. Dosick

June, 1986

APPROVALS

Advisor: Signature Illegible

Date: July 7, 1986

Associate Advisor: Signature Illegible

Date: July 7, 1986

Associate Advisor: Signature Illegible

Date: 7/3/86

Graduate Academic Council Representative: Special Assistant to Dean for Graduate Affairs: Philip W. Bomarth

Date: 7/14/86

Dean, College of Fine & Applied Arts: Dr. Robert H. Johnston Ph. D.

Date: 7/28/86

I, Susan M. Dosick, prefer to be contacted each time a request for reproduction of this thesis is made. I can be reached at the following address:

Date: _____

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INTRODUCTION

Symbols are a form of communication we become familiar with as we mature into our own society or become educated in the ways of other societies. We can learn the language of our own or another society and observe its customs superficially. However, because a society is best understood by the symbols it holds dear, we must study those symbols as a visual language. Reciprocally, symbols operate within a context of understanding. Like any language, they are meaningless unless they are interpreted in relation to a culture. The interpretation of symbols makes a connection from the creator of the symbol to the interpreter or recipient, completing the function of communication.

By organizing symbols as a visual language, we have a system that can be studied. The systematic study of symbols, as well as other forms of communications, is known as semiotics. Semiotics (from the Greek semeion, meaning "sign") is divided into three areas: semantics, syntactics, and pragmatics. Semantics deals with the meaning of symbols, their relation to what they represent. Syntactics deals with the forms and appearance of symbols and their relation to each other. Pragmatics studies how the symbols function in context.

The study of semiotics, like any system, is a method of imposing order on an area of complexity, clarifying our way of perceiving and understanding the relationship of parts to the whole.

In a complex society such as ours, where industry and commerce provide the source of much of our needs, corporate and trade symbols are the ones we see most frequently, as opposed to religious or folklore symbols. Trade symbols have become the communicative devices of much of our lives and merit study and understanding as do the symbols of other cultures. Semiotics helps us understand the relationship of these symbols to our own society.

HISTORIC USES OF SYMBOLS

Communication may take many forms, both verbal and visual. The ability to communicate visually exists in a wide variety of animal life. This ability ranges from extremely simple tropisms to basic use of sign language which has been taught to chimpanzees. While other forms of life may use signs to communicate, only humans can be called the symbol-making and symbol-using animal.¹

The word "symbol" means "to throw together". This is synonymous with the thought process of conjecture. The word "conjecture" also means "thrown together".² The use of symbols is a matter of bringing together with, or associating the meaning of one form with, the meaning of another form. In doing this, we interpret and transform the image into having meaning beyond itself.

The process of seeing is one of abstracting visual information into recognizable forms.³ Vision provides the mind with raw materials. The brain abstracts this input to simplify its assimilation and then provides meaning. An example of this is our observation of a forest. We don't necessarily see each tree or define what variety of tree it is, but we see the forest as a unified form with characteristics that can be recalled at will. Symbols are stimuli to this form of associational thinking. They carry messages for which we have an inherited sensory capacity. Examples of this are smell and touch and their associated responses: when it rains, we run for shelter.⁴ Signs are messages that occur regularly with signals and evoke similar responses: when we see rain clouds on the horizon, we know we must seek

¹Kenneth Burke, "Definition of Man", from The Hudson Review, vol. XVI, no. 4 (Winter, 1963-64), in Semiotics, vol. 3: Communication, Codes, and Culture, ed. Donald W. Thomas (Lexington, Mass.: Ginn and Co., 1982), p. 67.

²Donald W. Thomas, Semiotics, vol. 3: Communication, Codes, and Culture. p. 259.

³Ibid., p. 179.

⁴Rudolf Modley, "Graphic Symbols for World Wide Com-

shelter.⁵

Because symbols can be created from any image or object, their meaning is not inherent but must be established and learned. This is necessary to overcome their ambiguity and to afford clear communication.

THE ORIGIN AND USE OF SYMBOLS

The creation of one of the first symbols may have occurred when man, acting out the hunt, symbolically killed his prey in ceremony, using a substitute or sympathetic image. This was to insure his success during the actual pursuit.⁶ In this way, pre-historic cave paintings of buffalo herds were thought to be used as targets for a sympathetic image.⁷ As a variation on this theme, one of the participants would wear a full disguise or a specific talisman, such as an animal's claw. This enabled the wearer to adopt the characteristics of that animal whose traits he admired.⁸ The Lion of Judah, symbol of the throne of Ethiopia, is an example of this phenomenon. Alternately, a symbol could be formed from the abstraction of a whole form. For example, a hand might represent the whole body or a claw, the whole lion with its attendant characteristics.

Symbols began to function as independent communication devices when they were treated with reverence beyond representing a real form or concept. Religious icons, because they are usually figurative (as in a crucifix) form a concrete association in our minds with whatever religious background we possess. These, as well as national flags, were symbols

munication" in Sign, Image, Symbol, ed. Gyorgy Kepes (New York: George Brazillier, 1966), p. 116.

⁵Ibid., p. 116.

⁶Aniela Jaffe, "Symbolism in the Visual Arts" in Man and His Symbols, ed. Carl G. Jung (Garden City, N.Y.: Doubleday Publishers and London: Aldus Books, Limited, 1964), p. 234.

⁷Ibid., p. 235. ⁸Ibid., p. 236.

elevated to a form capable of possessing power.⁹ Symbols for clan groups to heraldry, to national flags are symbols of group identity and conform to this idea.¹⁰ They are revered and, in their own right, arouse intense emotional associations.

With the development of written figures, the ability to give form to associational thinking helped foster the ability to symbolize an idea, activity, occupation, or custom. This could be accomplished by using an object associated with the idea (for instance, an arrow to symbolize war). Alternately, it could be done using an object which, because of its analogous character or function, suggested the idea to be expressed (such as the phoenix representing resurrection).

As an actual written language was developed, the link between written symbols and written forms of spoken language was made.¹¹ The Chinese character and the Egyptian hieroglyph are two examples of this. The Chinese characters had their beginnings in the drawings used to symbolize an object. The drawings were then abstracted and evolved into the standard characters. Egyptian hieroglyphics, to express an abstract concept, often used a symbol based on the glyph of a homonym representing a more tangible object. For example, the "ankh", the symbol of life, is based on the figure of a sandal strap, an object which has a similar verbal form.¹²

As society became more structured, with an industrial and merchant class, the symbol was used as a hallmark for raw materials and their refinement into products. These hallmarks provided the roots of our current corporate trademarks, symbols in the visual language of commerce.

⁹S. Giedion, "Symbolic Expression in Pre-History and in the First High Civilizations" in Sign, Image, Symbol, ed. Gyorgy Kepes (New York: George Brazillier, 1966), p. 87.

¹⁰Lancelot Hogben, From Cave Painting to Comic Strip (New York: Chanticleer Press, 1949), p. 29.




¹¹Giedion, p. 90.

¹²Arnold Whittick, Symbols, Signs, and Their Meaning


CONTEMPORARY TRADEMARKS AS SYMBOLS


Contemporary trademarks exist in many forms. They can be verbal symbols in the form of written characters, abbreviations, or initials.¹³ They can also be in the form of iconographic signs in direct reference to a product.¹⁴ Or, they may be metaphorically applied signs using parallel forms with analogous qualities.¹⁵ A trade symbol may be simply a figurative mark with no relation to an image or object. Mitsubishi's corporate mark is an example of this.¹⁶ Figurative marks are the most difficult symbols to learn and remember because of their high degree of separation from real objects.


On the other hand, we find forms of symbols relating to shapes which express ideas and represent objects. This is known as isomorphism. Accelerating the immediate comprehension and retention of a symbol, symbol and concept are fused. These types of symbols are known as isomorphic forms and some have transcended cultural boundaries to become archetypes. An example of this is the circle. It appears in sun worship, the mandala (a symbol of enlightenment and wholeness), city plans, and early astronomy.¹⁷

Trademarks, as well as other graphic symbols, have a taxonomy which helps us understand their functions and relations to each other. They can be phonograms or logograms. Phonograms represent a sound in the alphabet: the letter "a" for example. Logograms can be image-related: for example  denotes a curve in the road. Or, they can be concept-related: For example  denotes water. But they may often be ambiguous. For example  denotes the

(Newton, Mass.: Charles T. Branford and Co., 1961), p.5.

13  Trademark of United Airlines

14  Trademark of EgyptAir Airlines

15  Trademark of Eastern Airlines

16 

¹⁷Jaffe, p. 240.

word or concept "plus" or "in addition to", and — denotes the word or concept "subtraction".¹⁸

Image-related symbols must be currently used and locally accepted or they are meaningless. A symbol for male pedestrian, used in a country where men wear long robes, rather than western-style trousers, would be inadequate.¹⁹ A symbol that is concept-related is far more likely to span social and temporal boundaries.²⁰

When a message cannot be projected exactly in a visual symbol, often words function better. An example of this is the word "fragile" which evades exact expression in symbolic form when used before an international audience.²¹

As the world becomes increasingly smaller, trade and transportation symbols must be understood on a global scale. If symbols are standardized, by using established shapes and colors, they will have greater acceptability over a broad range of nationalities. International symbols must also fit, without unintended meanings, into the context of the visual language of many societies. They must be able to be differentiated from others and remembered.²² Symbols used commercially are relied on most frequently in developed nations where there is a high degree of literacy.²³ This is indeed a paradox; it is due to the intense competition for our attention in an industrial nation. By contrast, in the emerging countries, we find that symbols, instead of augmenting language, are used as substitutions for the written language.

¹⁸Martin Krampen, "Signs and Symbols in Graphic Communications", *Design Quarterly*, vol. 62, 1963 (Minneapolis, Minn.: Walker Art Center), p.11.

¹⁹Modley, p. 116.

²⁰Ibid.

²¹Ibid., p. 121.

²²Whittick, p. 101.

²³Interview with David Lance Goines, Berkeley, California, April, 1983.

The proposal for this thesis was first presented in September of 1981. At that time, I proposed that my research would draw on the two areas of my experience: visual education and graphic design. Without a commitment, I had in mind that I would limit myself to dealing with the study of symbols. I did some reading and research in that area to get a preliminary background. One of the areas of exploration was that of semiotics, a communication system, as applied to visual symbols.

In June of 1983, after doing more research, I decided that the proposal was not specific enough. A more specific proposal was drafted that narrowed the subject area to deal with a semiotic approach to the study of symbols.

My intent was to orient the project toward educational usage. I am aware of the need for quality teaching materials in graphic design instruction and I decided my work would be aimed toward the high school/early college level.

The semiotic approach of syntax, semantics, and pragmatics is a logical structure imposed on a broad area of study. Therefore, I chose to follow this path.

OBJECTIVES OF THE THESIS

My primary objective was to create an educational tool that could be used by advanced high school and early college students. It would be easily understood, attractive, and informative. Organization is the key to presenting a large amount of information in an easily assimilated form. The semiotic system provides that organizational structure. From my teaching experience and my research, semiotics, symbols, and graphic design have been overlooked in most high school and college visual arts programs (perhaps because of their apparent complexity and ambiguity).

My goal was to create a learning device that would help the students' understanding of the symbol as a communication

medium, as a link between various segments of society in history, and as an aesthetic form. I wanted a format that would have a broad sphere of application and flexibility.

ANALYSIS

Based on my research and personal experience as a teacher of visual art, I found that one of the areas most lacking in contemporary visual design education is the use of teaching aids geared to design in visual communication. High school and post-secondary education needs a better foundation of information about design concepts for this more sophisticated level of study. Design is an area of study that is very difficult to teach well. Many secondary schools do not emphasize this area. Instead, they approach design by the circuitous routes of teaching the "nuts-and-bolts" of graphic design, the terms and techniques associated with the production of the work rather than a solid knowledge of the history and analysis of design.

While looking for teaching aids for graphic design, I found many educationally sound examples of films, slides, filmstrips, and posters, but none geared to the area in which I was going to work. Perhaps the lack of available supplemental materials is the reason that graphic design is not covered in the classroom. Certainly, high school students are intellectually capable of understanding a more complex approach to learning about graphic design.

In the area of graphic design, most of what I saw advertised in reference sources was in media that are expensive, formal, and complex, such as films, slides, etc. These require equipment for use and a "one-shot" approach where the audience gets one chance for viewing. A medium that was more casual, able to be assimilated at the viewer's own rate, and less expensive, would be more effective to teach large amounts

of information dealing with an inherently two-dimensional content.

RESEARCH

In beginning the research for my project, I began by trying to establish a need for teaching materials by finding any existant media that dealt with symbols in graphic design. Fortunately, I have access to books on and catalogues for various educational devices in my subject area. I found nothing in any of the distributors' catalogues in book form. Nor did I find any visual media geared to the advanced high school student dealing with this specific field of information on symbols.

The audio-visual department at RIT's Wallace Memorial Library provided several catalogues of visual aids organized by subject matter, among them the NICEM²⁴ fiche, a comprehensive listing of available media, and the catalogue of Career Guidance in the Arts and Humanities.²⁵

In my search within the area of graphic design, I sought media dealing with the principles, elements, or components of design such as typography, grids, and symbols. Nothing was listed in the previously mentioned sources that could be integrated into a course of study as I conceived it. The listings featured media concerning the practical aspect of graphic art production techniques and career choices in the field. The only example dealing with the area of symbols or trademarks was the film Faces and Fortunes²⁶ which, dealing with a symbol's function only in the corporate sphere, had a completely different orientation from my intentions.

²⁴NICEM: National Information Center for Educational Media, U. of Southern California, Los Angeles.

²⁵Technical Education Research Center, Cambridge, Mass.

²⁶Faces and Fortunes, Goldscholl and Assoc., 1966.

During the "Graphic Design Experience" of June, 1980 at RIT, I distributed a questionnaire to the high school juniors participating in the program. The students came from a wide variety of high schools and from a broad geographic location. The questionnaire dealt with their schools' design programs, their content and resources. A sample of the questions and results are on page 24 of the appendix.

I wrote a letter of inquiry to the American Institute of Graphic Arts regarding any instructional media on graphic design. The AIGA was unable to provide any sources.

It was clear that a device was needed to teach the meaning, aesthetics, and practical function of symbols.

THE DESIGN PROCESS

Once the objectives of a project are stated and clarified, the process of design is a matter of methodically solving a problem, eliminating some choices, while incorporating others.

The first problem to be confronted was of deciding which format the project was to take and what would be the best way of presenting the information. Among the forms considered were an animated film, a sound/slide presentation, and a two-dimensional form of a book or a poster.

For several reasons a poster series was decided on as the medium in which to work. First, in my own stage of development, the work would fit into context. It would present a chance to hone my skills in two-dimensional design. Second, posters are easily reproduced communication devices; they are easily disseminated and do not require any special equipment for viewing. The information can be ingested and assimilated at the individual pace of the viewer as frequently as desired.

By using a framework of the semiotic structure, the content of the posters was divided into the three areas of

semantics, syntax, and pragmatics. The first poster was designed as an introduction to aid in creating a sense of cohesiveness. It would give the audience an overview to help understand the posters as individual units and as a system. The second poster was to deal with the meaning of symbols (semantics), the third with the symbols' aesthetics (syntax), and the fourth with the function of symbols (pragmatics).

The semiotic structure helped organize the framework of the project and governed the selection and organization of the information researched. As new information was gathered, new questions sprouted to lead me into finding different sources of information in geometric progression. Pieces of information were tabulated to fit into the whole structure and selected as to which pieces would be used. At this point, the process of writing the narrative and finding visual examples was simplified.

As I researched the subject of symbols, trademarks, and logograms, I found that many common symbols changed over a period of time. They changed their meaning, their appearance according to aesthetic criteria, and they changed to improve their functioning. This element of change and development established unity in the different posters.

I decided to keep the tone of the writing "conversational", thus putting the viewing audience at ease with a subject that could be initially perceived as dry and uninviting. Therefore, each poster, in its headline, asks in turn: "What does a symbol mean?", "How does a symbol look?", "How does a symbol work?". The introductory poster repeats and spotlights each of these questions in its sub-heading: "meaning, aesthetics, function". Each question uses the same expressive form and sentence structure, providing a unifying element.

To develop the material for each poster and to provide some guidelines for my research, I used the method of asking what a student should know about symbols. Questions arose such as: Can a symbol change radically in meaning from one

situation to another? Are there basic forms that convey a specific universal meaning? How does a symbol have to adapt to function in a given situation? Is there a "natural selection" process in the creation and endurance of the many widely used symbols? These questions provided a framework on which to build.

THE VISUAL ORGANIZATION PROCESS

The most logical way of approaching design is that it should spring from the content of the material presented, providing a direction for the form to follow. Problems such as how type and visual elements are to be placed, how space is to be divided, and the problem of finding a visual and thematic focus should all find resolution in the innate form of the subject matter to be presented. This is the antithesis of imposing a preconceived structure onto a problem's solution or emphasizing the final outcome over the process of design. Going through the process of design that is based on content determining form results in a stronger solution to the problem. After a few false starts of solving the design problem through form, I returned to the content of my research for a direction through its structure.

My first job was to establish how the space was going to be divided. I decided to have four basic columns in the layout of the four posters for flexibility. These columns were subdivided, forming the smallest divisions, and based on the element with the most numerous parts.

The natural division of the content of my research into the semiotic structure of semantics, syntax, and pragmatics, provided for the channeling of each bit of information into an over-all structure. Because the structure stemmed from a common source, it acted as a unifying element. The same rhetorical question was being asked: "What does a symbol mean, how does it look, how does it work?". I decided to spotlight

these questions because they would provide the key to each poster. These questions were the common element that would provide a visual anchor in terms of placement of type, division of space, and in creating a focal point.

The placement of the titles of each poster ("How does a symbol mean...look...work?") became the hub of each design and the constant element. After trying various placements, I decided on a vertical midpoint in each poster. Rather than placement at the top or bottom, this would be visually stronger in acting to tie the four units together.

The title heading was the element the four posters had in common. Therefore, it was made into the largest typographic element, occupying the most horizontal space. Since the form of the posed question was conversational, I felt it would convey the idea more clearly if the type added a visual inflection. Thus, the key word in each title (mean, look, work) was italicized and set in boldface. The title would be in its own reserved space at the same vertical level in each poster. Small shifts would be made horizontally to be perceived as motion and prevent the design from being static.

The next problem was to establish a structural grid. The unit grid was based on the smallest type size (10 point) to provide a standard of measurement. From this, the composite grid divided up the usable space (allowing for margins) into four columns across with fourteen vertical increments. This was based on a final projected size of 18" x 24".

From the smallest sizes of type to the largest, bits of information were assigned to a hierarchy from the general to the specific. This allows the viewer to find the same topic on each poster, such as the title-heading, sub-heading, explanatory paragraph, etc. This also structures the order in which the bits of information are assimilated.

Near the definitive word in each poster's title is an explanatory paragraph. It is placed in close proximity to the key word and is in boldface, although it is in the same type size as the other explanatory paragraphs. It should be

the first type element the viewer reads after the title.

In the process of my research, I had collected many diverse pieces of information and examples of symbols, both old and current. In selecting the symbols, I chose those examples that epitomized the various points in the script that I had written, based on my research.

I began to fabricate the posters by "hanging" the visual elements and corresponding type elements on the grid. Each poster was to follow the grid for cohesive structure but with variations:

1. With the visual weight of the material placed on a different axis, centered, or placed at the side.
2. The use of contrasts of density, mass, and size to create a pattern.
3. Creating a pattern of negative space.

I emphasized using the grid to tie the parts together, either by following the grid literally or by making "visual implications". In the latter, the grid would be submerged only to be picked up in an edge within a form.

In each poster, I have spotlighted an historical reference to each semiotic question. In the poster dealing with the semantics of symbols, the spotlight is on symbols having changed their meaning from one society to the next. Secondly, in the poster dealing with the aesthetics of symbols, the focus is on refining, simplifying, and updating the "look" of a symbol. And, in the poster dealing with the function of symbols, the focus is on the various ways symbols have been used. In each case, the information is reversed in white on darker ground to uniformly separate it from the other areas.

At this point, I needed to consider color as an element, relieving the clinical feeling of black on white. Blue and ochre were chosen for their opposed vibrancy. Blue, I assigned to the title because of its ability to capture attention and because of its authority. Ochre, I chose to spotlight and unify the historical elements in each poster.

The introductory poster used the same grid and was designed mostly with type. Again, blue was used for the main body of information for strength and to relate to the other poster titles.

TECHNIQUE OF PRODUCTION

I began executing the posters upon completion of the final set of sketches in which the elements, rendered on tracing paper, were enlarged or reduced and manipulated on the grid structure.

When the final set of sketches was in focus, the elements finalized and in place, I began work on the camera-ready boards.

I chose two methods of execution. For the first edition, I planned a positive transparency of the black elements over a white board to contain the colored elements of blue and ochre. For the second, full size negatives were made to contact print on photographic paper.

Step one: I enlarged or reduced the elements in PMT positive form to create the camera-ready materials.

Step two: I typeset the script on an Omnitech 2000 typesetter after learning how to use the machine in its various modes.

Step three: I photographed the colored elements to make film negatives. These negatives were contact printed onto prepared Chroma-tec material. Chroma-tec is a commercially available material for making custom color dry transfer images and type.

On the first edition, the positive transparencies were made from exposed and developed 20" x 24" film. They were placed as an overlay on white boards of the same size containing the colored elements in either Chroma-tec or Pantone

film in Process Blue or Yellow Ochre (Pantone 145C).

I produced the second edition for display in the Graduate Thesis Exhibit of May, 1984. The work was executed from 20" x 24" film negatives contact printed on double-weight, fibre base photographic paper. The color elements were added in Chroma-Tec and Pantone film. The work was then dry-mounted on foam core board and shrink wrapped.

SUMMATION

This project has been the culmination of more than two years of study at RIT. It is an aggregate of what I've learned. During this time, I have developed an increased awareness of the total nature of visual design. I have developed a sense of refinement, structure, form, and expression of a concept all interwoven into a whole.

Learning how to incorporate structure into the basis of design has influenced my work in other areas from two-dimensional work to sculpture. It has helped me incorporate more clarity in conceiving and implementing any communication medium.

Any educational experience, to be truly valuable, teaches us the process of thinking, not only technique of production. The ability to transfer what I've learned through my thesis project into the more global aspects of my work and my own visual expression is the most important thing I can ask of an education.

APPENDIX

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QUESTIONNAIRE FOR PARTICIPANTS IN THE GRAPHIC DESIGN WORKSHOP - JULY, 82

YOUR NAME _____

1. What high school do you attend? _____
Where? town: _____ state: _____

2. How did you hear about this workshop and who recommended you take it? Your art teacher? Other? _____

3. What type of high school do you attend?
Comprehensive (general) h.s. or technical/trade/vocational

4. What kind of art courses have you had this past year?
basic art course drawing & painting commercial art & design
open studio other (please describe) _____

5. Did your course use a text or a workbook? yes no
If yes, what was it? _____

6. What kind of Graphic Design projects did you have as part of the course?

7. What do you feel you learned from your course? Do you feel you learned more how to design or how to use materials and equipment? _____

8. What would you like to learn from this workshop? _____

9. Have you had any of the following: Offset printing
silk screen printing calligraphy or lettering
typesetting hand typesetting photo-typesetting

10. Have you had a formal class in printing? yes No

11. How many days did your class meet per week? _____
full year _____ half year _____

12. If you took a printing course, did it cover graphic design in any way? _____ If yes, what did it cover? _____

The previous questionnaire was given to 31 high school juniors who participated in the Graphic Design Workshop at RIT in the summer of 1982.

The questionnaire was distributed to these students who came from a broad range of high schools, as far away as Arizona. My goal was to find out what was being offered in the area of design education. My intentions were to validate the need for instructional materials in design education.

Some of the students (five) were in some form of technical high school program where the emphasis was on developing vocational skills. The others were in comprehensive high schools.

The students at the technical high schools had the opportunity to take specific courses in layout and design as part of a graphic arts program. The comprehensive high schools offered a broad range of courses in visual arts (drawing, painting, photography, sculpture/three-dimensional design), with the most specific being a course in commercial art/advertising offered at one high school.

When asked if the classes used a text book as part of their studies, an overwhelming majority (25) said "no", while three at technical high schools said that they had a book dealing with layouts, mechanicals, and printing, with some design. One student cited a book on Renaissance art and art history used as a resource in the class.

When asked about the kinds of projects in their courses that pertained to graphic design, there was a broad variety including:

- logo design (from students at both a comprehensive and a technical high school)
- advertising design
- designing a unique alphabet
- lettering
- layout (yearbook)
- making and printing a book

design on a three dimensional cube form and technical projects such as layout, airbrush, phototypesetting, and silk screen.

More students (3:1) indicated that they learned more about using materials and equipment than how to design, admittedly, a much more difficult subject to tackle.

From what the students indicated, when design was being taught it was mostly dealing with basic design principles, a minimal study of logos, and basic principles of layout. There didn't seem to be much study of symbols as a form of communication.

Relatively few high schools have courses in humanities that would cross-reference visual arts with social studies, anthropology, and other areas that are largely ignored in this age of curricula pared down to basics. Incorporation of the study of symbols into an art program would augment that program's study of graphic design while providing a link to other disciplines.

Students need more of an understanding of the function of design, which is to communicate, rather than the merely aesthetic approach that seems prevalent.

Availability of good teaching materials, whether in book, poster, or film, can make the difference by providing the base on which to build a unit of study.

INFORMATION TO BE INCLUDED

SEMANTICS: What does a symbol mean?

Cultural factors (hobo's symbols, monogatoro, eye)

Historic factors (Bell System logo)

Subliminal factors (hand, symbol for dollar)

Associational factors (Bi-Centennial star, NBC peacock)

Isomorphic factors (abstract motion)

15 basic forms

SYNTACTICS: How does a symbol look?

Closure

Unity

Positive/negative

Contrast of thick/thin

Three dimensionality

Flow/direction

High or low degree of abstraction

PRAGMATICS: How does a symbol work?

Can it be enlarged or reduced?

Can it be easily remembered?

Can it maximize the use of one color printing?

Can it be used within a grid for placement and scale?

Will color be used to embellish it?

How and where will it be used?

NOTES TO MYSELF

7/1/83 - How will students use the three posters?
 What part of a whole unit will they play?
 How much information as part of the unit will they contain?
 How will a study unit be structured to accomodate them?

7/2/83 - Classifications of symbols: animal forms, object forms, trefoils, positive/negative, motion forms, human forms (whole, parts), cruciforms and variations, concentrics, basic shapes, astral/planetary symbols, plant forms, radial forms, symmetrical forms.

7/8/83 - Elements for variation in design:

1. Point - emphasis, spatial separation
2. Size change in an order based on importance
3. Change of angle of image or type
4. Type size changes
5. Change in relationship of light/dark (value)
6. Use of color
7. Textural changes
8. Intersections of horizontal and vertical
9. Areas of simplicity with complex areas
10. Isolating elements by space

Elements for unity in design:

1. Similar size type
2. Use of grid as basis for construction
3. Placement of type relative to image
4. Rule lines

8/20/83 - It has suddenly struck me how certain forms of jazz or classical music parallels working with a grid. It is the visual equivalent of strands of a

melody getting lost in secondary motifs and variations of a theme, only to reappear to remind the listener of something familiar to anchor onto. The music of Barry Kiener and Beethoven (Piano concerto #5, for example) are two examples I'm familiar with. The variations of the main theme tie the work together, while the playfulness of contrasts and "detours" add the excitement. Grids can be like that: once you're comfortable with them, you can play all sorts of visual games with them.

POSTER TRANSCRIPT

Poster I: Introductory Poster

Title: SYMBOLS

Copy A: The need to communicate through graphic symbols has always existed in every society. The first written form of communications was in symbols which represented tangible objects, later changing into representing syllables and words of the language.

Symbols are a quick way of communicating a message. Symbols can express fairly basic messages, but when society's needs outgrew their limitations in expressing more complex ideas, written languages were developed.

In today's complex society, the need for symbols is very strong because of the speed at which we are expected to absorb information in an environment overloaded with visual and written messages. National boundaries are being crossed as a result of trade and travel and internationally accepted symbols are required to make rapid communication possible.

Symbols are an effective substitute for the written language in terms of safety, where the rapid understanding of a warning is a necessity. On a highway for example, there are so many signs flashing by that they must be understood as easily as possible.

Symbols can be simplified reproductions of objects or concepts (these are called icons or pictographs). They can be abstractions that are image-related and retain a visual association with the object or process they represent. They can be totally abstract or arbitrary with no direct relationship to any object. These symbols must be learned.

To design good symbols, or re-design older ones to make them more effective, requires much research, designing, and evaluation.

Because symbols are communicating devices, we can apply the criteria in the field of linguistics to them. These are the criteria of the Semiotic system:

Semantics (the meaning of the symbol)

Syntactics (the visual design of the symbol)

Pragmatics (how the symbol works in use)

Good symbols score high in all these areas.

Copy B Traveler's symbol for drinking water

Copy C Taoist symbol for the element of water

- Copy D Folklore symbol for water
- Copy E International ecology symbol for water
- Copy F Vehicular control symbol for water

Poster II

Title: What does a symbol mean?

Copy A Symbols are a visual language. Like a verbal language, they are often more meaningful to the people in the group who use them than to outsiders. Older civilizations, as well as special groups today, use symbols as a means of communicating with each other.

Designers are concerned with creating symbols that can be understood by a wide variety of people. They will design symbols to convey a meaning as clearly as possible so it can be understood and remembered. The symbol should represent the message to different cultures and age groups. It should be easy to learn and gain acceptance, and it should state the message clearly. This aspect of symbol design is called the semantics of the symbol, or its relationship to its meaning.

Copy B Our familiar pharmacy prescription symbol ~~R~~ originated in the symbol of the eye of the Egyptian god Horus, where it was used in amulets to ward off evil. In Nero's Rome the eye was closer to the shape of the letter 'R' with the tail crossed to show that physicians were subject to the powers of the state. It reappeared in the middle ages as being a form similar to a '4' that physicians and alchemists used in prescriptions to ask for divine aid.

Copy C Hobos have their own symbol language to communicate with other 'knights of the road'. They pass along coded messages to advise others of conditions in neighborhoods. They are written on walls, gates, or sidewalks.

Copy D The familiar symbol of the medical field, the caduceus, is made from two snakes wrapped around a staff topped by messenger's wings. The staff, a symbol of authority, and snakes, immortality because they renew themselves by shedding their skin, originated in Babylon 4,000 years ago. The Greeks added the wings, a symbol of a neutral messenger.

Copy E

When a symbol's design expresses the form or action of what it represents, this is called isomorphism. If a symbol can express the nature of what it represents, it communicates the message better and helps the public remember the symbol.

above: litho-offset symbol representing two rollers of a web printing press.

counter-clockwise from upper left: two opposing lines of communication symbolizing a telephone system; winged form representing Eastern airlines; symbol that combines the letterform 'c' and a swan for a company named 'Cygnet' (meaning swan); a circular form that represents a base that radiates in all directions for a park-and-ride system; a form abstracting a twist of yarn for a textile manufacturer; the symbol of Screen Gems film productions, representing film going around the gears of a projector; a symbol representing an underground transit system in Germany.

Copy F

We can associate a symbol with other things in our world from visual clues in the symbol. The symbol, and what it stands for, take on qualities of what we associate it with. In this way, the symbol works on conscious and unconscious levels. This can be understood by a limited group of people or be universally accepted.

An eye is the most universally understood symbol of an all-seeing power, implying that CBS is the most powerful television medium.

Copy G

We associate the peacock with vivid color and the expression, 'proud as a peacock', an appropriate choice for NBC and its color broadcasting.

Copy H

The Hong Kong Hilton's symbol reminds us of a block Chinese character.

Copy I

In this symbol for a Jewish charity organization, the Star of David becomes a tree with the addition of a central axis and upwardly directed lines.

Copy J

We associate the 'S' with a dollar sign, and with the hand to mean a financial transaction. This is a 'for sale' symbol for classified advertisements.

Copy K

Simple forms can communicate a basic concept. Each pattern can be incorporated into designing new symbols and will make the symbol stronger.

radial form- forms moving out in all directions from one point.

parallel line patterns- implies stability and order.

modular pattern - illustrates the concept of many equal elements.

symmetric pattern - illustrates a balance of form or ideas.

rhythmic pattern - implies a smooth predictability.

gradient - forms put in order of magnitude.

linear direction - implies movement.

dendritic forms - forms that branch off each other as they grow.

nested forms - forms organized to nest within progressively larger forms.

counterforce - illustrates the meeting of two or more forces from different directions.

spiral - a form that gets progressively bigger as it orbits out from the center.

Poster III

Title: How does a symbol look?

Copy A

Designing a symbol is a specialized job that goes to a professional designer trained in all aspects of visual communications. A designer will re-work a symbol form until it expresses the concept it was designed for. As opposed to symbols that are the roots of our written language which they evolved into, contemporary symbols are created to be a short-cut to written language and are independent of speech forms. A good graphic symbol will stimulate visual thinking and involve the viewer.

In the business world or communications, a lot of money and time is invested in the designing of symbols. The symbol must meet critical standards before being introduced to the public. These are the syntactic or aesthetic criteria: How does the symbol look? How well do the parts of the symbol relate to other symbols? Is there consistency in design between figure/ground, solid/outline, overlapping, transparency, format, scale, color, and texture? All these questions are considered.

Copy B

Symbols can suggest a three-dimensional form with the minimum of visual clues. The use of angles and a change of line thickness can give this spatial illusion. This is a way a symbol can work its way into our memory because it involves the viewer in the illusion of depth.

Copy C

Symbols have changed over the decades to adapt to the visual demands of the public for simplicity and fast recognition. John Deere, among other companies such as Westinghouse and American Telephone, have changed their symbols to keep up with changes in design standards.

Copy D

The element of closure involves the viewer's mind when the eye must complete the shape with the minimum of visual information. The more the viewer is involved, the more easily the symbol is remembered.

Copy E

A well designed symbol will tend to be compact with space entering into it, rather than the symbol expanding into the space around it. Because the form represents a more solid face, the eye can perceive it more easily. This is called unity.

Copy F

Contrasts of thick and thin line weights add visual variety to a symbol. This can also add the element of textural contrast.

Copy G

Symbols can be either realistic or highly abstracted (with very little, if any, relationship to a real object). Naturally, the public has more difficulty accepting and remembering abstract symbols because there are no similarities to familiar things to help.

Copy H

Direction in a symbol adds the dynamic quality of motion. Direction can be suggested by the variation in a line pattern or the orientation of the parts of the symbol.

Copy I

When negative space flows through a symbol, it unifies the symbol with the background. The eye can move through the form with the space rather than stopping in trapped white space. When negative space is strongly designed, it becomes a separate composition, viewed subconsciously, to make the whole symbol stronger.

Poster IV

Title: How does a symbol work?

Copy A

The proof of how well a symbol is designed is in how it works in an applied situation. This is called the pragmatic aspect of designing symbols and how practical or versatile it is must be considered while it is being designed. A designer will ask: Is the symbol visible at a range of viewing distances and viewing angles? How does color affect how the symbol is seen? Is the symbol difficult to reproduce in different techniques? Can the symbol be enlarged or reduced?

A symbol should be a unique statement of identity. With so many other visual messages in our environment, a symbol should not confuse a viewer but make it easier to sort out visual information. To help the public

accept and remember even the best symbols, they should see them repeated at every opportunity. This means the symbol should be used on everything associated with the organization, both for internal use and on the objects it presents to the public.

Copy B Early symbols

Copy C Fruit wrapping papers are printed on white or colored tissue paper to identify the brand, the grower, or the country of origin in a crate of fruit. The designs originated from different sources. Some are fine examples of folk art adapted to commercial use. They are done in bright colors, in simple designs from wood blocks. They lead a brief life, being thrown away as soon as the fruit is unpacked.

Copy D Merchant's marks were used, beginning in the 13th century, to identify the owner of goods and the quality of his merchandise. The marks were later adopted by trade guilds, some were even registered. The technique of doing the marks with a brush kept the design simple. These marks were nearly always oriented around a central axis and are believed to have originated in the Runic alphabet.

Copy E Branding marks were used in Europe and the American West. The designs had to be distinct and easy to apply, so there were no fine details that were difficult to print. Swans, as well as livestock, were branded. Their marks were inscribed on the upper beak.

Copy F Water marks have been used as an indelible method of incorporating the papermaker's mark in the process of making paper. A wire form is added to the screen that supports the pulp and normally leaves a pattern of lines. Because wire is used to create the designs, they are all linear in quality.

Copy G Fire marks were symbols cast in iron attached to the first floor of a building in England, signifying it was insured by a particular company. They were used from the 17th century through the beginning of this century. Some were gilded or painted brightly. The phoenix is a mythic symbol of rebirth and the star is a heraldic motif. 'Phoenix' and 'Suffolk' are the insuring companies.

Copy H Symbols that are too similar to others risk having no recognition. Without type to explain it, one symbol can be easily mistaken for another, creating confusion.

Copy I A symbol should be designed so it can be applied

to a variety of situations and objects. It can not have any fine details if it is going to be embossed or cast into a form. It should be able to be applied successfully to curved surfaces and seen clearly at a distance when enlarged. It should look clear when used with special paints and other media such as neon lighting.

Copy J For consistency and unity in using a symbol, designers will use a grid to help place the symbol in relation to other information used with it, such as on letterheads and envelopes, signage, and packaging.

Copy K (from left to right)

Ticket purchase

Bar

Immigration

Litter disposal

Passenger pick-up

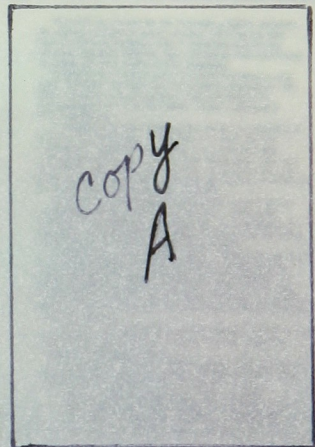
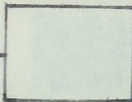
Hotel information

Properly designed symbols can cut across international lines. These symbols were designed in association with the American Institute of Graphic Arts for international travellers. A survey was taken of various symbols used around the world. They were evaluated on a semiotic basis and suggestions for changes were made. In some cases, totally new symbols were created. The goal was to make each symbol clearly understood by people from any part of the world and to be **easily** reproduced and seen from a distance. They have been widely accepted and are a perfect example of good communication design.

s y m b o l s

s y m • b o l

DICTIONARY
DEFINITION



COPY B COPY C COPY D COPY E COPY F



s y m b o l s

Function

Meaning

Aesthetics

s y m • b o l

The need for communication through graphic symbols has always existed in every society. The first written form of communication was in symbols which are repeated graphic objects, now changing into represent the syllables and words of the language.

Language and a device also of communicating a message. Symbols can receive fairly basic messages, but often convey a deeper meaning than language in representing more complex ideas, unless language were developed.

In today's industrial society, the need for symbols is very strong because of the speed at which we are required to obtain information in an environment surrounded with visual and written messages. National boundaries are being crossed as a result of trade and travel and internationally accepted symbols are required to make rapid communication possible.

Symbols are an effective substitute for the written language in terms of seeing, where the rapid understanding of a message is of necessity. On a highway, for instance, there are many signs. Seeing by that they may be understood as easily as possible.

Symbols can be developed in a number of ways, or objects or concepts. These are called icons or pictographs. They can be distinguished from the image-related one, which is visual representation of the object or process they represent. They can be clearly observed or abstract, and be direct representations to one object. These symbols could be termed:

To better your position, or to change ideas need to create more effective symbols. Much research, planning, and evaluation.

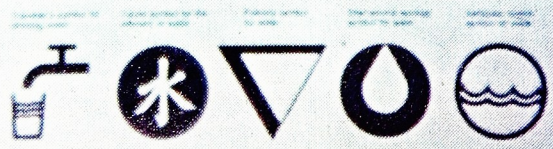
Seeing symbols, an communicating device, we can gain the culture of the signs of the world to see. There are the signs of the language, the symbols.

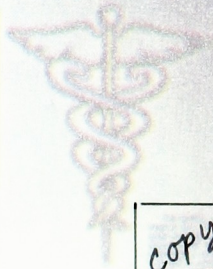
Remember, the meaning of the symbol.

Remember, the most, shape of the symbol.

Remember, the symbol, the symbol, the symbol.

See! Symbols, never right in all these cases.





copy B

R

copy C

copy D

What does a symbol mean?

copy A

copy E

copy F

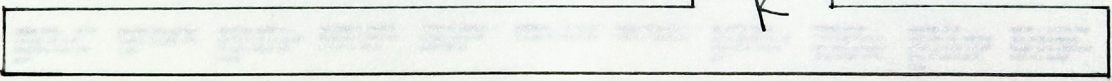
copy G

copy H

copy I

copy J

copy K





eee

Rx

Text block describing the eye symbol.

Text block describing the scales symbol.

Text block describing the caduceus symbol.

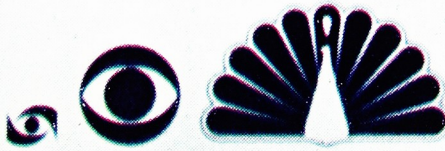
What does a symbol mean?

Text block explaining the concept of symbols and their meanings.



Text block describing the double eye symbol.

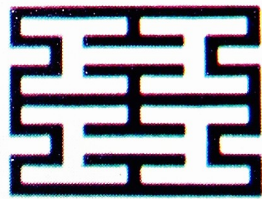
Text block describing the U-turn arrow symbol.



Text block describing the stylized eye symbol.

Text block describing the fan-like shape symbol.

Text block describing the stylized figure symbol.



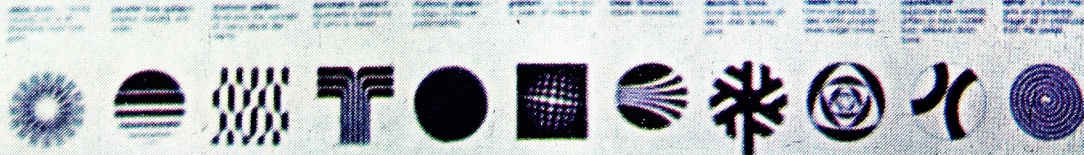
Text block describing the complex geometric symbol.



Text block describing the square with circle symbol.



Text block describing the star symbol.





copy C



copy B



How does a symbol look?

copy A

copy D

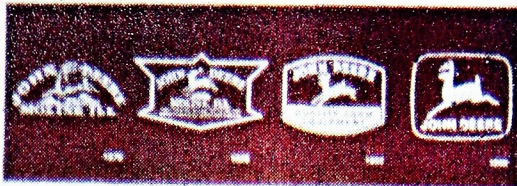
copy E

copy F

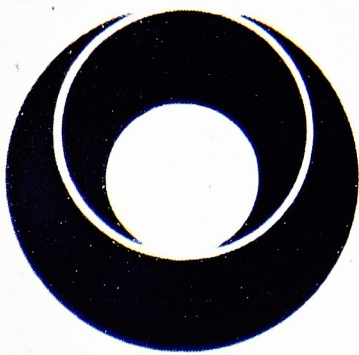
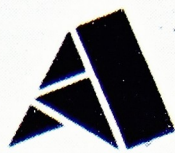
copy G

copy H

copy I



Logos have changed over the decades to reflect the new demands of the public for simplicity and bold simplicity. Beer labels among other industries such as advertising and branding agencies find the sign that identifies step up and changes to design and style.



How does a symbol look?

How does a symbol look?



Designing a symbol is a complex job that goes to the creative designer. It takes an art background and a background in design. It takes a good sense of color and a sense of rhythm. It takes a good sense of rhythm and a sense of rhythm. It takes a good sense of rhythm and a sense of rhythm.

The designer must understand the needs of the client and the needs of the public. It takes a good sense of rhythm and a sense of rhythm. It takes a good sense of rhythm and a sense of rhythm.



How does a symbol look?

How does a symbol look?



How does a symbol look?



How does a symbol look?





copy B

copy C

copy D

copy E

copy F

copy G

copy H



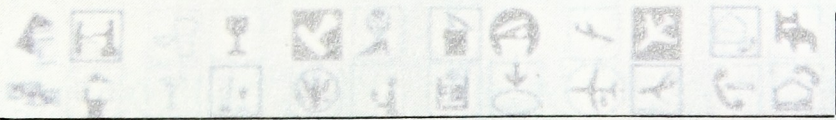
copy A

How does a symbol work?



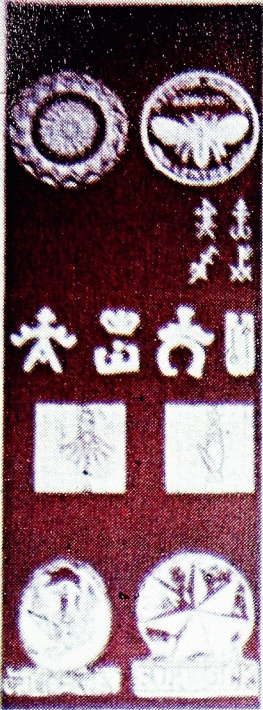
copy J

copy I



copy K





Early symbols

These symbols were used in the early days of the airline industry. They were often used to identify different airlines and services.

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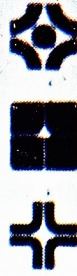
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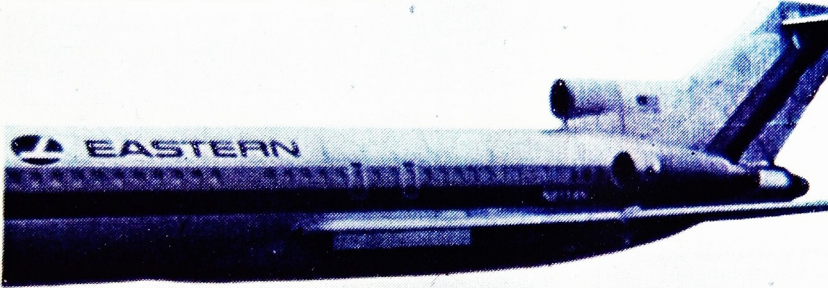
These symbols were used in the early days of the airline industry. They were often used to identify different airlines and services.



These symbols were used in the early days of the airline industry. They were often used to identify different airlines and services.

How does a symbol *work*?

The symbol of the airline industry is a symbol designed to be used in a specific situation. This is called the *context*. The symbol of the airline industry is a symbol designed to be used in a specific situation. This is called the *context*. The symbol of the airline industry is a symbol designed to be used in a specific situation. This is called the *context*.

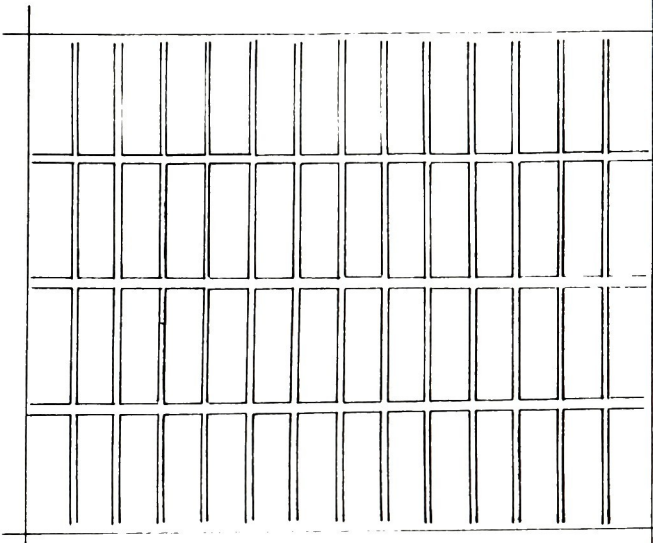
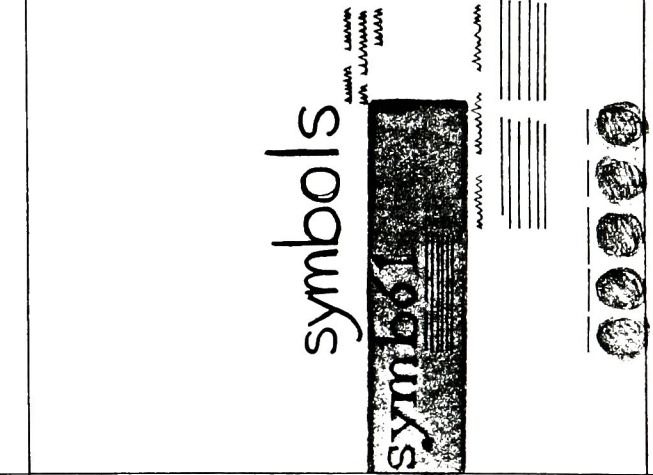
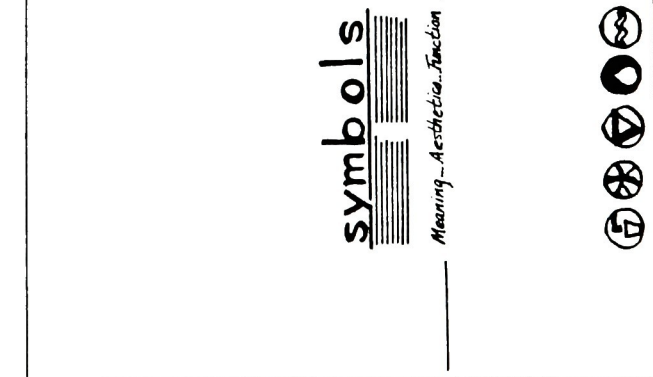
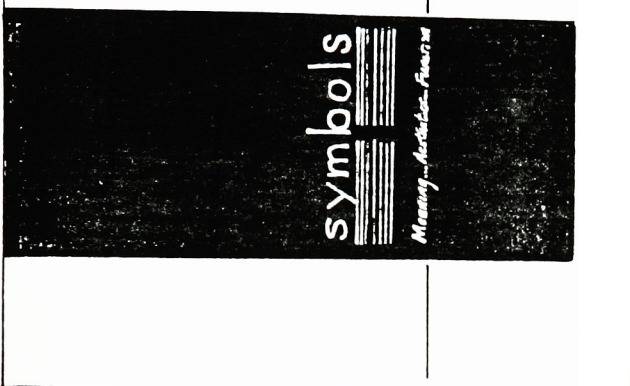
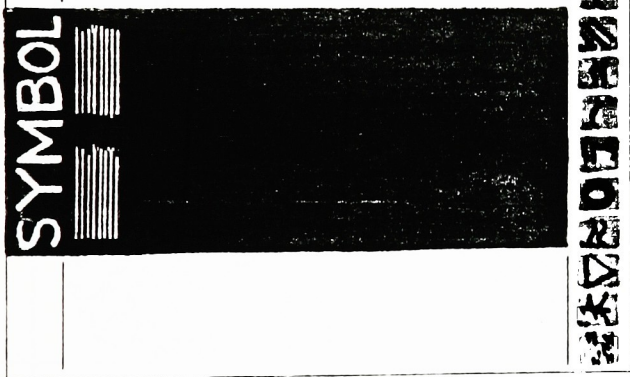
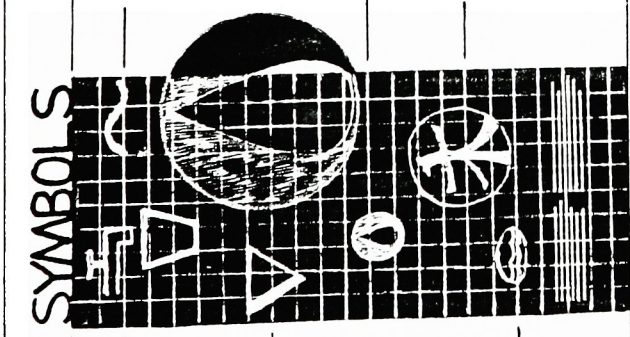


These symbols were used in the early days of the airline industry. They were often used to identify different airlines and services.

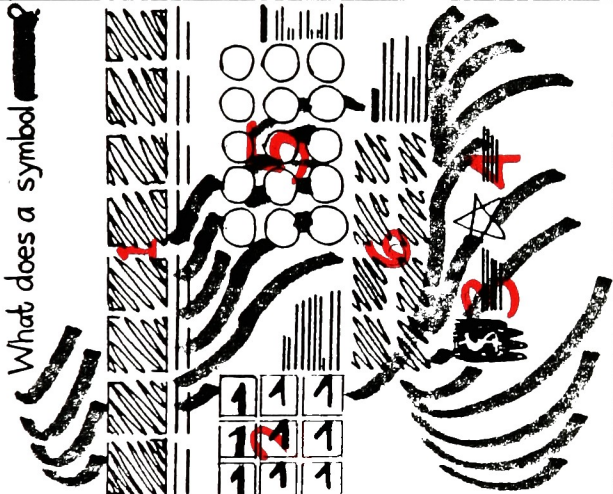
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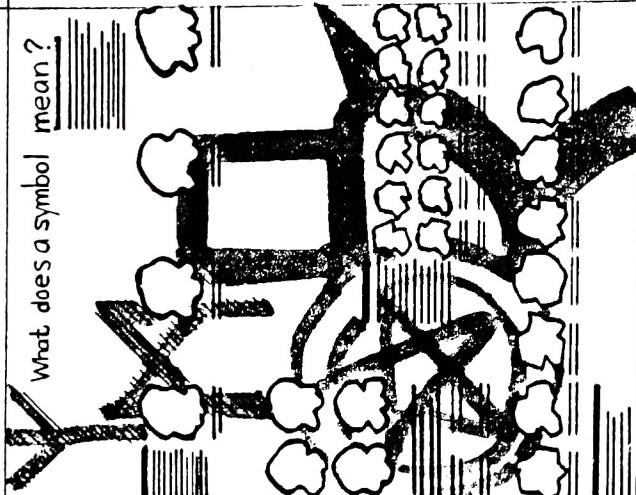
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What does a symbol mean?

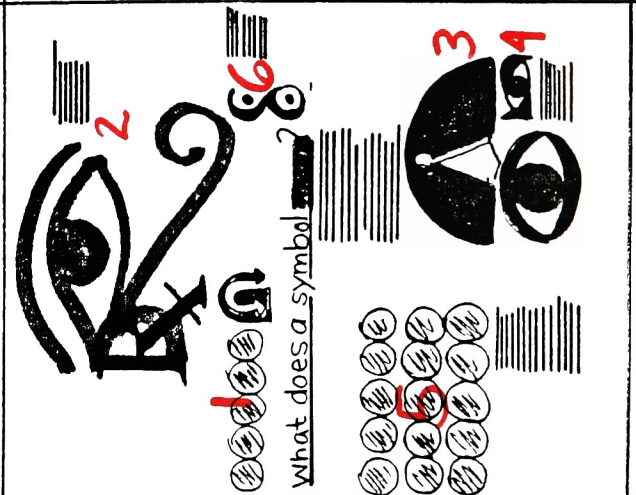
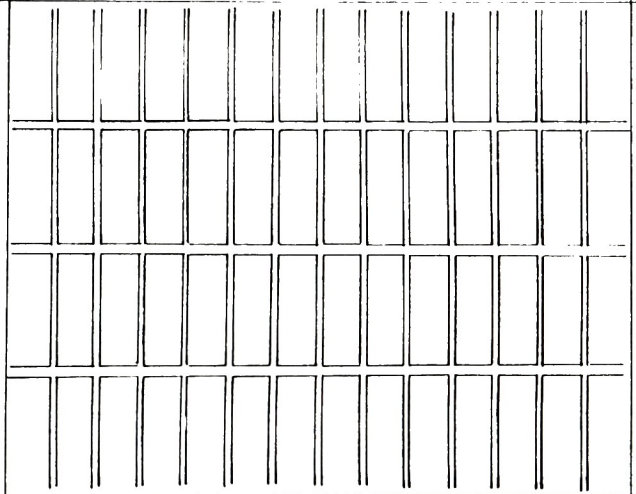


What does a symbol mean?

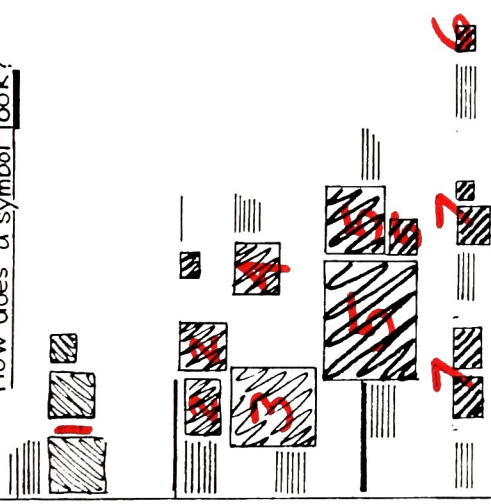


SEMANTICS - What does a symbol mean?

1. Cultural factors
2. Historic factors
3. Subliminal factors
4. Associational factors
5. 15 basic forms
6. isomorphic factors



How does a symbol look?



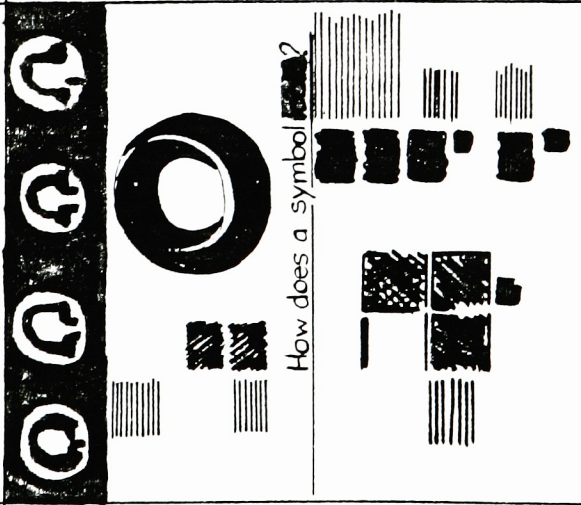
How does a symbol look?

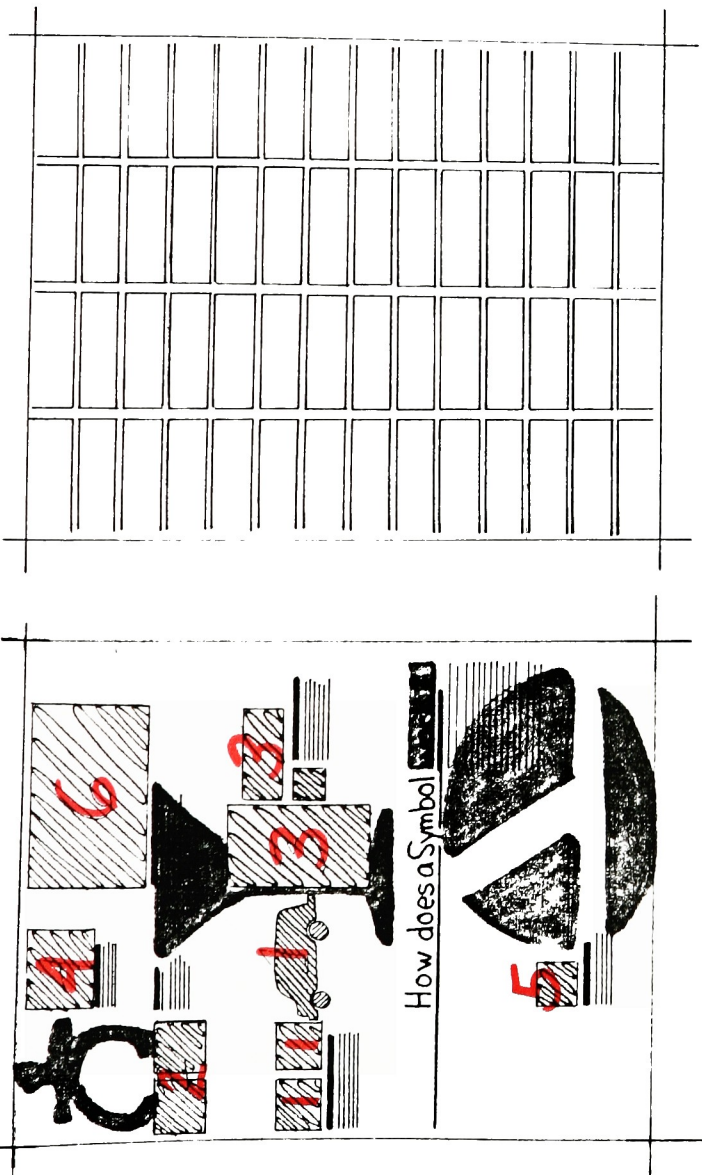


SYNTACTICS - How does a symbol look?

1. Closure
2. Unity
3. Positive/negative space
4. Contrast of thick and thin
5. Three-dimensionality
6. Flow and direction
7. High or low degree of abstraction

How does a symbol look?





PRAGMATICS - How does a symbol work?

1. Can it be enlarged or reduced?
2. Can it be easily remembered?
3. Can it maximize the use of one color printing?
4. Can it be used within a grid for placement and scale?
5. Can it be seen clearly at a distance?
6. How and where will it be used?