

NC 0021097 8



Colaiste Nausiunta Ealaine Is Deartha  
National College of Art and Design  
Faculty of Education

Graphic Design Education

A Dissertation Submitted to the Faculty of Education

in

Candidacy for the

B.A. Degree in Art and Design Education

by

Jason O'Brien

June 1996

BOND  
SMITH, BOON

## CONTENTS

	Page
ACKNOWLEDGEMENTS	iii
Chapter	
I. GRAPHIC DESIGN	1
Design Education	
Graphic Design - Its Importance in the Classroom	
II. GRAPHIC DESIGN ON THE ART CURRICULUM	8
The Junior Certificate	
Transition Year	
The Leaving Certificate	
Leaving Certificate Applied Programme	
III. THE DESIGN PROCESS : A TEACHER'S GUIDE TO GRAPHIC DESIGN	14
Research	
Visual Investigation	
Refining Ideas	
The Design Process Exercise	
IV. DESIGN PRINCIPLES AND ART ELEMENTS	22
Design Principles	
Art Elements of Graphic Design	
V. PROCEDURE FOR PREPARATORY WORK	29
The Freehand Alphabet	
Word Association Assignment	
Letter Compositions	
VI. THE GRAPHIC DESIGN PROJECT	34
Advertising Design: Scheme of Work for the Junior Cycle	
Structure of Scheme	
Scheme Outline	
Advertising Assignments	
VII. RESULTS AND CONCLUSIONS	39
SELECTED BIBLIOGRAPHY	52

BOND  
SAMUEL B. BROWN

## LIST OF ILLUSTRATIONS

	Page
1. Compositional Contrast	43
2. Formal and Informal balance studies	44
3. Contemporary Colour Poster Design	45
4. Typefaces	46
5-6. Word Association Assignments	47
7-8. Letter Compositions	48
9. Students' Worksheet from Museum Project	49
10. Graphic Design Work Completed by Students	50
Students at Work.	51

POND  
SHELL BOOK

## ACKNOWLEDGEMENTS

I wish to express my sincere thanks to all those involved in helping me with this dissertation.

Thanks to Professor Iseult McCarthy, Dr. David Caron and Margaret Lonergan for the inspiration, guidance and belief.

I am indebted to Maria Farrell for the knowledge, and guidance given throughout this dissertation

To Eithne Hughes and the staff of Loreto Secondary School, Bray.

To jdj for the vision and my family and steadfast friends for the support with special thanks to my Father.



BOND  
MILLS

CHAPTER 1  
GRAPHIC DESIGN  
Design Education

The Irish educational system has yet to recognise the qualities design education can provide for students of art. Fundamentally, design education is a problem-solving experience which will enhance creativity and provide analytical skills. Many art teachers fail to achieve the benefits that design and in particular graphic design can bring students in the classroom. Is this because they do not believe these benefits exist or do they support the view that graphic design is not art and should therefore not be exercised in the classroom?

. . . a design may be very beautiful but it is not art; the artist works to make a kind of visual statement that has, for him, some important connection with reality as he perceives it . . . designers' concerns rely only on that of the client's needs.<sup>1</sup>

It would appear that many art teachers endorse the view expressed in the quotation and dismiss design education. One reason for this can be traced to their own lack of design education, as many come from more conventional art areas.

Many of our art teachers come from a background of fine art where a design consciousness is not developed. Design is seen as a decoration on life - not central to it.<sup>2</sup>

The faculty of education in the National College of Art and Design held a symposium on the 6th February 1995 to address the problems of design education at primary and post-primary levels. For the first time in Ireland, the concept of design education was discussed and debated in a public forum. The symposium report found that the main concerns

BOMB  
SMALL BOOK

facing design education were that (a) many art teachers are underdeveloped in design consciousness and that (b) the benefits of design have yet to be fully recognised in general.

Design education is a versatile area which promotes activities such as planning, brain-storming, research, drawing and the process of enquiry that are essential learning experiences in which all students of art should be exposed. Not only do these skills and experiences help the student in the subject of art but they also help the individual in life outside the school environment, where problem-solving and decision-making are present.

Problem-solving is central to art and design activities and to learning and discovery but, more than anything else, it is a fundamental part of everyday life. We make decisions quite naturally and are in fact acting as designers in solving problems in this way.<sup>3</sup>

Graphic design is one aspect of design work which feature these learning experiences. Design and graphic design is not properly catered for in second-level education. The Junior Certificate Art and Design Project encourages students to participate in activities ranging from painting to ceramic work, including graphic design. However, generally teachers limit graphic design work to poster and stamp design which may be an indication of their lack of knowledge on this area.

BOND  
SMITH BOOK

### Graphic Design - Its Importance in the Classroom

The fundamental problem in the area of graphic design for teachers is in its definition. Rogar Tallon, the French industrial designer supports the view that 'all' design is "first and foremost an attitude".<sup>4</sup> The problem with this and many of the other definitions I examined in relation to graphic design is that art teachers and writers have various conflicting attitudes towards the meaning of graphic design. When teaching the subject of graphics, many teachers show an unease and are not clear about what is required, yet many consider themselves teachers of art and design. I circulated a questionnaire to art teachers in sixteen different schools in the Dublin area, asking for their thoughts on graphic design. One teacher was satisfied that she had "tackled" graphic design when it came to the Junior Certificate Art and Design Project. However upon further enquiry she defined graphic design as "everything to do with art". Such a general answer does not give a true definition of graphic design and is unhelpful in the cause to establish what graphic design is and the benefits it can bring to art education.

To achieve these benefits we must understand what is design. Design means a lot of things for different people but in general it should be seen as a problem-solving experience that requires planning, decision-making, creativity and organisation. Some simply define it as "The conscious effort to impose meaningful order".<sup>5</sup> This idea is extended further and generalised as:

Design is composing an epic poem, executing a mural, painting a masterpiece, writing a concerto; design is also cleaning and reorganising a desk drawer, pulling an impacted tooth, baking an apple pie, choosing sides for a back-lot baseball game, and educating a child.<sup>6</sup>

The words decisions, order, purpose and activity are closely linked with design, but where does this leave graphic design? Is it as

BOND

SALES BOOK

general as design? Graphic design may be defined as visual communication design with an emphasis on conveying information with meaning and significance. In their work graphic designers employ typography, illustration, symbolism and photography, often in various combinations, to communicate ideas in visual terms. The designer conceives, plans and executes designs that communicate a specific message to a specific audience within given limitations: financial, physical or psychological. Posters, books, advertisements, billboards, television commercials and brochures are some of the things created by graphic designers. "Graphic designers are visual communicators who communicate with you in a way that clarifies an idea, stirs your interest, or catches your eye."<sup>7</sup>

To achieve this goal, designers use type or image, or both, and only succeed if the message is understood and acted upon. We are surrounded by graphic design. We are affected by visual communication of graphic design when reading directions of road signs or the 'bold' headlines of a newspaper, reading books for knowledge, viewing advertisements on television or images on a computer screen.

I have discussed how an education in design can equip the student with a range of skills and qualities that will benefit him/her in the classroom environment and also the world in which they live.

Design education fosters the development of qualities that are essential to Ireland's future in the 21st century. Such qualities include analytical, problem identification and problem-solving skills, creativity, enterprise and the whole process of enquiry.<sup>8</sup>

Design education has a lot to offer the student but what are the benefits of graphic design: why teach it in the art classroom? As time goes by more and more information and ideas are given to us in visual form. We see an increasing number of signs, symbols, advertisements, magazines and packages, and we visually consume large quantities of



BOND  
SMITH BOOK

film and television. This information comes to us in the form of graphic design. We are in contact with graphic images in everyday life from bus timetables to food packaging. These images not only demand our attention but also try to communicate some visual message to us. The student must develop a form of **visual literacy** in order to understand these graphic messages which are becoming more and more prominent in our society. Exposure to such graphic design images and signs in the classroom can enhance students' awareness and understanding of the graphic image surrounding them in everyday life.

For years now teachers of art have used the work of artists to teach their students about the elements of art. Colour, line, shape and form have all been explored through examples in art history. If we look closely at the history of art for the past hundred years we can see how graphic design has developed as an art form, encouraging us to use graphic work in the classroom to teach the art elements. Artists such as Picasso and Miró, who are recognised for their work of art through painting, also channelled their creative thoughts through graphic design work, such as the poster form. Andy Warhol, the pop artist, used graphic design and the concept of re-production to clarify his expressive ideas in art.

It was the Dada Artists who recognised the importance of graphic design in the early twentieth century. They were the first to see how a piece of graphic design could have simultaneous meanings and the letterforms could be visually expressive. This form of graphic work was used to shock the public and their ideas of this art form was used by governments and political movements to produce effective propaganda in the world wars of this century.

BOND

Small Book

The Bauhaus (the German design school founded in Weimar by Walter Gropius in 1919) further extended the notion of graphic design and set out rules for its students in this area:

Typography is a tool of communication. It must be communicated in its most intense form. The emphasis must be on absolute clarity.<sup>9</sup>

These rules defined how graphic design was viewed all over the world and further emphasised its importance in art.

The use of graphics is growing in our environment and culture day by day. Students are directly influenced by graphic messages and are exposed to it through the magazines they read, the shops they visit to purchase goods, and the television they view. Students' awareness of this art form is also growing and art educators should familiarise themselves with graphic designs that are in our society. The author of *Design Education*, Peter Green, said that not only should teachers become more aware of this art form but should also introduce it into the classroom as an alternative to the more conventional art areas, such as painting and claywork. Composition, colour and line, etc. can be taught through most graphic design formats.

One of the problems facing the art educator in a changing society is the need to re-assess constantly his/her role and the function of his subject.<sup>10</sup>

BOND

SMALL BOOK

## FOOTNOTES CHAPTER 1

- 
- 1 George Nelson, "We are here by design", The Design Concept, Allen Hurlburt (New York : Watson Publications, 1981), p. 214.
  - 2 Pat Sweeney, "Art, craft, design in the post primary school", in Design Education for School Symposium, ed. I. McCarthy (National College of Art and Design, 1995), p. 27.
  - 3 Peter Green, Design Education - Problem Solving and Visual Experience (London : Batsford Publication, 1974), p. 12.
  - 4 Rogar Tallon, "Defining design", in Design Symposium, ed. McCarthy, p. 36.
  - 5 Paul Hogan, "Defining design", in Design Symposium, ed. McCarthy, p. 36.
  - 6 Ibid.
  - 7 Kevin Gatta, Gusty Lange and Marilyn Lyons, Foundations of Graphic Design (Massachusetts : Davis Publications, 1991), p. 6.
  - 8 Iseult McCarthy, Design Symposium, p. 5.
  - 9 Moholy Hagy, Thames and Hudson Encyclopaedia of Graphic Design and Designers, Alan and Isabella Livingston (London : Thames and Hudson Publications, 1992), p. 2.
  - 10 Green, Design Education, p. 11.

HOME

SMALL BOOK

CHAPTER 2  
GRAPHIC DESIGN ON THE ART CURRICULUM  
The Junior Certificate

"Art, craft and design provide a unique part of the education of the whole person, through heart, head and hand, enabling the person to shape his or her world with discernment and to understand and appreciate the work of others."<sup>1</sup> The Junior Certificate Art, Craft and Design Syllabus recognises the various qualities each area has to offer the student. Art is seen as a vehicle for personal expression where students' ideas, feelings and visual qualities are emphasised. Craft stresses the importance of using the correct tools and materials. Design focuses on 'planning, problem solving and completion' using drawings as a means to think.

The core syllabus is augmented by a wide range of options. In this three-year cycle, the teacher selects a minimum of one option for ordinary level and a minimum of two for higher level. The syllabus covers drawings, two-dimensional and three-dimensional art, craft and design with options ranging from animation to weaving. Graphic design as a unit is confined to just one of the thirty-three options in this course. The graphic design and display section of the Junior Certificate deals with:

Clear communication through image, symbols, lettering and display. The student needs to develop means of conveying information as clearly as possible with notes, sketches and visual research.<sup>2</sup>

The syllabus guidelines outline what is required for graphic design and display in respect of the art project but most teachers can still omit



BOND  
SMITH BOOK

graphic design in the two years preceding the Junior Certificate Art Project, resulting in a lack of development and practice for the student in this area. Teachers tend to focus on the development of skills prior to the Junior Certificate. These skills usually involve painting, drawing, clay-work and textile print.

Students should be allowed to develop and experiment in all areas of art, craft and design in the years preceding the art project, including graphic design. In my experience, the quality of graphic design work at this level is of a lower standard relative to the quality shown for other options, such as painting, puppetry and observational drawing. In a survey I conducted (September 1995-February 1996) in relation to graphic design, 72 per cent of teachers focused on painting and drawing and claywork for the Junior Certificate Art Project. In addition, 42.5 per cent did not teach graphic design at all. The survey conducted was based on the information given by sixteen art teachers in the Dublin area.

### Senior Cycle - Transition Year

The recent introduction of the three year senior cycle - including the availability of transition year, the revision of the Leaving Certificate Programme, the expansion of the Leaving Certificate Vocational Programme (LCVP) and the introduction of the radical new Leaving Certificate Applied has immense possibilities for design education.<sup>3</sup>

Design and in particular graphic design education can occur in the transition year. As there are no State examinations awaiting students at the end of the academic year, it gives art teachers and students alike the opportunity to experiment in different areas of art. If teachers have neglected the area of graphic design in previous years, they can use the transition year to familiarise themselves with the versatility of this art form. This will help those students wishing to do the Leaving

BOND

SMALL BOOK

Certificate art paper, as design forms a major part of the art examination. In the transition year, many of the students may not have experienced art before and this may lead to difficulties for them. A back-to-basics approach might be advisable to solve this problem; this can happen through the area of graphic design. Suggested exercises and schemes suitable for these students feature in this dissertation. As Transition year gives the art teacher more freedom in what to teach, graphic design can be undertaken and utilised to beneficial effect.

### The Leaving Certificate

The Inter-Certificate Art Course changed to the Junior Certificate Art, Craft and Design Project (© 1992 Dept. of Education) and is designed to assess the work of the students over a period of five months in the third year of second-level education instead of using a two-day examination (© 1991 Inter-Certificate - Dept. of Education). Similar changes have not been made to the Leaving Certificate Art Course which remains very much in the same format as it did over twenty years ago. The art course is split into four sections: history and appreciation of art, still life/imaginary composition, life drawing and the design/craft papers. All examinations take place over a two-day period. The design paper features a range of activities such as puppetry, lino-printing design and graphic design. The graphic design question is an option (students can choose any one option in the design paper), meaning that graphic design may not be taken by a large percentage of students. A descriptive passage is given on the paper, where students must create a piece of design or plan of a design related to the passage. Teachers' neglect of graphic design can be traced to the fact that students are not required to produce a piece of graphic design even on the design paper. The design paper itself is optional as students can

WORD  
MORPHOLOGICAL

instead choose to do the craft paper. Unless changes are made to the Leaving Certificate, for example compulsory testing in all art areas from painting to graphic design, art teachers can continue to neglect graphic design. In both Junior and Leaving Certificate projects and examinations, the inclusion of stencils for 'Type' on the design project paper is permitted. In this case the teacher does not have to teach lettering, which is an essential part of graphic design. I disagree with the approach of using stencils for this purpose as it reduces the education of the student. Further revisions need to be addressed in relation to graphic design at examination levels.

### Leaving Certificate Applied Programme

The Leaving Certificate Applied programme follows a thematic approach based on the individual: the student (for example 'Me and My Life'). In many ways the Leaving Certificate Applied programme is similar to the Transition year, as no set specific activities are required. Art teachers usually decide what is to be attempted, judging by the standard of his/her students. The art teacher must work towards a theme, namely 'The Self'. The aim of the programme is to help the student explore the concept of 'self' within the context of his/her own life experience. Graphic design awareness is increasing in everyday life, enabling the student to link it to his own life experience. The programme also aims to develop practical, perceptual and critical skills in visual art in the student's environment. Graphic design is one way in which students may learn about themselves and the environment in which they live. The students can explore products they buy, the advertising they are attracted to or influenced by, the labels on clothing they wear and the road signs they see every day and the results may be used in the project 'The Self'.

BOND

SALES BOOK

My research showed that 42.5 per cent of art teachers surveyed did not attempt graphic design in the past twelve months. Reasons for this may be due to the options on state examinations where the area of graphic design can be avoided. Many art teachers' lack of knowledge and experience in this art form which can also be traced to their reluctance to teach it. The next chapter outlines the necessary steps in creating a piece of graphic design. Aimed at teachers, this section will help them teach the art form and also help them to put into practice the suggested exercise which will be beneficial to them and their students.



BOND

SMITH BOOK

---

FOOTNOTES CHAPTER 2

- 1 Junior Certificate - Art, Craft, Design. An Roinn Oideachais (Dept. of Education, 1992), p. 2.
- 2 Ibid., p. 9.
- 3 Gary Granville, "Rhetoric and Realities in Design Education", in Design Education for Schools Symposium, ed. Iseult McCarthy (National College of Art and Design, 1995), p. 22.

BOND  
PAPER BOOK

CHAPTER 3  
THE DESIGN PROCESS :  
A TEACHER'S GUIDE TO GRAPHIC DESIGN

The Design Process

"The graphic design process - the search for visual concepts has been compared to the running of a maze. In both cases the solution remains mysterious until the end of the exercise. From an established starting position, the designer works out a logical plan and follows it."<sup>1</sup> The design process is both complex and personal. Even though some design solutions can be accidental, the quality of a solution will mostly depend on the careful blending of the pragmatic and intuitive elements of the designer's personality and a balance of intellectual and emotional responses. Some designers will work their way through numerous idea sketches only to unravel them into a final solution. Others can achieve a fully realised concept in their minds without putting pen to paper. Regardless of the designer's working pattern he/she will have to follow some process that will assist him/her in reaching a desired finished piece of design.

As Picasso points out:

The picture is not always thought out and determined before painting. Instead while it is being made, it follows the mobility of thought.<sup>2</sup>

This mobility of thought that Pablo Picasso talks about is important in the design process. These thoughts are visually recorded by the designer so a desired solution can be reached when working on a graphic design format.

BOND  
SMITH BOOK

## The Research

The designer must conceive, plan and execute designs that communicate a specific message to a specific audience. Before a finished piece of design can be reached, the designer has to identify the problem: who is the audience and what is the project for? Many constraints are placed on designers, such as format, budget and time. These factors have to be taken into consideration in the research stages of design work. The level of research a designer must achieve is not required at second-level education as art projects in the Junior Certificate, for example, do not impose restrictions such as clients' needs, production costs, etc. Therefore students can be as creative and flamboyant as they wish. Nevertheless the research of any graphic design project is essential. The way of working should be systematic, with notes, sketches and visual research. "Regardless of a designer's working pattern he will, in one way or another, follow a process."<sup>3</sup> The accumulation of relevant visual sources is not an important part of research. If a student was asked in project work to design a magazine advertisement for a local company or shop, he/she would need to collect and examine posters and other visual references. The following questions should be asked at the research stage: what image does the company/shop project? What type of graphic design solution have they used? How can you improve their image through graphic design work? It is also important to show students' design journals and modern magazine layouts so that they can develop a feeling for contemporary design work. This can inspire students and enhance their awareness of graphic design. Students should keep a folder of graphic design examples to go through when they seek inspiration.

BOND  
SHELL BOOK

## Visual Investigation

Before any piece of design can be created, the designer must go through a period of visual investigation. This investigation can be conducted through thumbnail sketches. These idea sketches show evidence of your thinking, searching and sorting out solutions. For the student of art in the Junior Certificate programme, the visual investigation or thumbnail sketches are of equal importance to the final design piece as they demonstrate thinking, experimentation and growth. Students should be taught how to analyse design problems, to plan research and to clarify ideas through the use of working drawings. The more you work to develop ideas through thumbnail sketches, the wider the range of solutions you will have to choose from for your final design piece.



BOND

SMILE BOOK

## The Research Stage

### Teacher Assignments

- Collect as much visual references as possible that relate to your design project.
- Magazines, design journals and even the daily newspaper can be used for inspirational purposes. Banks, building societies, record and clothing shops and even your local pharmacy contain examples of graphic design work to advertise their product/services. Collect as many as possible.

### Student Exercise : Research

Using your local town as a source, collect examples of graphic design that feature in shops, banks and centres, that describe your town. Compare and contrast, type, image and format and note the audiences these examples target. List the different ways these graphic design formats portray your town or city.

---

BOND

SMALL BOOK

## Visual Investigation Guidelines

- Thumbnail sketches should be in proportion to the dimensions of the finished piece.
- Duplicate these dimensions until the sheet you are working on is full. Begin investigation of ideas by filling in the dimensions.
- Be as neat and precise with your thumbnail sketches as possible.
- Complete at least ten thumbnail sketches for each design project.

### Student Exercise : Visual Investigation

Take an organic object and draw a series of thumbnails to give yourself a range of various designs and compositions. Represent the object using different colours, shapes and lines and experiment with different media. Develop one design and explore the possibilities of using it for a poster advertising a 'fruit market' in your town or a cover of a vegetarian cookbook. All thumbnails should be stored for use on other design projects.

---

BOND

SMILE BOON

## Refining Ideas - Rough Work

The designer should be thinking of details that will feature in the finished design in terms of colour and typography. It would be incorrect to begin rendering a finished piece and then wondering where the type should go. For this reason, it is advisable not to ignore the roughwork stage of the design process. This work is usually enlarged to half the size of the finished piece and is used to test whether an idea is successful on a larger and more detailed scale than the thumbnail sketches.

## Finished Piece

This is the piece of art that will be presented to the art teacher or marked by external examiners (Junior and Leaving Certificates). Through the design process the student should be able to work independently, but it is important for the teacher to advise on certain design choices throughout the process.

ROUND  
SHELL BOOK

## Rough Work - Refining Ideas Guidelines

- Roughwork gives the designer an opportunity to refine the elements of design piece such as type, illustration and colour. Be as neat and accurate as possible when completing your rough work.
- Roughwork should be in proportion to the planned finished piece.
- Refine two roughwork ideas from your thumbnail sketches.

## Design Process - Student Exercise

1. Select a book you are unfamiliar with. While reading the book (**research**) make a series of drawings (**thumbnails**) depicting a scene that would be suitable for a book cover design (**visual research**). Both the illustration and type must mirror the content of the text. Select two-four thumbnail sketches and refine them to 6" x 9" (**roughwork**). Complete the exercise by doubling these measurements for your **finished piece** of design.
  2. By following the design process defined in this chapter, re-design an existing product. Make sure you follow each step of the process from the research to the finished piece.
-



ROUND  
SMALL BOOK

## FOOTNOTES CHAPTER 3

- 
- 1 Allen Hurlburt, The Design Concept (New York : Watson Publications, 1981), p. 22.
  - 2 Ibid., p. 31.
  - 3 Hurlburt, "Design Process" in *The Design Concept*, p. 21.

BOND  
SMALL BOOK

CHAPTER 4  
DESIGN PRINCIPLES AND ART ELEMENTS OF GRAPHIC  
DESIGN

Design Principles

Art teachers could understand the possibilities of art elements: line, shape, form, colour, and still not be able to build an effective piece of design. In the area of graphics, visual communicators and graphic designers follow a set of design principles before any design solution can be exercised. In this chapter, the design principles will be examined and the art elements explored with ideas to teaching them through graphic design in the classroom.

Design principles are guidelines which designers follow to create purposeful compositions. Where fine artists plan a composition, designers use design principles to orchestrate the construction of their design work that is strong enough to support all the graphic elements. These principles are cross-disciplinary. Where proportion, balance, contrast and harmony form the basis of painting and ceramic work, these design principles act as tools for designers, planning successful pieces of design. One of the first principles of graphic design work is **contrast**. Contrast can be seen as the formation of tensions between visual elements. When two or more opposing visual elements are present in a composition like a dark shape and a light shape, they function as antagonists which emphasise each other's presence. If a designer wants to attract the attention of a viewer, contrast will usually feature in the work. As an example, if a design is created to give information, one visual element, more often type or an illustration, will dominate a design due to its large size, unconventional shape or form,

BOND  
EMERALD BOOK

odd location, intense use of colour, or provocative content (Plate 1). Contrast defines and clarifies the elements of your design, while increasing visual activity and spontaneity.

In graphic design, where contrast is used to attract attention, **harmony** is used to sustain attention. As the word suggests, harmony unifies the overall design piece. If a viewer looks at a poster, a harmonious composition will usually sustain interest. Harmony rewards viewers by offering mutually reinforcing likeness on a variety of levels, which verify the viewer's original impulses of viewing the poster saying: "This poster warrants further study". Harmony acts as a control on contrast, which not only promotes order and forceful planning of a design piece but also sustains interest of the viewer.

An important design principle is that of **proportion**, as it defines the relationship between two visual elements or between a single element and the design as a whole. Proportion is closely linked to contrast as it can be used to attract attention, especially when proportions are not predictable. Proportion is the relationship between the elements of design but, more importantly, the precise measurements of these elements need to be addressed: a lack of proportional elements can lead to an imbalanced composition. The division of space between the elements which form the overall look of the design is due to its proportion. It determines the dimensions of your design and can inject a naturalistic order of your work.

Gravity is the principle force behind **balance**. A state of balance is a state of stability. A balanced composition has a feeling of equilibrium where the visual elements, colour, shape, line, etc., are at ease, possessing visual energy which is attractive to look at. When a poster design is completely balanced or centred, it is in a state of

BOND  
SCHOOL BOOK

equilibrium where both sides or all elements have equal weight. When the opposite occurs, there can be a feeling of **tension** and instability. There are two forms of balance: **formal** and **informal**. Symmetry best describes the formal balance as each side of the composition is a mirror image of the other. Informal balance relies upon asymmetry. Instead of mechanically centring visual elements vertically, the designer can move the elements around the composition, like a weighing scales, to form an informal balance (Plate 2). Imbalance can be used to minimise or maximise stress which, in the same fashion as contrast, can attract attention.

A composition has two dimensions that can be seen: width and height. **Perspective** is the design principle that suggests there is a feeling of depth, a third dimension which makes the composition more life-like. It is in the treatment of the visual elements of a composition that gives perspective. Besides tonal values of the elements, art elements can be positioned in such a way that the creation of foreground, middle-ground and back-ground result in a feeling of perspective. This can draw attention to page depth and establish the viewer's point of view of the design.

**Colour** is a powerful design element. Graphic designers tend to favour a functional approach to colour, as opposed to decoration. In graphic design, colour should be selected and employed for a reason: to support the communication aims of the sender in ways that are understood by the receiver. The uses of colour can be explored in many ways. For **informational** purposes, colour can provide realism; for example, advertisers and editors can spend millions of pounds for full colour illustrations. These illustrations show the product or service in a realistic manner, increasing the information of the advertisement. Colour can also provide an appropriate mood for an advertisement.



BOND  
SMALL BOOK

This **affective** use of colour is achieved when the colours match the mood of the written content of the advertisement, however much of this relies upon how the viewer perceives the mood. Colour can also be used in **associative** terms. Product designs like Coca-Cola conjure the mental image of red while Kodak is yellow. During my work in an advertising agency, I had to design the packaging for sliced baked bread. The colours green and blue were eliminated from my choice of colours because, based on the agency's research in the area, these colours were **associated** with stale, molded bread. The creation of an **aesthetic** effect that is visually pleasing can also be achieved by colour (Plate 3). The graphic designer can use colour such as red or orange to catch attention or to emphasise a particular element. Green can be seen as a fresh spring colour, while blue can be used to create coldness. Colour can mean different things to different audiences. Financial executives and managers see the colour blue as reliable, while doctors and other health care professionals know that code blue means death, so the graphic designer needs to pay special attention to colour, as its meaning can be simultaneous.

Design principles work the same, no matter what the graphic design: poster, book, newspaper, advertisement, CD covers, etc. The principles are democratic, applying equally to all of the above. Art teachers need to become aware of the design principles in teaching graphic design. The students' art vocabulary can be further extended with the use of these principles: contrast, balance, proportion, etc.

### Art Elements of Graphic Design

Line, shape, form, tone, colour and space are explored and practised through various activities like textiles, claywork and painting in the art class. These art elements are rarely taught through graphic

BOND  
SMITH BOOK

design work. The following section deals with the art elements in graphic design and the classroom application.

Man has created **line** as the simplest way to communicate visually. Our eyes see boundaries of objects in terms of lines and we have been taught to draw using line to delineate shape and form. As nature dictates, there is no physical line but it can be created through the use of pencil, pen, brush and tools in a variety of ways: long, thin or ragged. Line can be used to create movement in illustration or represent different objects in still life but in terms of graphic design it forms the basis of **type** and the alphabet. In the same way **shape** (objects which are flat and defined by a singular line in a two-dimensional space) form what we know as **typefaces** (Plate 4). The simplest shape perceived are circles, squares and triangles. All shapes more complex than these are extensions, expansions or derivatives of these basic geometric shapes. In a classroom situation, the art teacher could focus on teaching shape through letter-forms (type). For example, letterforms are based on shapes, a triangle forms the basis for the letter A, a circle forms the letter O, the square can form letters such as N, H, Z, etc. Similarly, the art teacher could introduce line through the use of the alphabet, for example, the varieties of lines can be examined through the Roman and Egyptian scripts or even the student's own signature.

**Form** adds depth or volume to shape. An illusion of a three-dimensional shape in a two-dimensional space can be achieved by shading, shadow and texture or a gradation of tones. Our eyes perceive depth even though the object is actually flat. Form can be seen as a three-dimensional sculpture or building but in terms of a graphic design format: packaging or book-making can be practised in the classroom as an alternative to 3D work such as clay or paper sculptures. A square

BOND  
SMALL BOOK

becomes a cube, a triangle becomes a pyramid, a circle becomes a sphere. The cylinder and the cone are derivatives and combinations of the three basic geometric forms. These forms could become the structure for any graphic design package design or other graphic outlets such as pencil cases, shopping bags or even calendars.

**Space** is essential in any type of design. The concept of space is infinite and undefined. In two-dimensional space, a graphic designer creates visual flatness, volume or depth by using line shape or contrasts. Space can be open, compact, flat or volumous, depending on how it is filled or divided. The concept of space including positive and negative can be explored through compositional work (for example posters, billboards, book cover designs, etc.). To enhance students' understanding of space, the art teacher could ask the students to put themselves in a particular situation. For example, 'a room in their house' is fundamentally a three-dimensional space filled with objects. The students could be asked to re-arrange the room choosing how to design their space by the objects placed on the walls, floor and ceiling. The graphic designer does the same by moving type, illustration, photography, shapes or colour within a two-dimensional space. From applying type to a package design to the construction of a poster composition, the student should give due consideration to space.

**Colour**, as previously discussed in this chapter, can be taught through graphic design work. The art teacher has a range of options in teaching colour through graphics. Poster designs advertising holidays can be introduced in the classroom where students must associate colours with the various destinations both culturally and in the climates (for example, Ireland, culturally green) (Argentina's warm climate can be represented in yellows, oranges, reds, etc.). As graphic designers can be limited to the colours they use, students can also be restricted to

BOND

SMALL BOOK

certain colours in their designs. Graphically students can work on design problems using only colour as a solution. A story board based on a cartoon-character can be the foundation for exploring colour, where the student must create a story that shows the transition from day to night, using colour to demonstrate the passing of time. This exercise can enhance the student's awareness of the properties of colour, such as various hues and values.



BOND  
SAMPLER BOOK

## CHAPTER 5

### PROCEDURE FOR PREPARATORY WORK

We are surrounded by typography in the form of signs, books, television and advertisements in our everyday life. Our awareness of graphic design is enhanced by this exposure. Students, however, can experience difficulty in attaining a successful piece of design because their practical knowledge of typography, symbols and graphic images can be limited. The art teacher can address these problems by introducing graphic stimuli into the classroom environment and by implementing basic typography exercises.

A way to encourage the learning process is through exposure to a variety of visual aids (posters, signs, magazines that students use) or through a review of typography work in design annuals and publications. Teachers should equip themselves with various examples of graphic material in the form of inspirational aids for students. Typography exercises should be implemented into the class before any graphic project begins. Then a process of examination and experimentation needs to be carried out by the teacher. Three typographic exercises are outlined in this chapter to focus the student on the various shapes and structures featured in letterforms and to help in their understanding of the use of letters.

#### The Freehand Alphabet

The shapes of letters have been largely determined by the tools used to create them. The Egyptians used reeds for writing on papyrus, the Greeks used a stylus on tablets, and the Romans used chisels to cut into stone. If you examine these alphabets, you will see few curves

BOND  
SMILE BOOK

compared with your own handwriting. In the following exercise, students are required to create their own alphabet. The use of materials will influence the style of writing achieved. In this mark-making exercise, students will need an A3 sheet of paper, strips of wood, metal or card (variety of thickness 1"-4") to act as a writing implement and ink or water-based paint. Ask students to fill the first half of the sheet with freehand marks (using the wood as a pen and the ink create curves and verticals separated from each other). The second half of the sheet will feature these same type of marks overlapping. Students must then make a view-finder and place it over the marks when dry, searching for those marks that resemble letters from the Roman alphabet. Students should be encouraged to be as ambitious as possible. When they have identified letters (for example, their own name), they must then copy them in black ink and present them on a mounting board. The style of writing should form their own individual typeface as it is based on their own freehand marks.

### Word Association Assignment

Some words can inspire their own visual solution while others need more thought to bring about the ideas inherent in their meaning.<sup>1</sup>

It is these words that form the basis of the next exercise, where students are required to take a literal approach to a word's meaning (Plate 5). The objective of the exercise is for the student to study letterforms while exploring different typography. When students are representing a word, the word's meaning should form the appearance of the typeface.

The student has to choose a word and interpret its meaning typographically using existing typefaces. Designs must be rendered in

BOND  
SAMUEL BROWN

black ink to a size 4" x 7". The art teacher must first select a list of words that represent any action, object or emotion (Plate 5). If we look at the word struggle, the meaning can imply "to put forth great efforts or to work in the face of difficulties". The solution (Plate 6) shows the visual interpretation of struggle: the two g's are physically striving to read correctly, with difficulty, demonstrating the meaning of the word. Give students a list of ten words (students should select five words from that list which they feel can visually represent with typography).

### Letter Compositions

Typography as a communication medium can take on many directions and acquire as many forms. To begin the study of graphic design I must emphasise the importance of **visually exploring** letterforms in all forms, not just their language implications. Lines, shapes (positive and negative) and other elements can be used in many different ways to form letters. They can be used to express rhythm and movement (Plate 7). Students can also discover foreground, middle-ground and back-ground by using letterforms (Plate 8). The example of foreground, middle-ground and back-ground could be used as an alternative to perspective drawing when teaching **perspective**. Students must be aware of **composition** before undertaking this exercise. The French painter, Henri Matisse, maintained that composition is the art of arranging the various elements so as to express feelings in a decorative fashion. The elements in this case will be letterforms which will **express** rhythm and movement in composition.

The letter composition is designed to explore letters as form in terms of movement. A sense of perspective should be achieved in these compositions paralleled by the relationship between various letters. Clip single letters from magazines and newspapers that vary in size and

BOND

THOMAS L. JAMES

weight. All letters should be in black and printed on a white background. (No colour or shade of grey should feature.) The quantity of letters required will depend on the size of the letters selected. On an A3 sheet of white paper, arrange the cut-out letters in a random order. Students should now begin to experiment with the individual relationships created by placing one letter next to another and also the type of movement they want to convey (small letters in the back of the composition and large letters in the foreground give a feeling of forward motion; refer to Plate 8). As movement is the dominant theme in this exercise, give students words that will help them visualise their planned designs such as waterfall, tunnel vision, or rollercoaster, etc.



ROAD  
SMALL BOOM

## FOOTNOTES CHAPTER 5

- 
- <sup>1</sup> Elizabeth Resnick, Graphic Design - A Problem Solving Approach to Visual Communication (New York : Prentice Hall Press, 1991), p. 70.

BOND  
SMALL BLOCK

## CHAPTER 6

### THE GRAPHIC DESIGN PROJECT

#### Advertising Design - Scheme of Work for the Junior Cycle

The following graphic design project has been devised so that the students of art can experiment with researching and targeting a particular audience of the general public. The emphasis on the project will be on the visual communication of a message and persuading an audience. It also aims to create an awareness of visual communication outside of the school environment.

#### Outline of the Scheme

##### Research

Students will research and examine the different ways in which one can visually communicate. Words (namely, type) and image will be used to achieve this, linked into the history of art. The exercise outlined in Chapter 5, the Freehand Alphabet, would be a good starting point to allow students to work with basic letterforms. Towards the end of the scheme, students will be advertising the service of an art gallery or museum. I choose the Hugh Lane Gallery of Modern Art whose exhibits link in with the theme of the project: emotions. The students will be exposed to examples of graphic design, such as posters and leaflets, which combine both type and image in the communication of a message. Research of the scheme will continue for three weeks including a visit to the mentioned gallery in Dublin.

Many artists use the human face to capture emotion, which in most cases contributes to the mood of the entire work. This is a form of visual communication, as some faces can communicate or express

BOND  
SMALL BOOK

emotions. As part of the research process, students are required to view the works on show at the museum. They must visually record what they feel when viewing the work (selecting an exhibit that reflects the mood of the gallery recorded on a worksheet; example of worksheet, Plate 9). They must select the emotion or mood that describes the museum to them, recording the work that inspires them to feel the emotion. Students must also keep in mind what audience they will be targeting with their advertisements.

### Student Task

The student task is to **advertise** the museum or gallery using the theme of emotion. The area of graphic design work will be in the form of a poster or billboard design. They must also describe the mood in the gallery as they see it: persuading or discouraging the general public to go by their designs. Students will work individually on a seven-week scheme.

### Structure of Scheme

In Class One, students will be communicating through type (the Freehand Alphabet). As outlined in Chapter 5, the exercises should be used before taking on a graphic design project. These exercises are devised to help the student to understand letterforms. The Freehand Alphabet will focus on the basic structure of letters, helping them to create their own expressive letterforms. Different typefaces will be examined in magazines and newspapers, contrasted to the way type was used in early civilisation. An introduction to advertising will feature in Class Two. The three elements of successful advertising, attract attention, communication of a message and persuading an audience, will be explored by reviewing contemporary advertisements. Examples of

BOND  
SANTAL BLOOM

television commercials will also be shown where students will explore how these commercials **visually communicate** with the sound turned off. They must also collect magazine advertisements that cater for different age groups. Students must then experiment through thumbnail sketches in ways which will provide information and persuade the public. Observational drawings will also be included; these drawings will be based on the face and the emotions they can portray. Students will be assigned in groups of two (each one taking turns to pose and then draw).

The museum visit will complete the research process. It is advisable to view the work that will be featured in the museum before the class attends. Discuss your plans with the museum curator so that he can help and advise you on your visit to the museum. Be clear on what information you want the students to collect. Devise a worksheet before you go, so that the students can avail of the correct information. The purpose of the museum visit for my project was for the students to examine how artists visually communicated emotions, messages, and narratives, etc. As students were advertising the museum, it was important for them to discover what the museum is like and to take notes on the exhibits there. The design process in Chapter 3 completes the scheme of work.



ROAD

MAIL BOOK

---

## Scheme Outline

Class One: Research into visual communication, communicating through type and image, history of type.  
Exercise in typography (Freehand Alphabet).

Class Two: Introduction to advertising.  
Examination of advertisements: TV magazines and posters.  
Observational drawings of the face : expressions.

Class Three: Museum visit - Hugh Lane Municipal Gallery of Modern Art, drawings and worksheet.

Class Four: The design process - evaluation of research  
- thumbnails  
- roughwork.

Class Five: Poster/billboard design.

Class Six: Refining ideas - starting paper design.

Class Seven: Completion of finished piece.  
Presentation.  
Evaluation.

---

BOND

SMALL BOOK

---

## Advertising Assignments

The director of the film festival in your local area has requested a series of advertising posters to promote an international film, *Neighbourhood*, a film about the peace in Northern Ireland, aimed at an audience from 18 to 55.

Create a poster - A3 size, that advertises the film to this audience. Choose a typeface and image that illustrates the feeling of your ideas. Go through the various stages of sketching on newsprint paper. Posters must feature no more than four colours (the poster must also function in black and white for newspaper printing). Once your roughwork is complete, choose a solution and produce a finished piece. Possible visual sources for research: IFC, Northern Ireland Tourist Board.

Choose a local banking institution or shopping centre as your client. Research and define your audience, concepts and other thoughts and then create the following to convey your message to your audience: A direct mail piece, such as a brochure that includes a return form or coupon; an envelope must also be designed. Be creative: you might include a promotional item like a sticker or calendar for your mail piece. Present this campaign to your classmates as if they were the consumer. This exercise could also work for music groups or football team fan clubs.

---

BOND  
SMALL BOOK

## CHAPTER 7

### RESULTS AND CONCLUSIONS

Design education promotes activities such as planning, brainstorming research and the process of enquiry. However, art teachers tend to neglect design education and consequently lose these benefits. This can be caused by both their own lack of design education and the poor recognition given to design in general. In addition, the syllabus for the Junior and Leaving Certificate examinations do not promote the extensive use of graphic design in the classroom. It is very desirable that students experience design education and graphic design as skills such as problem-solving and creativity can be availed of.

. . . design education is good education in essence, during the initial probing of a design problem, the brain-storming, research and planning, the drawing, the process of discovery, the making and finally the evaluation, is the wonderful learning process that exists within design education.<sup>1</sup>

However, my research shows that 42.5 per cent of the teachers surveyed failed to teach the area of graphic design at all.

A designer is not in search of one solution, but of several. There is no one correct solution in graphic design, but various possibilities. I have outlined a design process in Chapter 3 which builds the foundation for all graphic design work from the research stages to the completion of the project. This process not only promotes order and purpose into the students' work but also provides a journey for learning in both teachers and students alike. Applying design principles to graphic design work enhances visual communication. In this dissertation I have discussed concepts such as contrast, proportion, balance, etc., and applied these to design examples. These principles will help students to

BOND  
SMALL BOOK

analyse and appreciate their own design work and the work of others. Teachers should also use these principles to extend the students' art vocabulary. The art elements are also examined through design work, with the emphasis on classroom application. Teachers tend to focus these art elements through painting and ceramic work. However, I have outlined in Chapter 4 that these art elements can be taught through graphic design.

An established starting point can be elusive in the primary stages of any scheme of work. As words form the basis for communication, type is used for this reason in graphic design. In devising schemes for students, teachers should begin with typographic exercises as most graphic design formats contain type in some shape or form. The freehand alphabet, letter compositions and the word association assignment are useful in testing the students' ability to work with letterforms and can also be a good starting point in any graphic design scheme of work.

The graphic design project outlined in Chapter 6 was implemented in a classroom situation. This scheme of work proved successful for a number of reasons. Firstly, exposure to graphic stimuli in the classroom resulted in the students becoming more aware of the graphic image in their own environment. These experiences were brought into the classroom through examples of the students' own work. In addition, the structure and make-up of letterforms was examined through the freehand alphabet exercise. As the exercise is based on their own handwriting, students enjoyed analysing the results in a bid to discover one's personality through the creation of their personal letterforms.

The museum visit was also successful. It brought the students outside the classroom environment. The worksheets used by the



BOND  
SAVED BOOK

students proved invaluable in collecting all the information regarding the exhibits. This information was then applied to graphic design work back in the classroom. Following the design process, students successfully completed a good standard of finish in spite of interruption for school holidays and examinations. As the project was based on advertising, formats other than the poster form were examined. The calendar is a new graphic design format used in advertising. Students managed to finish calendar designs based on their poster (Plate 10). All aims and learning objectives were realised at the end of the scheme. The students encountered experiences and skills such as creativity and problem-solving in a pleasant and challenging manner, which resulted in the successful completion of their assignments.

## FOOTNOTES CHAPTER 7

- 
- <sup>1</sup> Pat Sweeney, "Art, Craft, Design in the Post Primary School", in Design Education for School Symposium, ed. H. McCarthy (National College of Art and Design, 1995), p. 27.

POWD

SALE BOOK

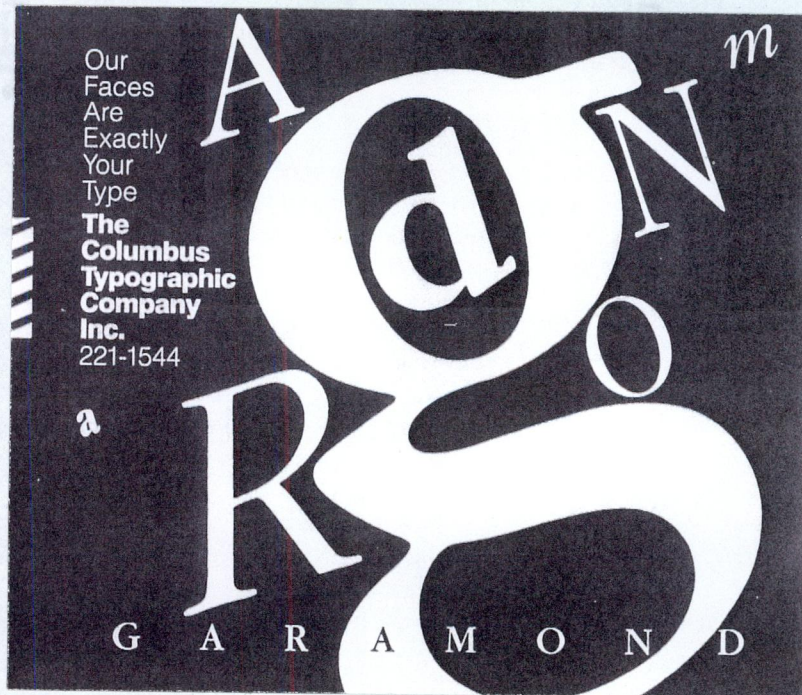
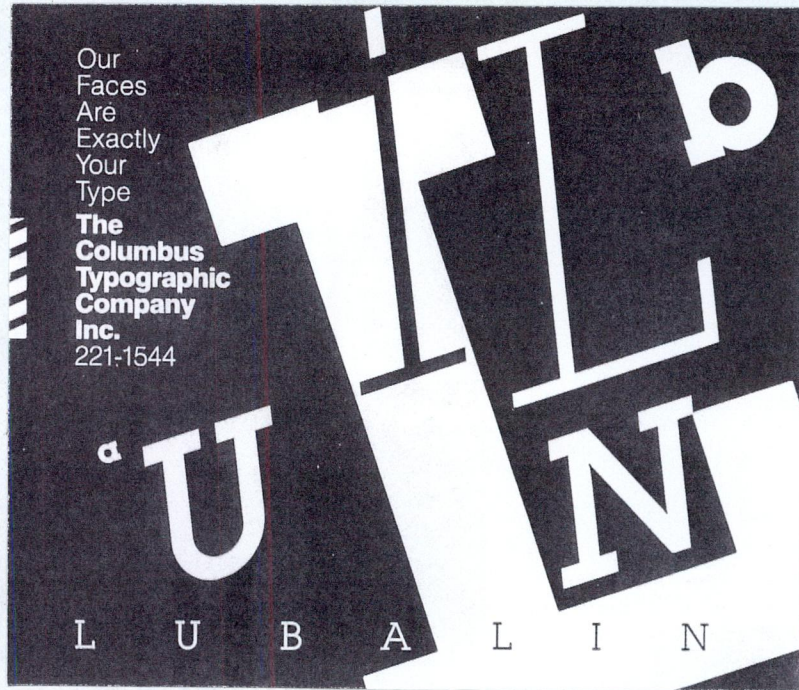


Plate 1 : Compositional contrast



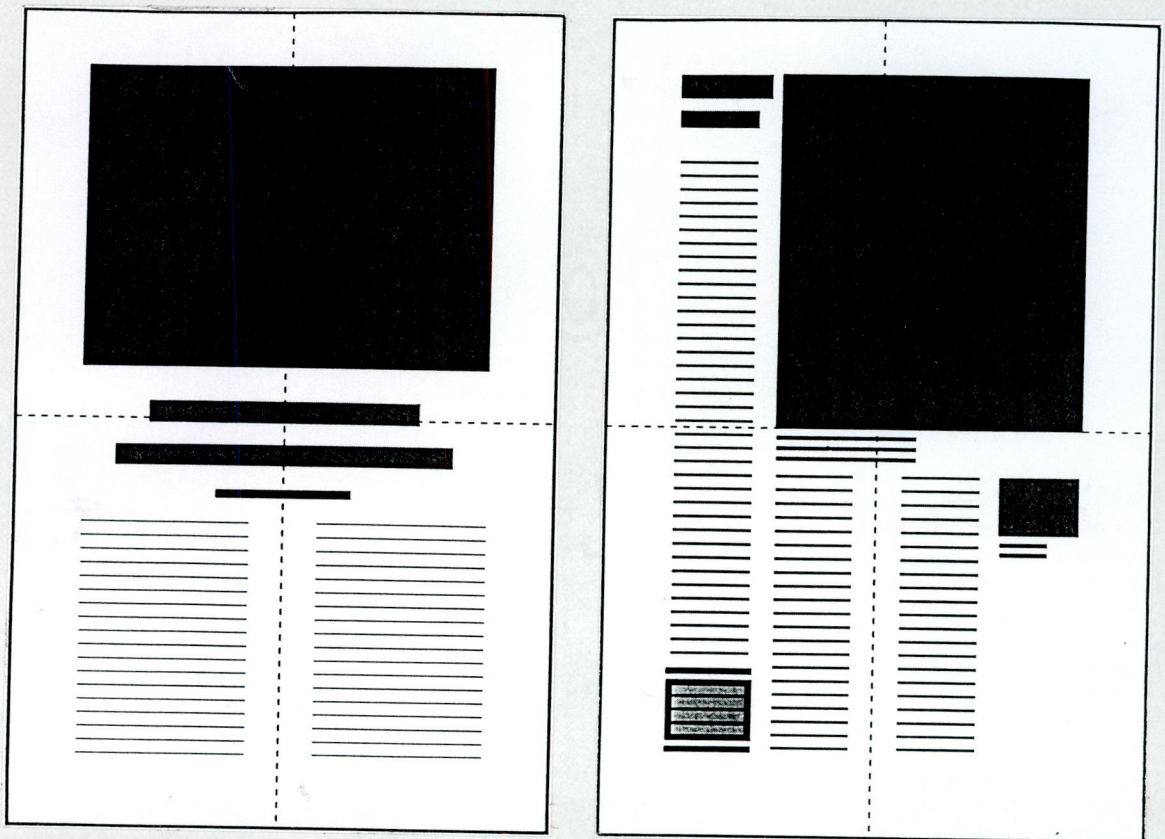
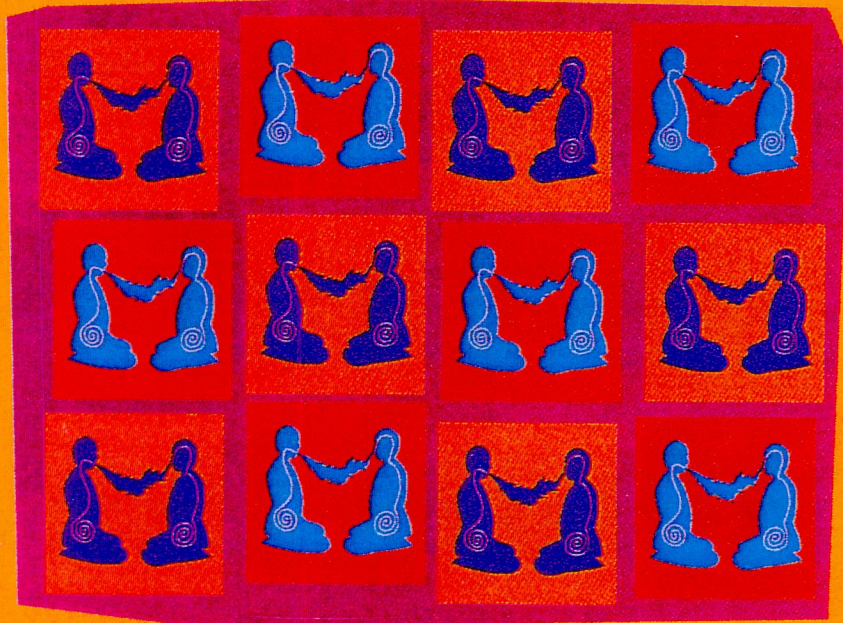


Plate 2 : Formal and informal balance studies





# INDIAN VIBES



## MATHAR

'a formidable  
psychedelic piece'

Mixmag Update

5/9/94  
12 . MC . CD

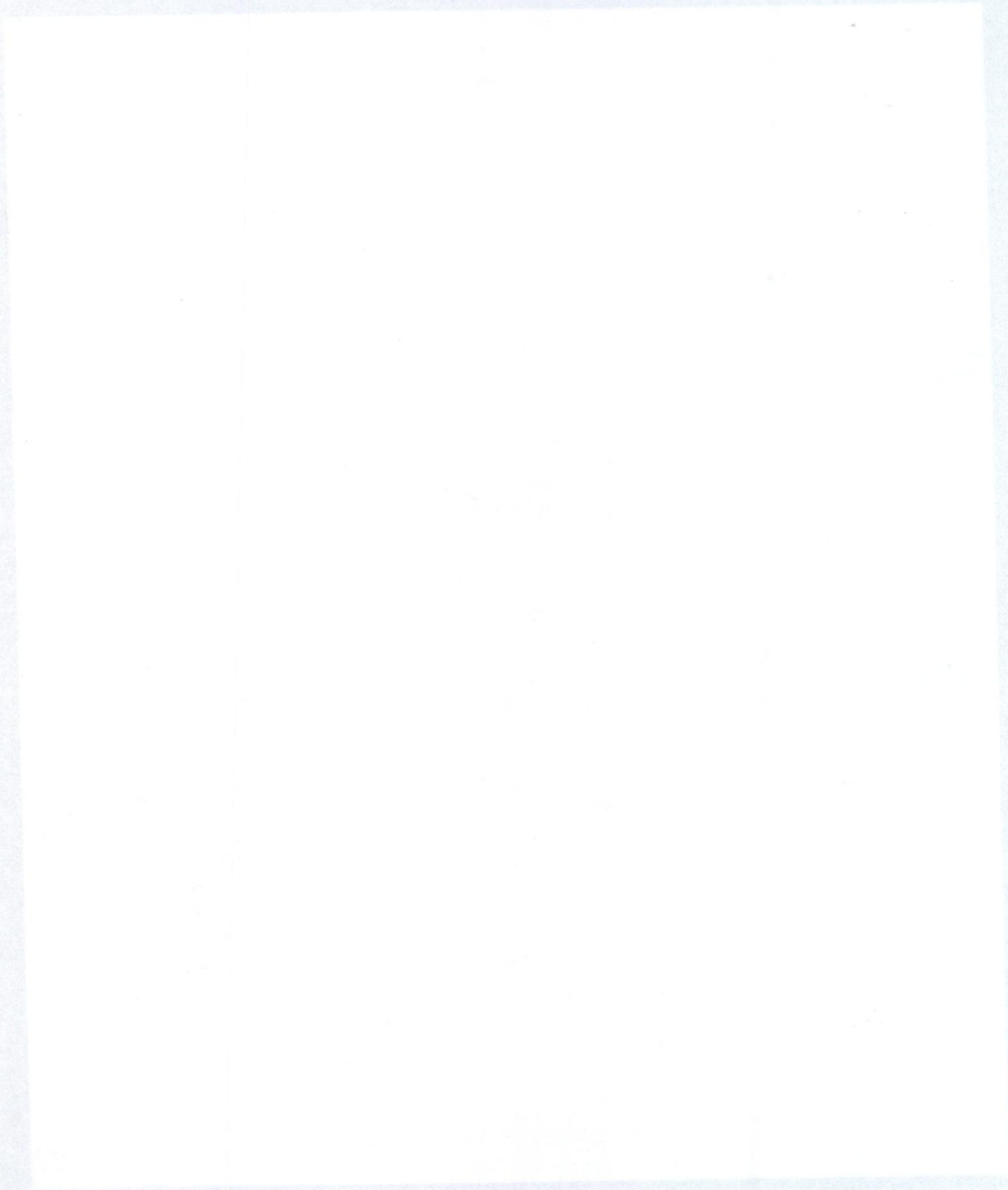
*Viper*

Plate 3 : Contemporary colour poster design



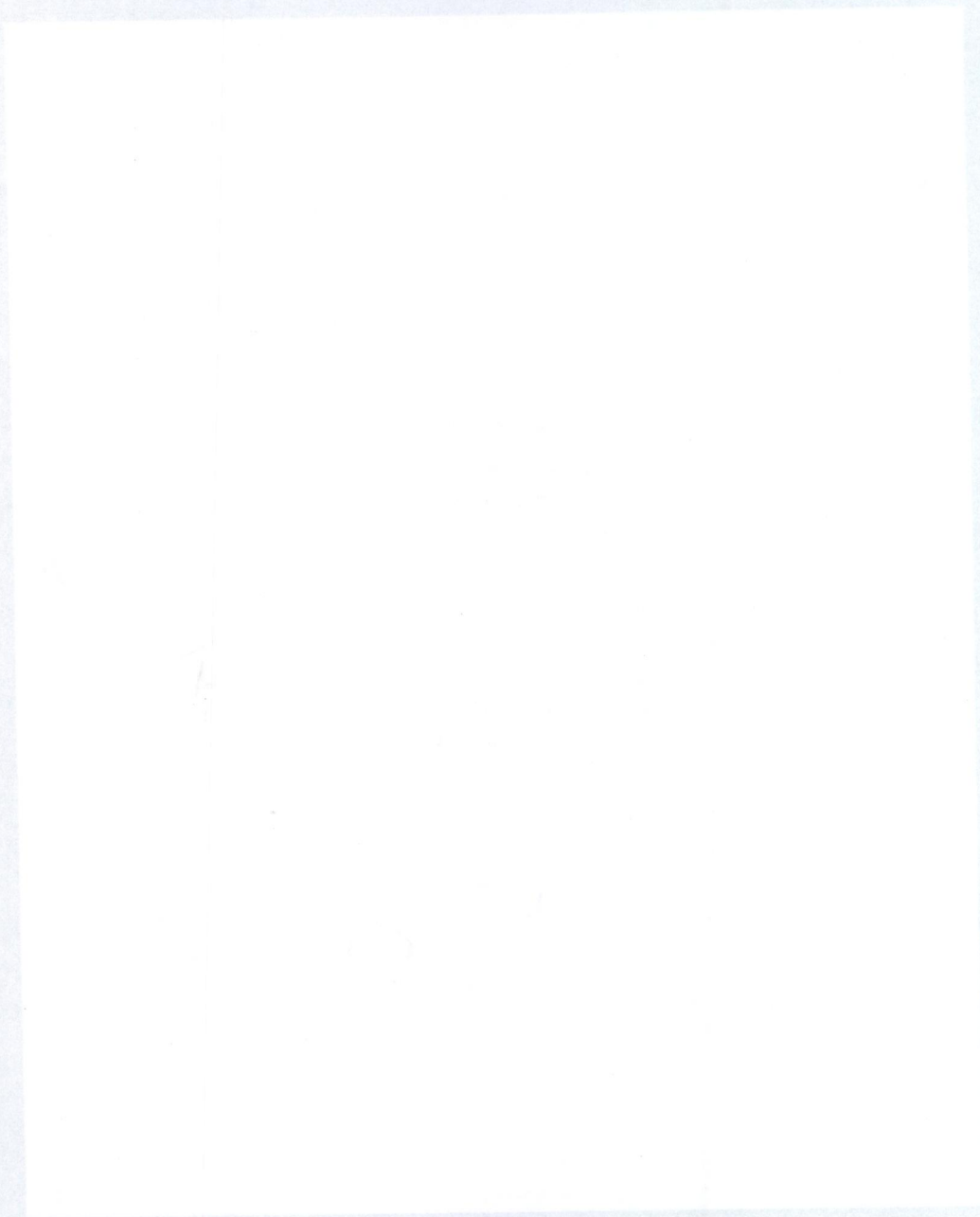
Optima	Palatino	Times new roman
ABCDEFGHIJKL MNOPQRSTU VWXYZabcd! efghijklmnopqr stuvwxyz1234 567890ÆCEÇ? Øæœçøß£\$¢;	ABCDEFGHIJK; LMNOPQRST? UVWXYZabcd! efghijklmnopqrs tuvwxxyz123456 7890ÆCEØæœø £\$¢&%(!)~...~	ABCDEFGHIJK LMNOPQRSTU VWXYZÆCEÇ? Øabcdefghijklmnop opqrstuvwxyzæœ çøß·1234567890 £\$¢&%!(«»¶·;*/
Optima semi bold	Palatino italic	Times bold
<b>ABCDEFGHIJ!                  KLMNOPQR?                  STUVWXYZa                  bcdefghijklm                  nopqrstuvwxyz                  yz123456789;                  0£\$¢&amp;%(!)/*</b>	<i>ABCDEFGHIJK                  LMNOPQRST»                  UVWXYZÆ£                  CEÇØabcdefghijklmnop                  mnopqrstuvwxyzæ                  œçø1234567890ß::                  \$¢%&amp;S?!(!)/*~...~</i>	<b>ABCDEFGHI                  JKLMNOPQ                  RSTUVWXY                  Zabcdefghijklmnop                  mnopqrstuvwxyz                  yz1234567890                  ŒÆ\$£&amp;?!%«»</b>
Optima black	Palatino black	Times bold italic
<b>ABCDEFGHIJ*                  KLMNOPQRS                  TUVWXYZ ab                  cdefghijklmno                  pqrstuvwxyz1                  234567890Æ&amp;                  ŒØæœø£\$¢?                  %(!)/;~...~</b>	<b>ABCDEFGHIJ;                  KLMNOPQRS                  TUVWXYZabc                  defghijklmnop                  qrstuvwxyz123                  4567890ÆCEC                  ØæœçøßSc&amp;/*                  %?!«»~...~</b>	<b><i>ABCDEFGHI                  JKLMNOPQ                  RSTUVWXY                  Zabcdefghijklmnop                  mnopqrstuvwxyz                  yz1234567890!                  Œ£\$&amp;%?ß(&amp;!)</i></b>

Plate 4 : Examples of typefaces



sleep

struggle



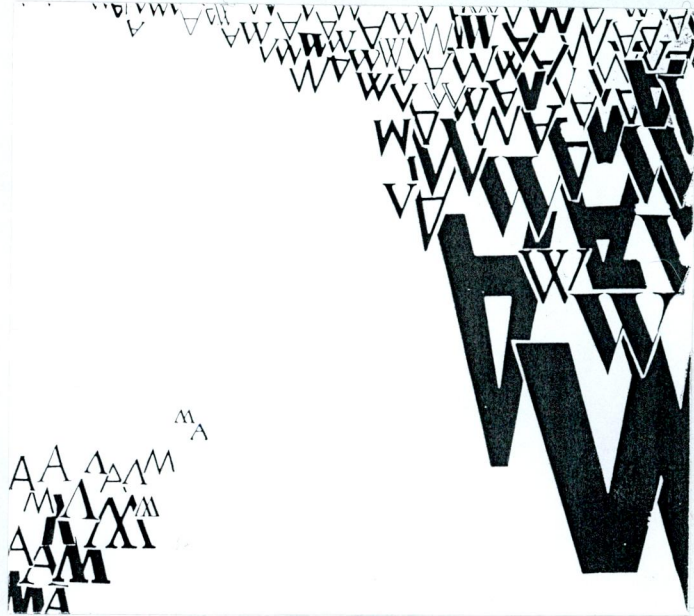


Plate 7 : Perspective composition

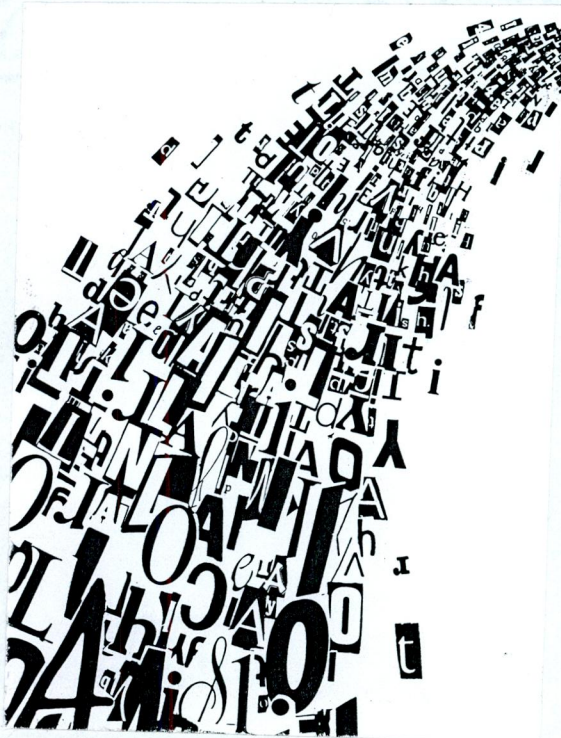


Plate 8 : Letter compositions - rhythm and movement

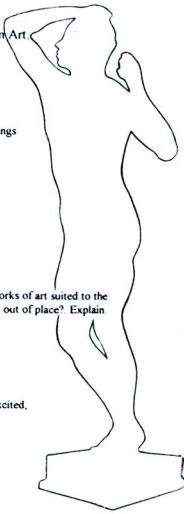




**Hugh Lane Municipal Gallery of Modern Art**  
Charlemagne House, Farnell Square, Dublin 1

**General Information**  
 Walk around the museum, looking at the art work on show.  
 Take your time in viewing the work, making a note of the paintings or sculptures that catch your attention.

Notes

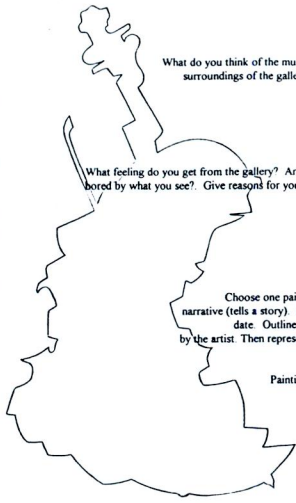


What do you think of the museum? Are the works of art suited to the surroundings of the gallery or do they look out of place? Explain.

What feeling do you get from the gallery? Are you confused, excited, bored by what you see? Give reasons for your answer.

Choose one painting or sculpture that you feel contains a narrative (tells a story). Name the artist, painting or sculpture and date. Outline the story you feel is being communicated by the artist. Then represent the art work on the back of this sheet.

Artist: \_\_\_\_\_  
 Painting or Sculpture: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Narrative: \_\_\_\_\_



**Advertising**

If you were to create a poster to advertise the gallery, what painting or sculpture would feature on your poster to,

a) catch the public's attention \_\_\_\_\_  
 b) show that the gallery is a quiet, beautiful place \_\_\_\_\_  
 and an exciting, fun place \_\_\_\_\_  
 c) advertise the gallery as an unusual place to go \_\_\_\_\_

If the public were to come to this gallery tomorrow, what art work do you think would appeal to

9 year olds \_\_\_\_\_  
 16 year olds \_\_\_\_\_  
 over 35 year olds \_\_\_\_\_

Make a note of any lettering of words featured in the paintings or sculptures of the gallery.

Examples of lettering or words

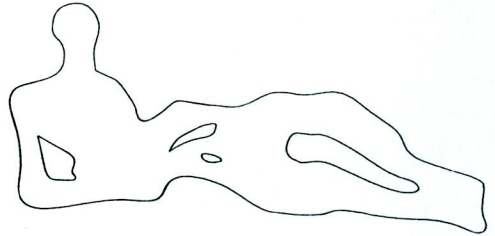
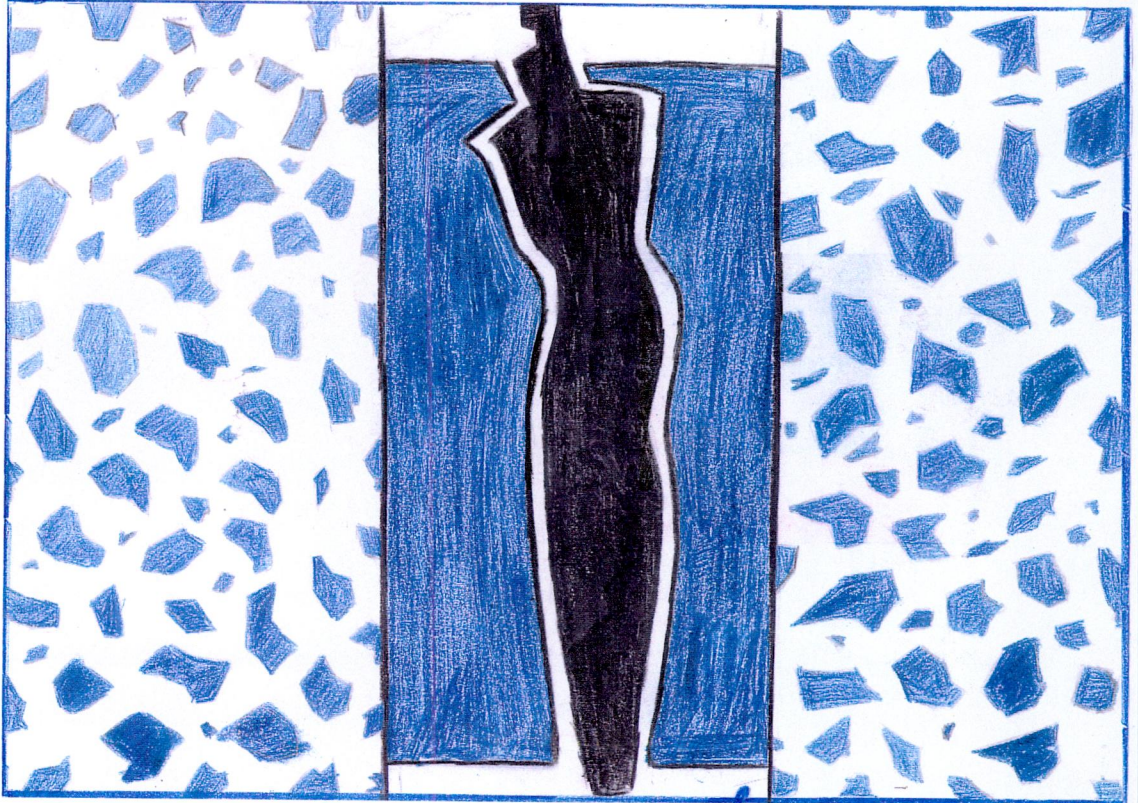


Plate 9 : Students' worksheet from museum project



# VISIT THE HUGH LANE GALLERY



of  
**MODERN ART**

Sunday	30	2	9	16	23
Monday	31	3	10	17	24
Tuesday		4	11	18	25

**MARCH** 97

Wednesday	5	12	19		
Thursday	6	13	20		
Friday	7	14	21	28	
Saturday	1	8	15	22	29

\_\_\_\_\_ HLG \_\_\_\_\_

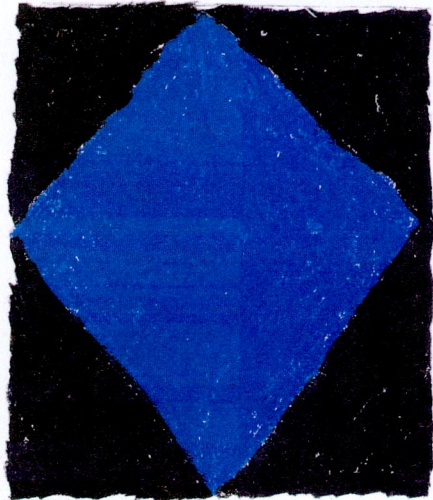


Plate 10 : Graphic design work completed by students





Students at work



## SELECTED BIBLIOGRAPHY

- Arntson, Amy E., Graphic Design Basics. Orlando : Harcourt Brace, Jovanovich, 1993.
- Baroni, Danele; Booth-Clibborn, Edward. The Language of Graphics. New York : Thames and Hudson, 1979.
- Denton, Craig. Graphics for Visual Communication. Dubuque : Wm. C. Brown Publishers, 1992.
- Gatta, Kevin; Lange, Gusty; Lyons, Marilyn. Foundations of Graphic Design. Worcester, Massachusetts : Davis Publications, 1991.
- Green, Peter. Design Education : Problem Solving and Visual Experience. London : Batsford Publications, 1974.
- Hurlburt, Allen. The Design Concept. New York : Watson Books, 1981.
- Livingston, Alan; Livingston, Isabella. Graphic Design and Designers: (Thames and Hudson Encyclopaedia . . .). London : Thames and Hudson Books, 1992.
- Morgan, John; Welton, Peter. See What I Mean : An Introduction to Visual Communication. London : Arnold Publications, 1986.
- Resnick, Elizabeth. Graphic Design : A Problem-Solving Approach to Visual Communication. New York : Prentice Hall Books, 1991.
- Rotzle, Willy. Art and Graphics. Zurich : ABC Verlag, 1983.
- Swann, Alan. Graphic Design School. New York : Van, Nostrand, Reinhold, 1991.
- Taylor, Richard. A Basic Course in Graphic Design. London : Studio Vista/Van Nostrand, Reinhold, 1971.
- Theil, Philip. Visual Awareness and Design. Washington : University of Washington Press, 1983.
- Wileman, Ralph E. Exercises in Visual Thinking. North Carolina : Hastings House Publications, 1971.

ROUND

SMALL BOOK



Wills, Franz Hermann. Fundamentals of Layout and Design. New York : Sterling Publications Inc., 1965.

#### OTHER SOURCES

Balestri, Diane P.; Ehrmann, Stephen C.; Ferguson, David L. Learning to Design, Designing to Learn. London : Taylor Books, 1993.

Kelly, Denise. Media Matters. Dublin : Exemplar Publications Limited, 1994.

McCarthy, Iseult. Proceedings of Design Education for Schools Symposium. Dublin : National College of Art and Design, 1995.

An Roinn Oideachais. Junior Certificate Art, Craft, Design. Dublin : Department of Education, 1992.

BOND  
SMALL BOOK