

TECHNIQUES IN CONTEMPORARY BOOK ILLUSTRATION

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BACKGROUND AND INTRODUCTION

Although the hackneyed adage "one picture is worth a thousand words" defies proof and begs argument, the basic value of illustration in graphic communications is beyond dispute. Without attempting to put a relative value on illustration as compared with words, we can still be aware of the special effectiveness of images, in accomplishing communication goals.

The roots of illustration go back to prehistoric pictorial art of engraved or painted figures done on stone. The hand print can be interpreted as one of the first attempts at drawing. Prehistoric pictorial art depicted visually what could not be expressed by word or gestures some had religious significance, some the presence of myth, others plainly didactic, showing daily life, social communication, the magic of the hunt, death, birth, group life and sexual symbolism. Little is known of the vast lapse of time between prehistoric art and the imagery that man devised in the service of developing civilisations at the dawn of history. With steadily increasing demands upon his skills, the artisan's mastery of the tools and materials progressed, so that by the beginning of recorded time he was in possession of the potential elements for printmaking. Yet the importance of communication, as we know it today, only developed centuries later with the motivating force of religion. The print could tell its story to those who could not read or write but could quickly grasp the meaning of a picture.

The mesopotamians came very close to the invention of printing. Carved cylinders of lapis lazuli and other materials, were run off into wet clay

on jars and tablets, leaving the imprint of ownership, rank and authority. Rolled over ink and printed on papyrus, they could have approximated the principle of printing on the offset or rotary press as we know it today. Papyrus, a light and flexible surface, however, was fabricated by the Egyptians, together with the development of a picture-writing system - hieroglyphics. The Egyptians devoted their major artistic efforts to the gods and to the after life which they portrayed through decorative reliefs and paintings. In comparison to the stratified compositions typical of Egypt and Mesopotamia, Minoan painting contains unfettered rhythmic contours and shows a much lighter spirit. The dynamic freedom which had flourished in the spiraliform elaborations, spread by the Creto-Mycenaens formed a direct contrast to the Greek repertory of angular, strict, rhythmic, arbitrary and simplified forms. This can be seen in the geometric style Greek vases, where even the schematic outlines of the horse and bird recur, and in the earliest architecture. This was to be art that had almost nothing to do with its original magical function, an art which was used sparingly for religious purposes and which was intended essentially to embellish everyday life. Art suddenly became free and independent, and with a classical era, the idea of beauty took shape. From this time, Greek art was to be essentially and consciously conceived with the idea of giving 'delight' to the spectator and was to seek to stimulate this delight through realism and harmony.

The final phase of ancient art is the early Christian and Byzantine Art. A fundamental change took place between the conceptions of the human

figure and surrounding space prevalent in Greek and Roman art and those strongly evident in the art of Christianity. In addition to mural decoration, a second extremely important field for paintings was the "illumination" of manuscripts, which was the only form of books made in Europe until the importation of printing in the fifteenth century. The manuscripts were replaced by the block book. One of the earliest being "Biblia Paupum", a bible for the poor, printed in 1450, which was decorated with hand-cut woodprints and handcut texts. These devotional books had a diadactic value due to the illustrated text.

John Gutenberg of Mainz, revolutionised the printing of books, not so much through the invention of moveable type, which had been invented and used in Korea and China centuries before, but through the use of a steel matrix which served as a mould for any number of letters cast in durable lead alloy. His invention marked the end of the block book and the exit of the scribe.

The Cologne Bible, 1478, printed by Quentell, set the beginning of illustrations. It was at this time that the woodcut and the relief print were used for mass production and communication. Albrecht Dürer revived interest in the wood block with its possibilities leaning towards the illustrated book. His techniques had tremendous influence on artists after him. In 1497 he began his first copper engravings, an intaglio method which was employed along with wood engraving for reproductive printing. Dürer's greatest work was for the Emperor Maximilian's Prayer Book in 1514. The next important illustrator of this period, after

Dürer, was Holbien. His work was more related to books than Dürers, who produced more prints. Holbien managed a harmony between illustration size and type length and there was no haphazard throwing together of these features.

The French at this stage, were making good advances in their printing, the best known was Geoffery Tory, for his 'Books of Hours' in 1525. An elegant production with lush decoration, printing and fine paper. England, which was lagging behind Europe at the time, produced one of its first great books in the seventeenth century, 'Di Humani caporis fabrika', an anatomy book produced for King Henry VIII. Illustration in books became the fashion in the eighteenth century. Unillustrated books were condemned to failure. Woodcuts had now declined in popularity and engravings were the rage. These were finally etched and finished with a burin by hand. Stipled engraving, and mezzotint became more common and aquatint essential for landscapes. There was however, Thomas Bewick, an illustrator and wood engraver who revitalised the whole wood engraving scene. His best and most famous work was 'The History of British Birds'. The first volume of 'Land Birds' was published in 1799 and the second, 'Water Birds' in 1804. All the above illustrators paved the way for Alios Senefelder, who was instrumental in revolutionising the first lithographic print in 1798. The process replaced etching and wood blocks as the main reproductive print medium and caused the 'explosion' of books. It was faster, more efficient, accurate and colour was easily achieved. Planographic printing is based on the repulsion of grease by water. The prepared surface being sensitive to a variety of crayons, inks and washes, making it an ideal artistic medium.

Photolithography is used today as the primary commercial printing medium. The process entails creating an ink receptive image on stone, zinc or aluminum entirely by photographic means. Therefore, the camera, being fast and very accurate, has helped to revolutionise printing even further.

If we look at the first twenty years of the twentieth century, there is in English illustration little change when compared to the illustrations from the nineteenth century. But the years 1920 to 1940 produced - in both England and France - a rich crop of illustrated books which have drawn interest almost as great as those of comparable decades in the nineteenth century, despite an adolescent desire to shock the bourgeoisie and to attack the conventional ideals concerning tradition and beauty. Surrealism, like Expressionism, made an important contribution to book illustration. The great names range from Max Ernst (1891-1976) to Raoul Dufy (1877-1953), who are all known as expressionist book illustrators.

It is not until Sir Allen Crane, of Penquin Books, launched his Puffin series of books during the second world war, that a fresh approach to childrens books was made. These varied from books of war, aeroplanes, butterflies to Kathleen Hales "Orlando, the Marmalade Cat" to Edward Baldwins most decorative "The Arabs". One of the few exceptions to the general run of mediocrity in American and English children's books of the pre-war years was "Little Tim and the Brave Sea Captain" written and illustrated by Edward Aridzonne, an English artist in the direct tradition of Cruikshank. An illustrator who has no compunction about

using speech balloons when someone is talking, whether it is 'Bravo' or 'armed with a rifle to keep watch', anything that will keep his purpose for putting over his illustrations and so establishing contact with his readers he rightly regards as justified.

In the reaction to the drabness of the contemporary scene, there occurred a brief but vigorous renewal of book illustration in English general publishing between 1943 and 1955. It is sometimes claimed that Post-war illustration has flourished only in the field of children's books, but new techniques and experimental approaches to imaginative expression have greatly stimulated visual communication in all branches of the graphic arts during the second half of the twentieth century.

In the years of the 1970's, illustration, like much else in life, was decorative. The work was pretty, at the sametime vacuous, many delicate images concealing an emptiness. Now in the 1980's European illustration contains some of the most potent illustration imagery. It is not enough now to be a superb draughtsman. The successful illustrator must be able to think. Illustrators must first learn to draw, to co-ordinate their eyes and their heads. They must learn to observe and to add this to their co-ordination. Finally they must understand how to see and how to successfully represent an image in the relevent medium. For it is only by setting down what one sees that one can communicate ones own view of the world. When that happens you get great illustration. One must work with a pointed message and a definite point of view. This is where the similarity ends between fine art and the illustration. The fine artist

usually has commissions or his work is seen in an art gallery. The illustrator, however, working for publishers, advertisers and film production companies, has a different audience. His or her work is seen in the most vital, largest gallery of all - the mass media. And through exposure and because of special relationships between the media and the masses, the illustrator becomes the peoples artist. He works in a living gallery.

The extremely exciting and dangerously probing attitude of the 1980's has brought us a devouring desire to reassess the philosophy of illustration, its origins and its meaning as it stands today. We need to understand the motivations of the creative minds that preceed the modern movement. The development of illustration theory is related to the development of the major arts. Pretty pictures can no longer lead the way in which our visual environment should be shaped. It is now time to debate, probe the values, to examine the theories which are part of a heritage and to verify their validity to express our minds. It is time for words and vision.

Over the last few years new life has been injected in childrens books. It is childrens books which offer the most direct and simple challenge. So these illustrators have directed their sometimes considerable talents in this direction, usually acting both as author and illustrator. They tend to make their texts amplify their illustrations. The majority of the contemporary illustrations, are drawn by artists who have accepted their twentieth century environment. Painters and sculptors such as Chagall and Henry Moore have brought a new life to book illustration, but this is only one very small aspect of illustration.

Childrens books evoke some of the most fascinating and creative achievements in the whole field of applied art. I have chosen the books presented on the following pages solely for the quality of their illustrations and I have not presumed to pass judgement on their literary or educational value.

Books leave a deep mark in the children who read them. The childs powers of expression - and thus his ability to make contact and to communi-ate with his fellows are improved by reading and his imagination is stimulated by pictures.

Books open up new worlds to the child, giving him access to a wide spectrum of experience and knowledge.

Great responsibility therefore rests with those who have to do with the making and marketing of children's books. Books should respect the childs personality, strengthen its natural sense of justice and thereby make it capable of friendship and solidarity in its later life.

CHAPTER ONE

POINT MEDIA

When pencil, chalk, pastel, crayon and charcoal are used - either singly or in combination - to produce illustrations, they are referred to as point media. Little is known of drawings as independent works of art before the Renaissance. Leonardo da Vinci, Raphael and Dürer are three influential masters in the history of draughtsmanship. In the eighteenth century two British artists, Thomas Rowlandson and William Hogarth used drawing as a vehicle for social comment or criticism. They used drawing as a medium in itself as well as a preliminary to engraving. It was in this era that the mass media really began to develop.

The immediacy of drawing, the fact that little or no preparation is necessary, and the ready availability of paper, has commended the process to most artists as a means of making illustrations with the same status as painting or printmaking. The choice of materials and the way in which they are used is naturally a matter of preference. The illustrator selects the type of point media most suitable for the expression of his ideas and feelings, and uses or exploits his technique and medium in a personalised way.

The illustrations in this chapter have been selected to show how different illustrators have responded to these properties and used them - often to quite different effects.

CHARCOAL

Charcoal is suitable for linear or tonal use in illustration. 'The Incredible Journey' has been illustrated in this medium. Here the artist has attempted to convey the interplay of light and shadow on the dogs back and front leg by using combinations of texture and tones. Intermediate grey tones were made by applying the charcoal stick lightly over the grained surface of the paper. The highlights being picked up with a putty rubber. Charcoal has a strong tendency to reflect the grain running in a drawing surface, a quality which has been exploited by many illustrators. The drawings in 'The Incredible Journey', as can be seen below, do not have a compositional background and rely on the



positioning of the dogs and the tonal contrast between them, to depict the feeling of space. The artist has also used the charcoal in a

different more harsh manner to give a contrast between the dog and porcupine. Charcoal is an excellent medium for working on a large scale. Large areas can be covered by laying down charcoal and then spreading it with a stump or by hand.

Because of its fragile manner, mistakes can be dusted off easily with a chamios cloth or blown off. Charcoal drawings should be well fixed with fixative as they are easy to smudge and strokes are easily accidentally erased. Another disadvantage is that charcoal is very messy to handle. Soft charcoal lead is ideal for portraits in which you need strength of interpretation. Charcoal pencils are usually better for tighter drawings of a more purely linear nature. They stand up well to the faster pace of drawing on a large scale.

CONTE CRAYON AND COMPRESSED CHALKS

Conté crayon is a form of refined charcoal made in France. It is harder, finer and therefore, less dusty, and has the advantage of coming in both stick and pencil form. Conté crayons come in three degrees of hardness and vary in colour from black, white to sanguine.

This medium, in both stick and pencil form is ideal for freehand renderings. A good example of the expressive use of a wide variety of linear and tonal variation can be seen in the 'The Book of Giants'.

This strong evocative illustration, was done in monochrome sanguine conté crayon. The scene is viewed from an interesting angle and this helps the effectiveness of the image. The image shows good handling of the media and the ability to depict light and shade in many tonal variations. The composition leads the eye around the format, and

through the handling of the linear and tonal quality, the spectator can come to terms with the subject. In this work the line is used aesthetically and the closely articulated marks and strokes depicted, portray a certain feeling of tension and movement. This particular artist conveys a certain immediacy through the use of fine line and cross-hatching.



She uses strokes to build the image and to give an impression of solid lines. These light and sensitive touches reveal the subtleties in the illustration. A drawing in conté crayons or compressed chalks for a book illustration, by its very nature, turns the attention of the reader to a specific incident, creating a mood which greatly enhances the appeal of certain books. These chalks have a wide variety of line and great flexibility. They are suitable for large drawings with plenty of dramatic emphasis and tonal density.

An example drawn with 4B and 6B Eagle Charcopencils, with passages of rubbed Chinese stick ink, on Saunders paper is "Little Men" by Louisa May Alcott, (New York - The Macmillan Company, 1963). Other examples include the chapter headpiece from 'The Story of an African farm' by Olive Schriener, (New York; The Limited Editions Club., 1962); a book jacket from 'The four plays and the Aran Islands' by T.M. Synge, (England; Oxford University Press, 1962), and 'Homage to Catalonia' by George Orwell. (Penguin Books, 1962). All these books having been illustrated by Paul Hogarth.

PASTELS

Pastels, like charcoal and conté crayons, are ideal for freehand renderings and a wide variety of linear and tonal variations can be made.

Pastels are chalk sticks made from powder colour, bound with gum arabic. They are available in wide colour ranges, and can be effectively used for soft, grainy artwork or worked over dry layers of tempera, gouache, watercolour, ink or oils.

Pastels are at their best when not over worked. Although a certain amount of blending can be achieved by rubbing. The best way of varying colour and tone is to lay strokes or areas of a colour over or alongside each other. This builds up the desired effect. This method naturally means that a number of strokes, with different colour pastels, have to be applied instead of one colour. This can be observed in an illustration from the Book of Gnomes, where the illustrator, Rien Pourtvliet,, has used a wide variety of pastel strokes. Different results have been produced according to the way the sticks were handled and at the angle

at which they were held. Among the striking effects produced in the illustration below, are those achieved by alternating thick and thin strokes; using the sharp edge of the pastel; laying the pastel flat on the paper; using the pastel at varying angles.



Applying the right amount of pressure is vital to achieving the different effects. Where a great deal of pressure was applied, the pastel was pressed into the grain and filled it. This effect has been contrasted with strokes lightly passed over the surface. Cross-hatching and openwork shows the most practical way of producing tonal and shading effects. Short and pressured strokes were produced for the rabbits fur with dark zig-zags on top, long sweeping strokes for the ochre coloured grass in the foreground, while the greyish clouds against the white sky is produced by softer, slurred strokes. The repetition of colour and strokes across the rabbit's body encourages the eye to move across the

picture. The pose of the gnome in the front area of the format leads the eye through to the rabbit and contributes to the overall effect of the composition. This illustration was done on cream-coloured paper which gives the overall impression of warmth, while the papers texture helps to create the flecked surface of the illustration. Rien Pourtvliet experimented with many types of fixative to prevent the loss of grain and the ability to hold the colour particles.

Pastels are convenient for large formats with bold rendering, loose strokes with linear and tonal variation. They are best used for landscape subject matters. Clear examples of this can be seen in the following books: 'Mike' by Margret Marshall, illustrated by Lorraine Spiro, (London: Bodely Head., 1983); 'I hate my name' by Eva Grant, illustrated by Gretchen Mayo, (London: Raintree Childrens Books, 1980) and 'Die Kersverhaal' done in pastels by Bernadette, (Cape Town: Tafelberg., 1982).

OIL PASTELS

Oil pastels are an excellent alternative to soft pastels. They have an altogether different effect from that of pure pastels. They give a smooth intense, rather greasy line. Unlike pure pastels, they are not friable and do not smudge easily. Oil pastels do not rub off; they can be worked over with turpentine, scratched into and blended together.

BLACKBOARD CHALK

Blackboard chalk is brittle and gritty. It is made in an assortment of colours and can be mixed with charcoal, conté crayons, pastels or graphites for highlight effects. It is rather insensitive compared to the more sophisticated chalks available today. This chalk was not really invented or designed for paper use.

WAX CRAYONS

Wax crayons are distinguished from natural or fabricated chalks by their viscosity. They produce dense, glossy lines applicable to almost all kinds of surfaces and lend themselves readily to linear drawing, as they produce a rich smooth stroke and resist smudging.

Wax crayons are formulated from richly pigmented soft wax. Being water repellent, they are ideal for coloured resist work - especially with ink and watercolour. They can also stimulate scratchboard techniques; by applying a solid background using a light colour and over rubbing a second layer in a dark colour; designs can be scratched through with the point of a knife. Some wax crayons are intended for dilution with turpentine and used as a paint for creating transparent layers of colour. They can also be heated and when melted, manipulated with a spatula to create relief effects. Alternatively, wax crayons can be sharpened with a blade for producing fine lines in drawings.

Wax crayons are a very satisfactory means of making large illustrations.

They are available in a fine range of colours; they have all the qualities of pencils but permit a greater variety of strokes and surface textures and do not crumble, splinter or break-off as easily as most pencils. The thick stroke produced by wax crayons, invites the illustrator to work more boldly than with a pointed pencil. This frees a dynamic force.

Wax crayons can cover a surface area in broad stretches, unlike ordinary pencil, on the other hand, a gentle pressure, will give an impression of a delicate pastel drawing.

The lithographic crayon is one of the most widely used and known examples.

PENCIL CRAYONS

Coloured leads in wood encased pencils are made from a mixture of chemical pigment and kaolin and boxed in extensive colour ranges. Those of higher quality enable pencil or pen line drawings to be broadened into colour and are also good for sketching or working in combination with other mediums such as tempera, ink or chalk. The harder leads are suitable for fine detailed work and small drawings using a needle sharp-point. These are not always easy to erase. Colour mixing in pencil work is achieved by overworking one colour on another. This can be seen in the illustration below from the book of 'Giants'. This is a strongly expressive drawing. The pencil crayons are handled with great vitality. The loose vigorous lines in the hair and face of the giant give the work a dramatic quality contrasting against the delicate lines conveyed in the sheep and foreground. The white highlights in the Giants body, are well defined and the use of a putty rubber helps to bring these areas out. This composition concentrates on capturing the

largeness of the giants pose against the much smaller background. The image shows good handling of the media and the ability to depict light, shade and textures in many tonal and textural variations.



Other types of pencil crayons, include watercolour pencils. These can either be used as an ordinary pencil or have their drawn lines washed over with brush and water to create softened effects akin to watercolour painting. Some of the best quality are Caran D'áche, Othello and Faber Castell.

When colour-mixing moistened soluble pencils or crayons, the following general rules apply: to lighten colours - apply a bright colour as a base and paint over vigorously with white, to tone down - apply a bright colour or grey, then paint over with a second; to darken - apply black lightly as a base colour, then overpaint with a bright colour.

Pencil crayons, as a contemporary point media technique, has been extensively used in the twentieth century by illustrators like David Hockney, Brian Wildsmith and Gretchen Mayo. Experience with chalk, crayons and pensils compliment the fine line quality that can be achieved. They respond to extremes of boldness and sensitivity in illustration, textural surfaces and quick ideas. All except wax, can be worked into with soft erasers, cloth, sandpaper or fingertips.

Another pencil often used is the China marking pencil or "all surface pencils". These pencils, in black and white and other colours, are specially manufactured for drawing on smooth or polished surfaces.

PENCILS

Pencil leads offer a wide range of line, weight and quality dependent upon graphite grade, paper texture, and degree of pressure on pencil. A slight tooth or grain in the surface of the paper means that a more sympathetic mark will be produced. The smoother and shiner the surface, the more restricting it is - on the shiniest and smoothest surfaces a chinagraph or EE Pencil is needed to make a mark. Lines produced by the pencil point can be a variety of thicknesses and lengths. They may be laid down alongside each other and blended together to make a tone, or they can be laid over each other in a number of cross-hatch techniques. The point itself can be used to create a series of dots which can be varied in strength and distribution. A wide range of shading effects can be achieved within one graphite grade, for example, HB. Shading can be hatched in freehand, ruled, dotted, worked solid or scribbled into tonal structures to stimulate an endless variety of textures. More subtle atmospheric shades can be produced by finger smudging soft graphite or

applying graphite dust from a pencil with a tissue or cotton wool; sharp edges and highlights can later be "cut" using a soft eraser.

All types of pencils are available in varying degrees of hardness, some vary too, in the degree of thickness in lead. The degree of hardness determines whether the pencil is suitable for the particular illustration. The amount of pressure applied to the pencil also determines the type of mark made. In the illustration from *Die Appelboomskool* the illustrator, Tryna Visser, uses a carbon pencil to express her subject. These crayon-like pencils create a boldness which relates more to freedom and quickness of thought more so than to a precision drawing. The free use of the carbon pencil conveys the fluidity of the dressed frog and gives the impression of spontaneity. This can be seen due to the economy of line. The frog is outlined in strong lines, while the inner areas show a more subtle variation of shade and light and in some areas, more muted tones. No attention has been paid to the background and the figure sits alone, centrally on the page.



The traditional wood encased pencils are widely available in nineteen graphite grades ranging from very hard (containing more clay) to very

soft and black (containing more graphite). Grade HB is recommended as the most versatile for general drawing and sketching. Grades 2H and H are ideal for tracing paper drawings to be used for reproduction.

Nicki Daly used the traditional wood encased pencils in 'I want to see the moon' by Louis Baum. These were illustrated on a rough textured waterpaper. Daly used nineteen graphite grades ranging from very hard to very soft and black. Another example of pencil work can be seen in 'Dinosaur Time' by Peggy Parish, illustrated by Arnold Lobel. (New York: Harper and Row publishers, 1974). The drawings are in ebony, carbon and carpenters pencils. These contain thick soft, black leads and are ideal for Lobel's large expansive drawings. Their boldness relates more to freedom and quickness of thought than to precision drawing. Another example of loose drawing is 'The little runner of the Longhouse' by Betty Baker, illustrations again by Arnold Lobel. (London: Worlds Work Childrens book, 1963) and Bruce Degas illustrations for 'The little witch and the riddle,') 1980.

MARKERS

The essential virtue of a marker is that they produce a dependable, flowing and consistent line, while their width sensitivity make working with them similar to drawing with the tip of a brush. They also come in a useful range of colours which can be seen in the illustrations done by Lisl Weil in her book "King Midas's Secret". These illustrations have a very quick spontaneous feel about them and are exceptionally simple in their handling. The figures in this particular illustration have been suggested in the most economical and simplified way. Despite the relatively small amount of marker work in the entire illustration, most

of the paper remaining white, there is no sense of lack of 'colour', for the dark blue which has been used, as in the man's toga, woman's skirt and the sky, are sufficiently strong to enrich the whole. They are also composed in such a way that they produce an overall balance. Grey has been used to outline the majority of the composition with black interspersed. Free quick strokes in light blue have been used to block in the lady on the right's dress and yellow has been used to dot the flowers.



6

The composition of marker nibs vary. They are either felt, nylon or fibre tipped and come in a variety of sizes: extra-fine, fine, medium, broad and extra-large, in chisel (or wedge), round, square or bullet points. The chisel point gives both a broad and a fine line with an oblique or square end; and the bullet-shaped point gives a line with a rounded head.

The felt marker is refillable, and supplied with a set of interchangeable nibs. These dispense a limited range of spirit-based, permanent ink colours.

Studio art markers use regular felt-composition nibs, which dispense either permanent oil-based or transparent water-based inks. These are marketed in an extensive spectrum of hues, tints, and shades, including a selection of warm and cold greys plus metallic colours. If the special marker pads are not used, the oil-based inks tend to bleed through and across normal bonds of paper; the water-based inks do not bleed but, for softer effects, can be worked on dampened paper. Art markers are expensive but highly popular with illustrators. Some ranges of markers are colour co-ordinated with papers and printing inks to aid colour matching. Other markers incorporate a valve which releases ink only when in use.

Due to the fact that all markers will dry up if the lid is left off, it is essential to always replace the cap tightly after use.

Fine and extra-fine line markers have nylon, vinyl or composite rubber nibs designed for drawing and sketching in basic colours. Flomasters and Markettes, two types of markers, can be rubbed and worked on with other inks and media. Markers have a certain amount of colour life as once finished another must be bought to replace it - Markers therefore do not last as a medium. It is, however, possible to obtain extra colour effects by working with one colour over another, as with watercolour. Markers, can be worked in a fast, quick manner and have the sensation of drawing with a pen and brush in one. They can be adapted to almost every kind of drawing and are particularly good for making large and elaborate drawings in full colour.

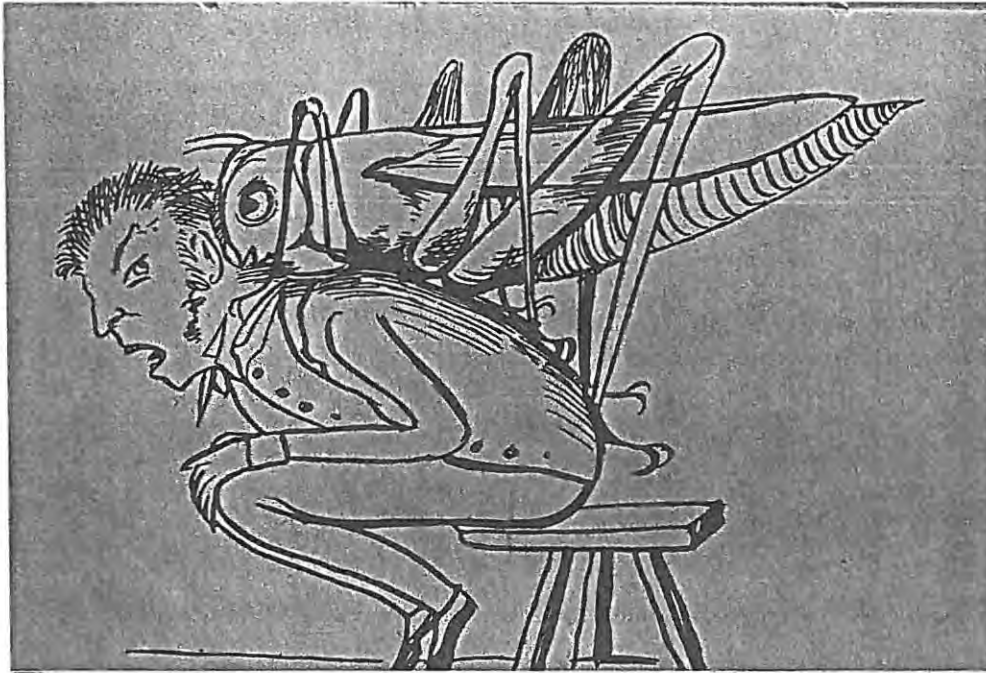
'Trick a Treats on Halloween' by Leonard Kessler, is illustrated in pantone kokis by Tom Eaton. These illustrations, varying in colour as well as thickness, are rounded off by a thin black marker line around the edges. Most are in flat colour except where two colours overlap to produce a shading/tonal effect. Other examples in this technique can be seen in 'The clown', written and illustrated by Peter Joyce (London: Burke, 1978), 'The adventures of the Sneaky Sneekers washed out by Liberty valley', the characters having been created by Mike Taroch, the artist being Lois Axeman (Chicago: Childrens Press., 1978) and 'Games Children play', illustrated by Diano Humes in pantone koki together with Studio Colour.

THE GRAPHOS DRAWING PEN

The graphos drawing pens operate in conjunction with over sixty easily interchangeable nibs. There are eight basic types - each designed for specific artwork functions:- fine line ruling, broad line ruling, freehand drawing, stenciling, freehand lettering, quick sketching, technical drawing and oblique line. These pens are normally available with a cartridge reservoir, and can be fitted with one of three feeds which control ink-flow speeds. These reservoir pens must be cleaned in warm water regularly and should not be left uncovered.

Edward Lear using the Graphos drawing pen, (for freehand drawing) has managed to capture the versatility of his medium. In his vigorous illustration of an enormous grasshopper on a mans back, Edward Lear manages a variety of strokes ranging from very thick to very thin - these lines giving the illustration a sense of vitality. These rapid strokes, confidently placed, give strength and boldness to the drawing. Nothing

but the essential lines, free and direct, have been shown. These express the technique best suited to the end purpose.



TECHNICAL PENS

Technical pens operate with tubular nibs. Unlike the graphos, each nib has its own cartridge ink-reservoir assembly. Although associated with precision drawing, they are widely used by illustrators. This is due to the wide range of nib widths available. Technical pens have to be held in an upright position, otherwise the ink does not flow properly.

THE DIP PEN

Traditional dip pens and fountain pens (with cartridge ink reservoirs) have flexible nibs which produce fluctuating line widths in response to finger pressure while drawing. This type of effect is clearly visible

in the illustrations rendered by Cora Coetsee of 'Ngalu, the mouse without whiskers' by Marguerite Poland. In this particular illustration, done in sepia tone, there is sufficient emphasis and contrast. The various elements in the illustration have been arranged to balance nicely and the areas of light and dark are well distributed. Even though the illustration is composed of many lines, the technique is restrained and controlled, yet without stiff formality. The technique is simple and straightforward with the background mainly rendered in the cross-hatching technique. This forms a contrast against the mouses handling in the foreground, which is made up of rather fine and comparatively short strokes. There is a great variety of character in the strokes used in this illustration.



The dip pen consists of a main shaft or 'penholder'. The fountain pen has a build-in ink holder which is filled by suction. Bamboo pens are cut from a length of cane. The nib can be whittled with a sharp knife to produce the required line width. They are remarkably sensitive to illustration.

A number of old masters in this field include Rembrandt, Van Gogh, Grosz, Kokoschka, Matisse and Noble. Of the more contemporary illustrators Paul Hogarth stands out predominantly. Dip pens produce short, deftly drawn lines. They are responsive and glide over the surface of the paper and therefore very versatile giving immense variety of lineal expression. Due to the fragile point, dip pens are not very suitable for large quick drawings. They are ideal for small drawings or illustrations of an intimate, written nature, or for adding details to a large drawing carried out in chalk, washes of watercolour, or ink.

BALLPOINT PENS

There are a number of different types of ball-point pens. They range from the standard 'ball-point' in which indelible ink is dispensed via a rolling steel ball, to pens with nylon and tungsten carbide rollers which contain water-based inks. The regular ball-point pen, which is available with medium, fine and extra-fine widths, has gained respectability as a drawing and sketching medium especially useful for the rapid delineation of new ideas or even for the working of tone on finished illustrations. The sheer freedom of this medium is conducive to a vigorous build up of lines which combine to describe shape and surface through graduated tonal sequences to a dense black.

Ball points can, however, vary enormously in their sensitivity and dependability. Many illustrators find them antipathetic, since the delivery of the ink to the tip is sometimes unreliable and the consequent reworking of the line is hard to achieve. It is also difficult to get much variation in the type of mark they make.

The colours found in ball point pens are very stereotype, basically being limited to blue, black, red and green. Due to this illustrations are prone to monotony in this media.

CHAPTER TWO

PAINT MEDIA

Throughout history, illustrators have played a major role in pictorial art and continue to do so today.

A major advancement in the nineteenth century was the advent of the half-tone reproduction. The overlaying of red, yellow, and blue inks with screen tints to produce many tones, made it possible to reproduce full-colour art work accurately. This enabled illustrators to make use of more solid forms of paint media for reproduction. This process was exploited to produce reasonably priced illustrated books for the masses. Due to this phenomena the dividing line between illustration and fine art is once more becoming blurred.

A supreme exponent of illustration using paint media is Norman Rockwell's "The Country Agricultural Agent". By working in relatively large surfaces, the almost photographic clarity and tightness of his work can be retained in reproduction when it is considerably reduced in size for reproduction purposes. Norman Rockwell's works are broadly painted and due to his lack of preparation many of his originals are deteriorating. "The Country Agricultural Agent" depicts a scene taken from everyday life and successfully evokes a warm pleasant, intimate domestic atmosphere. The work is well balanced and suggests a tranquility and domestic peace. The artist has shown considerable expertise in the precise handling of the paint and detail, for example, the carefully modelled

folds of the clothes and the quality of the fine brushmarks and lines in the animals. The unity of the painted surface is preserved by linking blue and red/brown tones throughout the composition in addition to a



broad area of green. This illustration shows a series of clearly defined colour relationship. The background colours are brick oranges which are counterpointed against the greens of the grass in the foreground. The combination of the complimentaries (brick orange and green) help focus the viewers attention on to the figures in the middle ground. The shapes in the background have been considered carefully, adding to the compact composition.

Through the last century, the illustrated process has been speeded up by the establishment of photography and other sophisticated visual aids. Contemporary illustrations are still produced in water colour, ink, tempera, acrylics and oils. Illustrators are now working with computer graphics as well. This represents yet another challenge, but the lessons of history show that the skills of the illustrator and his/her

ability to utilise available materials to the full are rarely discarded, once discovered. They are continually in use century after century.

WATERCOLOUR

Watercolour is a transparent medium made up from refined water-soluble pigments and gum arabic. This characteristic distinguishes it from the other waterbased mediums. There is no filler or body colour and therefore, the colours show an added luminosity if they are applied to a white ground. When dry their tone is slightly less intense than when wet. If more than three washes are overlaid the colours become dirty. One wash should be allowed to dry before a further one is applied. Tones must be built up from light to dark and it is not a good idea to lay a weak wash over a stronger one, unless a loose, wet effect is desired. Watercolours can be lightly dragged over rough papers to produce textured or flicked wet to produce spattered effects. It is possible to recover lost highlights by scraping a good paper with a razor blade or scalpel, but this damages the paper and cannot be washed over again.

In Alan Lee's book on 'Gnomes', the illustrator uses the watercolour technique in a highly imaginative way. The delicate tones of watercolour are particularly suitable for this illustration, depicting a gnome sitting alongside a rock pool. The cramped space of the rock pool provides an unusual and interesting arrangement together with varied surface textures. The predominance of one particular colour sets the mood. The brown hues and subtle white highlights contribute to an atmosphere of isolation. The landscape is deliberately anonymous,

consisting of rocks surrounding a pool of water. This reveals nothing further of the environment or its inhabitants. The expression on the gnomes face leaves uncertainty as to what he is thinking. The composition has been given a unity by the overall patterning and the great variety of tone, built up slowly in the background rocks and foreground pool. This is interrupted by, and contrasted by the gnome painted in lighter tones. The highlights on the arms, shoulders and head draw attention to the central focus, which is strong and well defined. The illustrator also shows considerable economy in his 'laying' technique in the top right hand corner, this demonstrates how details of tone and shape can be suggested with a few brushstrokes.



Watercolours are marketed in jar, tablet and tube. They are highly suitable for more subtle renderings, like the above example, on paper.

Watercolours are manufactured in two qualities - the "artist" and the "student" - the latter being cheaper and less refined. The most reliable watercolours, for "artists", are those from Windsor and Newton, Rowney and Reeves. Watercolour pigments fall into three main categories - Earth colours, organic and chemical dyes. There is a large range of ready-made pan and tube colours and most effects can be obtained from the following: Yellow Ochre; Gamboge; Raw Umber; Indian Red; Sepia; Cadmium Red; Crimson Lake; Russian Green; Cerulean; French Ultra-marine; Prussian Blue and Paynes Grey. The use of black should be avoided. Paynes Grey alone or with sepia is quite adequate. White, too, is never used if a clear vibrant picture is desired.

The brushes for water-based pigments are manufactured in a variety of sizes and shapes. The size of a typical watercolour brush ranges from 000 to 14. The brushes functions and shapes correspond to the colour-carrying capacity and the mark-making ability. A round, extra fine brush is used for line plus good colour-carrying, whereas a flat brush is used more for single strokes and clearcut lines. All brushes should be thoroughly cleaned after use.

Paper is the best support for watercolour. There are three types of paper generally used. The hot pressed paper, which is best suited to line and wash work, the not hot pressed paper, which is a medium rough paper suitable for both wash and fine detail and a rough paper which has a positively raised tooth which breaks down the watercolour wash to produce a speckled effect. In terms of quality, handmade papers are the best because they have high linen rag content. For example Fabriano, David Cox and Creswick. These watercolour papers all have watermarks.

All watercolour papers should be stretched onto a board before use to ensure that the paper does not warp after use.

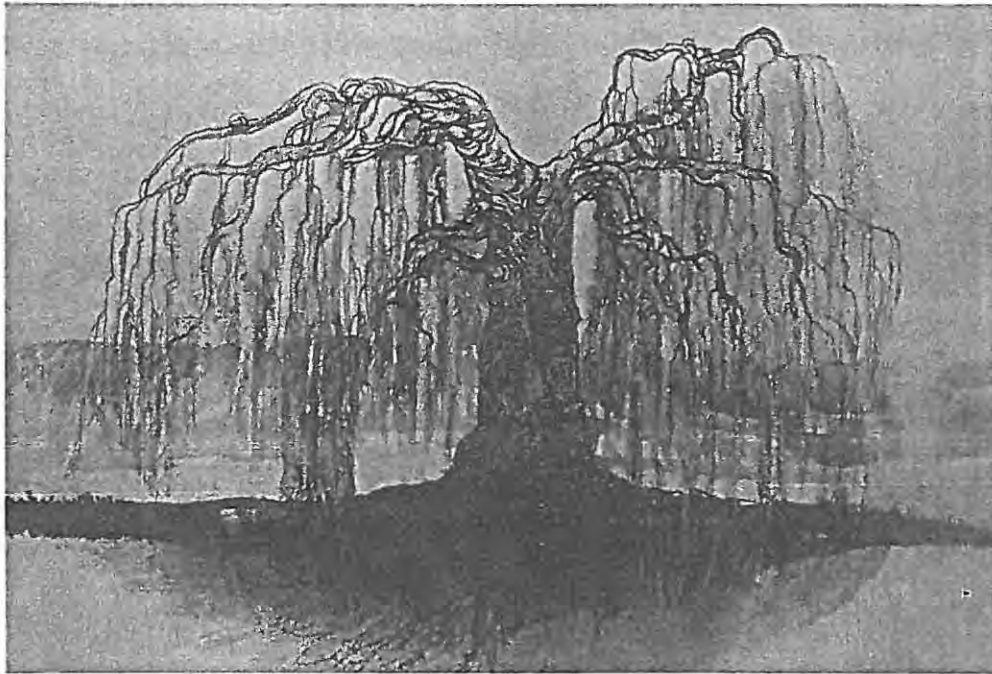
Watercolours can be used in a very loose manner as can be seen in 'The Tyger Voyage' by Nicola Bayley. Here watercolours have been used to create an effect almost like airbrushing in the swirls of the waves. Another example is 'Inspector Mouse' and 'Emergency Mouse' written by Bernard Stone and illustrated by Ralph Steadman (Anderson Press: London: 1980); 'The mysterious Multiplying Jar' by Mitsumasa and Masaichira Anno, and 'Chicken Soup with rice' by Maurice Sendak (US.A.: Harper and Row, 1962).

INK

Illustrators using inks as their medium, can apply the ink to the paper by means of a pen or by brush, or by using a combination of both. Drawing inks are produced in a number of ranges and types, some which are waterproof and some not. Waterproof inks are used mainly for illustrations as non-waterproof inks tend to separate, with pigment forming sediment at the bottom of the bottle. Due to this, they should be shaken thoroughly before use to redisperse the colour. Like watercolours, inks are also transparent. They are, with the exception of black and white, based on brilliant dyes. The inks contain shellac, which enables one colour to be superimposed easily over another: it is this glazing ability of inks, which produces a vibrant luminosity of colour, which is often not possible with watercolour.

Particular inks come in different types of bottles. Some are equipped with droppers, others with dip sticks which hold less medium if inks are diluted. Distilled water should be used if the inks are to be diluted, as it contains no impurities.

The illustration, below from 'Die Peperboom' by Hester Heese, illustrated by Cora Coetsee, shows what great variety of line and tone can be achieved by using inks. The highly imaginative treatment used in this illustration, together with the predominance of one particular colour, sets the mood of the illustration. The sepia tones in this image contribute to an atmosphere of isolation. The composition has been given



a unity by overall patterning, seen particularly in the trunk of the willow tree and the handling of the branches. The variety of tones arrived at with ink, staining and wash, give an expressive impression of the different textures in the illustration. Layers of ink were washed over the background using Japanese Calligraphic brushes.

The type of paper used, should be suitable to receive both ink line drawings as well as ink washes. Hard to medium-hard paper surfaces include Bristol board and fashionboard; medium-hard to absorbent surfaces include Kent and Fabriano. The chief risk with soft surface paper is that ink spreads along the grain of the paper and does not follow a straight line.

Ink facilitates most types of illustrations. It can be used in a fast, loose manner, or alternatively tight and controlled. A few examples in this field include 'Albert and Cachon go up to the Circus' by Lionel Koechlin illustrated by Hans Troxler and Colline Poireé (U.S.A.: Editions Hachette., 1981); 'Snow White and the seven dwarfs' by the Brothers Grim, illustrated by Nancy Ekholm (Farrar, Strauss, Giroux: New York); 'Rats magic', illustrated by Wayne Andersen and 'Ngalu, the mouse with no whiskers' written by Marguerite Poland and illustrated by Cora Coetzee.

TEMPERA

Tempera means a type of paint which contains oils in emulsion and which can be used with water as a medium. It is the most durable of all paint media, if correctly used on a suitable surface. Tempera is a full-bodied opaque pigment. It is intermixable and can be applied onto paper, board or canvas. Unlike oil paints, tempera cannot be softened for blending. When dry, it hardens and protects the surface on which it is painted, rather than reacting against it. Tempera should not be used in an impasto fashion otherwise it will crack. If a textured surface is required, one can be prepared by rough brushing or stippling with gesso. When completely dry, the painting can be given a pleasant finish by rubbing it with a cloth, for example silk. Varnish can also be used but the illustration should be left for six months before being applied.

The illustration below, executed in tempera, a medium requiring considerable patience, shows a balanced combination of rigid forms, for example, the bedstead, with irregular shapes and textures in the surrounding objects. This medium has a plastic quality which has been put to use in the textural detail. The paint is also translucent and the

finished areas of colour have a brightness which is not found in any other medium. This is apparent over the whole picture plane. The quality of the brushmark is important in this illustration. The artist applies broad, thick strokes on top of the colour below, building up a series of layers, as well as depth. The illustration shows a series of clearly definable colour relationships. The background colours are hues of browns, these are counterpointed against the warmer oranges, yellows and pinks, with highlights interspersed.



Tempera facilitates landscapes, grass and more detailed subject matter. It is particularly well suited to small working areas and finely detailed work. Francis Bacon is an example of an artist who used this medium.

GOUACHE

As with watercolour, the binder for gouache is gum arabic. Whiting is

included to give opacity, the colours, therefore, drying lighter in tone. All gouache dries very fast, some having an acrylic binder which makes them waterproof when dry. Due to the whiting in gouache, it can be worked from dark to light or from light to dark.

This simple composition, below, was executed in gouache. Although gouache lacks the luminosity of pure watercolour, it is a good medium for subjects which need extensive elaboration. This illustration consists



of broad, flat masses of clear colour with an open linear quality. The strong, simple shapes having been outlined in strong black lines. Brian Grimwood combines strong colours, for example, red, white, blue and yellow with distinctive curves, producing a striking composition. This illustrator shows an acute awareness of design and composition in his illustration. Gouache comes in tubes and bottles, but is usually labelled 'designers colours'. A range of excellent quality is provided by Winsor and Newton. Powder and poster paints are not suitable for

professional use and should be avoided. Gouache is a solid-body colour; unlike watercolour, it does not rely on the glow of the paper showing through. The final surface produced is matt and slightly chalky in appearance. The advantage of gouache is that it is possible to produce an absolutely flat finished surface, as can be seen in the illustration. As with watercolour, the wash should be applied from the top and worked downwards. Tube colours should be mixed with water to the consistency of a very thin cream before being used. This will ensure maximum coverage with no brushmarks showing through. If a second coat is needed, the first must be allowed to dry before it is applied. Modelling can be built on to washes with a fine brush. Because of the thickness of the medium, it is extremely easy to produce a contouring effect, making the surface susceptible to damage. The splattering techniques used in watercolour and acrylic painting can easily be utilised with gouache as well. To produce texture, a painting surface can be scratched with a razor blade, knife or scalpel point. Texture paste can be mixed with paint and brush marked or dragged with a hair comb across the surface to produce wood texture, whirls or other effects. Because gouache is extremely flexible, small alterations can be made by painting over the existing paintwork.

With the exception of heavy, rough surfaced papers, all papers used in watercolour are suitable for gouache. Tinted and coloured papers can also be used to good effect. Recommended boards include Geliot and Whitman No. 2; Anteka No. 3; and Colyer. Very smooth boards are not suitable. Like watercolours, the paper should be stretched onto a board.

Gouache is a convenient medium for doing quick colour studies. It is cleaner to work with than oils and is more opaque and matt than watercolours or acrylics. Examples of gouache can be seen in 'The

'Beauty and the Beast' by Peter Brooks; 'Mr Bears Drawing' written by Chizuko Kuratomi and illustrated by Kozo Kukimoto (London: MacDonald and James., 1978); 'The Night Express' by Toyo Shima drawings by Taxi Kitada (London: J.M. Dent & Sons., 1983) and 'The adventures of Lala the Cat' by Anne Bellac, illustrated by Pierre la Tan (Editions Hachette., 1980).

ACRYLICS

Acrylic or polymer paint represents a technological advance in the formation of artists colour, for it is a quick-drying synthetic plastic emulsion which, since it is capable of thinned application for washed effects and can be used thickly for impasto effect, behaves both like watercolour and oil paint. The one disadvantage is that once they are dry, the edges cannot be softened as with watercolours and spectacular watery washes of the true colours cannot be achieved. The advantage is that many washes can be applied, one over another, without producing dirtiness that would result if true water colours were used. Washes can be built on with a dry brush, i.e. the brush is kept dry with its bristles slightly apart. A dry brush can also be dragged across rough papers to produce broken effects, while the paint may be stippled with the point of the brush to produce dotting, in the pointilist manner. Controlled splatter can be used to good effect. The paint should be flicked from a hogshair brush with the thumb, or alternatively an old toothbrush. Areas which are not to be sprayed must be masked off with spare paper held in position with masking tape. This technique is relevant in Brian Wildsmiths 'Fish Book'. The illustrator has also used texture on his background to portray a sense of movement. This has been executed by rough brushing with gesso. Each of the marks in the format have been made by an arm gesture, rather than by a smaller movement of

the hand or wrist. A well defined pattern of dots on the fish compliments the loose gestural marks in the surrounding area. The illustration worked well in terms of design, surface texture and records the impressions quickly and boldly. These considerations override concern for a wholly illusionistic representation. The artist has shown considerable expertise in the handling of the paint on the canvas, exploiting the texture of the brushmarks with a sense of freedom and energy, while still preserving the images of the fish. Outlines around the fish, drawn with a brush, are not completely obliterated by subsequent overpainting. These traces keep the paint surface active, but the viewer is nonetheless able to pick out the true lines of the forms.



Because the fish, which forms the focal point of the composition, are drawn to the edge of the canvas, the general horizontal emphasis of the design tends to lead the eye out of the picture plane. This tendency has been counteracted, in this case, by the size of the fish, as well as

the strong diagonal from right to left formed by the fish, and by investing the whole surface with textural detail and lively movement which draws attention back onto the focal point. The illustrator has combined several techniques to produce the overall effect of the movement of water. Clear bright colour, has been used with touches of white, a loose painterly style allowing the brushmarks to develop the surface texture and graphic linear marks to define shapes formed by reflected light in the water. The broken colours over the fish describes the activity and the optical distortions caused by water over solid forms.

Acrylic mediums are non-yellowing, will adhere to any surface, and are thinned and cleaned in water. There is little difference in tone between the wet wash and the dry one. Alterations can be made when using solid acrylics. The area to be changed should be whitened out with white acrylic, emulsion paint or gesso, and the work started again.

Gloss or matt varnishes are available for finishing acrylic paintings. They are useful in "bringing together" a painting in which different techniques have been employed.

One of the beauties of working in acrylics is that the artist can use them as a short cut for the underpainting of oils without loosing any of the brilliance of traditional oil underpainting. Acrylics are vivid in colour and are also time savers. With acrylics, because of their fast drying time, the artist is able to work from start to finish without stopping and starting.

Acrylics have an inherent brilliance and brightness which makes them particularly well suited for describing subjects which demand a bold use of colour. They are flexible and adaptable and need not be worked from

dark to light, but can constantly alter and work from both light to dark and dark to light. Acrylics also have the ability to be thinned to a watercolour-like consistency which makes them ideal for the classical technique of overlaying thin areas of colour upon one another. Acrylics have more freedom than any other media because of its opacity of the paint which means that highlights and light colours can be applied at any stage over previous layers and a constant revision of tones and colours can be made.

A few examples of acrylic can be seen in 'Hush, little Baby' by Margot Zemach (New York: Dutton., 1974); 'Duffy and the Devil' also illustrated and written by Margot Zemach; 'The little Singer' by Max Bollinger and Peter Sis (Hutchinson: London., 1983) and 'The Time of the Preacher' by Eleanor Glaze (1980., Redbook Magazine).

OILS

Oil paint is sold in "artists" and "student" grades and is usually worked on primed but slightly absorbent surfaces such as canvas, canvas board, cardboard, masonite and paper. Untreated surfaces can be primed with gesso, white thixotropic paint, or an oil-based undercoat. Oil colour is mixed with forty percent turpentine and sixty percent linseed oil. If turpentine is used alone, cracking will inevitably result. Oil paint dries very slowly, unlike all the other paint media. An artificial drying medium can be added to speed up the process. One such agent is manganese oxide, one part of which can be added to three parts linseed oil. Alla Prima is the most direct method of painting in oils. Paint is applied direct to the canvas or surface without underpainting, often leaving brushmarks and areas of base showing through. This direct method generally produces looser work, and is best when working from life or in

landscape painting, where speed dictates the choice of technique. This technique can be seen in the illustration 'Bon Voyage Olivia', where the illustrator has applied the paint very thinly onto the canvas. He has allowed the texture and the whiteness of the canvas to show through by scraping back the paint after it has been applied. This canvas texture adds to the effectiveness of the image. The oil paint has been exploited in thin, bright glazes of colour with patches of opaque light



tones. The illustration shows how texture and colour can be combined to produce a rich and vivid image. The picture shows clearly defineable colour relationships. The background sky is a strong blue which is counterpointed against the hues of orange in the figure floating against the background sky. The contrast in colours i.e. the orange against the blue, helps focus the viewers attention onto the girls head. The smock is painted fairly lightly using long strokes of tonal brick orange. In

several places the ground shows through and this plays an important role in unifying the image. The angle of the figure and the position it occupies on the canvas are also vital in the impact of the image on the viewer.

Alkyd colour is another synthetic medium formulated from alkyd resins to behave like, or to be intermixed with, oil paint. It has the added facility of drying quickly and resists adverse atmospheric conditions.

Brushes for oil-based pigments have longer handles and should be made out of sable hair and hog bristles. Hog brushes are for the initial painting phase and sable brushes are used for the finer detail later on. Palette and painting knives can be used for impasto techniques using thick paint, and for pre-mixing of oil or alkyd to save wear and tear on brushes.

Custom varnishes can be painted over the painting to bring out the colours. This of course is used only if felt necessary to enhance the image.

Oil painting is essentially a direct and spontaneous medium it is especially suitable to portraying animals and textures, as it can be blended and streaked to create an impression of soft furs. Oil painting keeps its true colours when it dries which is also a great advantage, this is unlike watercolour which loses its brilliance when it dries. It also mixes more subtly than acrylics so it is the most suitable medium to describe the range of vivid colour and veiled, shadowy hues.

CHAPTER THREE

PRINTMAKING

Though the general term printmaking is used to describe a variety of different methods, the basic process is always the same - to create an impression through contact with an inked plate, stone block or screen. The end product, however, is not a reproduction, it is a work of art, even when many prints are taken from one block.

The basic way to make a print has been familiar to European artists for the last five hundred years and is thought to originate from techniques used nearly one thousand four hundred years ago in China for fabric printing. Woodcut printing was brought to an extremely high standard by the Japanese in comparatively recent centuries. Printmaking was originally done by hand, then became popular in the centuries after the invention of the printing press, as woodblocks and lithographs became the basic form of illustration for books, magazines and newspapers. In the seventeenth and eighteenth centuries, intaglio printing dominated book illustrations, but was lengthy and costly compared to wood engraving and lithography which came more in favour in the nineteenth century. These methods were cheaper and faster and allowed colour to be printed, rather than hand tinted onto the print later, as had been the practice. The individual artist innovates techniques in order to obtain unique effects for each personalised image. The potential and possibilities are almost limitless. Today the rigid distinctions that differentiate the different printing processes in the past have largely disappeared - many

methods defy formal classification. Some prints, for example, now combine etching, lithography and silkscreening with a photomechanical process and vacuum images. In practice, however, there are four main methods of producing prints, which are used to identify the type of image produced. These are: relief (woodcuts, wood engraving, linocuts, perspex, lucite, plexiglass, cardboard and collage); intaglio (etching and engraving); planograph (lithography) and stencil (serigraphy).

RELIEF PRINTMAKING

Of the many methods of printmaking, relief printmaking is probably the oldest. The first relief prints took the form of rubbings, but the technique of cutting images into woodblocks and printing from them developed soon afterwards in A.D. 700 in Japan. The durability of the wood engraving, due to the close grain of the end grain of hardwoods, such as boxwood and maple, allowed enormous numbers of impressions from one block. The application of wood engraving for a growing industry, hungry for illustration, soon proved to be destructive to original creative expression.

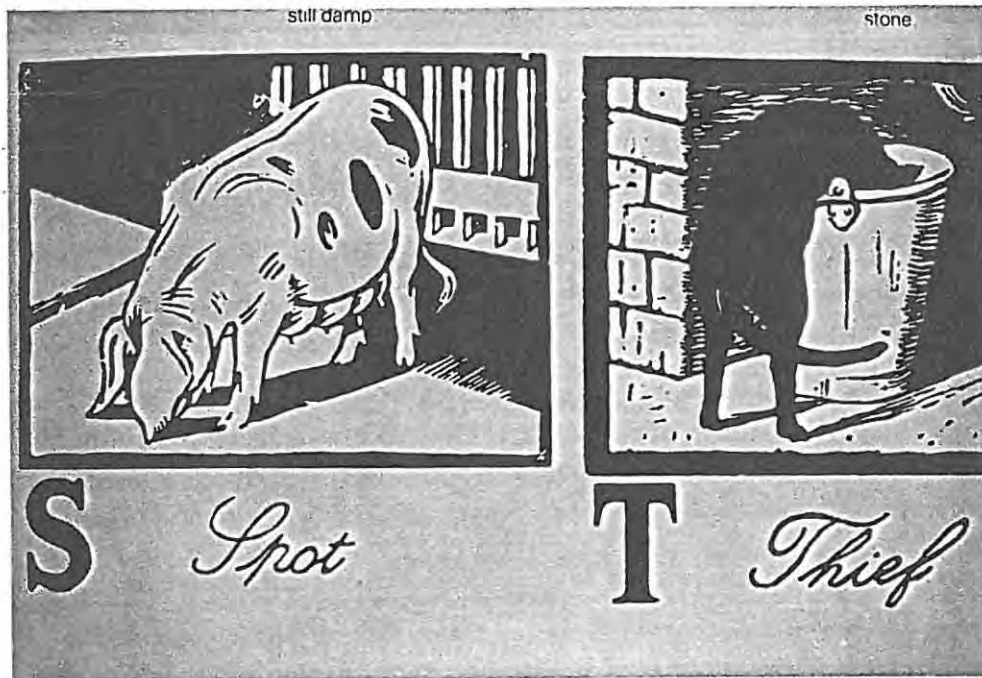
Numerous craftsmen of unbelievable skill worked to reproduce drawings and interpret paintings for mass consumption through wood engravings. It was not until the late nineteenth century that photoengraving began to replace the use of the engraved block. Creative wood engraving was revived in the twentieth century through the use of the medium by imaginative book illustrators in England, Germany and the United States.

WOODCUTS

One of the leading woodcut illustrators in childrens books in pre-revolutionary Russia is Ivan Bilibin, who has only recently been acknowledged as comparable to the best work of Walter Crane, Randolph Caldecott and Maurice Bontet de Monvel. In having founded a distinctively Russian School, Ivan Bilibin has an undisputed place in the international history of distinguished childrens book illustration. Bilibin belonged to the 'Mir Iskusstva' group of artists and worked in pre-revolutionary St Petersburg. One of his foremost works is a full page illustration from a story by Alexander Pushkin about the Tsar Sultan and his son Gindon. The book which is dedicated by Bilibin to the composer Rimsky-Korsakov, was also published in English by Progress Publishers: Moscow. Amongst the artists who adopted the woodblock as their most favoured medium, Antonio Frasconi has probably done the most for the propagation of the coloured woodblock. The selection of the proper wood, the utilisation of its grain and texture, and the skillful use of opaque and transparent inks play an important part in the success of his final prints. He is one of the rare artists totally dedicated to one medium. His woodcuts range from tiny black and white minitures to great triptychs composed of half a dozen colour blocks.

Felix Hoffman, who also uses the coloured woodblock for illustration, designs and cuts in a manner that makes it possible to print in large editions on an automatic press. Due to this, there are great limitations in its effects, along with a loss of some "artistic freedom". The cut and printed lines look different from the drawn and printed sketches. Hoffman uses blocks of linenwood which are first cut to bring out most of the basic lines of the composition. A first wet proof is offset on four or five other woodblocks for further colours. The

registration marks are made with two pin points on each block, as a guide for further printing. The cutting is only proceeded after each completed block is proofed with the previous one. Some parts are left identical on several blocks, until a decision is made during proofing, as to which colour should prevail. Hoffman usually aims for a simplified solution, without too much superimposition, favouring a light transparent orchestration. This can be seen in his coloured woodblock of 'Adam and Eve' which was printed on a small etching press with hardwood rails that raise the level of the upper cylinder so as to adapt it for relief printing. An example of a series of black and white woodcuts can be seen in the work of Jonathan Heale. He uses the aspects of country life, farmyard animals and crops to illustrate the alphabet. These



were executed in 1978 and are very sparse and simple in design. They show how effective the modern woodcut can be in producing a graphic image which is in perfect harmony with the subject matter. The great potential of simple but varying line work is shown in the impression of fluidity and movement created in this powerful study of pigs. A close

view of a small area, as depicted in these woodcuts, can be of great potential to the artist. The depth of the composition has been emphasised by the contrasting dark shadows with vivid highlights. The positioning of the pigs were done with much consideration, making sure that the viewers interest was focussed on the pigs but still maintaining a balance with the surrounding dark background.

Woodcuts do not have as much freedom as paint or paint media, but this medium does produce aesthetic effects unrealisable in any other way. Woodcuts facilitates itself to most loose mediums where intricate detail is not necessary. An example of this can be seen in 'Sagesse' by Paul Verlain, illustrated by Maurice Denis or in 'Child Roland' written and illustrated by Dusan Kallay. For this children's book, he won the Golden Apple Award. Others include Jim Dine, Roy Lichtenstein and Carol Sumers.

WOODENGRAVING

The technique of wood engraving is both demanding and rewarding. The care and patience necessary to plan, cut and print a wood engraving have deterred many contemporary artists from working with this method. The aesthetic medium of the twentieth century illustrator has enabled him to make new discoveries through experimentation and given him a richer utilisation of the medium. The wood engraver's tools, gravers, and burins are roughly divided into straightline tools, multiple-line tools, elliptic tint tools, and square and round scrapers. They come with different points and in various widths, depending on their purpose. The fine point of a burin allows the creation of an infinite variety of textures, composed of a multitude of dots, lines and jabs. The tool digs

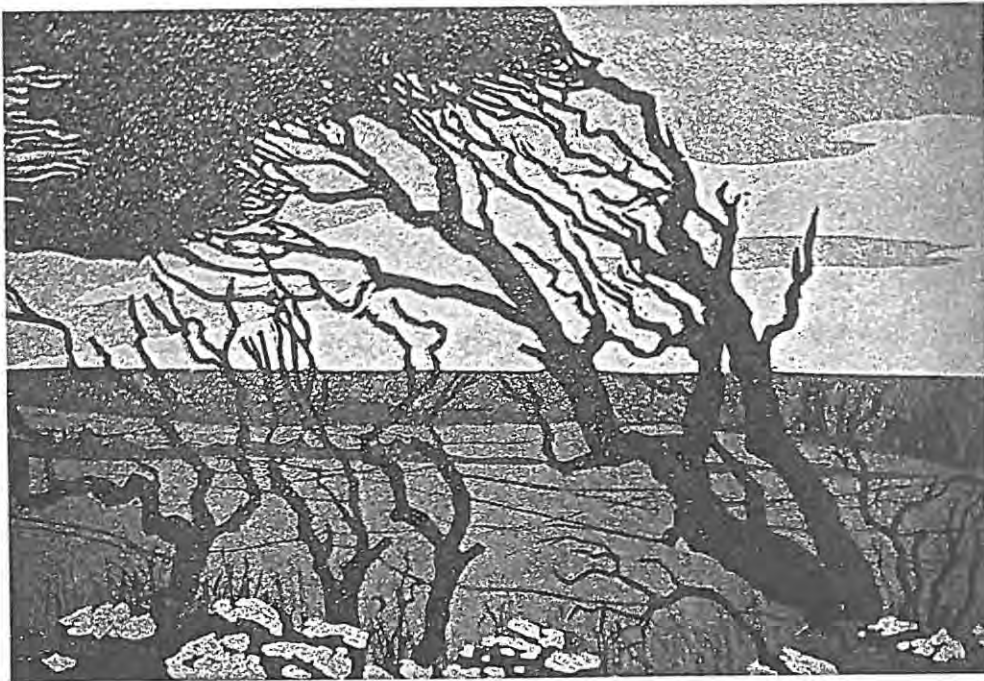
in and produces a white line shallow enough to allow the engraver to glide easily through the wood but deep enough not to fill in when inked and printed. For hand printing, a texture-free fairly thin, sized paper such as Japanese vellum, is ideal. This paper is transparent enough to show the effect of the rubbing or burnishing before the print is lifted off the block. For printing on a press one can use a heavier, opaque paper, such as British Basingwork, which is smooth and sized but less interesting than Japanese papers.

Woodengraving has a greater power of precision to that of woodcutting. This medium is able to express a large range of tones and textures from powerful masses to delicate tendrils. Woodengraving displays the beauty of light emerging from blackness in its full power of creative expression. A few examples of works done in this medium include Richard Shirely Smiths 'The Darkening Green' written by Elizabeth Clarke; 'The Gourmets Garden' by Douglas Bartum and 'Memoirs of a london doll' but Richard Harry Home. Other illustrators are John Laurence, ;Rabbit, Pork, Rhyming Talk'; Garrick, S. Palmer, 'Moby Dick' by Herman Melville and George William Tates illustrations for 'Folklore, Myths and Ledgens of Britain'.

LINOLEUM

The search for new materials to help express the ever expanding range of aesthetic freedom has been a natural outgrowth of the changing image of the relief print in the last ten to fifteen years. Linoleum, because of its relative softness and ease with which it can be cut, has become popular amongst out practitioners for example Pablo Picasso, Henri

Matisse and Josef Geilniak. Unlike wood, it has no grain and therefore can be cut in any direction. The technique used by Josef Geilniak in his 'Bookplate with Self-portrait' is extremely simple with the use of a wood engravers burin (No. 3) Josef Geilniak works by improvisation, seeking to realise a vision and giving it all the time and patience it demands. When the work is finished he makes his first proof, correcting on the blocks where necessary. Each proof is pulled by hand using Chinese or Japanese papers. The printing ink must be tacky enough for the paper to adhere well to the surface of the block when printing. The block is cleaned in petrol, which preserves the linoleum so well that they do not lose the slightest bit of detail, either in painting or with the passing years. Josef Geilniaks work is a slow elaboration without compromises or any short cuts.



Another artist is Ian Cook, who shows the skill and artistry that can be achieved by this method of printing. The clear lines of the trees and branches demonstrate the artists considerable draughtsmanship. The

linocut reveals how finely such detailing can be reproduced. As in this example, linocut is ideal for flat colour printing because of its smooth surface. The composition of this illustration is created by the balance between the light strip of the landscape receding towards the line of the sky. Four strong tree forms dominate the foreground. These trees are generally simplified and are transferred into rhythmic compositional lines. Horizontal and vertical lines give structure to the design. The colours concentrate more on unity than description.

In the hands of an artist such as Picasso, linoleum can be transformed into a medium of infinite creative value. This can be seen in 'The Bust of a woman after Cranach the younger' 1958 (Printmaking by Donald Staff and Deli Sacilotto) or 'Bearded Man with Crown of Leaves' 1962 (The Complete New Techniques in Printmaking by John Ross and Clare Romano). Another example is Roy Lichtensteins 'Mirror #', a four colour linocut.

THE COLLAGE RELIEF PRINT

The new vitality in illustration owes an obvious debt to this tradition of experimentation and unorthodoxy in visual expression. The relief print has been very adaptable to new materials and experimental means. The collage relief print leaves the possibility of inking and printing anything: organic, technological and soft materials are all included to produce different images. The printing of a whole group of objects with great variation in texture and form can develop a rich amount of source manipulated into compositions. The printing procedures of collage prints are not much different from those of woodblock, except that the collage print, because of its porous and varied surfaces, requires more inking

and softer rollers. A fairly absorbent, sensitive paper is used by hand or through the etching press. This technique is basically the same as collagraph.

THE CARDBOARD RELIEF PRINT

The flexibility of cardboard, its ease of cutting, and its availability make it an ideal material for a relief print. Edmund Casarella developed a colour relief print technique in which the plates themselves were cardboard. Firstly a rough gouache sketch was made, this being continually transformed through each step of the process. Tracings of the sketch are made for colour separations. With the tracing paper used as a blue print, the blocks are cut from heavy-weight chip-board, and the shapes corresponding to the colour areas, but slightly larger in size than the tracings, are cut from double-weight illustration board. These shapes are carefully glued into place with rubber cement, on the respective blocks, and the exact shapes traced onto them. The tracing is reversed so that the print does not become mirror image of the gouache sketch. When each block has been prepared, cutting can begin. The exact shapes are scored with a single-edge razor blade or mat knife, cutting a slight angle away from the shape. The excess illustration board peels away easily in layers. In printing, the blocks with the largest shapes, usually inked with opaque colours, come first. As the blocks are printed one after the other, the paper is carefully registered. The blocks can be inked with oil inks without prior coating of glue or shellac and can be cleaned with turpentine. Water and water-based inks will destroy the illustration board. If water is avoided the blocks can withstand a sizeable edition. Gelatine rollers

in a variety of sizes, some constructed by Casarella, are used for inking. Wooden spoons are employed to rub the ink on the paper. After the printing of each block, the proofs are allowed to dry for twenty four hours before an overlaid or adjacent colour is printed. The best paper suited is Mulberry or Troya.

The cardboard and collage prints present a unique opportunity to exploit texture and surface. Varied colour textures printed over each other can develop the colour quality with great richness. A few examples of this medium can be seen in the work of John Ross: 'Duomo' 1959; Edmund Casarella 'Blaze of Glory'; R. Fontaine and C. Witko. These can be found in the 'Complete Printmaker' by John Ross and Clare Romano.

THE MONOPRINT OR MONOTYPE

Another relief printmaking process is the monoprint. This technique, however, lacks the various steps and procedures to produce a printing surface which makes possible a multiplication of impressions. This is a one print method. An image is made on a non-absorbent surface such as glass, with inks or paints and transferred onto a fairly absorbent paper by placing the sheet of paper on the prepared surface and rubbing the back with a hand rubbing tool. This medium allows the printmaker unusual freedom and spontaneity. This can be seen in the work of Rénet Meyer, especially in her children's book 'Vicki', (Bodely Head: London" 1980). The illustrator uses a combination of oils and watercolour together with collograph materials; leaves, netting, string, paper, etc. These are rolled through the press onto textured surfaces such as plastics and glass. Another method used in her work is that of wiping highlights with

a rag or her fingers. Other contemporary artists such as Gabor Pererdi, Harold Town and Mark Toby, amongst others, have made a significant contribution to monoprinting. Helen Frankenthaler, Carol Sumners and Robert Broner have combined monoprint with lithography, woodcut and collage intaglio respectively.

INTAGLIO PRINTMAKING

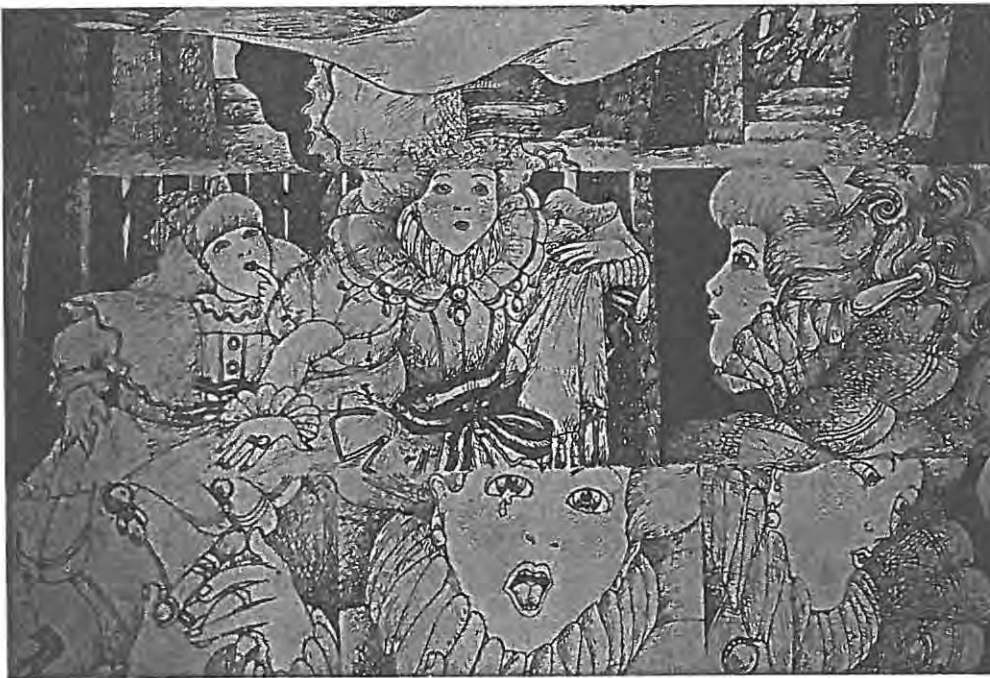
The variety of approaches to the intaglio print is expanding and the surfaces are becoming larger, sometimes gigantic, and the colour more lavish, in competition with painting. The illustrators discussed in this section will indicate the wide variety of procedures open to contemporary printmakers in the intaglio medium and the qualities of innovation and imagination that has revolutionised the field in our times. Intaglio differs from the relief and planographic processes in that a groove retains the ink, in the planographic relief process a surface retains the ink.

ETCHING

Etching, as a popular medium, has taken a dominant place amongst contemporary illustration. The word etching is derived from the German word 'Atzen' which means 'to make to eat'. Etching is therefore a method of making a printing plate by causing acid to eat away areas of the metal.

One of the leading illustrators for contemporary book illustration is Jocelyne Pache, who used etching as one of the main mediums. The

photograph below, is a detail of the two largest pages from Lewis Carols 'Through the Looking Glass'. These show the scenes of 'Tweedle Dee and Tweedle Dum' and 'The White Queen'. The latter being a black and white line etching and the other a four plate line colour etching. The work was printed from a zinc plate on heavy weight arches paper. A pencil drawing was done directly onto the zinc plate and a variety of different needles were used to show the delicacy of line and to achieve the particularly soft, almost dry-point like quality. A network of horizontal vertical and diagonal lines were used to establish texture. The composition in 'The White Queen' is made up of an arbitrary selection of images in a tightly structured grid formation. The illustrator has tried to produce an image which combines randomness with a fixed form. This effect is used to suggest movement which contrasts with the rigidity of the format.



Due to this a tension is created between the two elements. Jocelyne Pache captures the vitality of the subject well, conveying its atmosphere and intimacy. The great flexibility which etching offers enables the

illustrator to delineate the many subtle variations of light and shade. Relatively little attention has been paid to the background which remains predominately dark. Jocelyne Pache was born in Lausanne and finished her studies at the Lausanne Art School. She began to illustrate childrens books in 1968 in the presence of children who commented upon and approved the pictures. Her books have appeared in France, West Germany, England, Portugal and the United States of America. She is a collaborater of a Swiss monthly magazine and a fashion designer for her own clothes business. One of her books received an award at the International Book Fair in Leipzig. Another leading illustrator of contemporary book illustration is Gabor Peterdi who started making prints in 1934 whilst living in Paris. Here he became devoted to line engraving and started his first attempts in experimentation, particularly in expanding the vocabulary of the medium, as he found linear and textural variations too limited for his temperament. This lead him to electric drills. By using various bits and manipulating the drill - sometimes drawing with the rotation, sometimes against it, moving it slowly or fast - a variety of marks together with the conventional needle and line engraving tools gave him a wide range of graphic possibilities as can be seen in 'Apocalypse' 1952. Simultaneously, Peterdi started to explore how the biting itself could be used more as a part of the creative process. He experimented wth the various strengths of acid, eventually working out a method of deliberate 'false biting' which he could control, producing an eroded line. In the colour prints made during the forties and early fifties, Peterdi worked mostly wth stencilled colours, although he also made a few intaglio colour plates. At the beginning all his colours were stencilled onto the intaglio plate, thus eliminating the problems of registration. This limited the numbers of colours, but in 'Germination' 1952 Peterdi managed to get twelve

colours on to one plate. An overall colour rolled over the inked surface created a unity in the overall composition. (The colours underneath, coming through where the plate was bitten deep enough not to accept the ink when rolled over). In the early fifties he started to stencil some colours on the paper, overprinting them with colours stencilled on the plate. This increased the richness and depth of colour; it produced a similar effect to that of glazing in painting. This eventually led to the accidental discovery of a means of printing with stencils to produce luminous, soft colours, as in aquatint; a critical factor in this technique is the control of timing in the overprint.

Fabriano or archer paper are most commonly used for this printing. The paper should be soaked to make it supple and to remove the size. Etching inks are bought ready mixed and smeared lavishly over the etched surface of the plates. The plate is then wiped so that only the etched cavities retain the ink. The finishing off touches are done with tissue paper coated lightly with French chalk.

Another contemporary method is sugar lift, the solution being fifty parts syrup to twenty five parts Indian ink with a drop of washing detergent and gum arabic. This can be applied to the degreased plate by brush, stick or plastic squeeze bottle. Liquid ground is poured over the entire surface of the plate once the sugar lift has dried. When this, in turn, is dry, the plate can then be soaked in luke warm water, which causes the sugar drawing to lift, exposing the zinc or copperplate. This can then be aquatinted. Aquatinting is necessary for the type of drawing generally executed by the sugar lift method, because any line should be bitten twice as deep as it is wide, and this cannot be done



with a very wide brushstroke. An alternative to sugar lift and aquatinting is to deep etch the plate. Quite a range of substances may be used as acid resists to protect the various areas and levels in a deeply bitten plate, among them being liquid hard ground, shellac, bitumous paint, lacquer spray, wax crayons and many others. Their effectiveness as resists will vary according to their individual characteristics and the strength of the acid bath. Pressure sensitive tapes and plastic-pressure-sensitive papers, cut through with a stencil knife, provide an ideal resist for etching clean, sharp shapes. A resist may also be applied by transfer. This technique was apparently first tried by William Blake, and allows the drawing to be made without having to work in reverse.

Etching facilitates most subject matters as it can be used in a very loose or a tight and detailed manner. In the late 1960's etching suffered with the popularity of silkscreening and lithography, but was kept in public view by David Hockney and Jim Dine. In the 1970's, however, it became the favoured graphic medium of the artists of the Minimalist School. Other artists of this contemporary era consists of -Chuck Close. 'Keith' 1972, Edward Hopper 'Night Shadows', Theo Waycik 'Jim Dine' 1976 and Robert Motherwell 'Red' 1972. All to be found in Printmaking by Donald Staff and Deli Sacilotto.

PHOTOGRAPHIC ETCHING

In the photoetching technique, a light sensitive metal plate is exposed to a piece of photographic film under ultraviolet light. The opaque areas of the film prevent exposure on corresponding areas of the plate,

causing the photoresist on the plate to dissolve in the developing bath. These areas, bitten after etching, will print the image in intaglio. Clear areas of the film, in turn, will allow the metal to be exposed to the light and the photoresist to become nonsoluble. These areas of the plate are acid resistant after developing and will print in relief. For making relief prints, therefore, the transparency should be in negative form i.e. the background should be opaque and the image clear. For intaglio printing, the transparent film should be positive. The best films for creating images on metal plates are the high contrast orthochromatic film, such as, Kodalith, Dupont Ortholitho and Anscolitho. Solutions needed for photoetching are the photo, the photo resist developer, the photo resist dye and the photo resist thinner. All work with these chemicals should be done in a very well ventilated room, as the fumes are highly toxic. As with etching plates, the edges must be filed and smooth when ready for printing. The procedure from here on is the same as the normal etching process.

The technical improvements made in photographic etchings have in turn increased to potential for sophistication in imagery and have now become a major means of expression. Edward S. Curtis is an illustrator who works in this type of way, as can be seen in 'Sioux Chiefs'. (Printmaking: Donald Staff and Deli Sacilotto). Other examples include Pravoslav Sovak, 'With a Tank, August 21, 1968', Dennis Rowan 'Femme et Poire' and Peter Milton 'The Jolly Corner' (Acquarious Press: Baltimore, 1971).

THE COLLOGRAPH

Perhaps more than any other graphic process, the collograph lends itself to producing an infinite range of textural effects and innovative

technical approaches. The word collagraph is derived from the Greek 'colla' meaning glue and 'graphos' meaning 'to write'. It is also named after the collage print. The process is a constructive collection of objects added to the surface of a plate - as opposed to the subtractive process of most intaglio prints. Pieces of cardboard, mat boards, fibres, fabrics, string etc, are glued onto a base of hardboard, so the objects are low in relief on the surface. Once the glue is dry, the plate can be inked with intaglio inks in the same manner as an etching, then printed on an etching press with dampened paper. Collographs can also be printed as relief images. The best glues to use are acrylic compounds, such as aquatech or Liquitex mediums. Acrylic modelling paste is also excellent as an adhesive, as well as building up flat or textured surfaces. The advantage of acrylic adhesives is that they are waterproof when dry, enabling the dampened paper to come in contact without sticking. Because of the high relief and varied textures of the surface, it is necessary to ink the collograph or metal relief different to that of a regular intaglio plate. The ink is first rolled on the plate with a short-nap paint roller. For areas that are difficult to reach a blunt stencil brush can be used. The excess ink can be removed, first with pieces of cardboard, then with pieces of cotton waste wrapped in gauze. To wipe areas and edges of the plate easily, french chalk sprinkled on the gauze and rubbed with a little pressure, will help the process. The paper for printing should be heavy enough to endure the stretch and pull of the varied surfaces of the plate. Fabriano is a good example. When the built up area of the plate is shallow, printing can be done on an etching press. The print should be placed between blotters until almost dry. Much of the beauty and individual character of the collograph prints comes from the varied testural and tactile surfaces. Amongst the many collograph illustrators Glen Alps, Clare Romano and John Ross come to the fore. Examples of their illustrations are: Clare Romano 'Grand

Canyon' 1975; John Ross ' Monolith' and 'Coliseum' and Lida Hiltons 'Sunburst', 'The Sun' and 'Las Vegas' (Innovative Printmaking by Newman). These artists added to the technical range, recognition and popularity of the new medium.

CELLOCUT AND LUCITE

The graphic process, cellocut, is in brief, the use of a varnish consisting of sheet celluloid dissolved in acetone on a plate designed to be printed on an etching press. Diluted to pouring consistency, the celluloid mixture is applied as a coating to any firm surface, such as a metal plate, pressed wood or heavy cardboard. In Boris Margo's prints textured areas were obtained by placing textiles, wires, string, crumpled tracing paper, and other materials on the plate while the varnish was still tacky and then running them through the press. Later, thicker solutions of the varnish were used to build up higher areas on the coated plate. On this, intaglio inking with relief inking were combined, employing rollers of different degrees of firmness. This technique permits complex, modulated colours achieved in the following way: the plate is first inked and intaglio wiped in one or more separate colour areas; next other colours are applied to the surface from gelatine rollers, which are soft enough to coat the raised contours of the cellocut far down their flanks; finally still other colours are added over the same raised areas, this time from rubber rollers, hard enough so that the ink does not reach far down the slopes. These roller-applied colours blend where they impinge on one another, with subtle gradations occurring along the flanks of raised areas. This technique is commonly known as multiple viscosity printing.

Intaglio prints can also be produced with perspex, plexiglass or lucite. Engraving tools can be used quite successfully on these surfaces, but did not produce grey or tonal areas. Lucite or perspex do not respond to acid. The way to therefore, achieve greys, is by using sandpaper and other abrasives. Rich blacks can be produced by glueing tarlatan, stockings or other materials to the plates surface. Motorised tools for example grinders, drills and Carborundum wheels can give varied textures to the surfaces. The flexible-shaft drill proving to be the most versatile electric tool. When the artist has eventually learnt to control these tools, to work on a Lucite plate, is like drawing with a pencil. Band saws and jigsaws can be used for cutting the plastic into multiple-piece plates. This technique is well executed by Arther Destinies. This process can be used for relief printmaking with the difference that the rigid plastics are normally gouged or treated with solvents i.e. caustic chemicals or heat to obtain the relief structure as in woodcuts.

An advantage to this medium is that the sizes are much larger than the etching plates available and the surfaces are transparent which help in registration.

PLANOGRAPHIC PRINTMAKING - LITHOGRAPHY

This printing process refers to lithography and photolithography. The principle depending on the antipathy of grease and water. The image is drawn with a grease-based material on a flat surface of a plate or stone. This principle was discovered by Alios Senefelde in 1798. At first the discovery was used mainly for ordinary printing purposes, but

its potential for original work soon became apparent, as the prepared surface is sensitive to a variety of crayons, inks and washes, making it an ideal artistic medium. Ranging from traditional procedures to the adoption of highly unorthodox methods and of recently developed devices, the procedures outlined below exemplify some of the diversity of styles and effects practiced today by illustrators in the lithographic medium. The word lithography is derived from 'Greek' which means 'stone writing'. This printmaking method can be compared against relief printing, where the raised parts of the block receive the ink while the cut or recessed areas are not inked. The opposite is true for intaglio techniques, where the incised lines retain the ink while the upper surface is cleaned and prints white. With silkscreen the stencil process separates the inked form from the uninked areas by a blocked screen that prevents the passages of colour.

Lithographs can be executed onto a stone for example Bavarian limestone which is hard but porous, so the surface retains moisture for long periods. They can also be drawn onto zinc or aluminium plates these are cheaper and more convenient. The superb drawing surface, however, of the limestone is sensitive to the subtlest gradations of line and tone, from the lightest greys to deep black, and can be worked over and over without losing freshness and bloom. As tones are reworked and slowly darkened to the desired values, the original drawing is developed and enhanced. Textures can be kept fine or deliberately roughened up. Occasionally a tone must be cleaned up in areas where the crayon has piled up and enlarged some of the dots that make up the tone. These can be picked out with an etching needle. Korn lithocrayons are used to retain the pencil form. Numbers one, two and four are used for darker or black tones due to their softness, number five and six used for light ones and

fine lines. Rubbing tusche can also be used for soft shadings and is best put on with a piece of chamois or nylon. For spattering, a metal sieve with a handle or a tooth brush can be used together with thick tusche. Blank areas are mashed out with gum arabic, tinted black with tempera for better visibility. When this is dry, the spattering can begin. For an interesting chalklike white-line design, white chalk can be used for drawing directly on the stone. A piece of inked paper is placed on the stone face down and pulled through the press. After the paper is removed, the stone is dusted and gummed, washed off after five hours, the ink removed with turpentine, and the image etched several times as above.

Dry plants and other textured objects such as fabric or string can be printed. The stone is inked thoroughly and the margins marked off with gum. The objects are placed on the stone and covered with a piece of strong cardboard, with several sheets of newsprint on top. A piece of composition board is laid over the newsprint and over this a thin greased metal sheet. The stone is then pulled through the press several times, first under light pressure, which is gradually increased. The objects leave an impression on the dark surface. They are carefully removed after being gummed and allowed to stand for an hour. The stone is then washed out with turpentine and inked with a heavy ink. Corrections can be made with litho tusche. The work should be inked and etched several times, after an interval of five to six hours each time. The textures will appear almost as photographic images in negative form, delicate but very clear and sharp. Ballpoint pens and kokis, which contain greasy substances, can also create an image. The stone is first washed with turpentine and the drawing made on the clean stone. It is dusted, gummed and left standing for six hours, after which it is washed off. Now the

stone is inked, dusted and etched, and again allowed to stand for six hours. After the third etch the stone is ready to be printed. Almost any greasy product can be used for drawing onto a lithographic stone as long as it rejects water. Techniques should be chosen to serve the purpose of the image. Lithographic tusche is like the lithocrayon and produces an effect which is unique to the lithographic printing process. It is available in liquid or solid form. Stick tusche is better than bottled tusche for washes as it produces a smooth uniform dispersion of the greasy ingredients with the pigment, so that the tonalities on the surface will be more indicative of the tones that will finally print.

Autographic ink, which is a form of tusche, has a consistency of smooth ink, intended for fine linear work. It flows easily on stone, metal plates and transfer paper. Thin, heavy, smooth or varied textures can be created with a ruling pen, crowquill or speedball. Carbon paper can be used directly onto the stone/plate. This technique can achieve some beautiful effects. Transfer papers are the most convenient and easy method. The drawing is made on the coated side, the paper is adhered under pressure to the surface of a damp stone/plate. When the back of the paper is moistened the coating dissolves, releasing the drawing onto the printing surface. Skill is needed to acquire successful results. Drawings can be made on transfer paper with any of the lithographic drawing materials. Everdamp or yellow transfer paper is one of the most widely used transfer papers and comes in a limp slightly damp state. White or opaque transfer paper generally comes with a smooth or shiny finish and lines ruled on the back to indicate the direction of the grain. Transparent transfer paper can be used with the same drawing materials as the opaque paper, and is transferred the same way. An example of this method can be seen in 'The Moon' by Erich Moench 1969.

This image is moving towards abstraction as all the elements overlap into one another. The subject, however, has been carefully chosen and translated into the chosen medium. The whole work is well balanced in both tone and light and has been given unity by the overall patterning. The depth of the composition has been emphasized by the contrasting dark shadow with vivid highlights.

The best paper for printing on is Rivers, Arches, Crisbrook or Barcham Greene paper. A good lithographic paper should be soft, yet not allow the fibres to be picked up easily from the surface by the ink. It should have a good dimensional stability, and not stretch uncontrollably under pressure. It should be capable of absorbing several layers of ink without too much glossing and lastly it should be reasonably long lasting and not become brittle or discolour with age.

Lithography is responsible for some of the most innovative work in printmaking being done today. It is one of the leading techniques today, due to the sensuous tones created by different crayons and tusche. It is also a medium which can facilitate all types of subject matter, be it loose or very tight. Examples of some of the contemporary illustrators of today are Robert Rauschenbergs 'Kitty Hawk' 1974; Jasper Johns 'Coat Hanger' 1960; Sam Francis 'Yunan' 1971, David Hockney 'Cecilia' 1973; James Rosenquist 'Iris Lake' 1975; and Ron Davis's 'Cube I' 1971 (Printmaking by Donald Staff and Deli Sacilotto).

PHOTOLITHOGRAPHY

Photolithography is of interest to an increasing amount of people in the

field of communication. It is the most important printmaking technique today as virtually all books are being printed in this manner. It is a photographic, planographic, chemical and indirect process. Anything that can be photographed can serve as copy for offset lithography. Offset lithography provides quality illustrations on relatively rough paper at low costs. Books for children, where illustrations often transcend texts in importance, were the first to show offset's advantages in this regard. The increased use of this process for books at higher education levels has closely paralleled the need for strong illustrative support for verbal exposition. Authors, illustrators and publishers now provide profuse illustrations throughout on softer, less reflective paper. Illustrations, due to their shades of tones, must be made into half-tone negatives by exposing the original illustration through a screen onto film. Photolithography is the process of creating an inked receptive image on stone, zinc or aluminum entirely by photographic means. The surface of the stone or plate is first given a light sensitive coating, then exposed to light through a negative image. The coating in the light-exposed areas hardens and accepts ink; the coating in the unexposed areas washes away, and the plate/stone is desensitized in these areas with gum etch for preparation. An albumin-bichromate sensitizing solution that has been used for almost a century has recently been supplanted, to a large extent, by some of the newer diazo compounds. The diazo coatings require slightly larger exposures than the biochromate-sensitized solutions. They remain unaffected by humidity, however, and have a very long shelf life. Most of the 'wipe on' solutions now in use employ diazo compound. Presensitized plates can be bought from commercial suppliers, and are ready for exposure. They are expensive but work well. Other materials necessary are subtractive plate developer and gum. Illustrators using this process are Reginald Neal, Misch Kohn and James Lanier.

STENCIL PRINTMAKING - SERIGRAPH

Silkscreening was used as an art form by the Japanese between 500 AD and 1000 AD. The first patent for it was only taken out in 1907 in England. It is therefore, the most recent development among the main printmaking processes. Silkscreening is used largely as a commercial process. It is an extremely versatile technique suitable for almost any surface, including metal, ceramics and many types of plastics. The first recognition of its potential, which was to culminate in the development of the stencil process into a fine art medium, came into the United States of America in approximately the 1930's. This was the period of the great depression, when the relative cheapness of equipment and materials required for silkscreen gave it an advantage over other, more costly forms of printing. Artists such as Andy Warhol, Roy Lichtenstein, Carol Sumners, Misch Kohn and Robert Raustenberg are just a few who have experimented with the elements of silkscreen in their work. New concepts and techniques have evolved with the advent of the photostencil process and the development of new materials. The silkscreen print technique is probably the most painterly print medium, although in lithography, one can paint or draw directly onto the material. Delicacy of line and boldness can accompany a free use of mass. The possibilities of using many colours, of exploiting line and mass in a very free manner, of handling the printing ink itself in thin glazes or thick impasto has great kinship with painting. Colour can be added with the ease of changing a screen. The silkscreen technique probably allows the free use of colour more exclusively than any other print medium. The basic principle of screenprinting involves forcing coloured ink through the open areas of a piece of silk or nylon fabric left open around the blocked out image, thus printing the design on the surface underneath.

The name silkscreen originates from the first screens used which were silk fabric. Nowadays nylon is almost exclusively used as it is far cheaper and more durable. It can be bought in differing size weaves up to approximately 130T. The figure referring to the number of spaces between the threads per inch/centimetre square. The fabric is stretched over the frame as in an oil canvas (it is best stretched wet). The screen is the vehicle that holds the stencil material. The blocked-out areas, those areas covered by paper stencil, glue or other mediums, are the areas that are printed. One of the easiest ways of blocking out is a paper stencil. Paper is cut out to the negative shape required. The paper should be thin strong and impermeable i.e. tracing paper, layout paper etc. It is cut with a sharp knife. A separate stencil should be cut out for each colour needed. The stencil is adhered to the screen by the first pull of ink across the screen. The natural tackiness of the ink is sufficient to adhere the paper stencil to the silk. Torn paper shapes can also be used for stencils to produce a rough edge effect. Paper stencils are quick simple, economical, durable and are well suited for designs which involve fairly large sized shapes, that is shapes that can be easily torn out or cut. Wax paper, computer tape, newspaper and tissue paper can also be used. Using absorbent paper towels as stencils can give the effect of a solid colour and a lighter shade of the same colour as some of the ink bleeds through the paper towel. Type written words can be printed using a mimeograph stencil cut on a typewriter. Attach the mimeograph stencil to the underside of the screen with masking tape and proceed to print. Norio Azuma, in his illustration 'Image E' 1969 used paper stencils for his hard edges to create a kind of three dimensional effect. He used his squeegee in such a way as to build up a rim of pigment on the edges of certain stenciled shapes. Azuma prints on canvas, primed with white oil paint. The editions on paper are usually limited to twenty prints.

Liquid blackout is one of the most popular methods of stencil making, due to its painterly qualities. The negative areas are stopped out by painting on glue (alkaline, cold glue, office gum, Le Pages Original glue, Franklin Hide glue, Shellac, laquer blackout or water soluble blackout) which when dry will resist the solvent action of the printing ink. The advantage is the ease of application and removal, also durability for large editions. The disadvantages of glue is that it is not always possible to get thin even lines in design. However, with the glue method you can get drips, splatters, crumbly edges, broken tone, etc. Norio Asuma uses a mixture of ordinary Le Pages' glue diluted with forth percent water, eight percent white vinegar and two percent glycerine; for a total of fifty percent glue. He finds that his is a very flexible and effective medium, with which he can produce any kind of stroke, broad or fine.

A commercial lacquer film stencil comes in rolls which can be cut to your required size. They consist of a layer of emulsion laminated to a transparent plastic backing. The image is cut through only the emulsion layer with a light touch using a swivel knife. Areas intended to print are thus stripped away. These emulsion stencils also come in different types depending on the solubility of the emulsion one requires. The two types of film are water soluble and adhered to the stencil with water. An example of this stencil being ulanocut green. Lacquer film, which is adhered with lacquer thinners can also be removed by dissolving it in thinners. An example of this type is stasharp. Water soluble films are a more recent development, and can easily be removed with warm water in the same way as the glue stencils. Both types of film produce the same results and are cut in the same way. An advantage with water soluble film is that oil based inks can be used and cleaned off with

thinners without the stencil rubbing off at the same time. This means that the stencil can be used with more colours as many times as is required and paper cut out stencils can block out areas if desired. Another simple blocking-out method is the use of wax-crayons, lithographic crayon or tusche, rubber cement, maskeroïd or E-2 liquid frisket. This is the method which Robert Burkert used in his 'Self portrait' 1970. This illustrator merely drew onto the screen with one of the above. The areas were blocked out so as not to print. Glue was then applied thinly over the entire open screen area, acting as a blocking agent. When this was completely dry the tusche was washed out with turpentine, leaving the free positive image ready for printing. To apply these different crayons, glues, etc. a great variety of tools can be used: brushes, pens, sticks, rags and sponges. In Robert Burkert's 'March Thaw' 1962, the windswept grass and weed patterns in ochre between the snow patches, were drawn in with Maskeroïd, as it is the best medium for linear detail. Some of the textures were created by rubbing with lithocrayons or spattering Maskeroïd with a tooth brush. Water-thinned glue was pulled over the screen, when dry, maskeroïd and crayon were washed out with turpentine. This was then printed. The printing ink, water or mineral based, depending on use, is forced through the screen with a squeegee which consists of a thick, but glexible rubber strip mounted to a handle. A good technique for using a squeegee is to use it with firm, even pressure at a forth five degree angle to the silk. Two complete pulls of the squeegee are necessary to get a clear print. The ink must be the right consistency, it should be able to virtually stand on its own. The ink is spread along one side with a palette knife. The ink if, too thick, produces drying problems. If the colour which is printed next, is too thin, a ridge is built up between the two colours. If the colours are streaky, this means the ink was not mixed correctly or that

the squeegee was dirty. The ink must be kept moving so that it does not dry and clog the screen. If there is clogging, a rag with turpentine can be applied to the open areas of the stencil where the screen is blocked. The print on the baseboard must be registered if more than one colour is used. Good quality cartridge paper or fabriano should be used, although virtually any paper can be used.

A silkscreen can be identified by the image bearing surface. Silkscreens have flat colour areas, a thick layer of ink and the texture of the silk-screen i.e. the serrated edge if a diagonal line. Silkscreening, in general is a very versatile medium.

One of the greatest advantages of the silkscreen technique is the relative ease of multiple colour printing. It is also not expensive to set up. When artists of the mid twentieth century began to concentrate on colour, as the actual subject of their works, silkscreen served as a natural medium. The colours are more predictable than in any other types of printmaking since the inks tend to be opaque and ride on the surface of the paper. The flat colours and precise, ruler sharp edges are also a great influencing factor. Silkscreen lends itself especially well to combination with colour media, including painting and collage. Examples of artists in this field range from Andy Warhol, Jasper Johns, Roy Lichtenstein, Audrey Flack to Alex Katz, Brice Morden, Will Barnet and Ernest Trova. Other illustrations done by silkscreening can be seen in the work of Kevin Scalley 'Save the Three Pigs' (Piccolo: London: 1984) and Maude and Miska Petersham 'The Poppy Seed Cakes' by Margery Clarke.

PHOTOGRAPHIC SILKSCREENING

The photographic stencil method is formed by the process of exposing a stencil of light sensitive gelatine through a transparent positive. This film is then developed and adhered to the screen. With this method James Larnier managed to get fine lines and intricate detail. All seemingly complex things that could not be done with the other methods can be done precisely and easily with the photographic method.

CHAPTER FOUR

MIXED MEDIA

Mixed media first became known in the United States and Britain in 1934 with the publication of Max Doerner's "The Materials of the artist and their use in painting". Mixed media is therefore, an art of the twentieth century which combines different types of media i.e. paint media together with point media, for example ink wash and pencil, pen and crayon; monoprinting with pastels; clear and colour resist under diluted ink wash; ink wash over scored and sliced paper and the 'etching' effect of household bleach on permanent ink washes. It is therefore, an art which draws on several disciplines, an art combining different techniques and materials, - the possible combinations being endless. A few have been discussed in this chapter, of course including the combination of the printmaking techniques, for example linocut with intaglio printing.

Various effects can be achieved through the use of the wax resist technique. It has been frequently used by Henry Moore particularly in his war-time drawings of figures in the London underground shelters.

To produce the resist, the basic image is created with a waxy crayon or a candle. The image is then covered with a wash: this can be watercolour, gouache or ink. The wax acts as a resist, which means that the wash will only 'take' on the uncoated areas of the support. Some pigment may adhere to the surface of the wax giving a somewhat globular, spotty

texture. After the application of the first wash, some of the wax can be scratched away with a blade and another wash laid on, enlarging the possibilities of this medium.

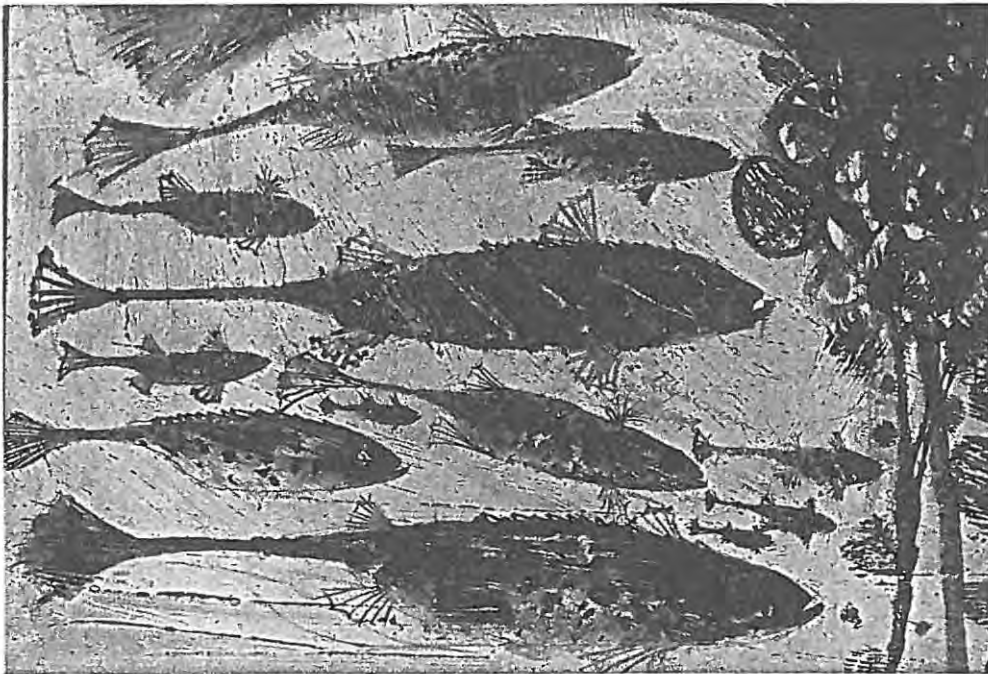
In the ink wash and wax crayon method, the wax crayon is alongside or combined with the ink wash very selectively. A well executed example of this technique is in 'The Richman and the Shoemaker' by Brian Wildsmith written by La Fontaine. His technique is contemporary and has a feeling of painterly looseness. Wildsmith achieves colour luminosity by covering a layer of dry pigment with a translucent layer. Successive layers produce subtle effects each modifying the colour impression of the last.



Amongst his varying techniques, Wildsmith uses controlled stippling and juxtapositioning of colours to give more emphasis on detail.

The composition is given unity by the overall patterning in the door and echoed more loosely in the shoemakers tunic. The attention is centrally focussed on the figure in the doorway, which is strong and well defined. The angle and expression on the shoemakers face and the positioning of the hands and feet exudes a certain feeling which gives a vital impact to the viewer who observes the image.

The wax crayon combined with ink and acrylics technique has been combined in Brian Wildsmiths work. A good example can be found in the book 'Fishes' illustrated in 1974 and published by Oxford University Press., London. As mentioned previously his work is contemporary and has a feeling of looseness.



In Fishes, he uses a white background which has been worked into a thick impasto to produce a textural feeling of movement. This technique is best attained with acrylics stiffened with gesso, textile paste or household polyfiller. Wildsmith builds up layers of paste and achieves

textures by applying melted wax crayons with a palette knife. A further subtle effect used is the controlled introduction of diluted paint onto a still-moist application of pigment. The resultant 'feathering' is especially useful on more atmospheric artwork such as his 'Fishes'. This technique is associated with all kinds of paint, and can also be accomplished by working water-based coloured pencils on moistened paper. Brian Wildsmith's illustrations included scumbling, which means that a dry brush loaded with opaque pigment is worked over a dry base layer of another colour. This effect is a softening textural effect which can also be achieved with watercolours by working the flat or loaded brush across the surface of the textured paper to express its tooth.

Brian Wildsmith was born in 1930 in Periston, Yorkshire. From Bamsley Art School he won a Scholarship to the Slade, where he studied painting and drawing under Sir William Coldstream. Wildsmith has illustrated twenty books, these including 'Pelican' 1982; 'What the moon saw' 1975; 'The Circus'; 'The little Woodduck' 1975; and 'The Richman and the Shoemaker'. When time allows he finds time to paint for himself.

Point media is very effective when used in combination with other paint media - both watercolour and oilbased - and can be drawn onto canvas and gesso grounds as well as paper. Coloured pencils used to bring out the texture of paper, work well with carefully rendered watercolours and inks. Pen and ink, whether hatched finely or running freely over the paper will respond well on coloured grounds and watercolour. Coloured or black ink, together with several sized nibs, can achieve a great deal of inventiveness. An interesting variant, besides the use of steel pens, brush, ballpoint and felt-tipped markers, is the use of chalk with penwork. The penwork must be carried out first in waterproof ink on a paper chosen for its receptivity to both media. This is then overdrawn

with either chalk, pastel, charcoal or a combination. The illustration is finally treated with fixative to prevent smudging. The attraction of this method lies in the contrast between crisp, incisive pen lines and the soft expressiveness of chalk textures.

Linocut with Intaglio printmaking was used by Garbor Peterdi in his illustration 'Miracle in the Forest' ('The art of the Print'). This mixed media print creates a more luminous diffused effect. Cut out, moveable colour plates were used. The large master plate was superimposed over the four small cutout plates. The offset colours were printed on the linoplates from synthetic rubber casts. This illumination shows a central tree which has been simplified and abstracted to a large degree. The branches have been transformed into rhythmic compositional lines. Two figures stand on either side of the tree. These show how Peterdi has managed to portray the natural form of the body in an abstracted way. The curves of the body, depicted as flat surfaces. Despite this, the forms still remain clearly recognisable as figures.

George A Nama uses intaglio with silkscreen colour as it allows him graphic freedom. He uses colour freely and as fluidly as in paint media, and incorporates textures with no limitations. Nama regards his plate as a three-dimensional object occupying space. The plate itself, be it metal, masonite or wood acts as a 'middle ground' on which he builds up a form with modelling paste or engraves with power and engravers tools.

From this point on the stencil process is used to develop the print. After the print has dried, an even, transparent magenta is then stencilled, followed by a transparent sienna. A variety of opaque colours are then applied in the central area of the print to intensify the colour and feeling of 'light'. This particular print 'The Computer

landscape', 1970 (The Art of the Print) consists of a series of runs of warm and cool colours, both transparent and opaque, creating a prismatic colour and light form. The colours for this mixed media were selected in an arbitrary way. Using a tightly structured grid format, Nama tried to produce an image which combined randomness with a fixed form. The grid holds the arrangement of textures, markings and colours closely together. The impression of this image is one of richness and warmth. Another example of this method is by Dean Meaker in 'Mardi Gras - to Bestow or Withhold' (Innovative Printmaking) and Herman Brauns' Print from the Album 'Agressions, Mutilations et Faux' 1975-77, a photo engraving and etching in copper and silkscreen.

Other combinations of mixed media range from serigraph and collotype for example Francis Bacons 'Portrait of the artist' 1970-71 (courtesy Petersberg Press, Ltd., London); lithograph, cut out, mounted and boxed in acrylic for example Red Grooms 'Gertrude' 1975 (courtesy Brook Alexander, Inc, New York); lithograph on silk tissue for example Ed Moses 'Broken Wedge series No. 6' 1973 (courtesy Cirrus Editions, Ltd., Los Angeles) and amongst others serigraph on acrylic with acrylic collage for example found in Larry Rivers 'French Money' 1965 (courtesy Multiples, Inc., New York) all these examples can be found in 'Printmaking' by Donald Staff and Deli Sacilotto.

CHAPTER FIVE

TRENDS AND DIRECTIONS OF THE EIGHTIES

The techniques which have been discussed in the previous chapters are all well established indisposible mediums extensively used in the eighties. There are, however, many trends, directions and hybrids which do not fit into the conventional categories. Computer generated graphics, cartoons, comic strips, airbrushing and the interplay of the letter, the written word and the image, are just a few in this category which all have a share in the development of the eighties. These new methods of creating images form a part of the ongoing search for new means of expression, in which previous boundaries have been ignored.

COMPUTER GENERATED GRAPHICS

Computer generated graphic is the art or science of producing graphic images with the aid of a computer. The first computer graphics or art system appeared with the first digital computers approximately twenty-five years ago. These computers can produce images represented by lines, points, grey levels and colour. The first artists to give serious consideration to these early images produced by computer scientists were probably fascinated more by how the images were produced than by the images themselves. The notion that one could write commands and develop sequences and instructions to programme an electronic machine to

logically produce images was a powerful and compelling idea. The main role with which the computer can serve art is as a new medium of artistic expression. Most artists involved with computer art tend to view the technology as a tool like an etching needle, while some artists think of it as a medium for expression. Only when the artist can control this technology, can his ideas be expressed. The artist sees the computer as a means to make art, dealing with his perceptions of reality. He is concerned about processes to extend or to involve our perceptions to intensify aesthetic experience. The artist attempts to translate his feelings and perceptions of reality into non-verbal signs, symbols and metaphors - into a visual language. The artwork produced by computers is sterile, superficial and lacking in humanity. There is nothing sensual, kinesthetic, tactile or erotic in computer art and therefore, does not interact well when used as a technique for childrens book illustration. There may, however, be a larger demand once technology has improved in this sphere. This can be seen in the very popular computer and video games produced for children. Some fine works in book illustration, have, however, been produced, but there will be a continued debate about the criteria one should use to evaluate such aesthetic images. Computer art, like photography and filmmaking, will not be accepted straight away and will encounter many reactions and problems. It was not until the latter part of the twentieth century that photography and filmmaking were accepted as art forms. Computer art is not a direction or style, with a short life span. It is part of todays technology which is undergoing a critical transition. It is a development which aids communication and outlines the role of the computer in the future.

CARTOONS AND COMIC STRIPS

The first master of the comic strip was Emmanuel Poiré, who was born in 1858 and died in 1909. He illustrated comic strips under the pseudonym of Caran d'Arche (which means pencil lead) whilst most of his contemporaries produced joke drawings that needed twenty-five line captions, Caran d'Arche limited himself to a brief title then told his story without words. His work was in the tradition of French caricature, at the time the best in the world. His drawing was economical and extremely pointed and does not look dated today, yet humour can date more than anything, for instance the limericks of Edward Lear (1812-1888) may seem to belong to a bygone age, but not his droll drawings. Cartoons may be called the slang of graphic illustration. Like verbal slang, they tend to rely for their impact on spontaneity, playfulness, popular imagery and often deliberate vulgarity - devices that hardly commend them to the artistic puritan. Cartoons, comic strips and animated film provide a most suitable outlet for man's healthy and irresistible urge to poke fun at his fellows, his institutions - and himself. They are a potent weapon of ridicule, ideal for deflating the pompous and the overbearing, exposing injustice and deriding hypocrisy. In common with all forms of humorous expression, cartoons tend to have a deceptively naïve - sometimes even banal - exterior that is a mere camouflage for ideas and opinions that are not necessarily in the least flippant. Cartoons and comics are in constant demand by the avid reader faithfully following the fortunes of their space travellers, lovelorn heroines and other characters, human, animal or otherwise. The serial characteristic of this media is important as it enhances the urgency of the reader to find out what follows on from the last episode, therefore purchasing the follow up. The comic strip, a picture narrative, uses 'balloons' issuing from the heads of the characters to show what they are thinking

or saying. The less words used in these 'balloons', the better as the drawings should be self explanatory. Dialogue balloons are a clumsy if unavoidable expedient. A strip sequence, however, does give a sense of movement, more so than a straight forward illustration. Within the last few generations, cartoons have spilled over from the popular print and the satire sheet to infiltrate almost every facet of journalism, advertising, entertainment and childrens pleasure. Cartoons have become very much a part of our way of life and it is hard to picture life without them. Children follow the weekly escapades of Asterix, Keyhole Kate, Desperate Dan, Minnie the Mix and are becoming intensely interested in superman, space oddesy, Star Wars and the Supernatural. 'The Loan Sloane Delirius' by Druillet succeeds in recreating a different universe. He has become one of Europes most prominent and popular artists in the field of illustrated fantasy and science fiction. A subject which has taken over from the more placid Victorian fantasies of 'Tom Thumb', 'Cinderella', and 'Alice in Wonderland'. The cartoon section of the newspaper also holds a large interest including personalities such as Andy Capp, Charlie Brown, Garfield and Archie. The comic strip and cartoon, which are classified as throw-away items, have never really found a footing in the illustrated childrens book market, perhaps because of its generally low quality standards. They have a completely different production and distribution method to that of illustrated childrens books, and have been debarred any real intergration. Asterix and Tin Tin are now being published as books or in book form.

AIRBRUSHING

Airbrush has played a major role in the development of the popular art of

the twentieth century. The first perfected airbrush was first patented by the British artist Charles Burdick in 1893. Since then many technical improvements have been made and the airbrush today is extremely refined. Airbrush illustration has had two distinct phases of popularity. From the beginning of the 1920's to the mid 1940's and from the 1960's continuing up until today. Alan Aldridges "Butterfly Ball" was influential in popularizing the airbrush in the outset of the second main period. Aldridges technique includes a fair amount of brushwork as can be seen in the photograph below.



His work looks highly complex, but the success of the airbrushing depends on meticulous drawing and careful blending and balancing of colours. The airbrush is used for the basic colours, shapes, free spraying,

vignetting, shadows and texture, with the aid of hard masking. Most of the fine detail is applied with a sable brush. Aldridges work is typified by lush, descriptive colour and heavy highlighted modelling of forms. Thus strong areas of interest are developed across the picture plane - the interaction of curving lines against the background and the manipulation of colour related to the spatial organisation. Airbrushing is a skill which, like any other, must be applied to the artists own creative aims and requirements. It is a medium which can be a means of rendering a highly finished 'realistic' image. The airbrush is used by many artists simply as one of a range of tools, and may only be a minor, if crucial, part of an illustration. It may, for example, be the quickest way to lay in a background tone, over which an image can be handdrawn or brush painted. It may also be used to lay in a hazy tone which softens the overall effect of a brush painting, to achieve a splattered texture on a flat background, or to add sparkling, explosive highlights to a surface. But a number of illustrations use the full range of its potential as the prime feature of their work. Airbrush seems to add a certain style and image which could otherwise only be achieved by laborious manipulation of conventional artists shimmering, soft focus effect. The airbrush uniquely provides the means to create particular effects of colour, tone, texture, effects now taken for granted in the repertoire of illustration. To an airbrush illustrator, the character of airbrushed paint and the tool itself forms a significant stand in the conception and execution of the work. Airbrushing consists of compressed air (at an average pressure of thirty pounds per square inch) passed through a narrow passage into a wider one, where expansion takes place to create a partial vacuum. Paint under normal pressure flows from the reservoir to mix with the airstream and be atomised. The resultant spray being directed through a conical air cap as either a cone or a fan onto the subject being painted. The vital components of an airbrush are the adjustable nozzle that controls the flow of the medium:

the nozzle in which the air and paint supplies are combined, and the lever mechanism which controls this mixture to a fine degree. Four different medium can be used for airbrushing; Gouache, watercolour, ink and acrylic paint. There are, however, materials specifically manufactured for airbrush use. If using gouache, this medium must first be diluted with water. In Charles Whites illustrations, gouache has been extensively used. This illustrator does not include much freely sprayed or hand-drawn work. The outline shapes of the bumper of the car and the landscape of trees reflected in it, were produced by hard masking. Within these outlines the airbrush was used to produce vignettes. Due to gouaches good colour range and covering power, it is a popular airbrushing medium. Hard masking refers to the process of blocking out part of the surface with a protective covering, so that no medium falls on that specific area while another part of the image is being sprayed. To obtain a hard edge of colour on a particular form, the spray must fall across a rigid material which creates the outline of the required shape. Masking can be absolutely precise or it can be designed to vary the linear and the textural qualities of the work. Adhesive transparent plastic film is the most effective form for masking for precision work. The transparency of the film means that it is easy to see where a particular shape is to be cut out and lifted. The best tool for this being a cutting knife. Masking film can be applied over sprayed paint, but work must be completely dry first. An example of extensive hard-masking can be seen in Tom Simpsons illustration "UFO" where the space craft and planes have sharp clear-cut edges. The background, however, is contrasted against these shapes by the particularly soft effect of spray for the smoke trails, clouds, fields and hedgerows. A fair proportion of this illustration has also been painted by hand. Masking can also be done with self adhering frisket or masking liquid. Less rigid or conventional methods can also be used, for example cotton

wool, corrugated card, perforated paper, textures on the sprayed surface. For illustrations, the best surface to use for detailed and precise work is smooth illustration board i.e. fashion board. This is a surface which consists of a clay finish mounted on top of compressed paper on a pulp base. This finish allows frisket to be used freely, without lifting the surface of the paper when peeling it off. A softer paper is more inclined to do this, so it is best not to use them. The boards used for airbrushing must be specifically manufactured for drawing or painting purposes. Those which are not will separate from the base. Clear acetate provides a good surface for airbrush work. For larger scale paintings, airbrush can be done on hardboard or canvas. Acrylics should then be used and a prima put on the surface before hand.

THE INTERPLAY OF THE LETTER, THE WRITTEN WORD AND THE IMAGE

Relative size, the way of placing and arranging of words and sentences are habitual means of communication. In the twentieth century visual poetry has been rediscovered and regenerated by the French poet Apollinaire. Figure poems were printed in particular shapes. These pattern texts appear in childrens books, satires and advertising, in any imaginable shape. In illustration, especially cubists, futurists and pop artists have, in widely different ways, blended letters, words and printed pages into their illustrations, utilizing written material for the visual messages that may be detected in them. An example is Virginia Burtons 'Choo Choo'. A story about a young engine that has run away. the train gets dizzy from speed and indecision about what track to take. The text doubles the winding lines of the railway tracks in the illustration. The author/artist worked with charcoals, creating a mood of continuous motion, of rising excitement gripping humans and engines.

Together with them, the spectator is thrown, but her swift lines and forceful shapes, into centripetal and centrifugal gyrations, with some movements of rest inbetween. The contrast of the black and white technique heightens the tension as the plot develops. This picture varies considerably in size and structure, and in point of view, Each one is composed with an unfailing sense for the distribution of the visual forces applied in it. Burtons 'Choo Choo' is as expressive acoustically as it is visually. The poor tired little steam-driven engine with the onomatopoeic name, her energy spent, has come to a sad end. Changing letter sizes, fragmented words and dotted lines - CHOO choo ch.... ch.... ch....aa, and so on, "printpaint" a vivid picture of exhaustion, almost a piece of acoustic concrete poetry. This book is apparently one of earliest important children's book where printed language is consistently used for both visual and acoustic purposes in a manner that pleasantly heightens the humour and dynamic quality of the story.

Patterned texts appear in a great variety of shapes, such as the title pages in a number of French Books. In Hélién Tersacs' 'The story of the Tree', the title of the book and the names of the author and illustrator from a tree. In the 'Growing Fish' by Paula Delso, all the important information about the book is included in a fish with large fins, formed by words.

Illustrators frequently like to use words on three dimensional objects for titles or whole title pages. For example in a Russian children's magazine, a bear is sitting snugly, smiling on the painted words '8th of March' or on the cover of 'Patatrak', a French book without words by Jean Jacques Loup, is especially effective and charming. The hero is a sort of goblin who is prone to getting involved in accidents and catastrophes - derailed trains, fires, foundering ships, crashing rockets. The cover

signifies the single motif of the book with visual conciseness: all the other goblins are standing up behind a huge wall while only Patatrak falls off, crashing into the middle T of his name and dislodging it downward. He is, as ever, ready to move in when a calamity offers itself.

Torn newspaper, announcements and grafitti are sometimes used to underline the mood of downtown areas in fashion inspired by cubism and pop art.

Books printed, especially in Arabic characters, tend to develop words and phrases into decorative patterns.

Alphabet books are pictures turned into letters. They are tasteful and humorous, but on the other hand, somewhat contrived and redundant. Various aspects of sound, especially letters, words and music notes are represented pictorially. The illustrators intention is that these visual configurations be transformed again by the viewer into acoustic impressions or associations. Frequently, changes in the sizes of printed words are used to indicate alterations in the degree of loudness of speech.

In the eighties written and printed language has become practically ubiquitous, and in any given society more and more children have to learn that visible words are powerful when it comes to comprehending the world around or communicating with others. So many media, especially childrens illustrated books, increasingly utilize visual aspects of the printed word. Playing games takes off some of the pressure and adds to the fascination. Many of these devices, some naive, some sophisticated and fraught with significance, are being invented to signify or symbolise one

sensory expanse by another. For example, books like Us Bornes teaching series.

PUPPETS AND DOLLS

The photographed story of puppets and dolls is a phenomena which was only technically feasible with the advent of photography. They are quite intriguing and differ from the books which are illustrated by an artists illustration. The latter results from the co-operation of a writer and an artist. The responsibility for the former, on the other hand, rests with a whole team: the writer, the creator of the puppets and dolls; the stage designer; the stage director who arranges the scenes; and the photographer who also decides on the lighting. The illustrations their style, composition, pictorial continuum (what pictures and how many are to accompany the text), the way the action and the relationships between the actors in the story are represented, etc - do not flow from the crayon or brush of one artist; they are compiled and edited by the combined efforts of a number of artists and artisans. Even, if, as oten is the case, one member of the team fulfills several of these tasks, he still serves in various capacities.

The illustrator evokes an illustration of space through his work on two-dimensional pages. The creators of the doll-stories place three dimensional dolls on three dimensional stages and then photograph them. This is, then, an art form which draws its inspiration mainly from the tradition of the stage art, the puppet show, the marionette theatre and corresponding cinematic and video films. In fact, a large percentage of these stories have their source in plays or films; they are still, selected to capture and arrest a number of instants out of the animated

rush of events on stage or screen and arranged in the form of a book, with text added.

This origin of the illustrations explains some of their characteristics. Usually they convey the rather static impression of a collection of attentively taken photographs that succeed each other, rather than that of a close sequence of illustrations following each other and carrying the story along. The expression of immobility of the puppets is not easily overcome, it is too obvious that neither are living beings photographed in mid-movement nor did a painter's hand energize them; they are just puppets whose trunks and legs and heads are turned and bent certain ways so as to indicate movement, mood or mutual relationships. The facial expression of the dolls never changes throughout the story. The face and eyes are painted on once and photographed in that way in all illustrations. The actors have a stiff and often vacuous look that lacks focus and never reveals any emotional secrets.

Numerous books reproduce the style of the puppet theatre. Often the cast and the scenery are especially constructed for a story or a series of connected stories; or the books really are photographic essays on performances that took place in puppet theatres.

Some designers freely mix techniques and media. Photographs appear alternately with simple drawings so that the same events are depicted more than once: the action is offered to the viewer twice. Still other books go deeper and alternatively illustrate the story with photography and drawings so that they compliment each other.

There are also lots of books which simply relate the adventures of a doll or a teddy bear; here the stiff photographs carry the expression of a

toy that is the subject of the story.

Puppet story books usually have a special charm. They are elegant, quaint or clumsy in an obvious way that make the child smile. They have pleasing colour schemes and a delicate sense of humour which is pleasant and tasteful stimulation to his aesthetic capabilities. Still, books of this kind are reminiscent of expertly arranged displays. Their illustrations do not suggest the more continuous sweep found in a comparable number of pictures created by the pictorial artist. There is something artful about them, a lack of immediacy. The puppets, however, when photographed, become motionless, solid and inarticulate. The endeavour to create a specific genre of illustrated children's books by combining elements of the picture book and the stage results in an aesthetically and psychologically unsatisfactory pseudo-medium that renounces both the illusion of movement on stage and the illusion flowing from the single artists imagination. It is wanting in authenticity.

CONCLUSION

The illustrated childrens book is a special case of visual communication. It communicates in symbolic language; it expresses its intentions by creating from visual and verbal elements, an aesthetic order carrying content and meaning, it creates illusions of realities which are partially similar and partially dissimilar to the one that men and women operate in practice; it uses figurative, metaphorical and symbolic means to call forth a deceptive, imaginary world - richer, full of surprises, more astonishing, more innovative, more serious or humour, more beautiful or else uglier, and also much more tense, dynamic and complex than our daily lives.

The illustrators potential importance for the aesthetic experience of the child, is then, considerable: the contents and structures he offers communicate to the child that there exist these illusionary ways of breaking away temporarily from habitual setting.

Art in childrens books, as Doderer has put it, should have the effect of liberating the child from the excessive coercion of reality.¹ It does so by playing with expressive, significant, nonreal structures.

1. Klaus Doderer, "Illustrationen in Kinderbuch als Kunstprodukt," in Eva Sefcakova, ed., *Bienále Illustracii Bratislave' 67-69* (Bratislava: Obzor, 1972) p. 141-43 in 'Ways of the Illustrator' Schwarcz (American Library Association: Chicago: 1982) p. 170.

The illustrator illustrating a childrens book has at his disposal the infinite possibilities of his art. He can balance and contrast materials, space and colours, also selecting and playing with patterns. Today an illustration can be made by virtually any method the illustrator desires to use. This is due to the acceptance of many trends, directions and hybrids which are continuing to be experimented with in the eighties, and in so doing, challenging the traditional mediums. The medium used, however, must suit both the author and the illustrator, enhancing their works and showing a common approach, both working in similar styles. An essential link between technique and content is drastically required otherwise the illustrated book just becomes a variation of technique. The illustrated book for children in the eighties has become an open art form, branching out in various directions and competent to respond to any theme for any age, to assimilate any style, and to combine the configurations of its two media, its composite text in inexhaustible variations and quite demanding modes. It is an art form that communicates its message in a way which is untranslatable into any other form of aesthetic expression. This is, after all, the sign by which an art is recognised and defined. Its superior examples, such as I have discussed in the previous Chapters, present to the children the techniques, the nature and the strategies of illustration, the interweaving of contents and meanings. Recalling the various aspects of illustration that I have looked at, I can say that it is through a wide range of individual styles, approaches and techniques used, that the illustrators create the opportunity for a childs aesthetic experience to rise and his and her aesthetic sense to be fashioned. The illustrator wishes to stimulate children by applying to them the humanising power of visual art.

Such is the nature of the superior aesthetic message that it influences the whole child. By heightening his sensibilities it develops his self-perception and his comprehension of the world he lives in, his ability to understand his own intimate experiences and to relate more meaningfully to others.

GLOSSARY

AIRBRUSH	Small hand-held spray-gun used for spraying effects on all surfaces.
AQUATINT	An intaglio etching process used to create a range of tone.
BASEBOARD	The matrix upon which the paper is fixed or positioned for screenprinting.
BITE	The action of acid in an etching bath on a metal plate.
BLANKET	Pressed or woven wool felts used on an etching press.
BLOCK	General term used for a printing plate in relief printmaking.
BLOCKOUT	Any material applied to a plate, block, stone or screen to prevent areas accepting ink.
BURR	The ridges of metal formed by the cutting action of a drypoint needle.
COLLAGE	A combination of several distinct images into a composite picture using different mediums.

COLLOGRAPH	Intaglio point made from built up collaged plate.
COLOUR SEPARATION	Process of preparing separate primary colour prints, which, when printed in register, produce a full-colour registration.
EDITION	Set of identical prints, usually numbered and signed, printed of a work.
EMBOSSING	Pressing a relief pattern of art into paper or cover materials.
EMULSION	Mixture of two incompatible liquids.
FRENCH CHALK	Whiting or Talc.
GESSO	Mixture of gypsum and glue.
GROUND	Acid resistant coating used to protect non-image areas in etching. Drawn through to expose plate to action of acid.
GUM ARABIC	Natural gum produced by Acacid tree.
LETTERPRESS	The traditional system of printing from raised areas.
LITHOGRAPHY	A system of printing from a flat surface using the principle that grease and water do not mix.
MEZZOTINT	Type of intaglio printing.

OFFSET	Method of printing that involves the transfer of an inked image to another surface via an intermediary surface.
PLANOGRAPHY	Printing from a flat surface which has printing and non- printing areas on the same plane.
PROOF	A trial printing of illustration, to be checked for possible errors.
PULL	To make a print.
RAG PAPER	Pure cotton fibre paper.
REGISTRATION	Correct allignment of colours in multi-colour printmaking.
RESIST	Any material applied to prevent action of light or water.
ROSIN	Organic resin substance that melts when heated. Used for aquatints.
SIZING	Gelatinous substance used in paper making.
SILKSCREEN	A process of printing by ink or paint which is 'squeegeed' through a stencil-bearing silkscreen to the paper beneath.
SHELLAC	Type of varnish.

- STOP-OUT Varnish which prevents acid from biting areas.
- TUSCHE Grease based drawing ink for lithographic and silkscreen use.
- UNDERCUTTING In Etching or aquatint, the lateral biting of acid under grounded areas.
- VEHICLE Liquid ingredient of an ink which carries the pigment.
- VISCOSITY The resistance in an ink to flow (thickness).

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