LEARNING FROM PLANTS IN THE HOME.

PAT WHELAN THESIS 415

m0056049NC T415

CONTENTS

INTRODUCTION : EDUCATIONAL AIMS

LIST OF ILLUSTRATIONS

CHAPTER 1 : THE USE OF PLANT FORM IN THE APPLIED ARTS OF THE 19TH CENTURY

CHAPTER 2 : THE CLASS PROJECT

CHAPTER 3 : MY PERSONAL PROJECT

CONCLUSION

APPENDIX : LESSON NOTES

END NOTES

BIBLIOGRAPHY

ILLUSTRATIONS

FIG.	1.	Floral Pattern. English 1835. Roller printed
FIG.	2.	John Everett Millais. 'Ophelia'
FIG.	3.	William Holman Hunt. 'The Hireling Shepherd'
FIG.	4.	William Morris. 'Brother Rabbit' chintz. 1883
FIG.	5.	Christopher Dresser. 'Swirls in Red and Green' 1899
FIG.	6.	Walter Crane. Wallpaper. 1904.
FIG.	7.	Felix Bracquemond. Plate. 1867.
FIG.	8.	Emile Galle. Room. Design.
FIG.	9.	Antonin Daum. Vase with flower Design resulting from several applications of glass.
FIG.	10.	19th Century Silverware.
FIG.	11.	Harry Napper. Blockprint on Cotton. 1900.
FIG.	12.	Geranium.
FIG.	13.	Pupils describing growth process of plant.

- FIG. 14. Line drawing of geranium.
- FIG. 15. Tonal drawing of geranium.
- FIG. 16. Wrapping wire around paper.
- FIG. 17. Wrapping gipsona around wire structure.
- FIG. 18. (a + b) Completed sculptures.
- FIG. 19. Map of home showing where plant form could be found.
- FIG. 20. Using a viewfinder to select an area of the drawing.
- FIG. 21. Selected area enlarged and colour applied.
- FIG. 22. Tracing designs onto newspaper.
- FIG. 23. Stencils cut and ready to print.
- FIG. 24. Printing process begins.
- FIG. 25. Pupils work in pairs.
- FIG. 26. Pulling the squeegee board.
- FIG. 27. The first colour is printed.
- FIG. 28. Writing report of project.
- FIG. 29. Watercolour Geranium.
- FIG. 30 Design developemnt Collage 1.

- FIG. 31. Design development Collage 2.
- FIG. 32. Watercolour Geraniums.
- FIG. 33. Pencil drawing selected area of watercolour. (Fig. 25)
- FIG. 34. Design development.
- FIG. 35. Watercolour Iris.
- FIG. 36. Painted colourway for fabric print.
- FIG. 37. Printed fabric.
- FIG. 38. Woven bedspread in bedroom environment.

Anna and and and and and an analy been being a set of a s

INTRODUCTION

"Our environment can be described as all that surrounds us other than ourselves, not only buildings and man-made objects, but films and television, smells and sounds, magazines and advertisements, in fact all that is received by our senses" (Ref. 1)

Accepting that our environment is all that surrounds us it is important to remember that it is made up of many individual environments. Each of these smaller environments has a character of it's own. What surrounds us involves our senses and therefor our emotions and this is what makes us respond differently to different environments.

The most immediate environment to us is our home. This is where we wake up in the morning and rest in the evening. We choose how it is decorated and we decide what objects and what spaces are needed for our lives to run smoothly. Our own homes are environments created by a mixture of design and of chance. Professional designers design objects, such as toasters, telephones and fabrics, which we use in our homes. The inhabitants of the home decide what shall be present there and what situation the chosen objects shall occupy. If an item is not functioning to its full potential in one place the inhabitants of the home will move it to another more suitable spot. The fact that we all make decisions about the order of our homes and correct these decisions if they are not adequate makes all of us designers in our own right. Since we are all designers we should therefore be educated as such. This thesis shall limit itself to one aspect of what can be learnt in the home. It shall concentrate on the things that grow there. The figst question therefore that we must ask ourselves is why do we have plants in our homes? There are a few different approaches to answering this question. A biologist would immediately realize that plants have a very important function in the home and that is to clean the air, just as trees serve the same purpose in built-up areas outdoors.

Herbs and vegetables are also grown frequently to provide food which is fresh and more enjoyable to eat than what might be purchased in a supermarket. My own answer would be, for their aesthetic value.

The dual concerns of this enquiry are to examine why we consider plants to be aesthetically pleasing and secondly to discover how the presence of plants affects the home environment as a whole. As John Lidstone says:

"In nature we find the roots of our aesthetic responses. Our feelings for order as well as our distaste for monotony stem from natural experience". (Ref. 2)

By studying the plants that grow in the home environment we can see the variety of textures, colours, shapes, tones and forms which are all so perfectly blended in nature. We realise that it is the perfect blending of these 'art elements' that combine to create the beauty of plants. There are quite a number of homes where horticulture is not a keen hobby and there are no plants grown in or around the home. It is true that things will grow regardless of whether someone plants them or not and even these homes which lack green-fingered people have all kinds of shrubs and weeds, mosses, fungi and moulds growing in and around them. This project will not, however, deal with 'self-motivated' growth but only with the growing things that have been planted for a specific reason by the occupants of the home.

It is noticeable that where there is an absence of plants growing' in the home situation, that humans have replaced them with substitutes. Man has taken the art elements from natural forms and used them to decorate all kinds of man-made objects which we use in our home environment. How often do we see floral wallpaper or curtains, 'leafy' carpets and dishes and saucepans decorated with growing things? Some even go as far as to decorate their environment with plastic flowers and plants.

The whole question of transferring natural forms onto man-made objects is an interesting one. The aesthetic qualities of such replacements are obvious but can man-made objects capture and imitate the qualities of nature or do they loose all of the beauty of the real thing? There is an element of fashion and availability involved in the widespread use of 'replacements' for growing things in the home. Designers often tend to turn to nature for inspiration and so many of the textile and utensil designs available in shops have their origin in nature.

Another reason for the 'replacements' is for their symbolic value. A vase of plastic flowers may not even remotely posess any of the beautiful elements that are evident in the original but on a cold winters' day they could remind their owner of spring and so are valid for that reason.

To summarise, natural plants posess the advantages of both aesthetic and ecological qualities while man-made objects decorated with natural forms can never be more than aesthetically pleasing. Through the project the pupils should not only learn about plants and man-made objects derived from or imitating. natural forms but a critical sense should be instilled in the pupils when evaluating all man-made objects and their design awareness should be increased.

Man made objects... "while they are an outcome of mans reaction, to his environment, themselves exert a subtle influence on that environment, on the way we think and feel". (Ref. 3)

CHAPTER ONE

THE USE OF PLANT FORM IN THE APPLIED ARTS OF THE 19TH CENTURY

174



Plant life has been used as a source of inspiration by decorative artists from the very earliest times. Plants were used to decorate fabrics, pottery, and as time went by, many other household items. In very ancient greek pottery, decoration depicting plant form is evident. This consists of a simple repetition of a leaf, which is of too elementary a character to be identified with any specific plant. The pattern evolved and by the sixth century B.C. the leaf takes on a genuinely naturalistic treatment. The plant now becomes recognisable as an ivy plant. Artists turn to nature over and over again for inspiration and those artists involved with decoration seem to turn to growing plants, fruit and flowers more than any other natural forms.

For the purpose of this thesis I will deal solely with the use of plant forms, by designers, during the nineteenth century, especially the Art Nouveau period in the history of art which fits in between the age of historicism and the Modern Movement of the early twentieth century. Most of the decorative art objects of the first half of the nineteenth century were reproductions of old styles, such as, the classical and gothic. The Industrial Revolution made the reproduction of past forms all too easy and homes were packed with cheap imitations of by-gone styles. During the latter half of the nineteenth century artists and designers began to change the situation, The Great Exhibition of 1851 pointed out the sorry state of household design and everyone saw that good design must be promoted.

The designers of the latter half of the nineteenth century, like many designers before them, turned to nature for inspiration. At the middle of the century the naturalistic method of imitating nature directly was general among artists (Fig. 1), but the attitudes towards the way in which nature ought to be used were to change greatly over the second half of the century.



Fig 2



Fig 3

THE ATTITUDES OF 19TH CENTURY ENGLISH ARTISTS TOWARDS NATURE

John Ruskin was an artist and an art critic who was born in 1819 and died in 1900. His teaching about nature was based on an imitate knowledge of it. In his view nature was the source of inspiration of all art and should be studied in great detail. According to Ruskin, God had established certain shapes in nature, "and all noble ornamentation is the expression of mans delight in God's work". There is no room in his idea for recreation or abstraction, "....all most lovely forms and thoughts are directly taken from natural objects". Ruskin influenced quite a number (Ref. 4) of artists and designers. The most direct influence that he had was on the members of the Pre-Raphaelite Brotherhood, who studied nature in depth and approached their work with true naturalism. This can particularily be seen in Millais' Ophelia (Fig. 2), in Holnan Hunts 'The Hireling Shepherd' (Fig. 3) and also in the work of Arthur Hughes.

William Morris was directly influenced by the Pre-Raphaelites. He had a special friendship with Rossetti and received, along with Burne-Jones, tuition from him. Morris was born in 1834 and died in 1896. He began studying architecture but abandoned it to become a painter. In 1857 Rossetti wrote. "Morris has as yet done nothing in art, but is now busily painting his first picture, 'Sir Tristram, after his illness, in the garden of King Marks palace, recognised by the dog he had given to Iseult', it is all being done from nature of course". Morris was also influenced somewhat by Ruskin. His relationship with nature is not religious but his entire doctrine springs from the same basic idea as Ruskin's. He gives a more theoretical expression of his views on nature in his lectures and books but as an artist he developed Ruskins doctrine, maintaining that the artist must not copy nature, but recreate it, and yet withour losing its freshness.



Fig 5





Fig 4

Lewis Day has expressed this in a very charming way:

"He did not ask so much that ornament should be like nature, as that it should lead ones thoughts out of doors" (Ref. 5) It can be seen from Morris's designs that he had studied nature, and especially plant forms, in great depth before he began to recreate it in his own work. (Fig. 4) 8.

John Sedding was a pupil of William Morris who held the same opinions as Morris with regard to the use of nature by artists and designers.

He said:

"Nature is, of course, the groundwork of all art, even ours; but it is not to nature at first hand that we go.... drop this wearisome translation of old styles and translate nature instead". (Ref. 6)

Christopher Dresser was also in the same school of thought with regard to nature. He was a botanist and therefore had a knowledge of plant-life which helped him greatly as a designer. (Fig. 5) Walter Crane was a contempory of Dresser and Sedding, who had a great love of naturalism. "This love could have induced him to work in a detailed way, giving form to his leaves and flowers which would make them give the illusion of three dimensions on a two dimensional surface".

If he had done this he would have lost the "repose and sense of quiet planes essential to pattern work...." (Ref 7) (Fig. 6)





THE ATTITUDES OF 19TH CENTURY FRENCH ARTISTS TO NATURE

In france, as well as in England we find the first Art-Nouveau like plant motifs within the naturalistic school. In 1867, Felix Bracquemond executed a plate using a decoration with a linear rhythm based on plant shapes, which approximate to those of Art Nouveau. (Fig. 7)



France's most outstanding naturalist within the realm of decorative art, is nonetheless, Emile Callé. Gallé lived from 1846 to 1904. From his youth his interest had centred on plants. He commenced studying botany, but interupted his studies to start a pottery workshop in 1874. Gallé's decorative principles are entirely founded on the study of nature, and his form is more naturalistic than that of his contemporaries. He allows flowers and leaves to retain their illusionistic effect, without being converted to two-dimensional principles, even though he occasionally approaches them. (Fig. 8) Gallé influenced some of his contemporaries, including the Daum Brothers. Antonin Daum was especially influenced by him. (Fig. 9)



Another French decorative artist of the time, Eurene Grasset could be called the french equivalent to Walter Crane. He has views on decoration which are the result of a desire to conceal the construction, (Fig. 10), and "for that reason he belongs to the 19th Century and not the Modern Movement, and precisely because he cultivates the stem rather than the flower he belongs not to the eighteen-eighties but to the eighteen-nineties. For this reason he is such a typical Art-Nouveau artist.

Art Nouveau appeared in full flowers around the year 1900. Around this time there was great enthusiasm for the decorative arts in Europe. News-stands and book shops were flooded with new magazines and journals dealing with the applied arts. Approximately one hundred appeared between 1890 and 1900.

Along with the deep study of nature undertaken by the Art-Nouveau artists, there were other elements influencing their work. The first of these is Japanese art. The Japanese artistcraftsman simplified and made natural forms decorative through flat, often asymmetrical arrangements of colour and pattern linked by bold, curving outlines. The study of this art assisted the Art-Nouveau artsits greatly in their efforts to simplify plant forms. Celtic and Egyptian art also influenced the Art-Nouveau artists.

Art-Nouveau did not alter, to any great extent, the style of fabrics nor the already highly advanced, techniques of production. "This time was a period of transition between the sombre compositions of the late nineteenth century and the explosions of colour inspired by the Ballets Russes which set the tone for the 1925 Exhibition of Decorative Arts". (Ref. 9) During this time, the colours tended to be softer and often in pastel shades. The designers of the time could now use softer colours because of the technological advances of the century and the improved chemical processes. As well as the soft colours, the plant-like forms and lines, were stylized greatly in a fashion that became very typical of Art Nouveau.

Wallpaper had been developed in order to provide an economic substitute for fabrics and for this reason the evolution of the two fun parallel for quite some time. New developments mean that wallpaper can imitate wood or practically any traditional material, but in 1900 wallpaper was still following the example set by fabrics. Stylized flowers were very often used as a decorative motif for wallpaper. Artists such as Hector Guimard and Victor Bourgeois created numerous designs for wallpaper, featuring irises, cyclamens, lillies of the valley, waterlillies and many other flowers and trees.

Stained glass played an important role in decoration at the begining of the twentieth century. Those artists who found inspiration for their furniture, fabrics and wallpaper in flowers and plants discovered in stained-glass a surface that was free, transparent and luminous. Hensforth there was scarcely a "stairway gr dopr where the light was not filtered through bouquets of irises, fields of thistles or garlands of flowers". (Ref. 10) The best of these windows, such as those signed by Gruber, Grasset, or Guimard were executed in the traditional manner, whereby motifs were outlined by a tracery of lead. Others consisted simply of regular series of small panes of painted or enamelled glass. The current fashion for wide expanses of glass has largely done away with the stained glass windows.

"Our contemporaries prefer the sight of a real tree or small corner of greenery to that of a painted garden brought to life by the rays of the sun." (Ref. 11)

The 1850's brought the first signs of the revival of ceramics and many small pottery workshops were established. The feverish creativity of these patters can be traced back to several origins: The first could be the veneration of manual work and craftsmanship by Ruskin and Morris. The second might be the interest in chemistry which had been brought about by scientific developments. Another reason is the interest in the ancient arts of China and Japan, which developed with Art Nouveau. Chaplet, Dammouse and Hexamer were potters who worked at the end of the nineteenth century and into the beginning of the twentieth century. They, along with Dalpayray and Delaherche and many others, used



Fig 11

plant forms to decorate their ceramics.

- A - -

The 19th Century saw a great change in the ways in which artists and designers were to use plant form, and, indeed, nature in general. The designers of the beginning of the century used nature in a similar fashion to the way school children of earlier centuries used Bernard Lens' copybooks. They made replicas. By the end of the century, nature was being looked at in a different way. Artists and designers studied the beautiful combinations of the art elements evident in natural form and used these elements to make their own statements, just as a writer uses words to construct a poem. (Fig. 11)

CHAPTER TWO

CLASS PROJECT



F19 12



Fig 13



Fig 14





The aim of the first part of the project was to let the pupils experience the idea of growth, to familiarize them with the appearance of plants and to discuss some of the environmental factors of plant life. The project began with the introduction of houseplants into the classroom. The pupils first looked closely at a geranium plant which was in full bloom. (Fig. 12) They discussed how the central stem of the plant was highly textured and was much thicker than the graceful stalks which supported the leaves and blossoms. They observed the structure of the plant and suggested the order in which the process of growth occured to make the plant reach its present stage. They described this growth by rolling into a tight ball on the floor, pretending to be the bulb underground. They then commenced the growth process with their bodies, using strong, awkward gestures to show the stumpy main stem of the plant and soft graceful movements to express the offshoots. Their arms then began to curl to show the shapes of the leaves and finally arms, fingers and faces were stretched brightly to show (Fig. 13) The same observational process took place the blossoms. with a tradescantia.

The class now felt more familiar with their subject and felt involved in the growth process. The physical activity at the beginning of class led to a lively participation in the work which followed. Drawings were now made of houseplants.

In order to reduce the intimidation of the undertaking the drawing was broken into stages. The pupils first examined the main stem, pushing the leaves out of the way in order to see the entire structure. The next stage was to observe and draw the offshoots and finally the leaves and blossoms. Two drawings were made by each pupil; one using line only, (Fig. 14) and the other using blocks of tone. (Fig. 15) The suggestion that it was possible to talk to plants was made by a member of the class and we decided to carry out the experiment to investigate if the possibility was real. When a volunteer held a conversation with one of the plants, she received no reply.



Fig 16



Fig 17

Why then, do many people talk to their plants?. We discussed how plants clean the air for us by giving off oxygen which we need, and using the carbon dioxide which we do not need. When we take in air we use oxygen and let out carbon dioxide when we exhale or speak. We are therefore helping the plant to grow by exhaling carbon dioxide in close proximity to it, in the form of speech.

The next stage of the project aimed at encouraging a better understanding of form in the pupils and letting them experience working in three dimensions.

From the knowledge that had been acquired in the first class we then proceeded to make three dimensional representations of plants. Gardening wire was twisted around rolls of paper to make a representation of the plant structure. (Fig. 16). The completed structure was then covered with strips of 'gipsona', (Fig. 17), and set in a plaster base. Through the physical experience of handling plaster the pupils gained confidence in their approach to the material. They were amazed at how the plaster became warm while setting and at the speed at which it set. It was also noticed how the pattern on the skin of one pupil's hand was apparent when plaster accidentally set on its surface.

Unfortunately, when the structures were set in the bases and the bases removed from their moulds a number of the sculptures began to topple over. The disheartened pupils had to discover the reason for this and rectify the mistake. It was suggested that the top of the structure was heavier than the bottom and that made it fall over. This gave me the opportunity to explain the concept of the centre of gravity of an object. I was pleased that this practical experience would clarify the theory for the pupils when it came up in their science class. We then reset the pieces in question in a new, wider, base. The centre of gravity was lowered and the structures could now stand. The sculptures were now ready for painting and it was time to return to the original plants in order to observe the colour.



Fig 18a.



Fig 186.

We discussed how primary colours could be mixed to make secondary colours and the tones of colours could be altered. The sculptures were then completed. (Fig. 18) (a+b)

At this stage of the project an audio-visual presentation was made to the class. Arising from the slide demonstration, the pupils responded to the question of why one has plants in the home by observing that they clean the air; they provide food (in the form of herbs and vegetables); and they are beautiful, in colour, shape, texture and tone. A short discussion led to the observation that a variety of artists turn to plants for inspiration. Painters, sculptors, photographers, film-makers, designers, dancers, musicians and poets were all mentioned.

The pupils noticed from illustrations of wallpaper, carpet, curtain and ceramic designs that designers were selective in the elements of plant life which they used in their designs. One particular slide caused much discussion as it was observed that the shapes, textures and lines used were evidently arrived at through a study of plant form, where as the colour was either imaginery or taken from another element of nature.

Designs, taken from plant form, which were on items which could be found in the home situation were purposely illustrated in the slide show. The question was asked, why many patterns on curtains, carpets, wallpaper, dishes, tiles, etc depicted plants. The response was that a lot of people didn't have real plants growing in their homes and by having other things, there, showing elements of plant life they were making the place nicer to live in.

An enquiry was made as to what other ways there were of bringing plants or plant representations into the home, and the reply was that outdoor flowers could be cut and brought indoors, and failing this, plastic flowers could be used. There were arguments for and against the use of plastic flowers. It was decided that they were good because they lasted forever and in wintertime, when there were not many real flowers around, they were an average substitute.



Fig 19.

However, it was agreed that plastic flowers were not as nice as real ones. They were hard to touch and looked hard. The colours were not the same and most of all they didn't smell. When asked were plastic flowers or floral patterned household items a better replacement for the real thing it was decided that curtains, wallpaper and the like were better. The reason being that the person who designed plastic flowers was really trying to imitate the real ones but the designers who designed fabrics and other things in the home only took certain elements from plants, for example, the colours, shapes or textures and then he arranged them as he wished in order to create his own design.

A very articulate member of the class summed-up the whole discussion by saying that: people wanted nature in their man-made environment and so tried to put nature into man-made objects. She agreed that some designers used certain elements of nature but others imitated plants on their wallpaper or carpets, just as the designer of plastic flowers imitated plants directly.

The audio-visual and discussion were followed by each pupil designing symbols which represented each item, in their home, which depicted plant form. They then made maps of their homes and placed the appropriate symbols in each room. (Fig. 19) In order to do this, the pupils had to take a closer look at their immediate home environment. They became more aware of how many man-made designs originated by their designers making visual studies of plant life. To accompany the map, each pupil wrote a short paragraph on the plant forms in their own homes. The aims of the final stage of the project are: to understand a process through which a fabric design can be arrived at. To experience the process of screen-printing. To achieve a better understanding of oclour and to display the prints collectively in the form of a mural.





Fig 21
By means of the audio-visual presentation, the pupils had seen how many designers get inspiration for their designs through a study of plant life. We, therefore, would do likewise and use our plant drawings as a starting point for the designs. In order that each pupil could select an area of her drawing which could be sued for design purposes view-finders were made. Each pupil selected an area which had some characteristics which appealed (Fig. 20) Each pupil then enlarged their selected area to her. to be twelve inches square. It was important that the designs were all equal in size in order for the final prints to fit together correctly when, finally, hung collectively. A grid was used for the process of enlarging and the pupils then evaluated the enlarged versions of the selected areas and made decisions regarding what elements ought to be added to the design and what ought to be removed.

It was now time to introduce the element of colour to the designing. The pupils were restricted to the use of any two of the three primary colours. They discovered with the aid of tissue paper that a third colour could be acquired by overlapping their two chosen colours. I demonstrated that this third colour could also be achieved in the printing process. It was observed that by some pupils using red and yellow, others using blue and red and others using blue and yellow that six colours will be made altogether and when all the prints are hung together the wall-hanging will have six colours even though only three colours were originally used, and only two by each person. Using glue and tissue paper the colour was applied to the design. (Fig. 21) The completed designs were collectively displayed and evaluated. Decisions were made as to where the most appropriate position for each individual design was in order for the wall-hanging to look its best.

20.



Fig 22







23





It was now time to prepare to print the designs. Each pupil made two tracings from her design, (one for each colour), and from these tracings the stencils were cut. By sticking the designs to a window and placing the newspaper out

of which the stencils were to be made, over them, we could trace the shapes directly onto the stencil paper and avoid the use of tracing paper. (Fig. 22) The windows served as a natural light box and I was given the opportunity to describe the piece of equipment know as the lightbox, which is used by professional designers.

Having cut out the stencils we were now prepared for the actual printing process. (Fig. 23) The pupils worked in pairs. (Fig. 24) It was necessary to give the print two pulls of the squeegee in order to prevent the print from being starved. Normally when two pulls are required the squeegee is pulled towards the printer and then pushed away. I felt that pushing the squeezee was too difficult a task for first years on their first attempt and printing it would have resulted in uneven printing and disappointment. In order to avoid having to push the squeegee each couple worked in a sequence where pupil A would hold the screen while pupil B pulled the squegee and then pupil B would hold the screen while pupil A pulled the squeegee. (Fig. 25 + 26) After printing the screen is lifted to expose the printed image. (Fig. 27). After each pupil completed her two colour print a short account of the project was written. (Fig. 28) The prints were then stretched on wooden frames and hung collect-

The prints were then stretched on wooden frames and the stretched ively to form a mural.

22.

CHAPTER THREE

PERSONAL PROJECT



In the previous chapters of this thesis, I have spoken about plant form that can be found in the home environment. Examples were given of 19th century artists and designers who used plant form as a basis for their work. I finally gave a description of how my pupils examined plant life and from their observations developed designs for printing on fabric, which were finally hung collectively to form a mural. In this chapter I shall give an account of how I used observational drawings of plants which grow in my own home as a source of inspiration for a printed length of fabric.

My pupils were given the restriction of only being allowed the use of three colours and by overprinting these three colours, they were requested to achieve more colours. In my personal project, I presented myself with the same problem. I, also, used as a starting point the same geranium plants as those presented to my pupils on the first day of their project.

I made watercolour paintings of the geranium plant. (Fig. 29) One of these water colours included the presence of a check table-cloth and I thought that this element could be incorporated into the pattern, contributing to its structure. An attempt was made to construct a pattern using the flower and leaves of the geranium and also the check table-cloth. This stage of designing was done through the medium of collage. (Fig. 30)

At first the design excited me, but before long, I realized that the design development was grinding to a halt. I felt that I was trying to interpret nature too realistically and making a bad job of it. (Fig. 31) The complimentary red and green clashed violently with each other and did not contribute a element of liveliness to the pattern, which complimentary colours can do ir used with care.



The table-cloth element, which I had such high hopes for at the beginning stages of the design, did nothing for it but made me feel that the entire pattern ought to be scented with garlic.

It was time to take a fresh look at my source and start again. (Fig. 32) I made a pencil drawing of an area of one of the geranium watercolours. (Fig. 33) This pencil drawing was photocopied a number of times. I cut up the photocopies, disregarding some shapes and arranging the chosen ones together to form a unit. The composition that I had, achieved, at this stage, held only remote similarities to its source. I approved of the idea that the elements taken from the geranium plant were now abstracted beyond recognition. (Fig. 34)

The arrangement of shapes and lines pleased me and I had the unit photo-copied a number of times in order to see if the unit could be successfully developed into a repeat pattern. There was potential for this combination of shapes to be repeated over and over again without many problems.

The next element that I was to introduce into the pattern was colour, and as I have already mentioned I was restricted to the use of three. I looked to a watercolour painting of an iris for my colour source. (Fig.35) Here I saw purples, blues, and yellows, all of a subtle nature and just right for my pattern. I decided to use blue and yellow as two of my three colours but instead of using purple as my third one, I would use pink. By doing this I could achieve purple, green and pinky-orange by overprinting. I painted a colourway (Fig.36) and made some print tests to ensure that my desired colours could be achieved using dye as a medium.

Now that the colour problem was solved it was time to finalize the repeat. This was done with great accuracy using tracing-paper and graph-paper.

25.





Fig 36



Fig 37

Three kodatraces were then painted, one of these for each colour and following this, the screens were developed and made ready for use. Procian dyes were prepared and the fabric length duly printed. (Fig. 37)

Plant forms are an ideal source for the designing of a repeat pattern. In a repeat pattern the shapes and lines contained in one unit should gracefully grow into the next unit. The shapes, lines, and curves of plants are structured for the process of growth in their own habitat. so if a designer takes these lines, curves and shapes and applies them to a two-dimensional plane, they should give the illusion of growth there also. For this reason, plants lend themselves beautifully as a source for the construction of a flowing, moving, repeat pattern.

I have used plants and other natural forms as a source for designing woven items. The design for the bedspread (Fig.38) was adapted from a drawing of grasses which grow in my garden. Designing for a woven fabric is very different to designing for a printed one. With print, the pattern is applied to an already constructed fabric and one can print any shapes, lines, textures or curves that one may desire. Weaving a pattern is very different as the pattern becomes part of the structure of the fabric. The loom creates restrictions as to how many and what shapes can be included in a pattern. The variety of yarns used in any one fabric is restricted as the construction must be a stable one in order for the fabric to remain intact and functionable.

In this bedspread, I wanted the representation of grasses to run the length of the spread. They were to change colour a number of times along the length and finally taper-off at the top. This was a difficult task and the way I chose to tackle it was by the careful dyeing of the warp yarn. The warp was divided into sections and the relevant sections were space-dyed to the wark at which the tapering off was due to begin.



At this stage each piece of yarn had to be individually dyed. When the dyeing was completed the warp had to be stretched on the loom and threaded through the reed and headles. This had to be done with great care as the dyed warp could not be moved out of place to any great extent or the pattern would be destroyed. The weaving now took place.

Plant form is an excellent source of inspiration for the designing of any craft item. However, the restrictions of the craft itself force the forms to be used in certain ways. Restrictions dictatedby a craft should not be thought of as a block against creativity. On the other hand, having to work with a discipline often leads to a higher level of creative thinking.

29.

CONCLUSION

In this thesis I have investigated the inclusion of plant form in the home environment. Both ecological and aesthetic reasons were given for its inclusion in this environment. The question of the aesthetic value of man-made objects decorated with or imitating plant forms was raised and the use of plant form by nineteenth century artists and designers was discussed.

Through the class project the pupils learned about growth and plant-life. They questioned why plants were included in their own home environments. They investigated the reasons for considering plants to be aesthically pleasing and also investigated the use of plant form as decoration for man-made objects. They were, therefore, encouraged to become more aware of both the natural and the man-made worlds in which they live. The pupils went through the process of observing plant form and transferring some of the visual elements observed onto a man-made object, namely a fabric.

As the aim of the project was to study plant form in the home environment, further projects could be developed in either of two directions. One of these directions would be to look at plant form and, indeed, natural form in general, in other environments besides the home.

- (1) Learning from natural form in the park.
- (2) Learning form natural form on the beach.
- (3) Learning from natural form in the bog.
- Learning form natural form in the city.

(4)

The other direction in which the project could be developed is to investigate other elements contained in the home environment.

EXAMPLES

- (1) Learning from household utensils.
- (2) Learning about advertisements in the home.
- (3) Learning about television.
- (4) The house as a museum.



<u>LESSON ONE</u> <u>CLASS</u> 1st Year <u>DATE</u> 14.03.83 <u>ABILITY</u> Mixed <u>TIME</u> 2 Hrs. 15 Mins.

PROCESS Drawing

LEARNING OBJECTIVE

Investigating the growth process of houseplants.

INTRODUCTION

- 1. Discussion about how geranium plant might have grown.
- 2. Description of this growth by acting out the sequence.
- 3. Execution of line drawing of plant structure.

Stages

- (1) Study of main stem, (all foliage pushed out of way).
- (2) Study of off shoots.
- (3) Study of leaf distribution on off shoots.
- (4) Study of blossoms.
- 4. Execution of tonal drawing of plant, using the same stages as described in 3.

MOTIVATION Growth

MATERIALS Paper, charcoal.

PROBLEMS

- 1. Using one's body to express the growth process.
- 2. Drawing with the problem of only using lines to express an observation.
- 3. Drawing with the problem of only using tone and no lines.

EVALUATION

What might a plant feel like when it is in the form of a seed or bulb?

How would it feel when it first peeps out of the soil?

As it grows, how would it change?

Do our drawings capture the feeling of growth?

LESSON	TWO
--------	-----

1st Year CLASS

۲.

ABILITY Mixed DATE 21.03.83

TIME 2 Hrs. 15 Mins.

PROCESS

Wrapping gardening wire around paper.

2. Wrapping gipsona around the gardening wire.

3. Setting the structure in a plaster base.

LEARNING OBJECTIVE

Investigating form.

INTRODUCTION Recap on lesson 1.

DEMO 1.

Creating representations of plant forms using paper and wire.



(a) Roll pieces of paper. (for stem + off shoots)



(b) Wrap gardening wire around paper and join off shoots to main stem with wire.

- Wrap gipsona around the entire wire structure. (c)
- (d) Mix plaster in bucket and pour into individual moulds for bases for structures.



(e) Hold structure in plaster base until plaster sets.

MOTIVATION Working in 3D

MATERIALS

Paper, gardening wire, gipsona, plaster, moulds, bucket.

PROBLEMS

Rolling paper, wrapping wire around a structure, cutting wire, securing one piece of paper to another with wire. Covering structure with gipsona. Setting structure in plaster.

EVALUATION

What is the difference between 2D and 3D? What is sculpture? Is this sculpture? Why is it sculpture? What other ways could we make a piece of sculpture?

		LESSON THREE		
LASS	1st Year		DATE	11.04.83
BILITY	Mixed		TIME	2 Hrs. 15 Mins
ROCESS	Painting			
EARNING	OBJECTIVE	Investigating col	our on fo	rm

INTRODUCTION

1. Observation of colours evident on plants.

2. Use of these colours to paint sculptures executed in lesson 2.

MOTIVATION Colour

MATERIALS Previously executed forms, paint, brushes, water.

PROBLEMS

Mixing paint, painting on a three dimensional surface.

EVALUATION

R

If we paint a piece of sculpture using one flat colour, will the colour remain even on the form?

Does the fact that the colour is applied to a 3D form change it in any way? CLASS

1st Year

LESSON FOUR

DATE 18.04.83

ABILITY Mixed

TIME 2 Hrs. 15 Mins.

PROCESS

Viewing Audio-Visual presentation, disucssing, remembering, recording, making symbols, lettering, map making.

LEARNING OBJECTIVE

- 1. To increase awareness of the amount of plant form to be found in the home.
- 2. To understand why plants are visually pleasing.
- 3. To be aware of the uses of plants, by designers and artists.

INTRODUCTION

DEMO

- 1. Audio visual presentation and discussion.
- Make symbols to represent each item in pupils own home which is decorated, with plant form, and make symbols to represent growing things.

EXAMPLES



Plant



Curtains

- 3. Make map or chart showing each room in pupils own home and insert the appropriate symbols in each room.
- 4. Write a short account of what plant forms are in the home and why.

Audio-visual presentation.

MOTIVATION

2

MATERIALS

paper, paint, markers, pencils, brushes, crayons.

PROBLEMS

Remembering and recording.

EVALUATION

Why do we have plants in our homes?

Where else are there plant forms in the home besides where there are plants growing?

Why do designers use plants to inspire them in their work?

LESSON	FIVE
--------	------

GLASS 1st Year

DATE 25.04.83 ABILITY Mixed TIME 2 Hrs. 15 Mins.

Measuring, ruling, cutting, selecting, enlarging.

LEARNING OBJECTIVE Investigating design development

INTRODUCTION

PROCESS

DEMO

1. How to make a viewfinder (Note the importance of accurate measurement.)



Use of viewfinder to select area of drawing to be 2. used for design.



Area enclosed in viewfinder to be enlarged with use 3. of a grid.





MOTIVATION

Transformation.

PROBLEMS

- 1. Measuring accurately a square and cutting correctly along ruled lines.
- 2. Selecting an isolated section of a drawing which in itself creates a nice composition.
- 3. Measuring and making a grid which functions well as a guide for enlarging the images.

4. Enlarging.

MATERIALS

Paper, pencils, rulers, scissors, previously executed drawings.

EVALUATION

What is the point of making a viewfinder?

What is the point of making a grid?

Why is it important to have accurate measurements? Why do we select a section of the drawing to make a design? Does the section retain some of the characteristics of the whole drawing?

What are they?

LESSON SIX

CLASS 1st Year

DATE 2.05.83.

ABILITY Mixed

TIME 2 HRS. 15 Mins.

PROCESS Tracing, cutting, sticking.

LEARNING OBJECTIVE Understanding colour separation

INTRODUCTION

DEMO

.

-

é.

1

1

í,

1. Use of coloured tissue paper to demonstrate colour separation



2. Trace shapes from design (see lesson 5) onto tissue of desired colour.



- 3. Cut the shape out of coloured paper tissue
- Stick shape (cut in tissue) onto corresponding shape of design.



MOTIVATION

Knowing that design will be printed on fabric.

PROBLEMS

- 1. Tracing and cutting shapes accurately.
- 2. Sticking shapes down.
- Creating a third colour by overlapping two colours of tissue paper. Only two primary colours may be used by each student.



MATERIALS

Tissue paper, tracing paper, pencils, scissors, glue, designs made in lesson 5.

EVALUATION

What are the three primary colours? What happens when you overlap (1) Yellow and blue tissue? (2) Yellow and red tissue? (3) Red and blue tissue?

LESSON SEVEN

CLASS 1st Year

		DATE	9.05.83
ABILITY	Mixed		
		TIME	2 Hrs. 15 Mins.

PROCESS

Tracing, cutting, registering.

LEARNING OBJECTIVE

Understanding the preparation of stencils for screen printing

INTRODUCTION

DEMO

1. How to trace an image



(a) With greaseproof paper, trace drawing using pencil.



(c) Place greaseproof on new sheet of paper and go over the image once again with pencil.



(b) On reverse side of greaseproof, go over the traced image with pencil.



(d) Because the pencil marks were on both sides of the greaseproof paper, the image will be transferred onto new sheet of paper, under pressure

DEMO

2.

Trace images which will be cut out for 1st colour stencil.



For blue stencil we must trace where the two colours overlap and make green, as well as the blue areas.

DEMO

Registration Marks. 3.





Crosses are marked into the four corners of each tracing. These registration marks must correspond so that when the tracings are laid one over the other, the registration marks are identical.



DEMO

- 4. Making a stencil.
 - (a) The blue tracing is transferred onto a sheet of old newspaper.
 The yellow tracing is transferred onto a separate sheet.
 - (b) The shapes are now cut out of the newspaper - (including registration crosses)





The stencils are now prepared for the printing process.

MOTIVATION Screen Printing

PROBLEMS

Tracing and cutting shapes. Tracing and cutting registration marks, which function correctly.

MATERIALS

Greaseproof paper. paper, newspaper, knives, pencils, previously executed designs.

EVALUATION

What is the most efficient way to transfer an image from one page to another?

What are registration marks?

How do they work?

Are they important? What is a stencil?



DEMONSTRATION

1. Place stencil onto screen.



2. Place fabric on table and place screen on top of it.



3. Place pigment onto screen in a line and then pull it from one end of screen to the other with the squeegee.

0

Pull squeegee at a 45° angle. Maintain the same angle and pressure from start to finish of pull.

- 4. Scoop excess pigment from screen and replace in jar. Remove stencil. Wash screen and squeegee.
- 5. When printed fabric is dry, repeat process with second colour.

MOTIVATION New equipment and new experience.

PROBLEMS

- 1. Achieving even distribution of pigment by keeping even pressure and angle on squeegee.
- 2. Using registration marks (see lesson 7) to place second colour in its correct position.

MATERIALS

Screens, stencils, squeegees, pigments, binder, newspapers, sponges, masking tape, fabric.

EVALUATION

How did the dye manage to come onto the fabric?

Are registration marks useful?

Decisions _ made as to what order the print should be hung in. The arrangement of prints is important as they must make a unified wall hanging.
LESSON NINE

CLASS	st Year		DATE	23.05.83
ABILITY	Mixed		TIME	2 Hrs. 15 Mins.
PROCESS	Printing	Rememboring		

Remembering

Writing

LEARNING OBJECTIVE

- Finish fabric prints. 1.
- 2. Evaluation of project leading to arrangement of prints in correct order for mural.
- 3. Making a written account of project. (Diagrams to be used where appropriate)

INTRODUCTION

- Discussion on project and on the way in which the prints 1. should be displayed.
- 2. Each pupil must make a written account of how she went about doing the project. The account must include:
 - 1. Factual account of project.
 - 2. Personal feelings.
 - 3. Diagrams (where appropriate).

MOTIVATION

Memory.

PROBLEMS

- 1. Recollecting thoughts and feelings.
- 2. Writing.
- 3. Making diagrams.

MATERIALS

Screen, Squeegee, pigments, fabric, paper, pencils, pen.

EVALUATION

How did we start designing for our prints?

What are the various stages we went through to get to the stage we are at now?

Are the prints like the drawings of plants or have they changed much?

Have they become abstracted?

Is this a good thing or a bad thing?

How many colours did we start printing with?

How many colours appear on the finished prints?

How shall we arrange the prints in order to make an attractive mural?

END NOTES

REF-	1.	PETER GREEN.	
		-g. Dudcation	Published - London 19
REF	2.	JOHN LIDSTONE.	
		'Design Activities for the Clas	sroom' Published -
REF	3.	KURT ROWLAND.	
		'Looking and Seeing'	Published - London 1964
REF	4.	JOHN RUSKIN.	
		'The Stones of Venice'	Published -
REF	5.	LEWIS DAY.	
REF	6.	JOHN SEDDING.	
REF	7.	STEPHEN TSCHUDI MADSEN.	
		'Source of Art Nouveau'	Published - New York 1975
REF	8.	STEPHEN TSCHUDI MADSEN.	
		'Sources of Art Nouveau'	Published - New York 1975
REF	9.	ROBERTA WADDELL.	
		'The Art Nouveau Style'	Published - New York 1977
REF	10.	ROBERTA WADDELL.	
		'The Art Nouveau Style'	Published - New fork 1977
REF	11.	ROBERTA WADDELL.	Dublished - New York 1977
		'The Art-Nouveau Style'	PUDIISHEd - New Join 1977

BIBLIOGRAPHY

1. <u>BERNARD AYLWARD</u> 'Design Education in Schools' Pub. Evan Bros. Ltd. London 1973.

2. <u>LAURENCE BUFFET - CHALLIE</u> 'Art Nouveau Style' Pub. Academy Editions 1982.

FIONA CLARK 'William Morris'
Pub. Academy Editions 1973.

4. <u>PETER GREEN</u> 'Design Education' Pub.

 JOHN HARAHAN 'Design in General Education' Pub. Design Council, London 1978.

6. <u>TIMOTHY HILTON</u> 'The Pre-Raphaelites' Pub. Thames and Hudson, London 1970.

i. JOHN LIDSTONE 'Design Activities for the Classroom' Pub.

8. <u>STEPHEN TSCHUDI MADSEN</u> 'Sources of Art Nouveau' Pub. Da Capo Press Inc., New York 1975

<u>KURT ROWLAND</u> 'Looking and Seeing' series
Pub. Ginn & Co., London 1964.

¹⁰. <u>EDWARD F. STRANGE</u> 'Flowers and Plants for Designers & Schools' Pub. Hodder and Stoughton, London

¹. <u>ROBERTA WADDELL</u> 'The Art Nouveau Style' Pub. Dover Publications Inc., New York 1977.