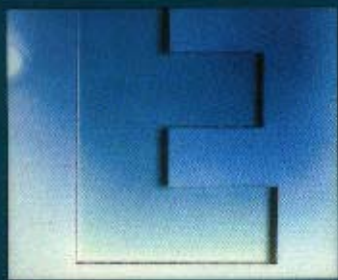




TRANSPORT



LETTERING



FOOD



BASIC FORMS



MASKING

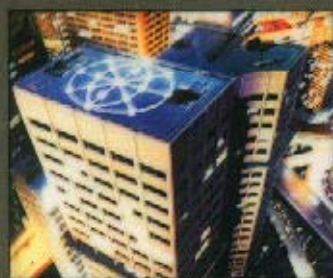
THE ENCYCLOPEDIA OF AIRBRUSH TECHNIQUES

*A complete A-Z directory
of airbrushing techniques,
and how to use them*

MICHAEL E. LEEK



ADVERTISING



ARCHITECTURE



HALOING



CORRECTION
TECHNIQUES



HUMAN FORM



BLENDING



TECHNICAL

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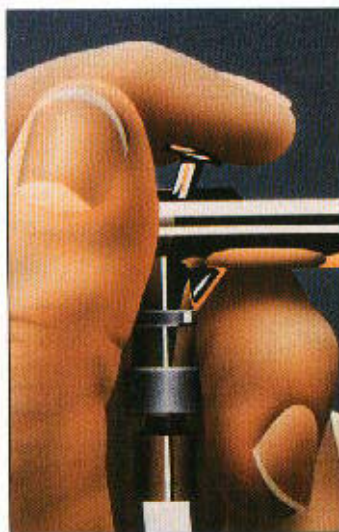
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INTRODUCTION

IT IS NOT SO LONG AGO that books on airbrushing were practically unobtainable simply because publishers did not think there was an adequate demand. However, the continued and increasing need for highly finished, *quality* illustrations in every area of graphic design has brought an awareness of airbrushing to a wider audience, even though the techniques themselves may still be elusive to many. Using step-by-step demonstrations and the work of professional illustrators, this book aims to cover the techniques employed. As skills improve and develop so will each illustrator introduce new approaches to his or her work, which others may find unacceptable or inappropriate, but to the illustrator using them they may become an indispensable technique in all future work. Because of this, and because there are no rules which must be adhered to, no single book on airbrushing techniques can ever be definitive.

The majority of the readers of this book, I hope, will start by studying the professional examples reproduced



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here, rather than look at the step-by-step demonstrations first. While it is undeniable that the demonstrations have played a part in the choice of techniques used, the finished examples have been selected primarily on the strength of the airbrushing. Regardless of the fact that most of the illustrations reproduced here were for a specific purpose and would therefore be seen in a context, many do stand as illustrations in their own right – such is the standard being achieved today.

My introduction to the airbrush was a by-product of lectures on the theory of perspective and shadows. These were both subjects I found fascinating and quickly developed an understanding of them. This

meant I was often ahead of my colleagues and had time on my hands to take exercises to finished artwork stage. My lecturer would encourage me to render these exercises using an airbrush, Winsor Blue or Payne's Gray watercolor, and an old foot-pump with a reservoir – which was designed for use with an airbrush. Not only did this develop my skills in using a new tool, but it also taught me patience – it took a good two or three minutes to pump up the tank to the required pressure and then spray for about 30 seconds before having to start pumping again. All this after slowly and carefully cutting film masks on artwork drawn on paper which was often thinner than the film. (This explains why few of my works have survived – the majority just fell apart like jigsaws.)

Michael E. Heale

PART ONE TECHNIQUES

THE APPLICATION AND USE of the airbrush as a means of rendering natural, man-made, and fantasy or science fiction subjects has increased enormously over the past three decades. Illustrators have found this tool an invaluable aid either for rendering a complete illustration or in limited application to enhance detail, texture, form, or contrast on an illustration which has been primarily hand-painted.

Because of the more widespread use of the airbrush, various techniques have developed to arrive at the quickest and most effective means of achieving desired effects. Many of these techniques are peculiar to the airbrush and are the result of much experimentation by individual illustrators based on both the advantages and limitations of the airbrush. When the airbrush is in constant use, it will soon be apparent that there are techniques other than those described and illustrated here. They will be discovered or identified through a particular need and may well become essential to the illustrator who chances upon them. In this book, the purpose is to describe those techniques which have a wider and more general application in illustrative work, be it creative or technically based.

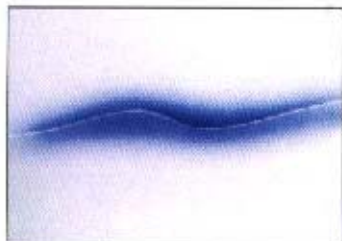
Airbrushing is an acquired skill. It requires practice, patience, careful planning, experiment, and, to produce successful work, an understanding and awareness of color, light, tone, and contrast. In addition an ability to draw is essential.



ACETATE MASKING

Acetate is a completely transparent, plastic material available in sheet or roll form and in a number of different thicknesses. It is useful in airbrushing as a substitute for, and complement to, self-adhesive masking film. Because it lacks adhesive, acetate will allow residual color to encroach underneath, creating a soft-edged effect which can be used to advantage. If this is not wanted, care must be taken to ensure that the mask is held evenly and flatly against the artwork to provide a firm edge to the sprayed area.

The cut or broken edge of a piece of acetate can be used to form a loose mask, or a whole shape can be cut out of the material corresponding to a particular part of the artwork. Because acetate is, like masking film, completely transparent, the mask can be accurately positioned in relation to previously sprayed areas of the image. When acetate is cut, especially for a mask which has sharp, hard-edged corners, it can be prone to splitting. Although a split may appear insignificant on the acetate mask, it is surprising how a small amount of sprayed paint passing through it will be sufficient to show up on the artwork.



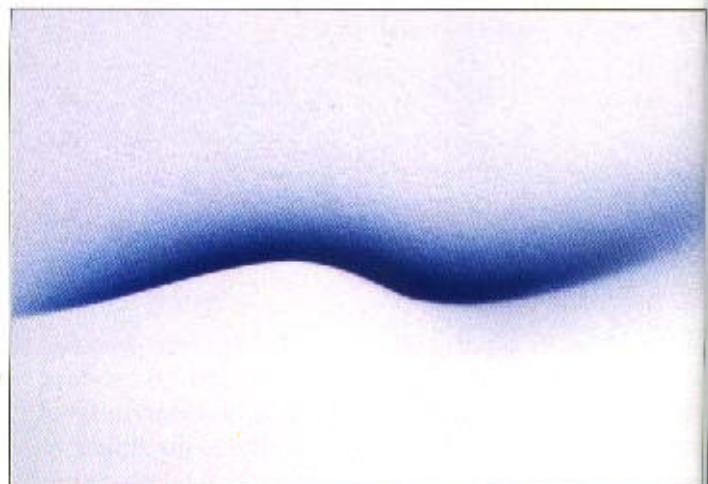
1 Sweeping curves have been cut into a piece of acetate. This has been laid flat on the illustration board and color sprayed along the curved edge.



2 When the acetate is moved away from the sprayed area, it can be seen that the curve is accurately repeated by the spraying. The edge quality is slightly less crisp than would be the case if masking film had been used.



3 The same mask is used, but instead of leaving all of it flat on the artwork, one end has been lifted while spraying.



4 The removal of the mask shows that where the acetate was laid flat, the sprayed color has a firm edge, but where it was lifted, the color fades off and blends into the white of the board. This is a useful technique when both hard and soft edges are required at the same time.

ANGLED SPRAYING

This term is used to describe the technique of blending colors into each other, without having a hard, or clearly defined edge between them. It is achieved by the distance the airbrush is held away from the artwork and the angle at which the airbrush is in relation to the artwork surface. This technique may be used in conjunction with the section on GRADATED TONE.

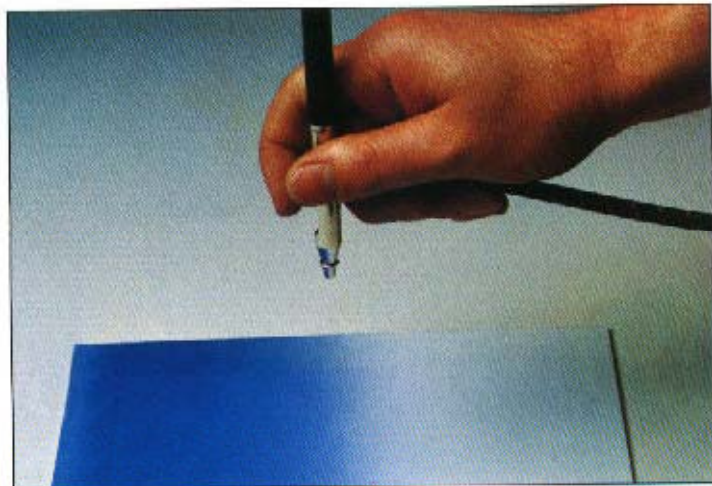


Wide-band Blending

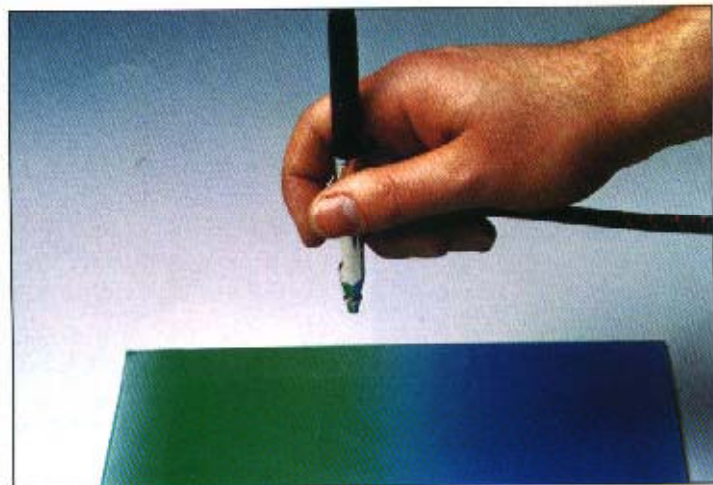
1 It is required to blend two colors together without an edge between the two being shown. After the overall area for the color work has been masked off, the first color is sprayed from top to bottom, holding the airbrush at an angle of 90° to the artwork to create a very soft and gentle gradation.



2 The second color is now sprayed at the same angle as the first, allowing the gradation to overlap and merge with the first color.



This photograph demonstrates the height and angle of the airbrush in relation to the artwork as the first color gradation is applied.

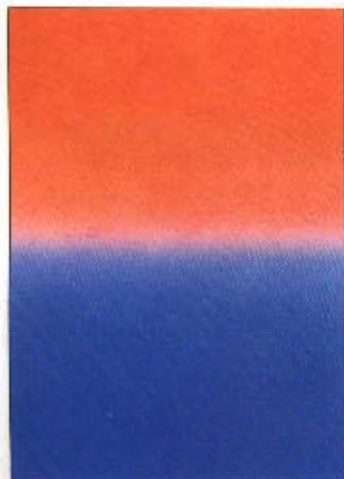


In applying the second color, the artwork has been turned 180° so that the color can again be sprayed from the top of the board, allowing greater control.

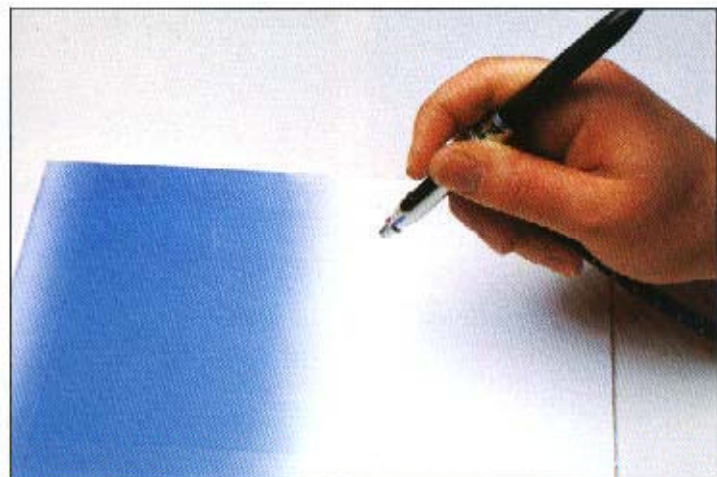


Narrow-band Blending

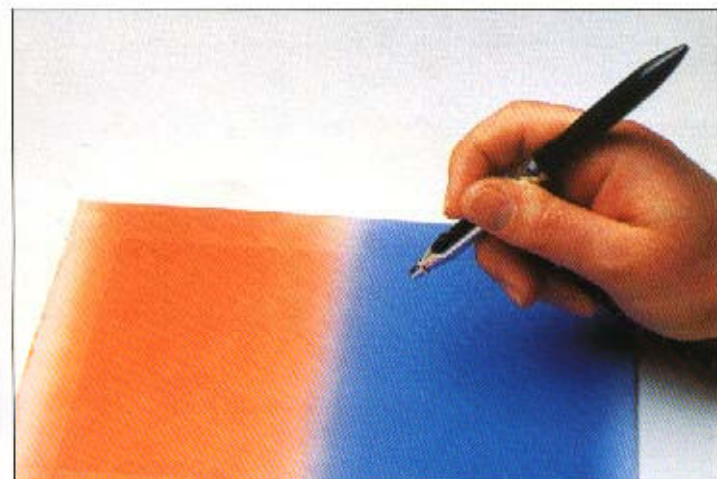
1 In this example a narrower band of blended color is demonstrated. At this stage the gradation from color to the white of the board is more sudden.



2 The second color is applied as in stage 1. The finished result shows a clearer definition between the two colors than in the wide-band demonstration.



The first color is being sprayed from the top with the airbrush held at a shallow angle to the surface.



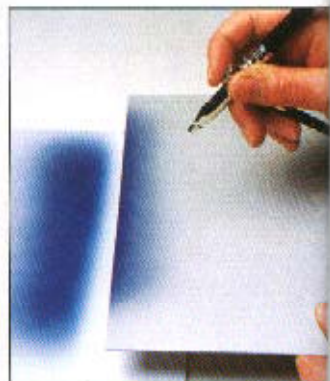
The artwork has been turned 180° for the spraying of the second color, with the airbrush being held at the same angle as in stage 1.



Using Cardboard in Angled Spraying

In both of the following examples, reference can also be made to CARDBOARD MASKING, LOOSE MASKING and TORN PAPER MASKING.

1 In this example the cardboard is held slightly away from the artwork and the airbrush is at an angle of 90° to the surface. This will give a fairly firm, but soft edge on completion.



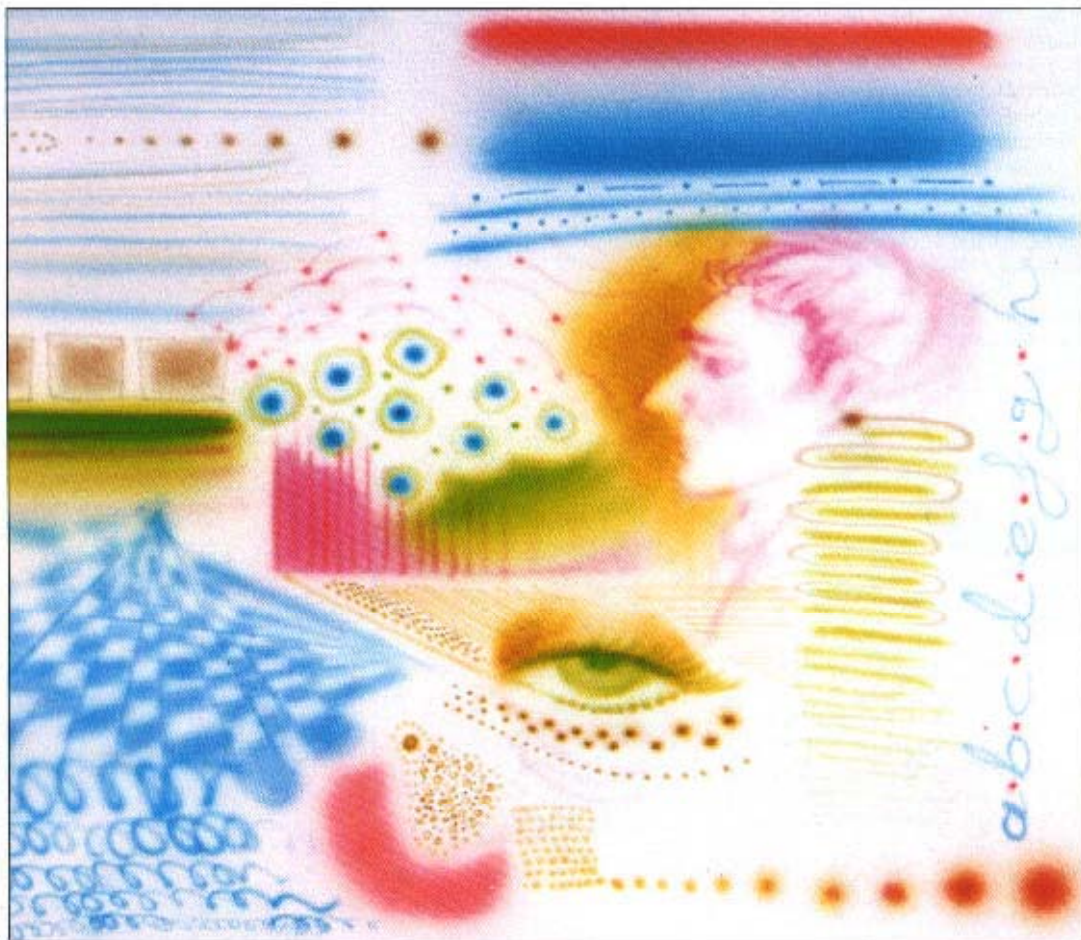
2 In this photograph the cardboard is again used as a mask, but the angle of the airbrush has been brought down toward the horizontal which will give a much softer edge and gentler color gradation.

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BASIC EXERCISES

The preparation of any type of artwork or painting requires concentrated practice and patience. Time spent here will pay dividends later and prevent unfortunate and unnecessary mistakes from being incorporated into finished artwork. The airbrush is not a difficult tool to use, but as with all others, what it can and cannot do needs to be understood, and there is no better way than practice. Having said that, this section should not be seen in isolation from the other techniques described in this book.

For the beginner, it can be difficult at first to obtain full control of the flow of paint and air through the airbrush—smooth action in starting and stopping the spray, essential for freehand work, and control of an even spread of color, even when masks will be used to define specific shapes. In addition, the height and angle of the airbrush during spraying affect the final result. Basic exercises can take any form which helps to develop the artist's understanding of the tool's capabilities.

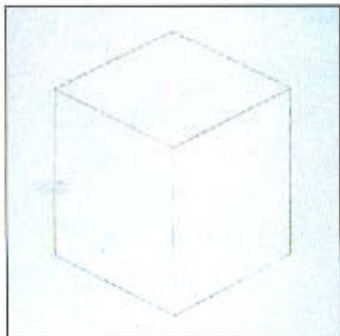


This sheet has been covered with different techniques and applications of the airbrush. All have been completed primarily without use of masks of any kind. This type of "doodle-sheet" is excellent practice, which enables the aspiring airbrush illustrator to develop skill and confidence in using the airbrush, and also in understanding the limitations of the tool.

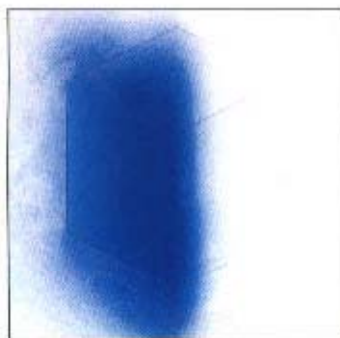
BASIC FORMS

These exercises cover four basic shapes: a cube, cylinder, sphere and cone. They represent the principal geometric shapes which are likely to be encountered in airbrushing an incredible variety of subjects, whether taken individually, in groups or, as is more likely, parts from each in any combination. If specific and detailed areas in a large number of the finished illustrations in this book are closely examined, it will become apparent that many of the abstract shapes which make up the illustrative content are composed of surfaces such as angled planes and curves which can be extracted from these basic shapes.

Not only is practice essential in order to master the skill of handling the airbrush, but it is also useful in understanding the shapes themselves. Furthermore, if you extend the principle of these exercises by varying the colors and surface textures, you will acquire greater understanding of how light affects the shading and contrast from one surface to another, from one side to another, and from one object to another.

**The Cube**

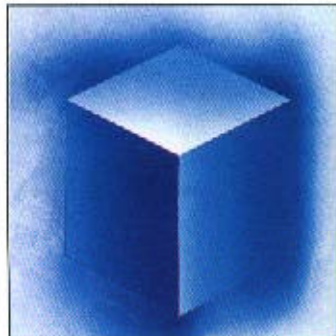
1 The cube is drawn symmetrically with one corner directly facing the viewer. The cube and the surrounding area are covered with a single piece of masking film.



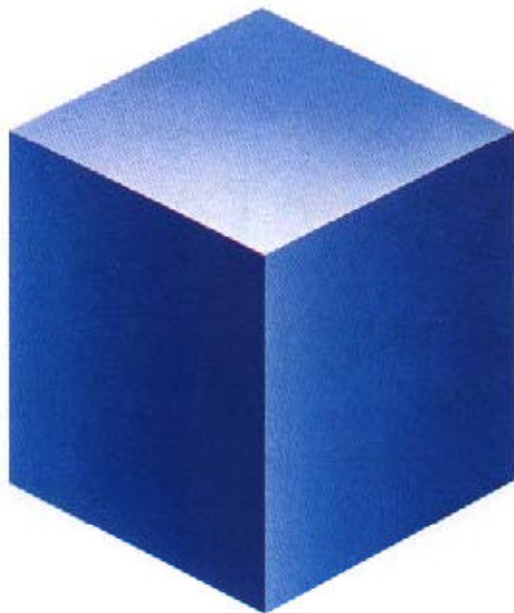
2 The film covering the left-hand face of the cube is cut and removed for the first stage in the spraying sequence. The left-hand face is sprayed with the greater depth of tone to the right and running parallel to the vertical edge. This is graduated on the left to show a subtle, reflected highlight.



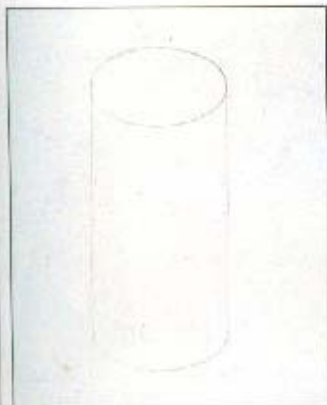
3 Leaving the left-hand face unmasked, the film masking the right-hand face is cut and removed. On this plane the depth of tone runs from right to left, but with increasing strength in the highlight toward the leading edge of the cube.



4 The horizontal surface of the cube is cut and removed, again leaving the two vertical surfaces unmasked. The depth of tone here is lighter overall than on the vertical plane and runs horizontally from the top to the bottom, with the nearest corner to the observer being almost devoid of color.

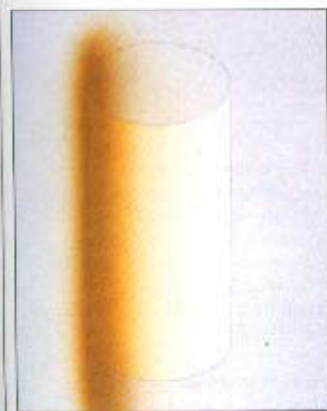


5 On completion, the remaining film is removed, showing the cube rendered in monochrome with enough depth of contrast to create a three dimensional image.

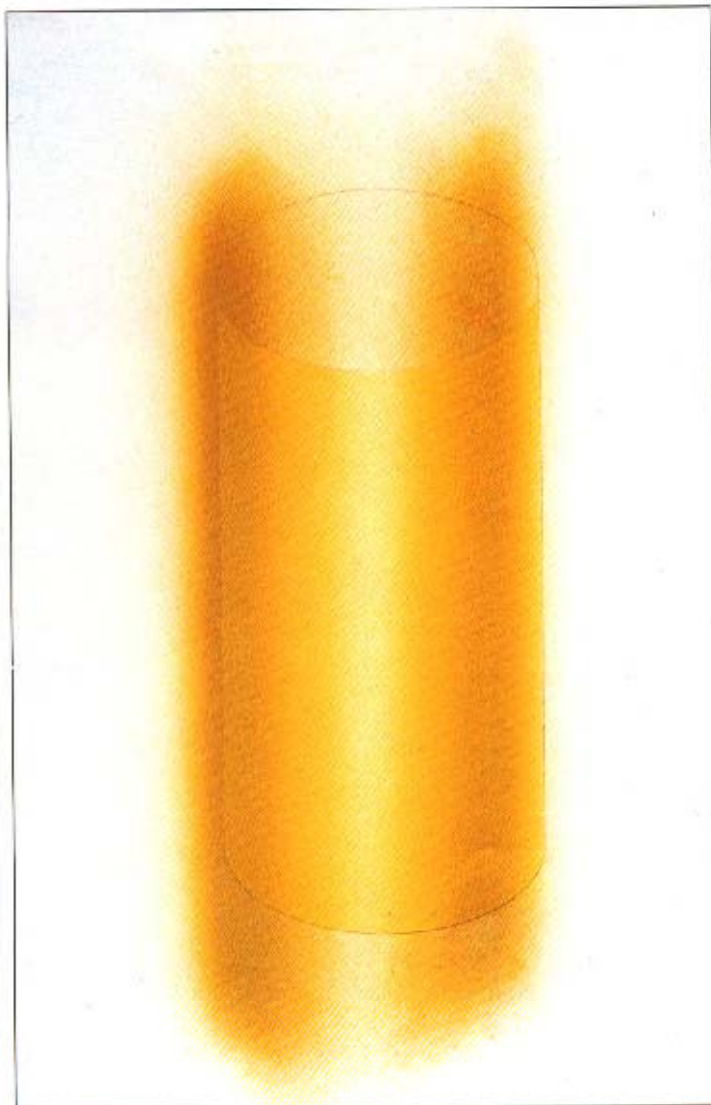


The Cylinder

1 A straightforward drawing of a cylinder, standing vertically on one end, is covered with masking film which extends also across the background area, as for the cube.

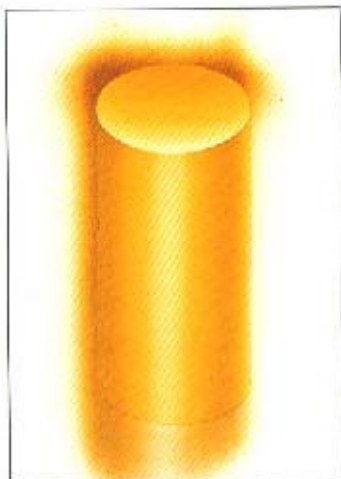


2 The body of the cylinder is cut and the film removed. The spraying begins from the left-hand edge, and the color is allowed to overlap the background masking. It is sometimes advisable to turn the artwork when spraying so that the cylinder is horizontal, with the first edge being sprayed at the top. This makes it easier to control the extent and depth of color, besides ensuring that the color runs parallel to the centerline of the cylinder.



3 On the right-hand edge, the same technique is applied as in stage 2. The important difference is that the color is applied within the edge of the masked shape to create a thin, reflected highlight at the extreme right of the cylinder.

Again the color is graded quickly as it is brought toward the center of the cylinder. This gives a strong highlight at the center, running the complete length of the cylinder and parallel to the edges.



4 Finally, the top of the cylinder is sprayed. After cutting and removing the film from the elliptical plane, color is sprayed in a horizontal direction, concentrating on the outer or upper edge so that only residual color falls onto the leading edge.

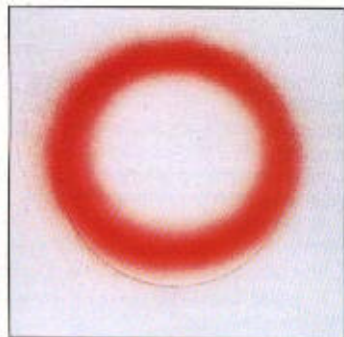


5 The masking film is removed, leaving a hard-edged cylinder illuminated by a light source immediately in front. This technique produces a simple but effective form with a "satin" finish.



The Sphere

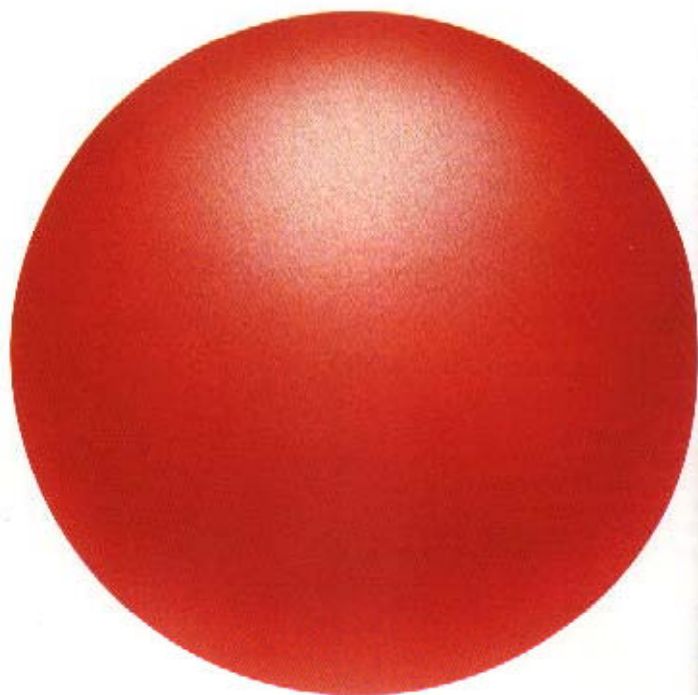
1 A circle is cut directly into masking film which has been laid on the illustration board, using a compass cutter. A piece of masking tape is placed at the center to prevent the compass point from marking the board being marked and also to assist in removal of the mask.



2 An oval of color is sprayed which encompasses the top and both sides of the mask, but does not extend as far as the lower edge. This gives a reflected highlight on the base of the sphere which will enhance its three-dimensional quality. This initial oval of color must be applied carefully and is best attempted after practicing with the airbrush on a freehand basis. As there are no planes within the overall shape of the sphere, the mask only defines its outline, not the internal areas of light and shadow.



3 In the second stage of spraying, color is applied, leaving a soft-edged, roughly circular highlight near the top of the sphere. Residual color slightly softens the reflected highlight at the lower edge.



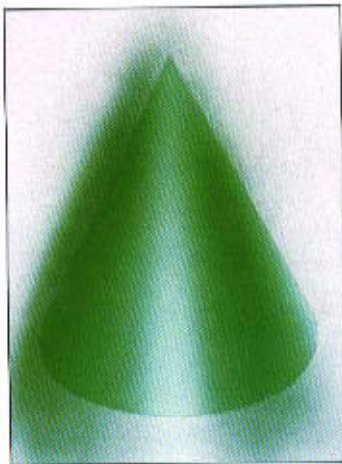
4 Once the masking film has been completely removed, the reflected highlight at the base of the sphere and the principal highlight at center top are more effectively appreciated. After practice in controlling the airbrush for freehand modeling within the masked outline, it will soon be possible to produce spheres with the light sources angled from other directions. A study of spherical objects and the way light falls on them, as well as the way in which other colors are reflected, will be of immense value for future practice and application.

The Cone

1 The cone is drawn using an ellipse template for the base to give a three-dimensional impression. The artwork is covered with masking film and the cone shape cut out.



2 In this example the illustrator has chosen the left-hand edge of the cone to be sprayed first. The color is taken over the masked edge and gradated quickly as it comes around towards the center of the cone. When spraying a cone, it is important to remember that the color should be applied from the base to the top and the area sprayed should follow the overall shape of the cone.



3 The same exercise is carried out on the right-hand side, but, as with the cylinder, the color is not concentrated on the masked edge; it is brought in slightly to allow a reflected highlight to be shown. Again the color is gradated quickly towards the center to create the main highlight.



4 The final stage is the removal of the masking film. The cone is seen as a complete three-dimensional form with the central highlight and soft shading creating a "satin" finish like that of the cylinder.

CARDBOARD MASKING

This technique is on the same lines as ANGLED SPRAYING, LOOSE MASKING and TORN PAPER MASKING, and reference should also be made to them when following the sequences illustrated here.

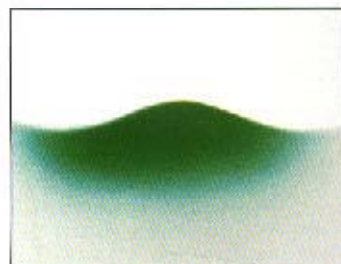
The advantage of cardboard as a masking material is that it is readily available and inexpensive – you can use pieces left over from other studio projects. It can be used to mask particular shapes quite accurately and to create various edge qualities, but as it is opaque, it is less versatile than acetate or masking film.

**Straight Edge**

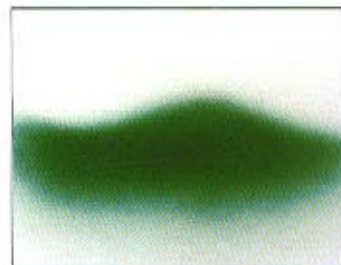
A piece of straight-edged cardboard has been laid flat on the artwork; the area of color resulting from spraying over the cardboard has a soft but clearly defined edge.

**Shaped Edge**

1 A piece of cardboard has been cut to a predetermined shape, in this case a gentle curve.



2 This is then laid on the artwork and, after spraying, shows again the clearly defined but soft edge.



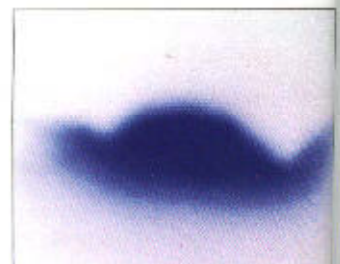
3 When the same shaped mask is used, but held above rather than on the artwork, the resulting edge is graduated and much softer, due to residual color seeping under the cardboard. The further the cardboard is held from the surface when spraying, the more diffuse the effect.

**Torn Edge**

1 A piece of card has been torn in half. This can be done randomly or following a pencil guide, but in the latter case, remembered that it is not possible to achieve absolute accuracy.



2 The effect achieved from spraying over the torn edge when the mask is laid flat on the artwork.



3 The effect achieved when the mask is held above the artwork, showing the more diffused, graduated edge. Again the variation in the degree of gradation can be controlled by the distance the mask is held away from the artwork.

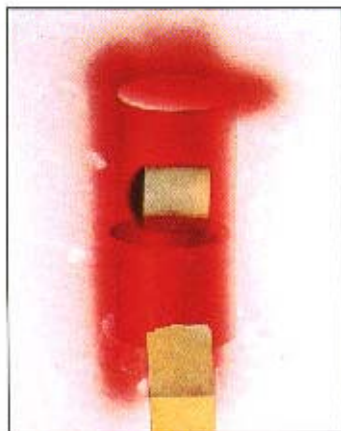
CAST SHADOWS

Cast shadows have a variety of uses in illustration. Not only do they help in visually making the subject stand out to the front, but they are also an effective means of enhancing the three-dimensional qualities of an illustration. The demonstrations here show a soft-edged shadow effect sprayed freehand and a hard-edged shadow created with masking film.

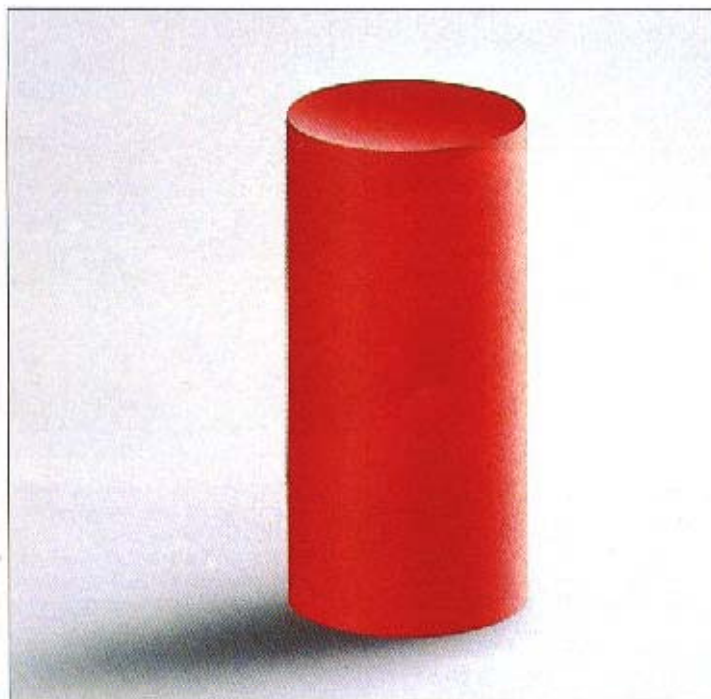
Shadows can be generated from an artificial light source or by natural light from the sun. Each have their own set of rules. The techniques of plotting shadow areas are a subject in themselves, and those wishing to experiment further should refer to books dealing specifically with perspective, besides observing what actually happens in reality. The scope of this book does not permit an extensive explanation of the many complexities of the theory and application of perspective in relation to shadows. However, some guidance may be gained by studying the many examples of professional airbrush work reproduced in this book and recognizing where shadows have been used for a specific purpose.

**Soft-edged Shadow**

1 A vertical cylinder is drawn and covered with masking film. When the outlines have been cut, masking tape is used to anchor the mask section covering the body of the cylinder to make it easy to remove and replace because this mask will be required again. Alternatively, the



piece of film can be lifted and placed on the backing sheet for protection until it is re-used. The cylinder is sprayed as previously described (page 15), but with adjustments made with regard to the position of the highlights, as it is intended to cast a soft shadow to the left and toward the observer.

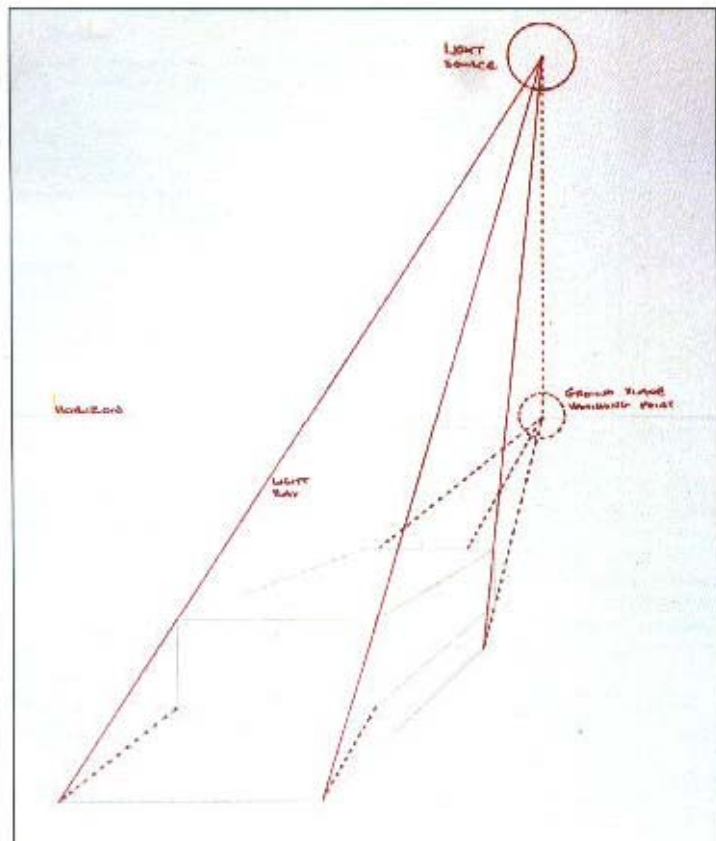


2 The body of the cylinder is re-masked. This is essential because of the angle of spray required for the top plane as a result of the direction of the light source. The top is then exposed for spraying with due allowance being made for the leading-edge highlight, which in this example is slightly offset to the left.



3 The masks for both the top and body of the cylinder are replaced to protect it while the shadow area is sprayed, but all background masking is removed. The shadow is sprayed from the approximate center of the base, gently bringing the color out to the extremes, but keeping well within an area relating to the width of the base. The length of the shadow should not be too long and should fade gradually and easily away from the cylinder.

4 The final stage is the removal of the masking film from both the top and body of the cylinder.



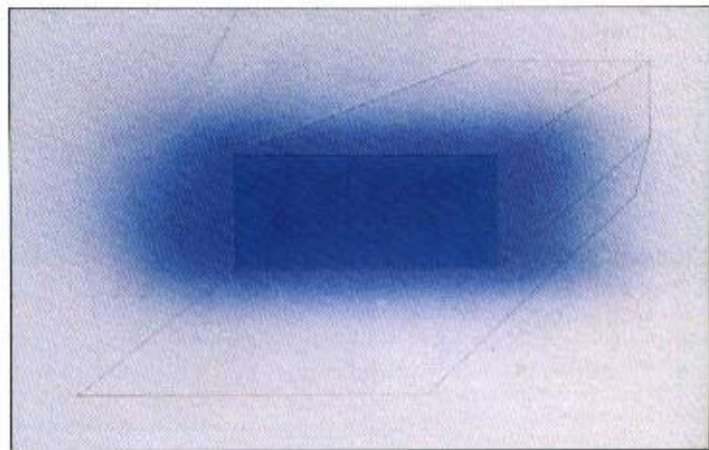
Hard-edged Shadow

1 For the purpose of expanding this exercise in cast shadow techniques, a rectangular box is shown in three dimensions with the construction of its shadow, as if cast from the sun rather than from

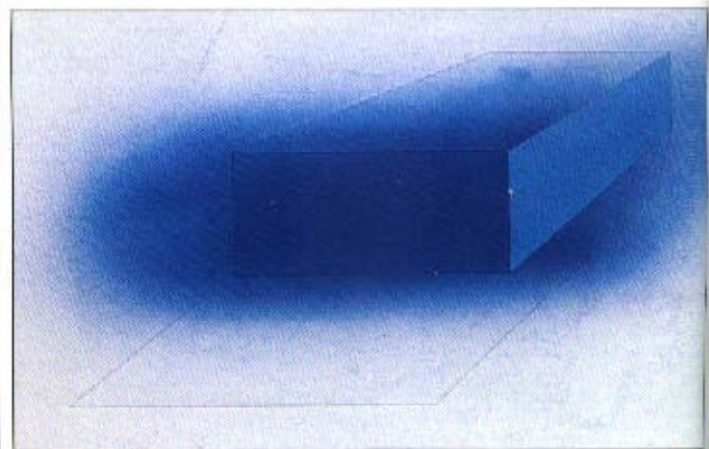


artificial light. The terms should be self-explanatory, but it must be remembered that the vanishing point on the ground plane will always lie on the horizon and also immediately below the light source.

2 Having constructed the box and its shadow, the drawing is transferred to illustration board, but leaving out the construction lines. The whole surface is then covered with masking film.



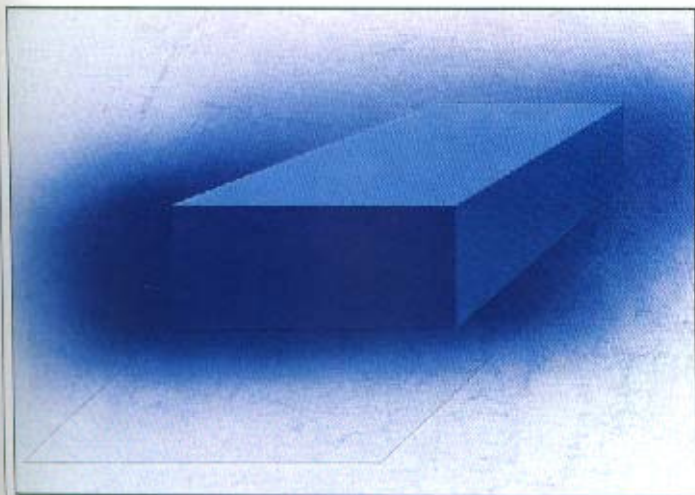
3 The side of the box nearest to the observer is sprayed first because this will be the side in complete shadow, without any reflected light. It should be sprayed with a medium-strength, fat of color.



4 The right-hand side of the box is next, and the film covering this area is cut and removed. There is no need to replace the mask previously removed for stage 3, because this side needs to be the strongest in tone and leaving it exposed allows the color density to be built up in successive sprayings.

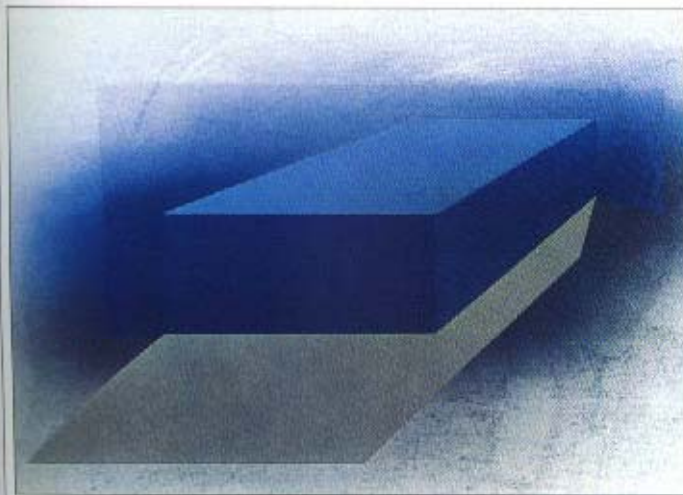
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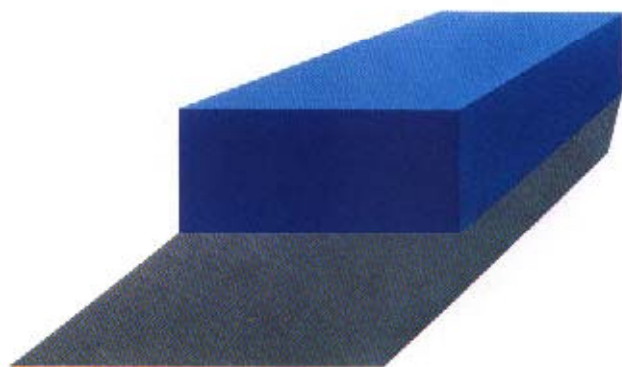
5 Next the top is sprayed, again leaving the previous stages exposed. With the viewpoint chosen, the top of the box is shown as receiving the

maximum amount of light, thus having the highest overall tone, and this should be borne in mind when spraying.



6 The box is re-covered with masking film. The masking film covering the shadow is cut and removed. In this exercise a flat tone is laid down to represent the shadow, but it is also acceptable, and in keeping with

nature, to make hard-edged shadows gradated. The gradation may pass outwards from the object or inwards from the extremities of the shadow; it is all dependent on the effect and emphasis needed



7 The final image shows the completed box and its shadow with all the masking film removed. Because of the sequence in which the box was sprayed, a certain luminosity is apparent, which assists in delineating the shape and defining the direction of the light source.



**Tetley One-Cup personal stereo
John Brettoner**

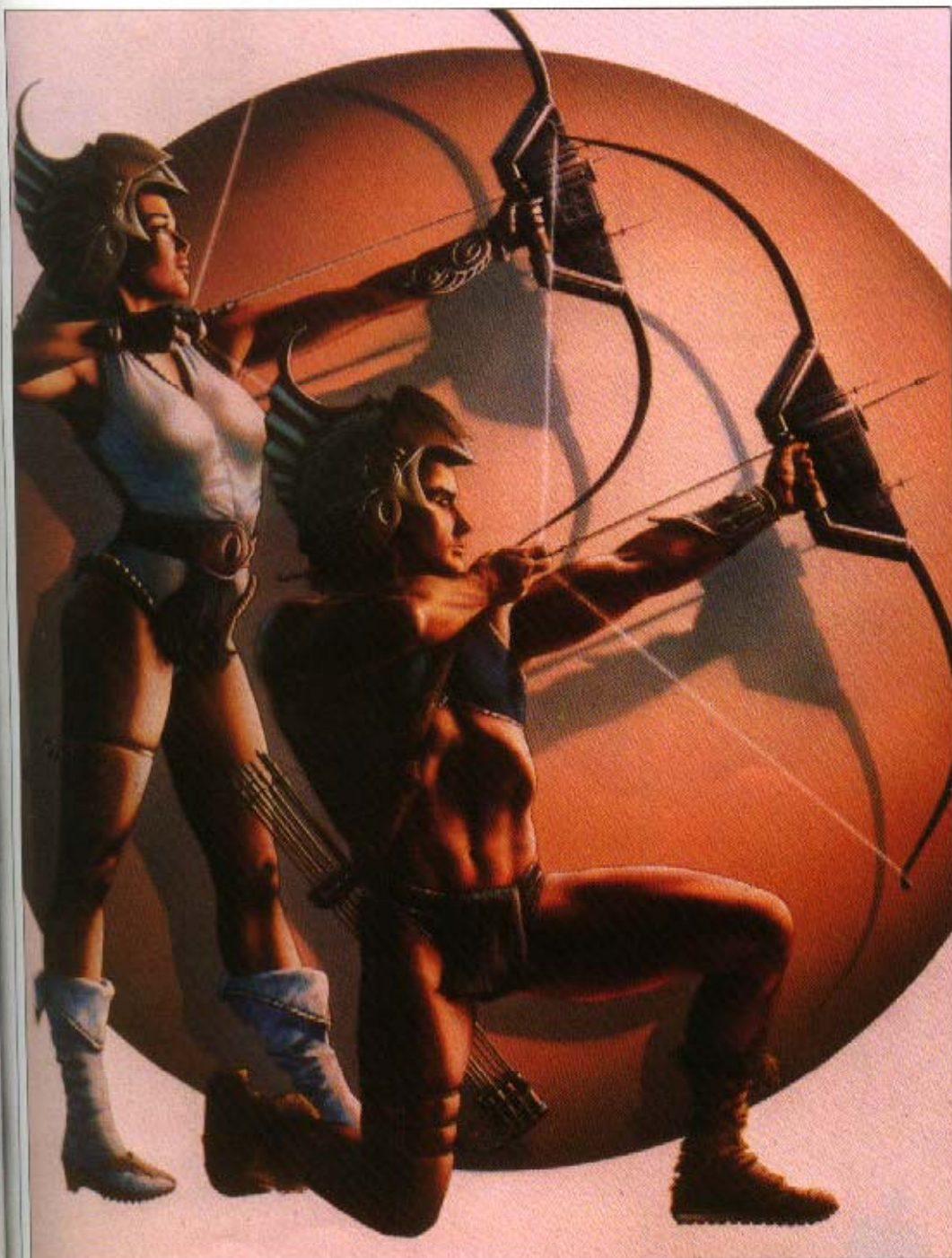
Modern hi-fi equipment and personal stereos are subjects which have proven popular with illustrators specializing in airbrush rendered illustrations. The subjects seem to be particularly apt, and the example reproduced here is excellent, showing the quality of overall finish which all students of airbrushing should aim to emulate. It is included in this

section because it demonstrates clearly the application of GRADATED TONE to form soft-edged cast shadows. Without them, the three items would appear to float in space, as it is, the cast shadows create the impression that they are lying on a flat surface, even though no color or edges are visible on this imaginary surface.

The illustration is comparatively simple in terms of the accurate plotting of the shadows. Other subjects

may not be, but all require careful observation to ensure that they at least look as if they are the true shadows of the object from which they are cast. When planning the inclusion of shadows, it is essential that their position and direction does not conflict with the direction of the light source, regardless of the material or surface of the subject being sprayed. Highlights and shadows should always be in harmony with each other.

There are two other airbrushing techniques used on this personal stereo which deserve to be mentioned here, because they represent excellent examples. First, the LETTERING TECHNIQUES, which have a quality indicating the obvious skill and care which the illustrator has applied; second, the very subtle application of SPATTERING on the speakers, which is just enough to indicate the surface texture.



Archers Andrew Farley

The importance of the light shadows being in harmony with the source of light is made even more apparent in this illustration. By defining the shadows and the angle of the light source, on both the sphere and the bodies of the archers, a clear impression is given of the time being at sunset. The color tones, strength and extent of the shadows on the bodies increase this impression. The cast shadows on the sphere [see BASIC FORMS], as well as the shading across its natural form indicate the direction of the light, with these shadows applied by loose masking or acetate masking.

The archers also demonstrate the degree of observation required when airbrushing the human form. Other examples may be seen in the second half of this book under the section focusing specifically on rendering NUWAX FORM with the airbrush.

CHROME EFFECTS

By its very nature, chrome, or any other highly polished or reflective surface, is difficult to reproduce convincingly in an illustration. While the airbrush is a more than useful aid, if the effect is not rendered with care and pre-planning, it can be extremely crude and simplistic. It therefore requires practice and a close study of actual examples, including the methods used in some of the illustrations reproduced in this book. This is because chrome is rarely seen without something else reflected in it, usually in close proximity.

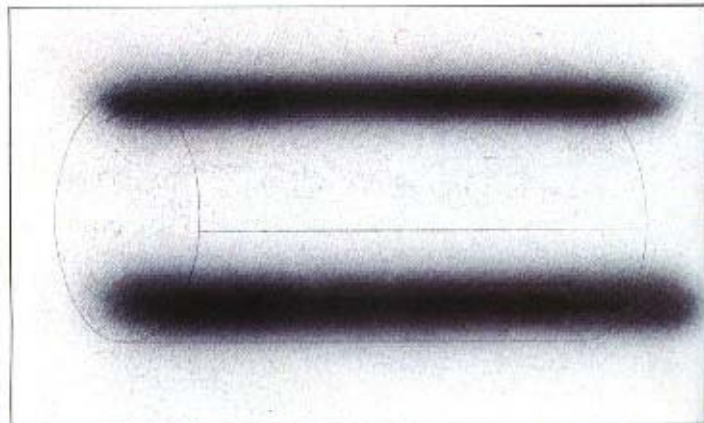
These exercises introduce the technique of how to approach the airbrushing of chrome in both black-and-white and color. Each is demonstrated in isolation, and neither should be taken as the only method. When airbrushing chrome, the approach adopted must be judged on its merits and is dependent on such things as the location of the chrome in relation to other objects or materials, the base color of surrounding objects, and colors in the environment in which the chrome needs to be shown. All of these will obviously determine the base and reflective colors to be used when spraying.

The color exercise shown here uses a convention for creating the effect of reflected color. This is based on the assumption that the lower part of a chrome object might be reflecting earth colors from the ground, while the upper part reflects lighter tones from the sky. This ground/sky division requires the artist to establish an approximate horizon level across the chrome surface.

Finally, always ensure that the air pressure through the airbrush is correct. If it is too low, the finish will appear grainy and textured, which would take away the reflective appearance. Chrome has an extremely smooth surface,

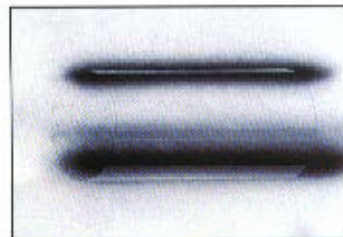
**Monochromatic Effect**

1 As the basis of this example, a cylinder is drawn three-dimensionally and in a horizontal position. The artwork is covered with masking film in preparation for spraying.

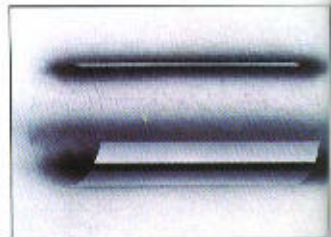


2 The body, or length, of the cylinder is divided into various shaded areas and those needing the strongest or darkest shades are cut, unmasked and sprayed first. It is important that when spraying a black-and-white object, the darkest areas are sprayed first, as this not only saves time, but also requires the

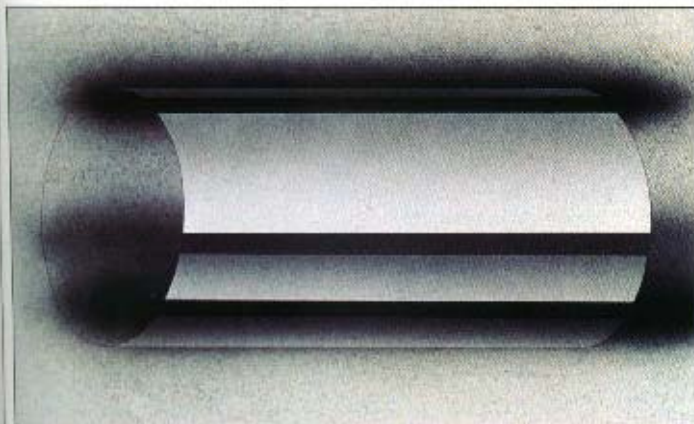
minimum of mask cutting. By following this sequence, any residue from subsequent spraying which automatically encroaches on the darkest areas will merely strengthen the darkest tones and, with proper control, improve the depth of contrast in the finished artwork.



3 The areas of medium are exposed and sprayed.

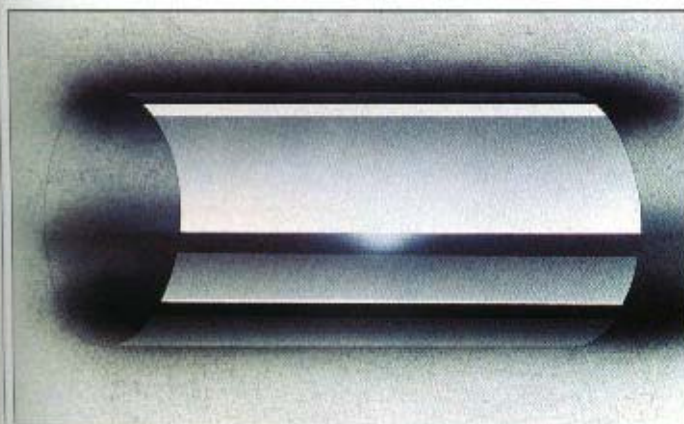


4 The first of the graduated tonal areas is now cut, removed and sprayed, making sure the color does not extend too far down and thereby diminish the strength of the highlight.

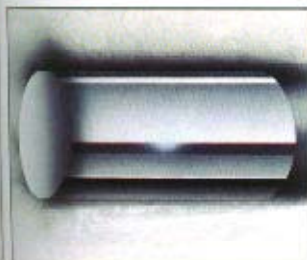


5 The second area of gradated tone is applied to the top half of the cylinder. Again, be careful not to spray

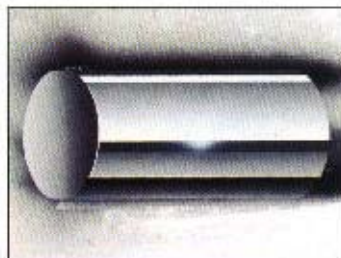
too heavily as the color is brought down into the area of the white highlight.



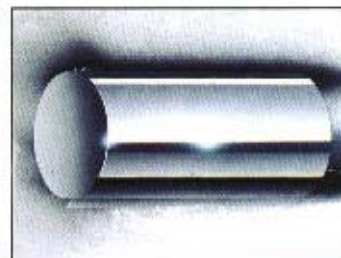
6 Using opaque white, an intense highlight is sprayed freehand and in the approximate center of the body of the cylinder.



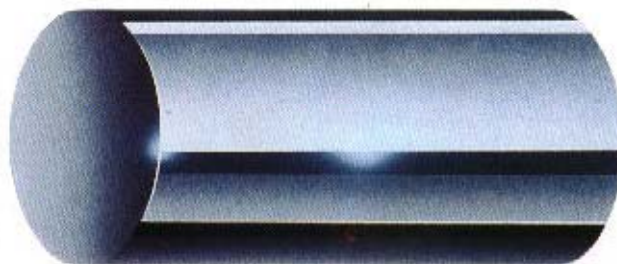
7 The body of the cylinder is now re-covered with masking film and the end of the cylinder is exposed for spraying. To emphasize the edge of the cylinder, the color is applied vertically and gradated from right to left, allowing a sufficient residue of color to extend over the complete surface of the end plane.



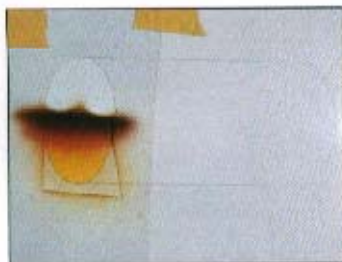
8 The masking film protecting the body of the cylinder is removed, and a thin highlight is scratched with an art knife along the curved edge between the body and the end of the cylinder.



9 Another opaque white highlight is applied freehand over the linear highlight scratched back in stage 8.

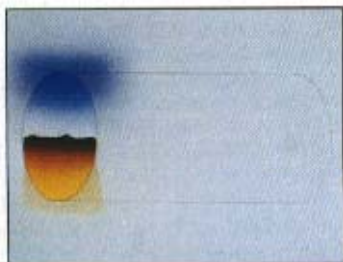


10 The surrounding masking film is removed, revealing the finished artwork. With more practice, and by observing actual examples, it will soon be apparent that there are many variations possible in rendering highly polished surfaces such as chrome.

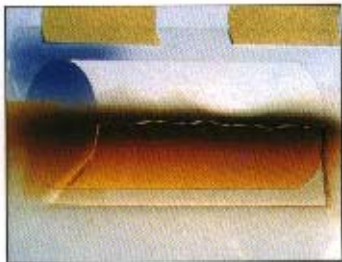


Ground/Sky Reflection

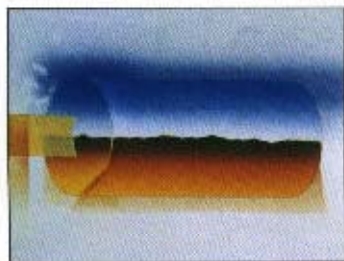
1 Using the same image, the cylinder is drawn and covered with masking film. The end of the cylinder is prepared for spraying and an acetate mask is overlaid, which has been cut to follow an approximate "horizon" level across the center of the cylinder. This exposed area is sprayed with graduated color, using yellow ochre and vandyke brown to represent the base or ground which would be reflected in the cylinder. The yellow ochre is sprayed first, covering the whole area. This is followed by an overspray of vandyke brown, but concentrating the color at the top edge of the mask, which represents the reflected "horizon." This is graduated down into the yellow ochre, but not so that it covers it.



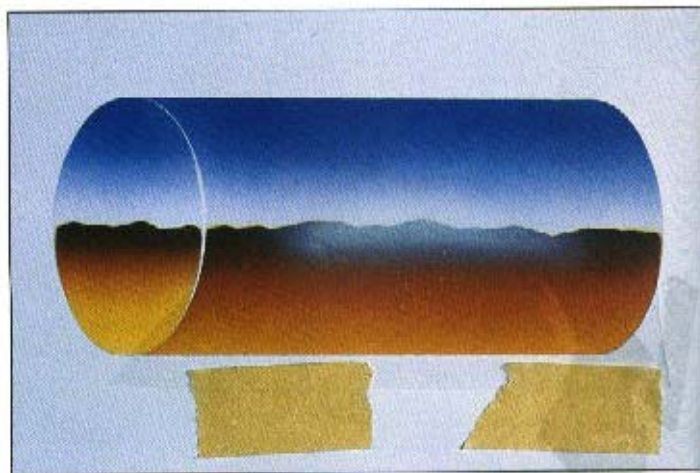
2 The acetate mask is removed, and blue is then sprayed from the top of the cylinder end, graduating downward toward the "horizon." To be effective, this color should have enough gradation to allow the white of the board to come through between the brown and the blue, as shown here. The end of the cylinder is now completed.



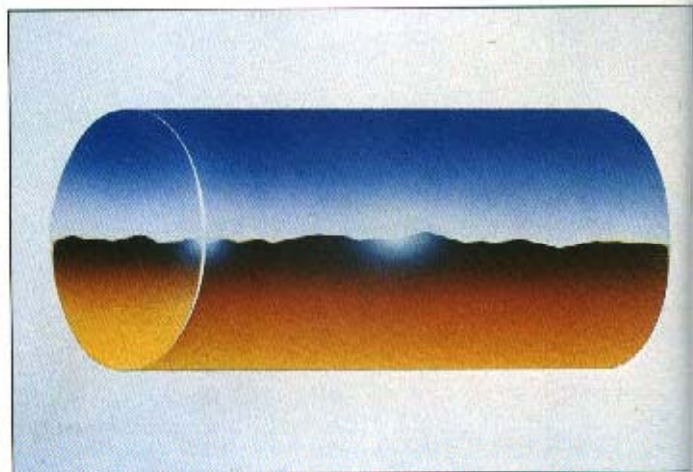
3 The masking film is replaced over the sprayed area, and the film protecting the body of the cylinder is removed. Another acetate mask is prepared to allow exposure of the area covering the ground from the "horizon" down. This is sprayed using the same colors and following the same sequence as for the end of the cylinder.



4 The acetate mask is removed and the reflected color for the sky is sprayed, again being graduated from the top to the "horizon."



5 The linear edge between the end and the body of the cylinder is highlighted by scratching out color with an art knife. This is followed by a sprayed highlight of opaque white immediately above the "horizon" line across the body of the cylinder, using an acetate mask to protect the background color.



6 A highlight, again of opaque white, is sprayed freehand on both the linear highlight and approximately in the center of the body of the cylinder. Both are positioned at the level of the reflected "horizon."

Metallic tap fittings John Brettner

Effects similar to those appearing on the surface of chrome will be seen on any highly reflective and polished surface, such as brass, copper or stainless steel. This illustration of two single faucet flanking each side of a mixer faucet is an excellent example of how one illustrator has successfully rendered the same subject with three different metallic finishes. The faucet on the left is of brass; the mixer in the middle has a semi-gloss

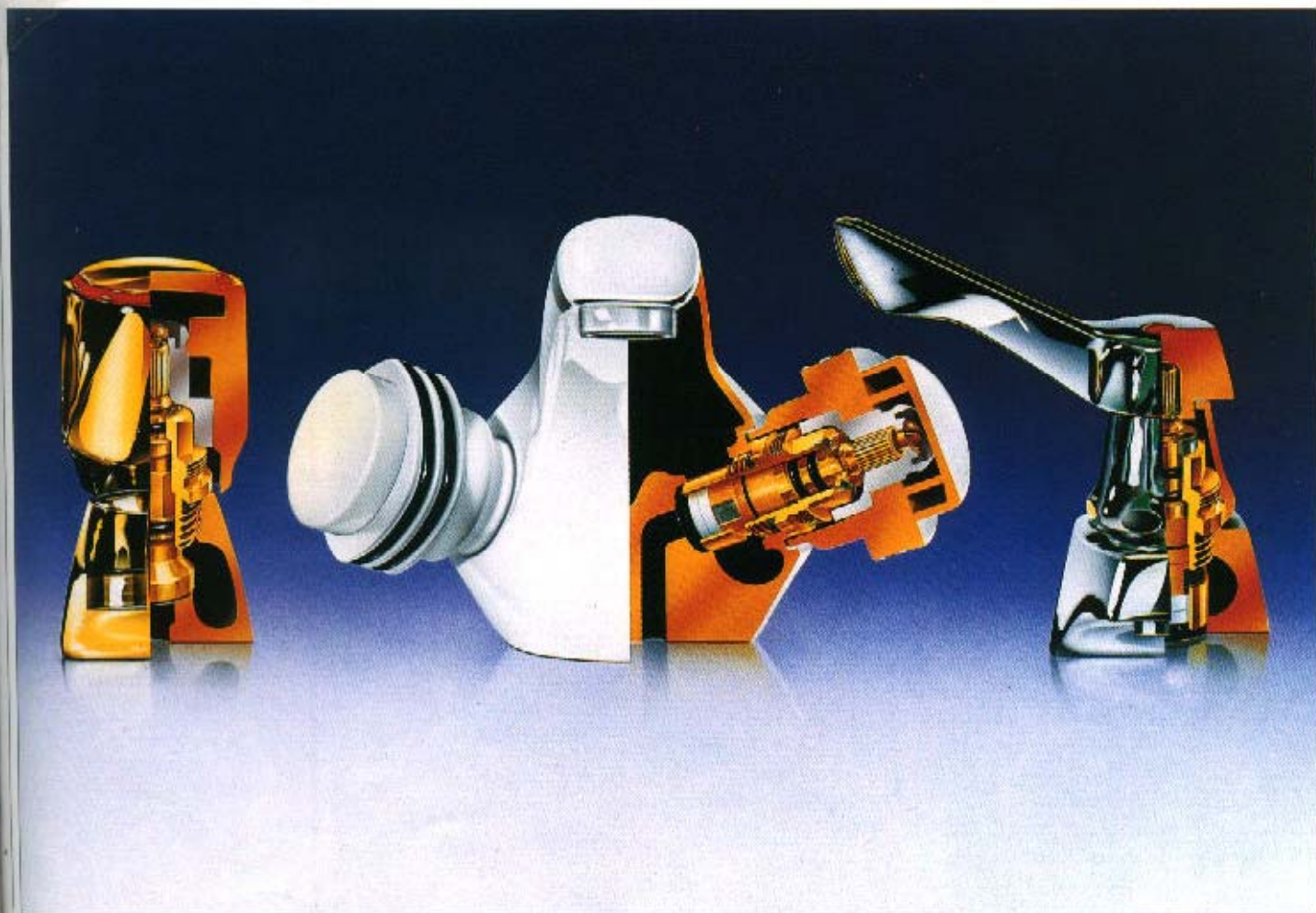
enamel finish and the one on the right has a chrome finish.

The majority of examples of air-brushed chrome finishes in illustrations can be found on vehicles, as demonstrated under TRANSPARENT (pages 98-115). However, while vehicles spend much, if not all, of their lives in the open and therefore the rendering of their chromed surfaces lends itself to reflections of horizons and the blue of the sky, this is not appropriate to objects seen inside. A compromise is therefore necessary, especially if, as in the

illustration reproduced here, no surrounding objects or surfaces are included. Under such circumstances the illustrator must resort to studio-shot photographs for reference, or, as is more likely, his or her skill and knowledge of how compound surfaces appear when reflecting nothing more than pure light and other parts of the same object. Such a technique may seem arbitrary in application, but if the finished result looks as intended, then success is achieved.

Techniques used on this illustration include FILM MASKING, LOOSE

MASKING, FREEHAND SPRAYING, LINING-IN and BLENDING. The background is a good example of ANGLED SPRAYING and GRADATED TONE. Worth special attention are the subtle reflections made by the sectioned part of the mixer faucet on the right. Soft, graduated reflections of the faucets are also visible on the surface. To give contrast between the warmth of the brass and the hard coldness of the chrome, touches of dark green have been applied to the latter.





Black-and-white faucets
John Brettoner

As a contrast to the full-color rendering of faucets, an example is given here of a similar subject rendered with an airbrush in black-and-white. In the foreground is a valve assembly, with two single faucets offset to the left and behind it. To the right is an enamel-finished mixer faucet.

Because the illustrator has only black, white and the various shades of gray obtained by mixing the two base colors, the airbrushing demands a high degree of skill in the understanding of shading, contrast and light and shadow. It also requires very careful planning to prevent one area from blending in with another or the objects seeming to merge. This illustration achieves all, with not one part being illegible or vague. It has been rendered using the same techniques as the full-color illustration, including the background, but with the addition of STARBUSTS in seven selected, and carefully thought-out, places. Soft-edged CAST SHADOWS sprayed with CRACKED TONES have also been used, which adds to the impression of the faucets sitting on a surface.

Laser-cut bread John Brettoner

Strong contrast between one material or texture and another is one of the distinct advantages of airbrush rendering as compared to hand-painting, where it can be difficult to achieve the same precision. With a considered approach and using the appropriate techniques, the effect can be quite stunning, as shown here in the definition applied to the robot's hand and a loaf of bread being cut by a laser beam. The robot's hand has been sprayed in what have become almost the traditional colors for rendering chrome, using FLU and LOOSE MASKING. In addition, reflections have been added to the hand where it is gripping the bread, and also from the laser beam. The addition of such reflections always makes an illustration look complete, but the illustrator must take care not to overdo them or place them in the wrong position.

Hand-painted and sprayed DOT HIGHLIGHTS have been placed on the hand and metallic base in positions reflecting the most intense light. These have not been used excessively, but just enough to add to the dramatic effect in the chromed finish of the hand and smooth surface of the base.

The loaf of bread combines brushwork with SPATTERING, which has also been used, in varying densities, to represent the starlit night. One star has been highlighted by the use of a STARBURST, DOT HIGHLIGHT and HALO. The laser beam is composed of a wide band of pink which has been LOOSE MASKED to give it soft edges, and then oversprayed with two thinner red lines within the pink.

Between the two red lines, an opaque white line has been drawn in, ending at the metallic surface with a large, freehand dot highlight. The final touches to this illustration are the ruled lines representing both highlights and linear detail (see RULING and LINING-IN).



CORRECTION TECHNIQUES

Errors and accidents are unavoidable; it is therefore necessary to devise quick and effective techniques which can rectify the situation without having to resort to a complete re-start. The example illustrated here, an irregularity in the spray quality, is a common mistake, usually the result of lack of control. Sometimes it is caused by dried paint particles being blown onto the artwork through poor cleaning of the airbrush.

**Over-spraying with White**

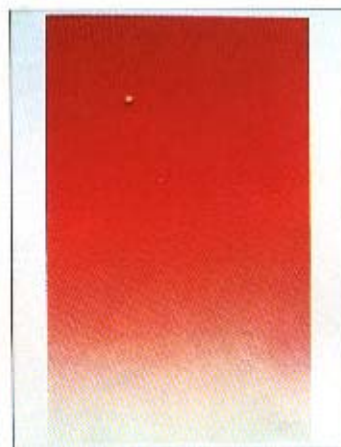
1 It was intended to produce a piece of artwork with smoothly graded color running from maximum strength of color at the top to a very soft and subtle strength at the bottom. However, it can be seen that a small but noticeable error has unfortunately been made in the lighter area of the spraying.



2 To rectify this mistake, opaque white is sprayed across the complete width of the colored area containing the irregularity, but gradating from the bottom to approximately the middle to maintain the original gradation.



3 To retrieve the required density of the tonal gradation, the area is resprayed with the original color after the white paint has dried.



4 When the mask is removed, the effect is of a clean area of graded color.

**Lifting Watercolor**

When correcting small watercolor-based areas of the artwork, cotton buds may be used to remove paint. If the color is fairly strong, it may be necessary to use quite a few buds, especially if the area requiring correction must be brought back to the white of the original surface. This method is not always effective when used on a textured surface, such as rough board-mounted paper, because the pigments become ingrained in the surface. It is best restricted to smooth, china-clay coated boards.

**Removing Color Bleed**

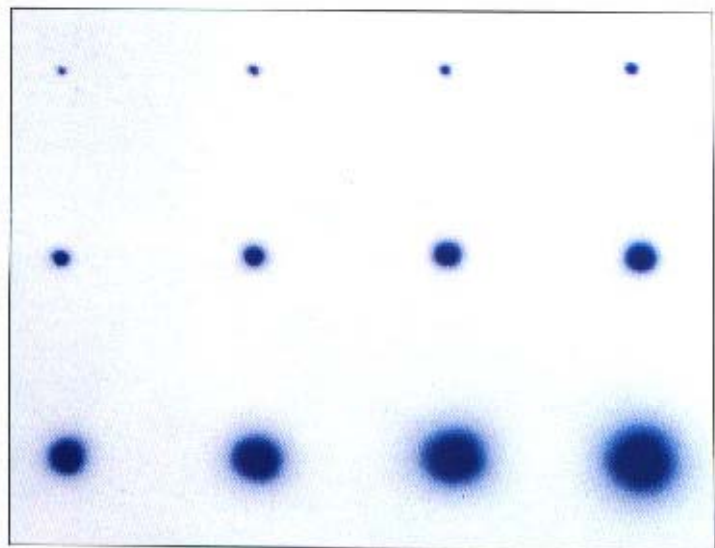
In this example the paint was sprayed on too wet. Consequently, color has run under the mask, resulting in an unsightly, ragged edge. On a smooth, hard coated surface, such errors are best removed with an art knife when the paint is thoroughly dry. Reference should also be made to the technique of SCRATCHING BACK.

DOT CONTROL

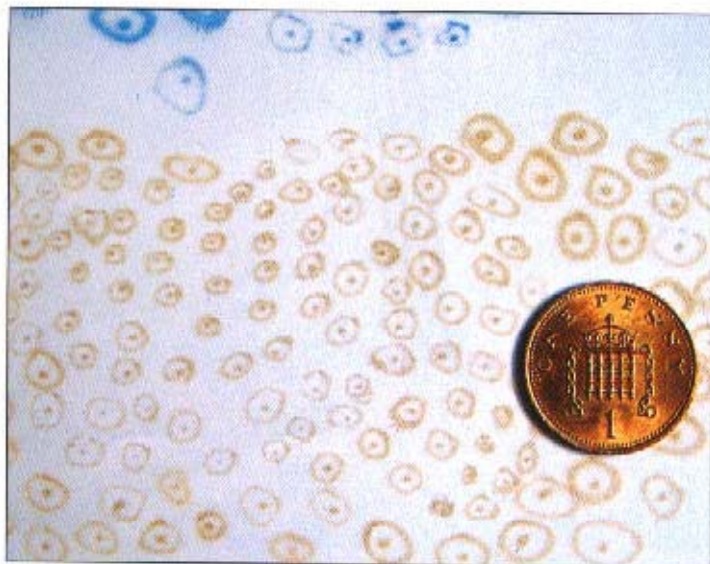
Many people, when first introduced to the airbrush, believe it is only capable of spraying medium or large areas and is not suitable for fine, detailed work. Plenty of dot control exercises will not only prove them wrong, but will also build up confidence and skill in using the airbrush. It is also good practice for applying sprayed dots as highlights to give sparkle to the finish of a detailed illustration. This technique is covered under DOT HIGHLIGHTS in the following section.



1 This shows a sheet of same-sized dots laid out in five horizontal rows. The control lies in attempting to achieve the same size and color intensity in each sprayed dot.



2 Here three rows of dots have been sprayed progressively from small to medium to large. As every dot in the sequence varies, this extends your control of the flow of medium and the distance of the airbrush nozzle from the board surface to achieve the right size of dot.



3 To increase control of the airbrush and both the air pressure and amount of paint allowed through it, these dots have been sprayed individually and encompassed in sprayed circles. The small penny coin gives a good indication of the scale of the original exercise.

DOT HIGHLIGHTS

The use of dot highlights is a particularly valuable means of adding that final, finishing touch to an illustration. Highlights must obviously be used only on those surfaces and on edges which would normally reflect light in such a concentrated way. They should appear as an integral part of the object and must always conform to the chosen direction of the light source.

**On a Curved Edge**

1 To pick out the edges on which light would be intensely reflected and also to enhance the contrast and three-dimensional quality of the scissors in this illustration, white lines have been scratched onto the handles. It should be noted that



these highlights are not short, blunt lines, but taper off toward the narrower part of the handles. This is important, because the highlights must appear to be on and part of the same surface, and not some distance away.

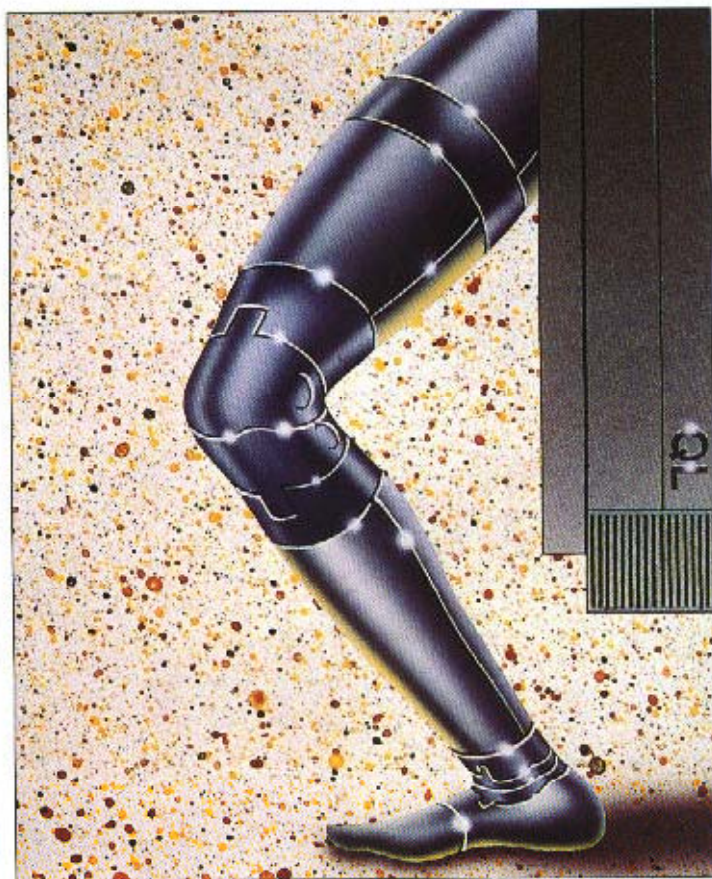
2 Opaque white dots have been applied with a brush in selected places on top of the scratched highlights. These are positioned at the point of the greatest light reflection.



3 Opaque white is then sprayed directly over the dots to diffuse the edges, although in some cases this may not be necessary.



4 The completed image, by comparison with the first stage in this sequence, shows how the more complex highlight detail adds luster to the finished image.

**On a Metallic Surface**

This example shows the application of dot highlights to the leg of a robot. These highlights are simply small

bursts of opaque white spray which give extra sparkle to the effect of polished metal.

Porsche and tanker
John Spiers

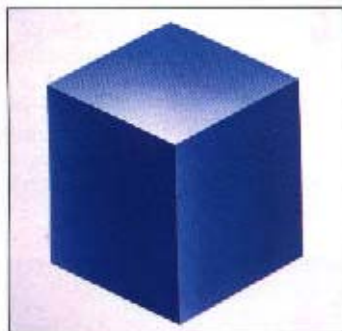
Dot highlights are most commonly used on static subjects, but this illustration demonstrates an application when speed and movement are to be shown. STARBURSTS would be effective highlights on those areas

where intense light would be reflected, but might tend to conflict with the sense of movement. In this example dot highlights have been used in the center of linear highlights, with soft-edged and loose-masked lines of opaque white leading from them in the opposite direction to that in which the vehicles are traveling.

Not only does this intensify the surface reflection, but the combination accentuates the feeling of speed. This makes an interesting comparison to the racing car shown on page 99. The body of the tanker is an interesting variation on the full-color chrome effects technique, with the addition of a reflection of the

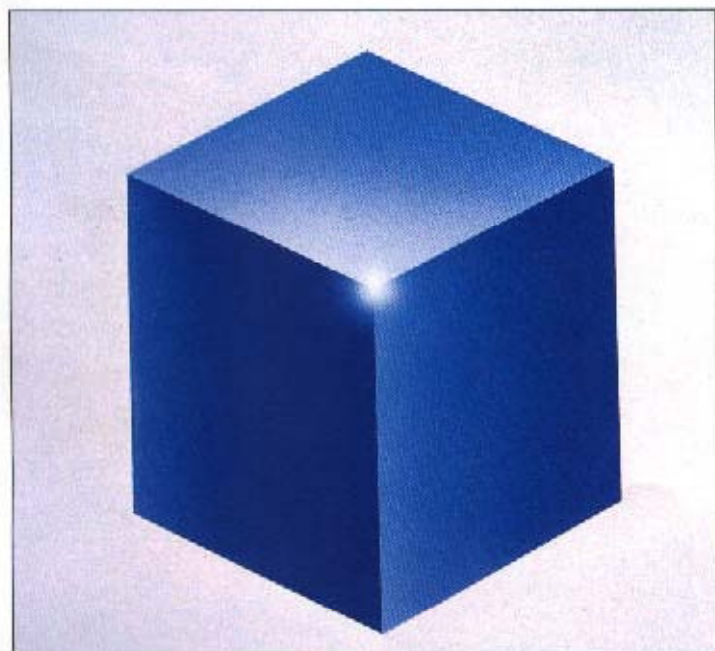
car passing it. The sky is an example of FREEHAND SPRAYING, while LOGGE MASKING has been used on the distant mountain ranges. SPATTERING has been used to establish texture to the ground surface and on the road.





On an Angled Edge

1 The basic cube has been sprayed with a high degree of contrast shading.



2 To enhance the contrast and to add glare, a dot highlight has been sprayed freehand on the nearest corner of the cube. The effect immediately makes the cube appear to be finished with a more reflective and brighter surface.

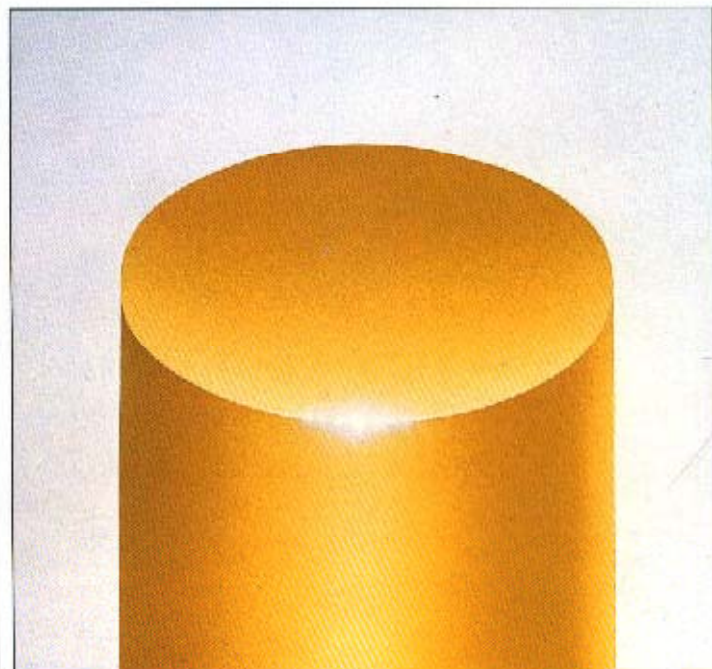


Multiple Dots

1 The upper part of a cylinder is shown before applying the highlights.



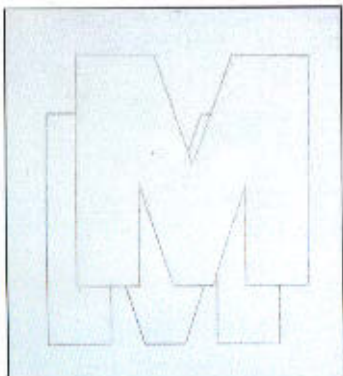
2 A number of opaque white dots have been brush-painted onto the leading edge; they are reduced in size as they get further away from the center of the highlight.



3 To diffuse the edges of the dots, the highlight is oversprayed with opaque white.

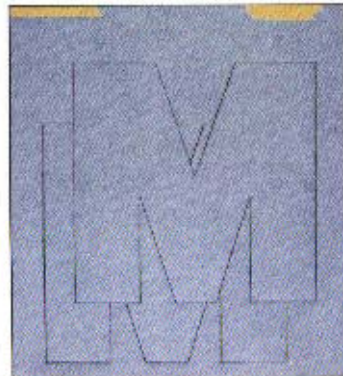
DROP SHADOW

Drop shadow is a method of using cast shadow to emphasize the principal object in an illustration, either in part or to throw the whole object into relief. The shadow areas can also be used to create the illusion of different levels. Refer also to **CAST SHADOWS**.



Using Masking Film

1 A sans-serif character "M" is used to demonstrate the drop shadow effect, and both the character and its shadow are drawn together in the required position.



2 The drawing is then transferred to the illustration board.



3 After covering the board with masking film, the character is cut out, the mask section hinged with drafting tape and pulled back to the top of the artwork. The exposed character is then sprayed using diagonally gradated, soft-edged stripes, to give a metallic effect.



4 The hinged mask for the character is repositioned and the shadow cut out. This is sprayed with a flat, even color to add contrast between the character and the shadow.



5 When the required depth of tone has been achieved, the masking film is completely removed, revealing the

crisp, hard-edged character and solid area of shadow.



Using Acetate

1 The same character "M" is used, but this time acetate is used as the masking medium.



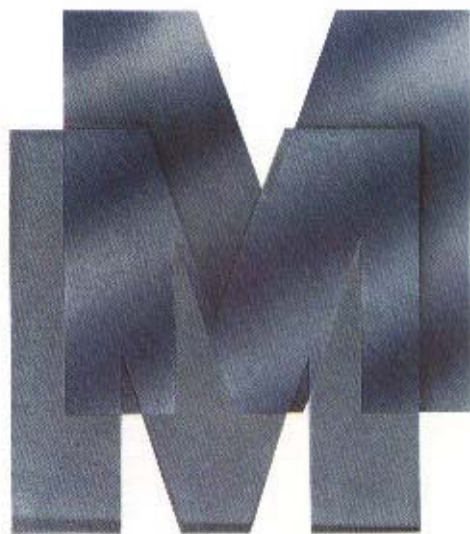
2 To maintain the exact shape in shadow form, an acetate mask is firmly placed over the drawn character and the shape accurately cut out.



3 The main part of the acetate mask protects the area surrounding the character, which is exposed for spraying, while the acetate mask of the character, after correct positioning, is hinged to the top of the artwork awaiting further use. The character is sprayed, following the same style as the masking film example (pages 40-47).



4 On completion of the spraying of the character, the larger part of the acetate mask is removed and repositioned downward and to the left for the spraying of the shadow.



5 The hinged copy of the character is repositioned to protect the exposed areas of the sprayed char-

acter, and the drop shadow area is sprayed with an even tone.



6 When both acetate masks have been removed from the artwork, it will be noticed that because acetate is non-adhesive, the drop shadow

has acquired slightly soft edges. In some cases this effect may be preferred to the hard-edged finish obtained by using masking film.



Oyster
Pete Kelly

An effective drop shadow has been included here. It serves to increase the contrast between the lower half of the shell and the shadowed tone of the backdrop.

ERASURE

This is a general heading referring to the use of erasers, both solid and the pencil type, which may be used for corrections and for applying highlights to specific areas of the artwork. This technique is usually only successful when applied to illustrations which have been sprayed onto a hard, smooth-coated board, of the type commonly used in the preparation of ink-line drawings. Furthermore, it is best applied to illustrations which have been sprayed with watercolors. This is because the surface layer of sprayed watercolor paint is extremely thin. On gouache and acrylic sprayed surfaces, there is more chance of damaging the surrounding color, and therefore overspraying with opaque white is far better and less risky.

As a correction technique, erasure should be limited to small areas. When used to create highlights, a hard, pencil-type eraser is by far the best, because it is possible to maintain a reasonably sharp point on the rubber core which will give greater control. The finish varies according to the amount of paint removed. This could range from complete exposure of the white of the board, to very subtle highlights such as would be seen on matte or unmachined surfaces. With care, the pencil eraser could also be used to enhance contrast, especially when much of the difference between the lights and the darks has been lost by excessive color application.



1 In this example a sphere has been sprayed, with a dull highlight to represent a non-polished surface.



2 At the natural position of the highlight, the color has been erased with a circular motion using a pencil eraser. It will be noted that the amount of paint removed at the extremities of the highlight is decreased, so that the highlight fades into the base color.

FABRIC MASKING

There are occasions when traditional methods of rendering textured surfaces with an airbrush are not as effective as one would hope. The use of medium- to coarse fabric opens up additional opportunities which, when applied to an illustration, will give a surface texture not necessarily identifiable with the fabric used. Some do reproduce the distinct fabric weave, and therefore experimentation is advisable before applying a fabric mask to finished artwork, unless, of course, the intention is to represent the specific effect. Besides testing a piece before use, it is also worth keeping samples of both the fabric and the spray effect from it for future reference.

Types of fabric suitable as masking materials are those which have an open weave to allow the sprayed color to pass through and between the fibers. The texture may be applied over large or small areas, which in themselves can produce additional variations of form and contrast. The material need not be used just because of its texture, for the frayed edge of torn fabric also offers a characteristic result. A form of repeat pattern could be applied using, for example, a figured open-weave as seen in old fashioned glass curtains, or indeed the many types of lace which are available.

A background texture can be applied over the artwork before the object or subject itself is sprayed. Naturally this requires the principal part of the illustration to be sprayed in an opaque medium in order to prevent the base texture from showing through. Small, controlled areas may be sprayed by overlaying the fabric on top of a previously cut piece of masking film.



1 In this demonstration of fabric masking, a piece of fine-weave embroidery fabric has been used. The resulting sprayed texture is a fine-grained, but even finish.



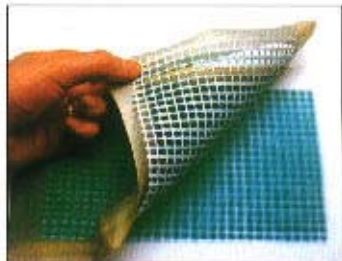
2 Masking tape is used to secure the fabric around all four edges, which also allows the finished artwork to be contained within straight, hard-edged borders. Here a piece of needlepoint canvas has been used, giving a more open and coarser-grained finish.



3 This example shows the effect using a tighter embroidery canvas, which on a large area remains even and regular. When used on small irregular shapes, with the spraying restricted to specified areas, it will appear more random and have a less obvious connection with the original fabric texture.



4 Loose cotton scrim has been used here, giving a more random effect.



5 A simplified checked or grid pattern is the result when spraying through rug canvas over a large area.

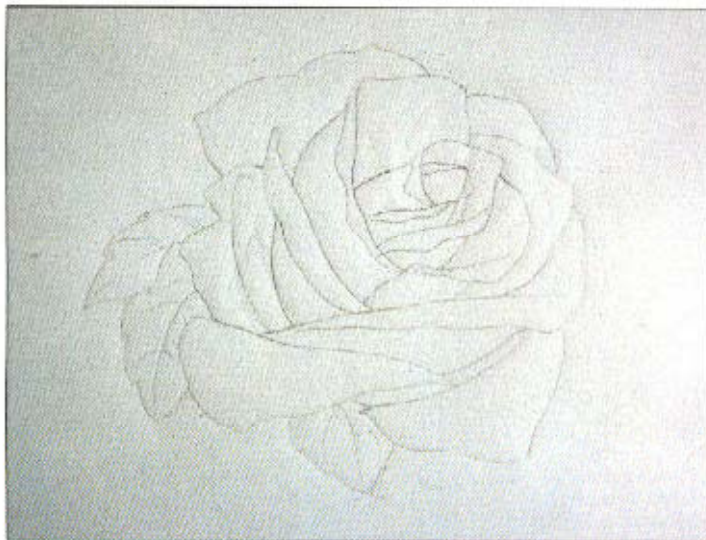
FILM MASKING

The use of transparent, self-adhesive masking film in airbrushing is the most popular method of protecting areas of the artwork which are not currently being worked on. Masking film is available with either a matte or a gloss finish and is supplied on a protective backing sheet, which can be used to save cut masks likely to be needed again. The adhesive on the film is low-tack, allowing masks to be placed over a clean or previously sprayed surface and subsequently lifted without damage to the underlying material.

Because the film is transparent, it allows those areas covered to remain visible, which is extremely useful when judging the strength of color and shading against those areas already sprayed. It is also possible to remove excess and residual paint from the film by carefully wiping over it with a damp cloth, tissue or absorbent cotton, without damaging the artwork or the area exposed for spraying (this of course applies to paints which remain water-soluble after drying).

When using masking film, always cut it with sharp, new blades, as old ones quickly lose their edge and tend to tear the film rather than cut cleanly through it. Gentle but even pressure is required when cutting, to avoid scoring the artwork.

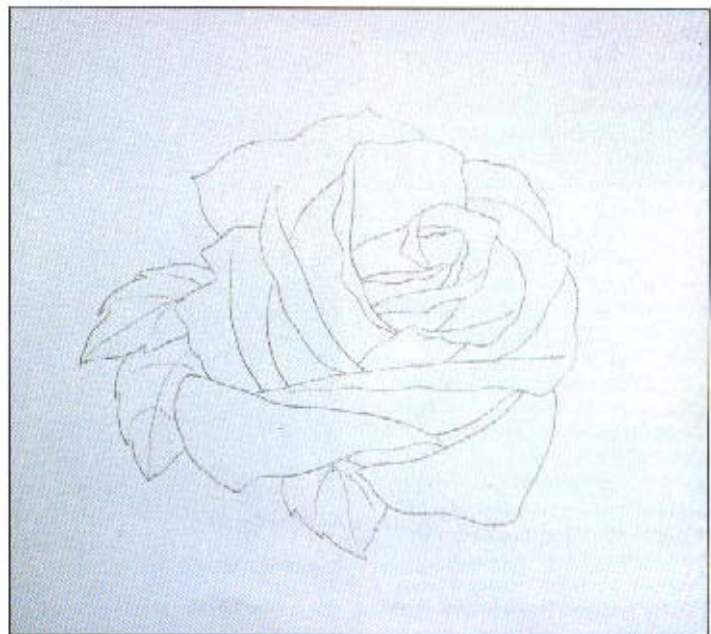
In the two examples given here, particular note should be taken of the sequence used in applying the tonal ranges; they are not the same for transparent watercolor and opaque gouache. With a transparent medium, the depth of shade and color is built from dark to light by overspraying transparent layers; with the opaque medium, color mixes are made independently, and light colors can be sprayed over dark if required.

**Watercolor Medium**

1 To demonstrate a reasonably complex example, a rose is used as the subject matter. First, a drawing is prepared on detail paper, as shown



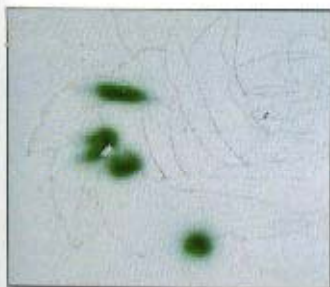
2 The drawing is then transferred to board using graphite paper or jeweler's rouge.



3 The transferred drawing on the board must consist of very faint guidelines, as they will not be completely obliterated when a transparent medium is used.



4 The artwork is covered with masking film and all lines describing the leaves are cut into the film.



5 The spraying sequence begins with removal of film from the leaf sections which will have the darkest shade.



6 The medium tones of the leaves are now sprayed. Mask sections cut along the lines of the leaf veins are removed in sequence to give hard-edged areas of tonal gradation.



7 The final parts of the leaves to be sprayed are the lighter shades. At this stage, all the masking on the leaves has been removed and the lighter tonal gradations are executed freehand.



8 On completion of the leaves, all masking film is removed and a new piece is laid over the whole of the artwork. All lines surrounding the petals of the rose are then cut into the film.



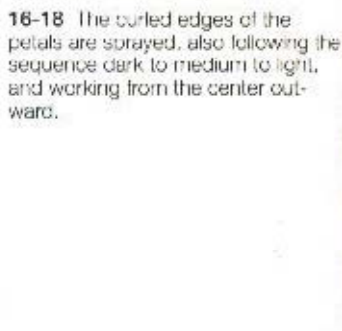
9 The sequence for the rose follows the same pattern applied to the leaves, working from the darkest shades first, followed by the medium

and then the lighter ones. In the first stage, dark shades are sprayed in the upper part of the flower.



10 The tonal values and form are built up with the spraying progress

ing from the furthest petals to those in the foreground.

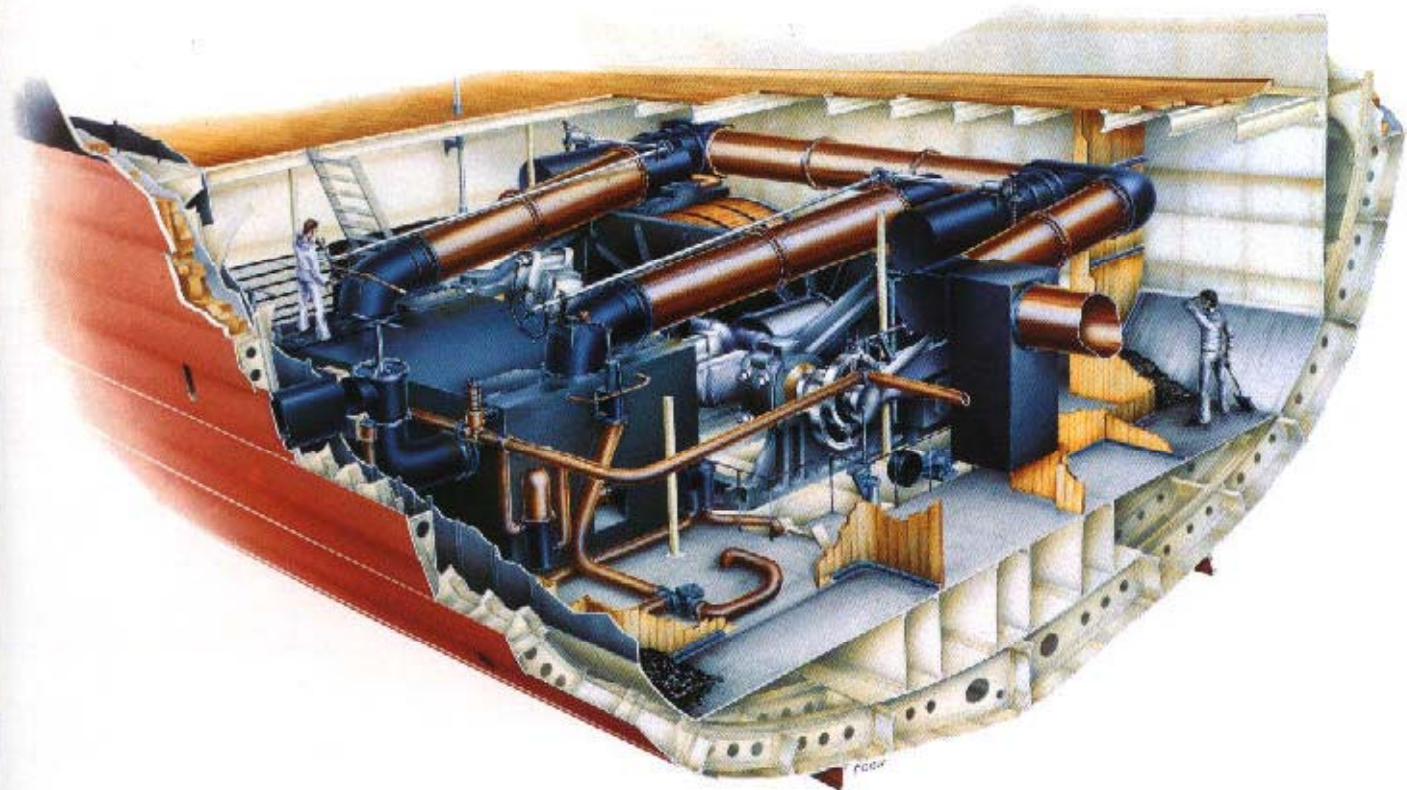


11-15 The process is continued, with the mask sections filled in sequence to allow development of the medium and light shades.

16-18 The curled edges of the petals are sprayed, also following the sequence dark to medium to light, and working from the center outward.



19 Finally, the remaining masking film is removed from the artwork, revealing a crisply defined rose.



HMS Warrior's engine room, 1861
Gary Cook

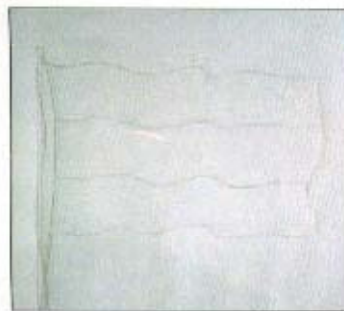
This three-point perspective illustration is a reconstruction of the engine room of the world's first iron-built warship, HMS *Warrior*, and was commissioned for the book *The Immortal Warrior*. The purpose of the illustration was to explain the layout and arrangement of the engine and condenser in relation to that part of the ship's hull structure which contained them.

The drawing was constructed on tracing paper using copies of the original Admiralty as-fitted drafts from the British National Maritime Museum as reference. It was then transferred onto CS10 board, which is a hard, china clay surfaced board ideally suited to both airbrush and ink-line work. The illustration was rendered primarily with the airbrush using transparent and opaque watercolor. Self-adhesive masking film was used throughout, with the exception of the bands of tone run-

ning along the copper steam pipes, for which cut paper (see UCCG MASKING) masks were used. UNING-IN was completed using a ruling pen and a fine sable brush.

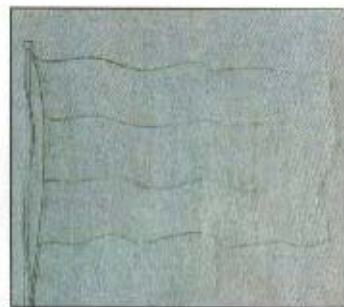
Because of the limited number of colors used to paint the engine room itself, great care was needed when spraying to maintain both the contrast and the different planes of the casings for many of the engine components, and the white structural details. These two important areas are basically black and white

respectively. It was therefore decided to omit strong cast shadows, using darker shades only to aid legibility. In addition, enough contrast had to be shown between the matte or rough-surfaced casings, painted black on the original, and the polished copper steam pipes. For the former, subtle GRADATED TONES of blue black were used, while for the pipes the white of the board was allowed to show through the transparent color, increasing the strength of the highlights.

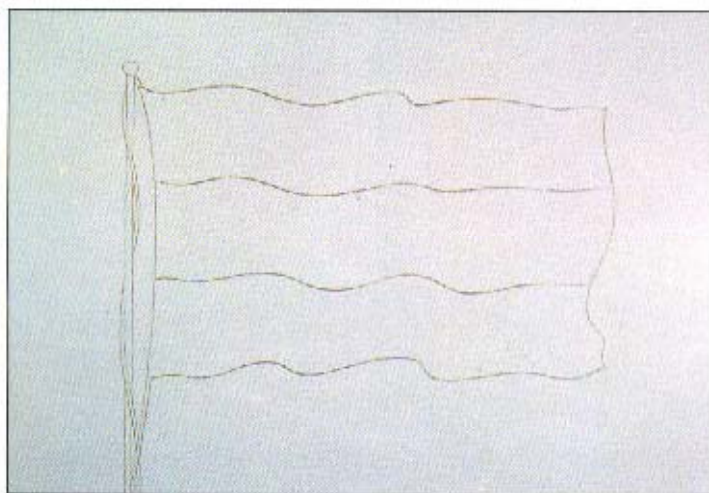


Gouache Medium

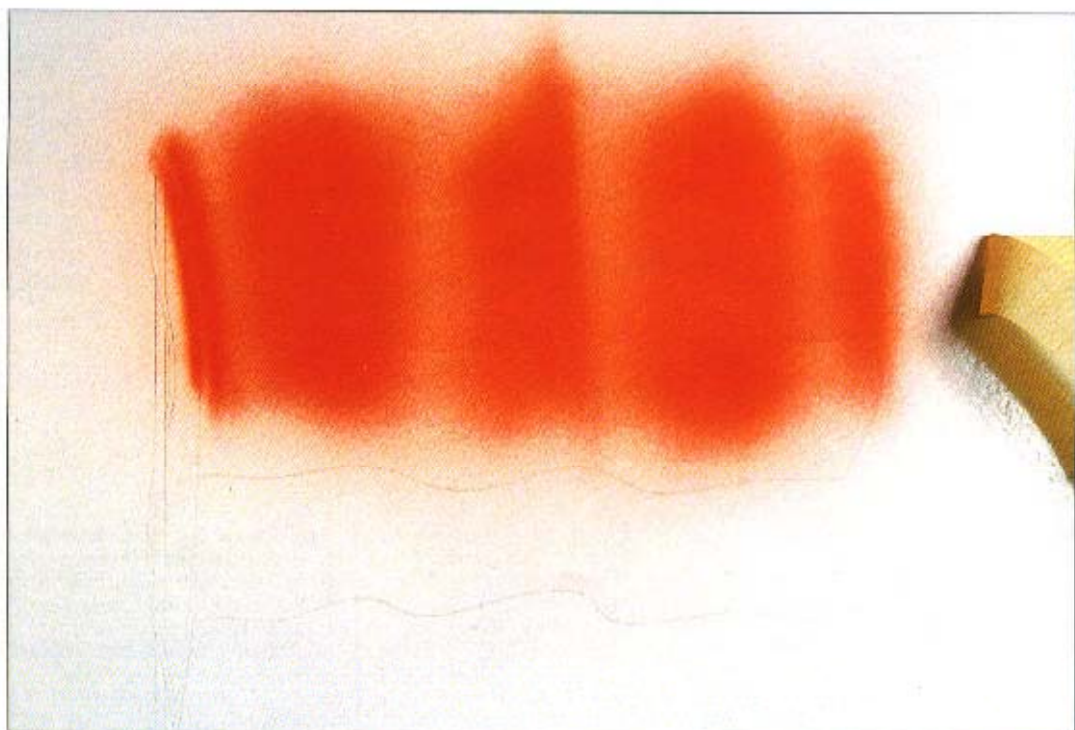
1 The intention here is to produce a piece of artwork showing a flag with movement. This is drawn first in pencil on detail paper.



2 The drawing is transferred to board using graphite paper.



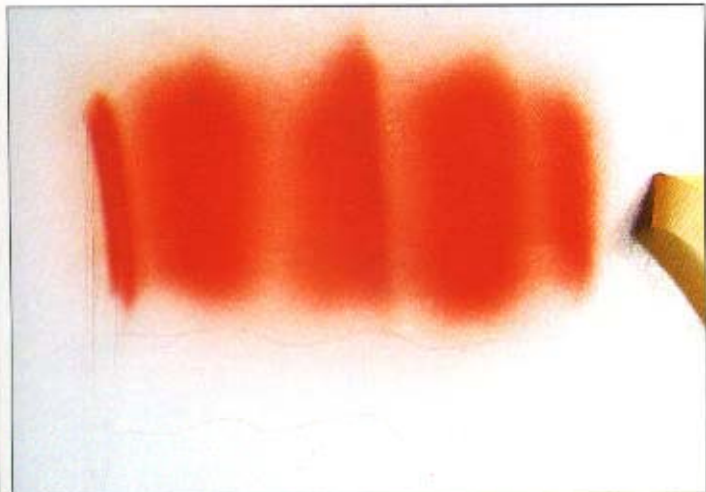
3 Both the detail paper drawing and the graphite paper are removed, showing the transferred drawing of the flag. The lines in this drawing will be gradually concealed by the spraying, due to the opaque quality of gouache.



4 A piece of masking film, sufficient to cover the image and surrounding area, is placed over the artwork, followed by cutting of all lines of both the flag and staff. The mask section

on the topmost horizontal stripe of the flag is hinged with drafting tape, lifted off and pulled back to the right. The exposed area is sprayed in a medium shade of red. This is worked

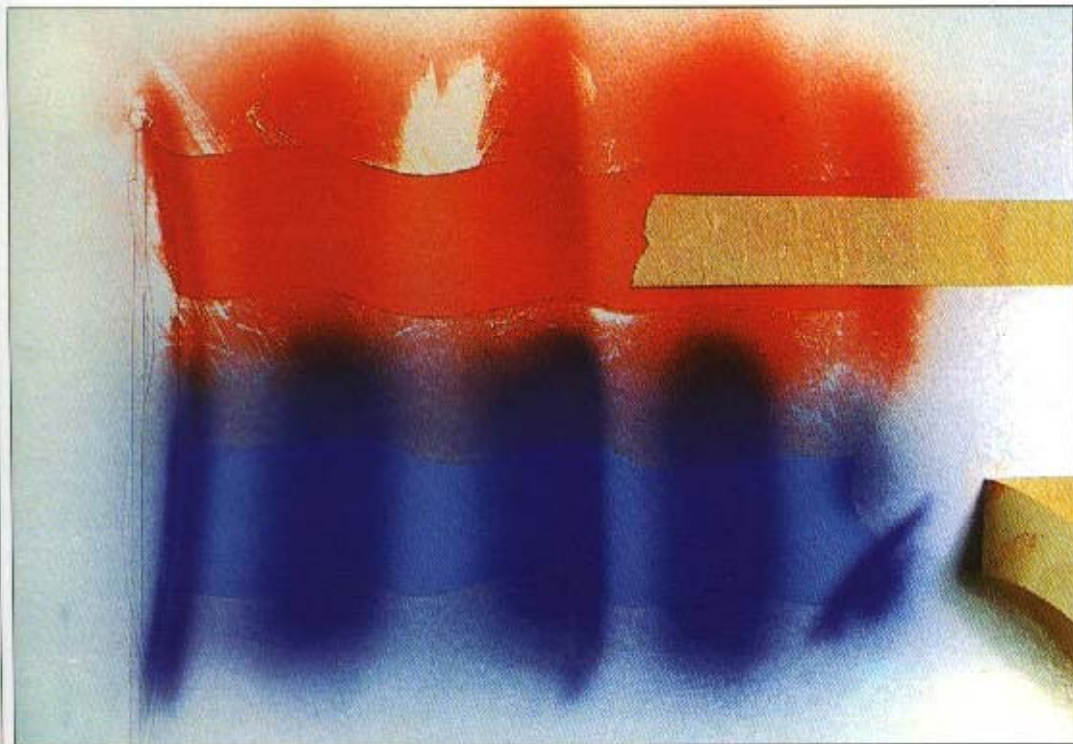
as vertical bands of color, allowing residual spray to create areas of lighter shades.



5 A darker shade of red is over-sprayed next, increasing the contrast.



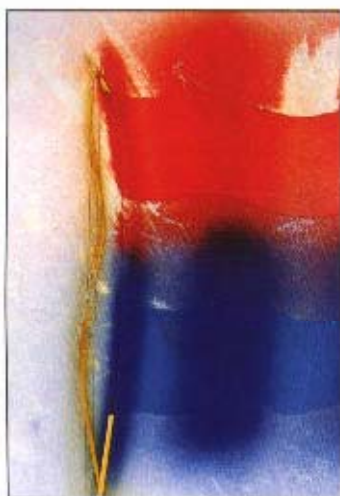
6 The mask for the first stripe of color is replaced, and the lowest stripe is hinged, lifted off and pulled back to the right. This is then sprayed in blue to create the medium-strength and pale tones.



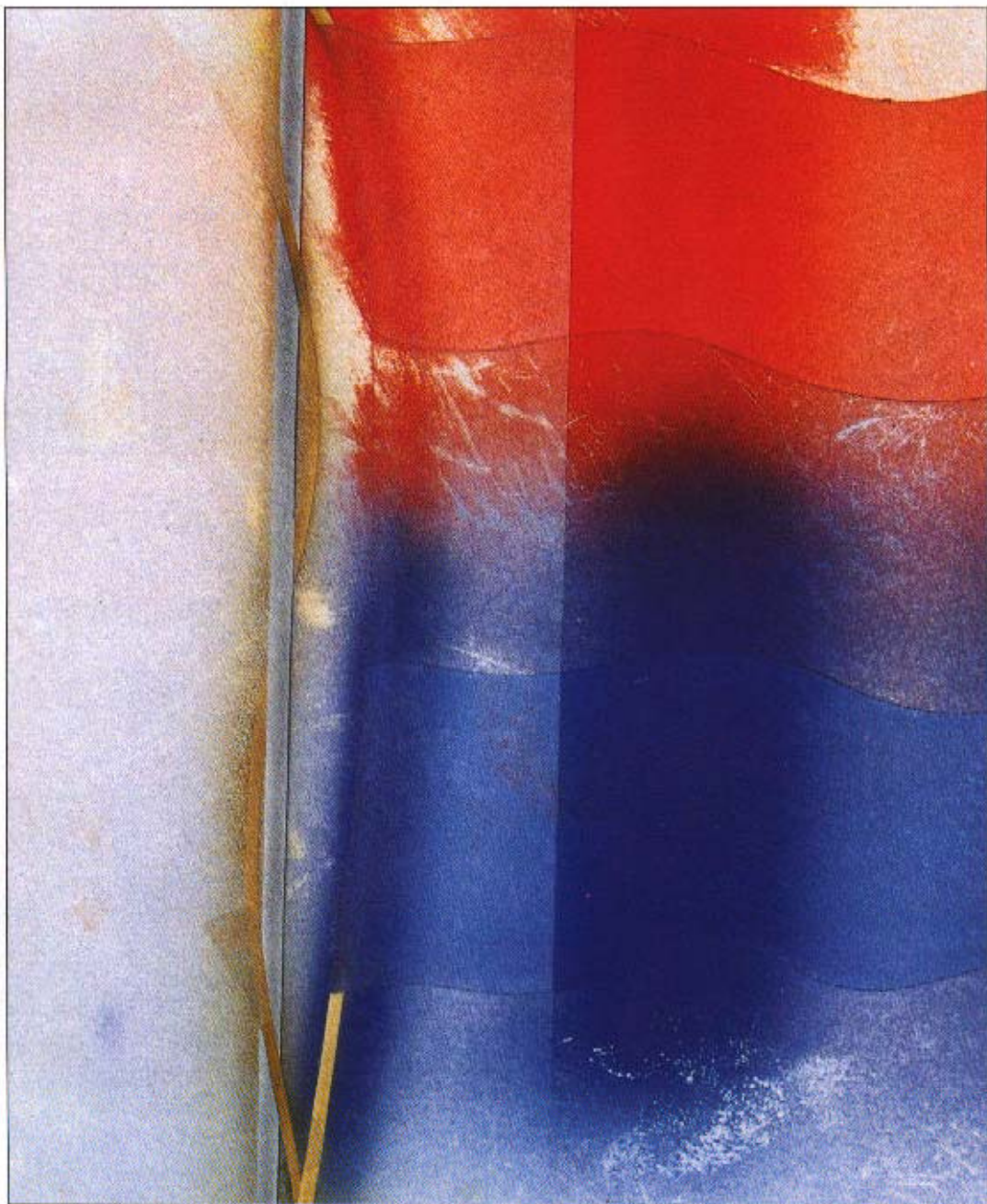
7 The darker shades are over-sprayed, following closely the pattern established with the first stripe.



8 The hinged mask for the lower stripe is replaced, and the first part of the rope haliard is exposed and sprayed.



9 The second part of the rope, nearest the observer, is next to be sprayed.



10 All of the rope is now re-masked with transparent tape, following which the fagpole is unmasked and sprayed in the appropriate color.

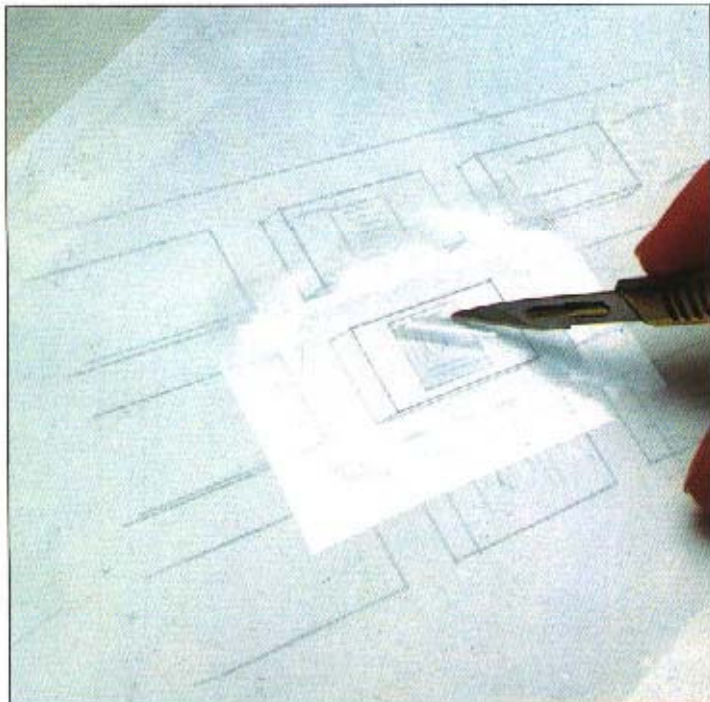


11 The pole is re-masked with transparent tape and the white, middle stripe of the flag is exposed, together with the red and blue stripes. A blue-gray gouache mix-

ture is now sprayed over all three stripes in vertical bands, bringing the three colors together and adding a continuous depth of tone to the whole flag.



12 The masking film is removed, exposing the finished artwork.



Double Masking

Self-adhesive masking film is expensive. It can be wasteful to use film to cover a large, extensive area of the artwork, especially if the section being worked on is only a small part of the whole. To avoid wastage, detail paper or cartridge paper can be used to protect the majority of the artwork from residual spray, with film being applied only to the relevant area of detail. It is important to cut a hole in the paper larger than the area to be sprayed, because sufficient space must be given to allow the masking film to stick to the art-

work. It is a widely used technique and may be applied to many of the other techniques of masking and spraying described elsewhere in the book.

This photograph shows the application of double masking. A small square section is to be sprayed. The artwork has been covered with paper with a rectangular hole cut in the appropriate place. Masking film has then been overlaid and the required shape cut out.



Datapost Ford Escort RS 1600i
Paul Shakespeare

This large illustration, measuring approximately 71 in x 59 in (178 cm x 148 cm) was originally commissioned by Datapost to advertise both the British postal service and its racing team. It was produced with the close cooperation of the racing team managers, the Ford Motor Co. Ltd. and Richard Longman Racing, the organization responsible for converting the basic Escort model into a racing car. The brief specified that the illustration should show those areas of the car which did not conform to a standard production model, which explains why only limited areas have been cut away. The illustration was eventually purchased by The Patrick Collection,

Birmingham, England, where it is now on display in this privately-run museum.

Once the pencil drawing was completed, it was transferred to a semi-smooth surfaced watercolor paper which had been dry-mounted on masonite. This proved unsatisfactory as a vehicle for airbrush rendering, because the fibers of the paper would lift whenever the masking film was removed. It was finally decided to photograph the original pencil drawing, from which a large, gray-line print was made and dry-mounted on masonite. This gave a sound and smooth surface on which to airbrush, although great care was needed when cutting masks to prevent the knife from cutting too deep and thereby damaging the lamination of the photographic paper. A

particular advantage of spraying on photographic paper was the ease with which it was possible to remove any color that had run or small mistakes (see CORRECTION TECHNIQUES). Because gouache, which is water-based, was the principal medium, the surface could be cleaned using surgical cotton. This left the surface in its original condition for respraying.

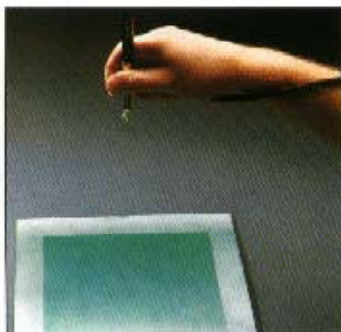
No particular problems were encountered in the spraying process, which began with those areas furthest away from the observer and within the cutaway sections. The body of the car, with the exception of the lettering, numbers and stickers, became, to all intents and purposes, a black-and-white study. This meant that when applying color, greater control was required to ensure the

shape was not lost and the contrast was maintained, with reference being constantly made to areas already sprayed. The tonal values on the body of the car and the lettering had also to be kept in relation to each other, especially where they changed direction and were therefore affected by changes in the amount of light reflected on them.

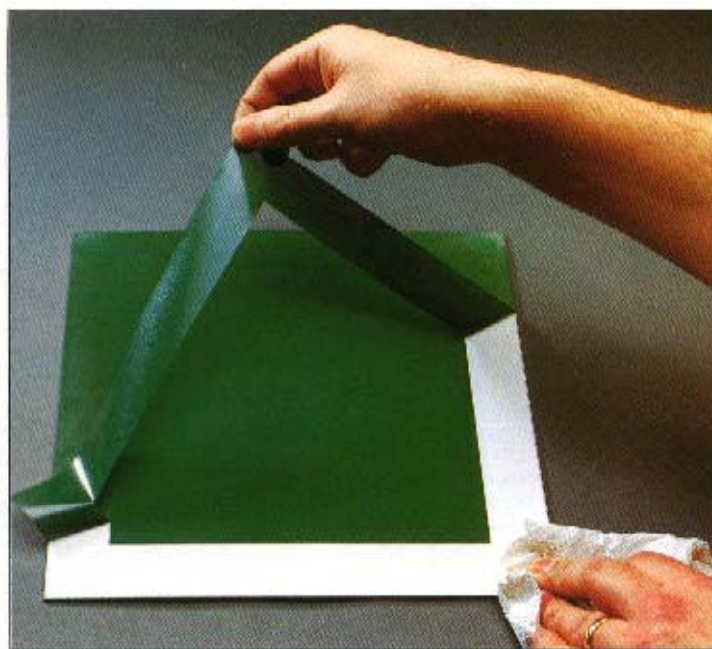
The areas normally visible through the windows were sprayed with the same strength of color as the rest of the car. When completed, the windows were oversprayed using opaque white, but keeping the density light so the effect is semi-transparent. This has had the effect of knocking back what is seen through the windows.

FLAT TONE

While it is perfectly possible to apply an even, flat shade of color by hand, much practice is necessary before the results are acceptable and without blemish, especially when using watercolor on gouache. The airbrush simplifies this process, although it still requires practice when applying flat shades of color which need to be transparent or translucent. When applying transparent watercolors with the airbrush, it is essential that the air pressure and amount of paint allowed through the airbrush remain constant, to prevent stripes from appearing. The distance the airbrush is held away from the artwork must also remain constant to avoid variations in tonal value. However, the advantage of being able to overspray any imperfections does give the airbrush the edge over hand-painting. As a technique, the application of flat tone is directly related to GRADATION and as an exercise should come before it.



1 The area to be sprayed with a flat tone has been masked and the spraying proceeds from the top to the bottom, passing the airbrush from side to side over the masked area. It is always advisable to start and finish the spraying on the masking film, as this ensures that the color is laid evenly at the edges of the masked shape.



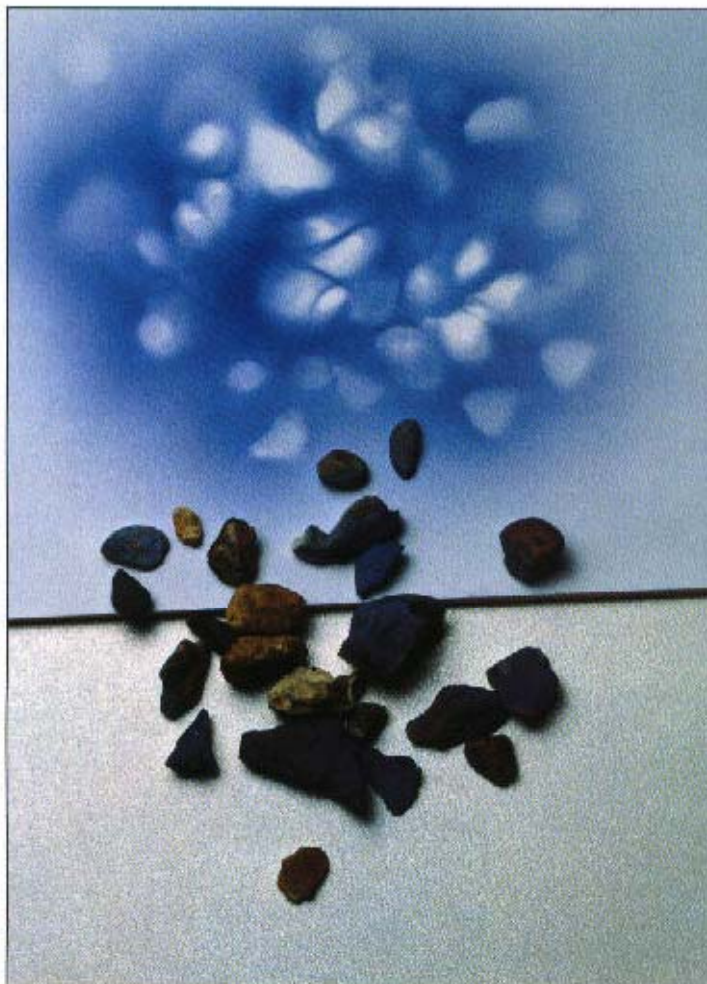
2 Color is gradually built up following the same process until the required density has been achieved. A useful method of maintaining an even, flat color is to turn the artwork 90° after each layer of color has been sprayed. This also helps to avoid or cover up any stripes which may appear due to irregular spraying.

3 On completion, carefully remove the masking film.

FOUND OBJECT MASKING

The function of all techniques in airbrushing is to arrive at a given result. The technical means of achieving these results is unimportant if the illustration itself is successful. It may therefore come as a surprise to some to find natural and indeed manmade objects being used as masks for spraying. They open up an incredible variety of textures and images which can be put to good use in illustration. The following demonstrations are just a small sample.

When collecting sample objects, especially natural ones, always make sure they do not hold dirt or dust. Besides damaging and marking the surface of the artwork, some dirt might get ingrained, which would deaden the freshness and vitality of the finished artwork.

**Stones**

A collection of stones has been laid on the artwork and then over-sprayed. The photograph shows the stones after they have been removed, with the effect on the artwork being apparent at the top of the picture. With practice, and possibly by making a test sheet first, you may find that the stones can be placed in set positions to achieve a particular pattern or texture.

**Twigs**

The use of this twig as a mask has produced an effect similar to old leather or, possibly, marble veining. It would be impossible to simulate this effect by more conventional means.

**Leaves**

In this photograph a leaf has been used as a mask. Its jagged outline produces a random repeat pattern.



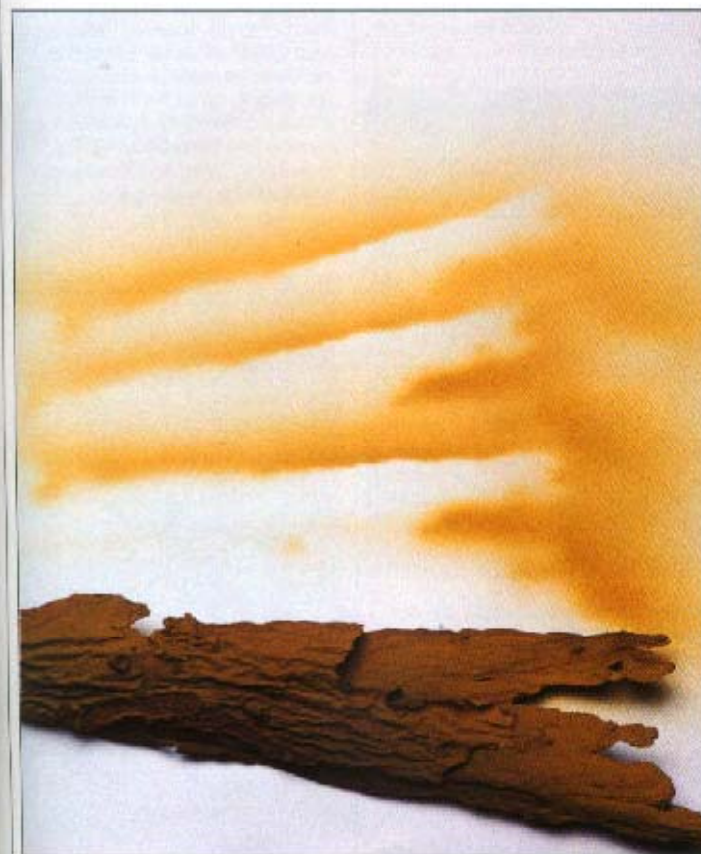
Branches

A piece of pine branch is shown with the repeat pattern achieved by moving it across the board and overspraying to build up the texture.



Feathers

A subtle and delicate effect has been achieved with a feather. Because of the light touch of the airbrush spray, it is possible to reproduce even such a fine texture quite accurately.



Bark

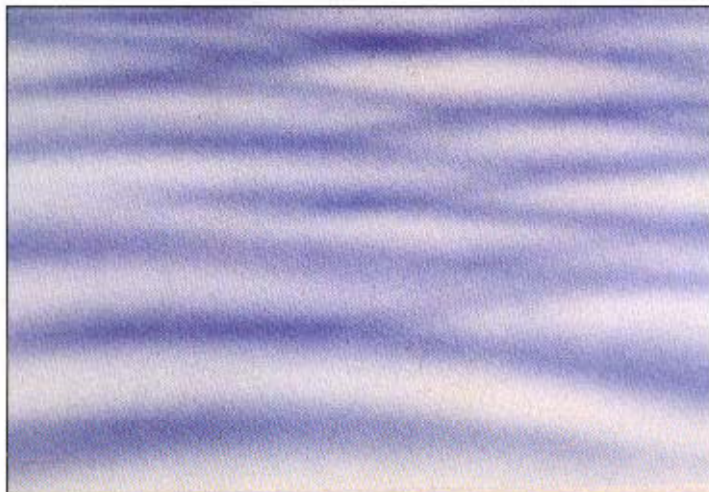
A strip of tree bark has been used here, and by slightly moving it on a pivot from the left, a repeat pattern is achieved which appears to fan out gradually. The spraying has been restricted in this example to the top edge of the bark, which gives a more interesting silhouette.

FREEHAND SPRAYING

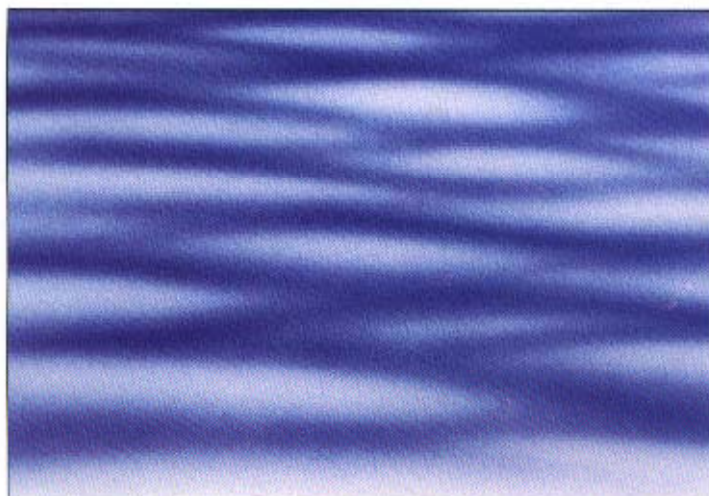
This is a technique requiring much practice before it can be used effectively on finished artwork, because, as the title suggests, no masks are used to aid the illustrator and all control lies in the hand. It is a skill which should be acquired because there are very few occasions in illustration when some application of freehand spraying is not needed. Some illustrators have developed freehand spraying to such a high degree that all of their work is produced this way. However, freehand spraying will always give a soft edge which is not necessarily compatible with all subjects, and it is more general practice to work with masks which define individual shapes, but to use freehand spraying to develop form and detail within the masked areas.



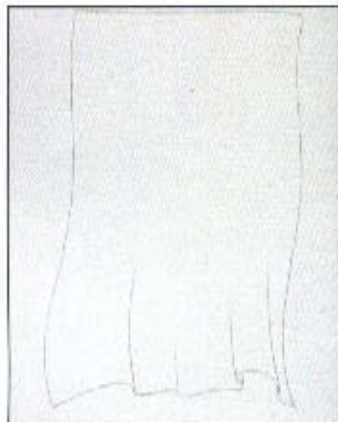
1 Here the illustrator is demonstrating a wave effect by freehand spraying. The initial spraying is light and it is essential that the control of the airbrush flows easily in the required general direction, in this case horizontally.



2 The depth of color is gradually built up evenly from top to bottom.

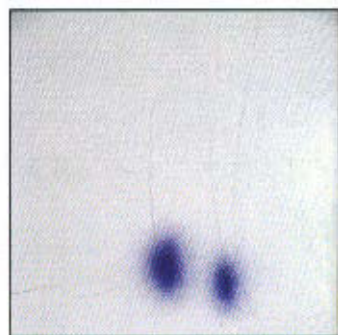


3 The completed example shows how the interwoven lines have built up a complex tonal effect.

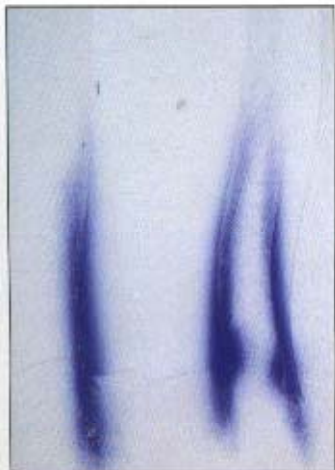


Freehand Spraying Within a Masked Shape

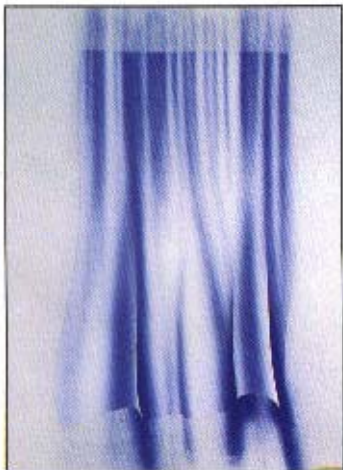
1 A neat and clean pencil drawing representing fabric is prepared, keeping the detail to a minimum. This could be drawn on detail paper first, which allows for corrections to be made so that the shape looks convincing, or, as here, straight onto the board for spraying. Whichever approach is used and after the drawing is completed, the board is covered with masking film.



2 The first stage in the spraying sequence is to remove film from the two hard-edged shadow areas formed by the deep inner fold of the fabric. These two shapes are sprayed with dark shades.



3 The masking film is then partly cut and removed in order to spray those areas of the fabric which require part hard-edged shadows, but which do not extend to the full depth of the drawing. It should also be noticed that in these areas and opposite the hard edges, the shadows gradate quickly to the white of the board.



4 The remainder of the masking film covering the fabric is now removed, and the freehand spraying begins by building up the soft tonal areas. As this progresses, the impression of flowing fabric will slowly increase. Because of the very nature of manipulating and controlling an airbrush, it may well prove easier if the artwork is turned 90°. This is because a directional spray running from left to right allows more natural movement of hand and arm than from top to bottom. When following this exercise, great care should be taken to ensure that the tonal gradations soften at the appropriate points, otherwise, the completed image will lack subtlety.



5 The tones and shadows to accentuate the "feel" of the fabric are built up in a freehand style.

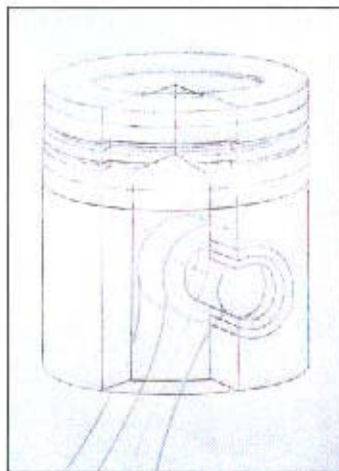


6 When the required depth of shade and strength of color have been reached, it is then necessary just to remove the surrounding masking film to reveal the finished artwork.

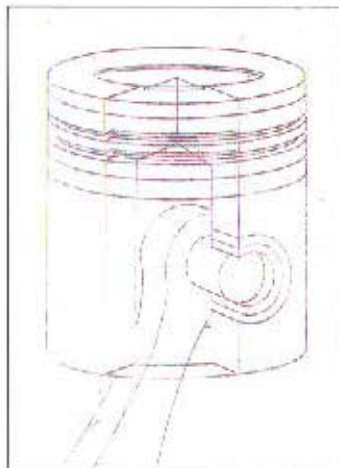
GHOSTING

When it is important to show the complete exterior shape of an object, but also selected internal shapes within it or behind it, ghosting is used. It is particularly used in technical illustration when descriptive three-dimensional drawings are being prepared. For example, a brief might require a complete cutaway view of a complex new four-stroke engine, but because of the compound form of the cylinder head, cylinder block and sump casing, the engine would be unrecognizable unless enough information was included of the exterior; it would therefore be practical and desirable to include ghosting. This would enable the engine as a whole to be understood, as well as the workings and design of the interior, or those areas not normally visible.

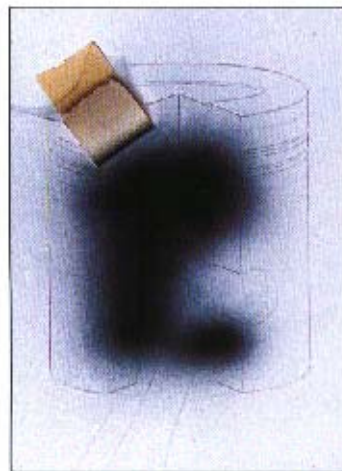
In application, ghosting relies on subtle color and shading changes which will not adversely affect the exterior in preference to the interior, or hidden object, and vice versa. Careful planning in the sequence of spraying is also a necessity, both to prevent unnecessary extra work and to avoid creating an image that is almost illegible on completion.



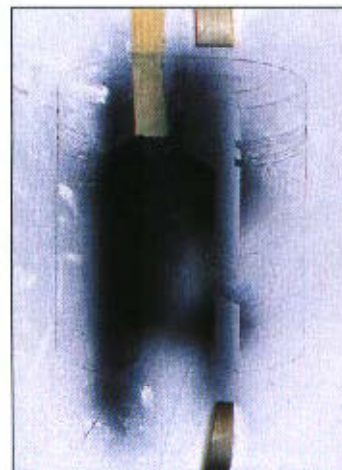
Ghosting Over a Section Cutaway
1 The form of a piston, its gudgeon-pin and part of the connecting rod is drawn on detail paper, with the location and shape of the cutaway area clearly indicated.



2 The drawing is transferred to illustration board and covered with masking film.



3 The masking film covering the inside surface of the piston, made visible by the angle and position of the section cutaway, is cut and hinged to allow for these areas to be sprayed first, as they are represented in heavy shadow, and therefore contain the darkest shades.



4 After cutting the mask to expose areas of the medium shades, these are sprayed, allowing for a reflected highlight to remain toward the inner edge. This represents the left-hand face of the cutaway. When spraying vertical sections, it may be easier to turn the artwork 90° so the airbrush can pass horizontally across the surface.

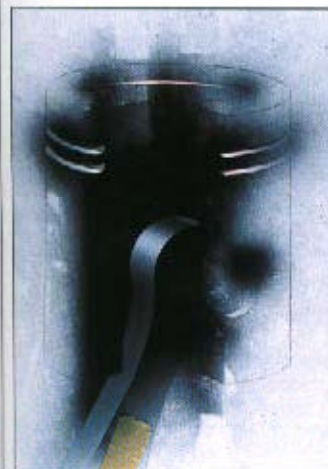
5 The same process is completed for the right-hand face, but now the reflected highlight is toward the outer edge of the piston.



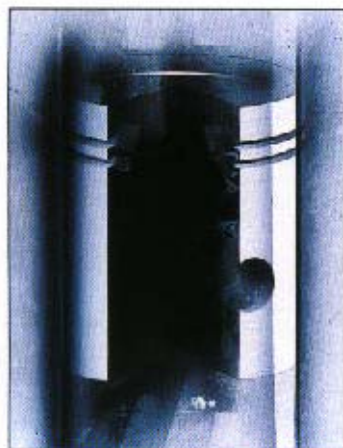
6 Other areas of the drawing are sprayed in medium shade to build up the form and shape of the piston. The areas concentrated on here are the recess to the top of the piston, the shadow and form within the grooves for the piston rings (which are not included in this example), and the form on the hole into which the gudgeon-pin is fitted.



7 The process started in stage 6 is continued, varying the depth of tone according to the direction of the light source and the location of the area being sprayed. Here the facing side of the connecting rod, the vertical surface to the top recess and the horizontal surfaces on the grooves for the piston rings are sprayed.



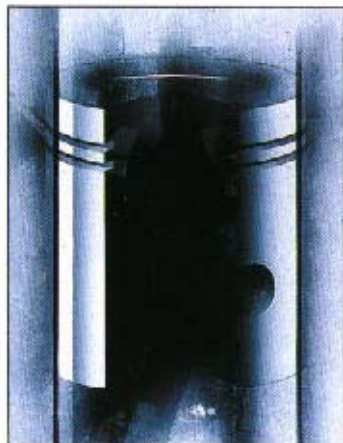
8 This stage shows the thickness or depth of the connecting rod sprayed up, with sufficient contrast and form to indicate the shape clearly. Notice should be taken of the use of hinged mask sections, which not only allow for accurate repositioning but prevent accidental or damage loss.



9 Replacing all previous masks, the body of the piston is sprayed using acetate to mask the vertical bands of color. This part of the work involves spraying the darkest shades and hard-edged areas first, then developing the medium and light shades and graduated areas.



11 The central section of the exterior of the piston is the last stage to complete the body of the piston. Also shown completed is the cylindrical head of the gudgeon-pin, with a principal highlight across the center and reflected highlight at the base.



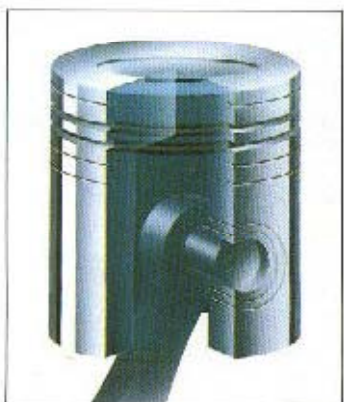
10 The graduated shades have been sprayed at this stage to model the cylindrical form of the piston.



12 The top of the piston has been sprayed with enough variety to differentiate between the recess and the body of the piston. At the same time, the end of the gudgeon pin is unmasked and sprayed with graduated tone.



13 The solid, cutaway rendering of the piston is completed and the remaining masking film removed prior to detail work being applied by hand with pencil and brush. Highlights are scratched in using a sharp art blade.



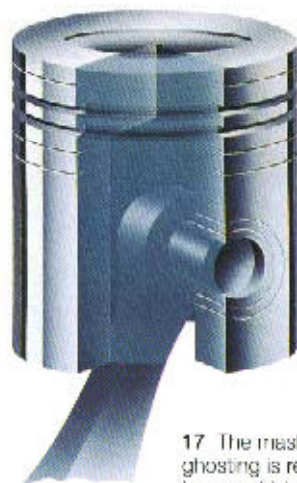
15 Next the medium shades of ghosting are sprayed, which include the continuation of the grooves for the piston rings.



14 The artwork is completely re-covered with new masking film in preparation for the ghosting to be sprayed. Those areas which are to be the lightest are cut and removed first. In this example these areas include the top of the piston. Light-shaded ghosting is sprayed using opaque white.



16 The darkest shades are the last to be applied, giving emphasis to the depths of the top recess, the grooves for the piston rings and the thickness of the piston base.

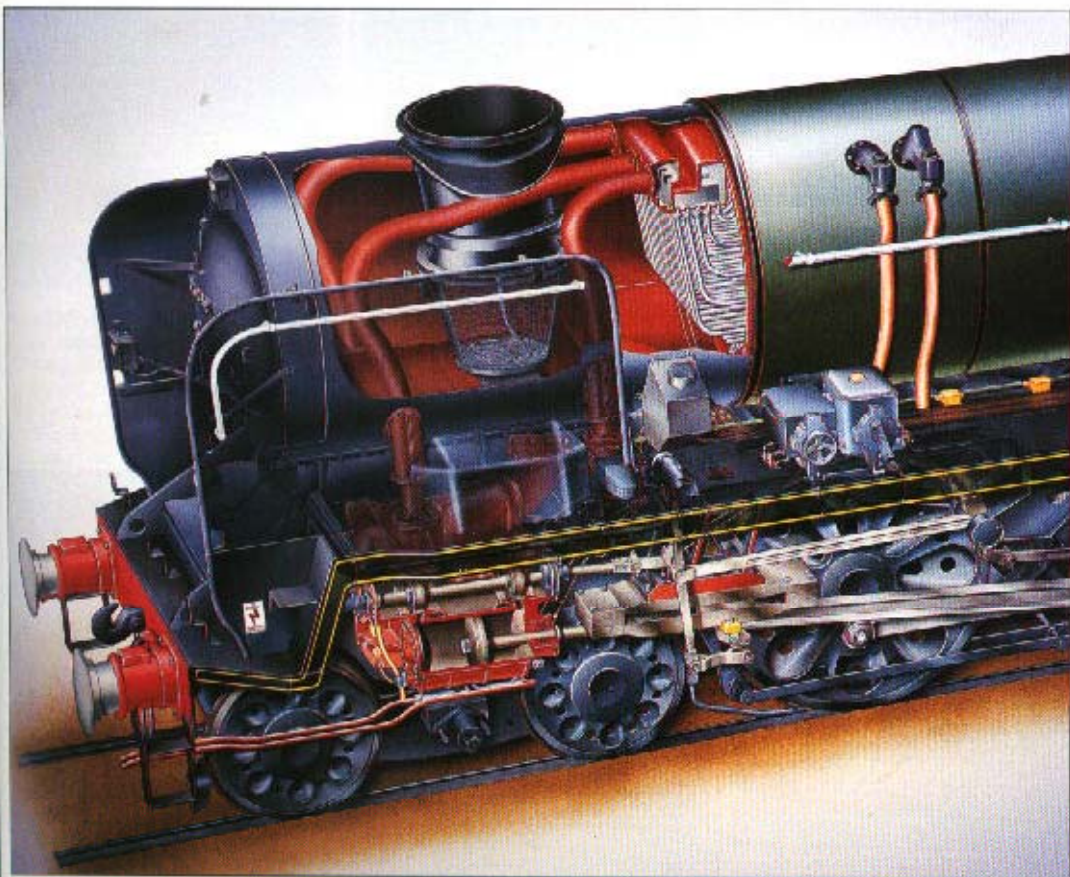


17 The masking film laid on for the ghosting is removed, leaving an image which shows the complete exterior of the piston as well as the cutaway section, revealing the connecting rod and gudgeon pin.



18 To improve the depth of contrast and detail, it is necessary to line-in the ghosted areas of the illustration using pencil and brush-painted opaque white. This also improves the quality and finish. Great care must always be taken when ghosting, because it is so easy to lose detail and contrast, which would defeat the exercise and make for a flat illustration. It is advisable to

practice with a black and white pioco first, as the tonal values are relatively controllable, before moving on to more complex color work.



**Southern Railway Merchant Navy Class 4-6-2 locomotive *Ellerman Lines* (detail)
Mark Franklin**

Complex, three-dimensional cutaway perspective illustration in full color presents difficulties when it is required to show as much detail as possible without confusing the viewer. In this example, a detail taken from a large airbrushed illustration commissioned by the Science Museum, London, every aspect of the working parts of a particular steam locomotive had to be clearly shown. The part of the illustration reproduced includes the fire box, smoke deflectors, boiler casing, running-board, bogies and part of the driving wheels with motion gear. As with most steam locomotives, the fire box includes a blast pipe and ash filter, as well as steam pipes leading from the front of the boiler down into the valve chests. The exhaust steam is also led through pipes which lead into the fire box. On this particular locomotive, smoke deflectors were fitted immediately alongside and projecting slightly in front of the fire box.

Without the nearest smoke deflector, there would have been no problem in showing the area described with a conventional cutaway. However, with the deflector, an integral and important part of this locomotive, in position, the problem arose as to how to show both the deflector and the interior of the fire box. The solution, as shown here, was to render the fire box and its contents as solid objects, while spraying the deflector as if made of tinted glass, that is, ghosting its form, with the exception of the rim and handrail which remain solid to enhance the shape and location of the deflector.

To a lesser extent, the running board has also been shown ghosted, revealing detail through it.

GRADATED TONE

Gradated tone means the application of color which changes gradually from dark to light, either fading into the white of the board, or blending into another color. When the contrast is controlled, a gradated tone can eliminate the need for oversprayed highlights.

If sprayed with transparent watercolor over a previously applied color, a translucent effect is possible in which the first color appears to shine through the second. Tonal gradation is the principal means of modeling three-dimensional form in an illustration, and broad areas of gradated tones and colors make atmospheric backgrounds.

Gradated tones are particularly effective in creating skies. If, for example, a midday sky is desired, the first gradated tone would be a soft base of yellow ochre or Naples yellow running from the horizon up, and blending in with the white of the artwork about a third of the way into the sky area. A second gradated tone is then oversprayed, but with a weaker mix of cadmium red, also blending in at about the same point. Finally, a gradated tone of cerulean or cobalt blue is sprayed from the top of the artwork to blend with the previous two colors, but further down towards the horizon.

The facility which the airbrush gives in producing gradated tones, whether on a large or small scale, is one of the distinct advantages of this tool. While it is possible to achieve the same result by hand, it becomes increasingly difficult to manipulate within areas which restrict the free flow of a brush and keep within predetermined boundaries. In this, the control provided by masking techniques and the delicate quality of the airbrush spray enable the illustrator to produce flawless gradations.

**Background Gradation**

1 A gradated tone is to be applied as a backdrop to the flag. The complete working area is covered with masking film, and the background area is cut and removed, leaving only the flag protected prior to spraying.



2 The color is applied by spraying from dark to light, building up the deeper shaded area first, avoiding the spraying of an excessive and concentrated strength of color too quickly.



3 The process is continued and the color slowly increased in depth as it is also brought further down toward the lower edge of the artwork.



4 The final stage in spraying is to strengthen the shading of the color, again working from top to bottom.



5 Finally, the masking film is removed from the flag and border, revealing the gradated backdrop in relation to the three-dimensional image of the flag. The overall effect is to throw the flag even more to the fore.

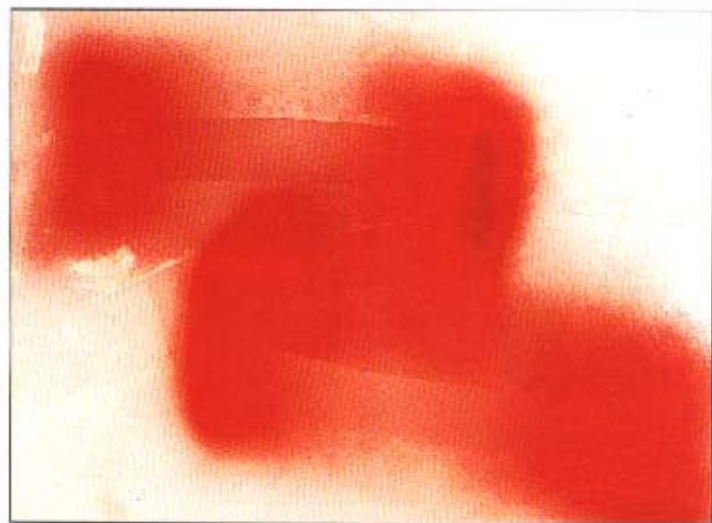


Gradation Within an Object

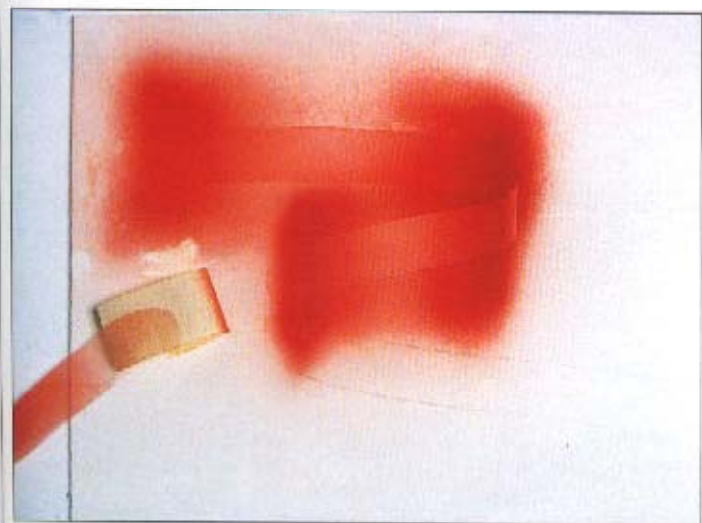
1 A drawing of a ribbon making a flowing S-shaped curve has been prepared on illustration board and the whole artwork covered with masking film. All of the lines making up the ribbon are then cut into the masking film, including those which make the transitions from inner to outer curves.



2 The film covering the top part of the ribbon is removed and hinged back with a piece of masking tape. This section is then sprayed vertically with bands of gradated color following the shape of the curve.



4 The final stage is spraying the lower part of the ribbon, after replacing the previous mask and hinging back the last one.



3 The hinged mask from stage 2 is replaced. The second mask, which is also hinged, is pulled back to expose the central curve of the S-shape. The gradations on this section are formed in the same way as on the first.



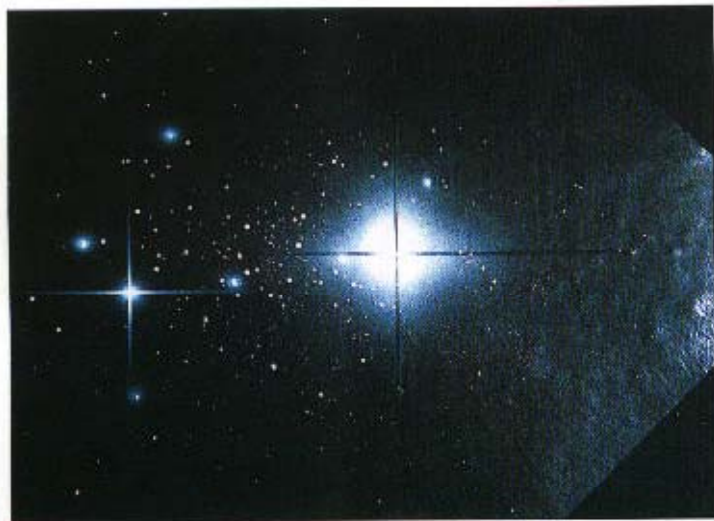
5 All masking film has been removed, showing the ribbon air-brushed with three-dimensional form, relying only on gradated tones of color. No dark shades or white highlights have been added.

HALOING

Haloing, as its name implies, is the application of a circle of light and should appear as a soft, gentle glow, fading away outward from the circumference. The technique can be used to create an effect of distant radiance, as in the "galaxy" example shown here, or to soften and diffuse highlights in closer objects.



1 Various-sized stars have been painted as white dots and oversprayed to diffuse the edges; others have been sprayed with a splatter cap as dots of various sizes to give an illusion of immense depth.



2 Starburst shapes have been cut into masking film (acetate could also have been used) and positioned over certain stars. These are sprayed using opaque white, which is applied in each case to the center of the mask.



3 A circle cut from masking film is placed over the center of a starburst and gently sprayed around the edge with opaque white. It is important not to apply too much white when spraying the halo to maintain the effect of diffusing light.



4 When the masking film is removed, the effect can be quite subtle, as demonstrated here.

HIGHLIGHTING

There are various techniques for adding light, form and contrast to a shape, to prevent the subject from looking flat. Highlights draw the viewer's attention and can be used to excellent effect to emphasize the points of visual focus in an image.



Using the White of the Board

This is an example of leaving the white of the board to form a natural highlight in an area of color. It is achieved by carefully controlling the amount of gradation and strength of shading when spraying the color.



Using an Art Knife Blade

1 Although the leaves are shown here with sufficient contrast and form, they lack the surface texture and highlights which would enhance their appearance.



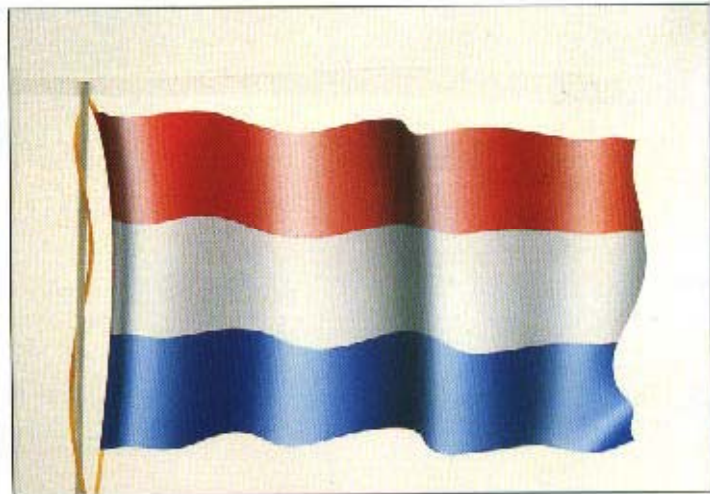
2 By using an art knife blade to scratch into the sprayed colour, the highlights in the leaves are defined as fine white lines.



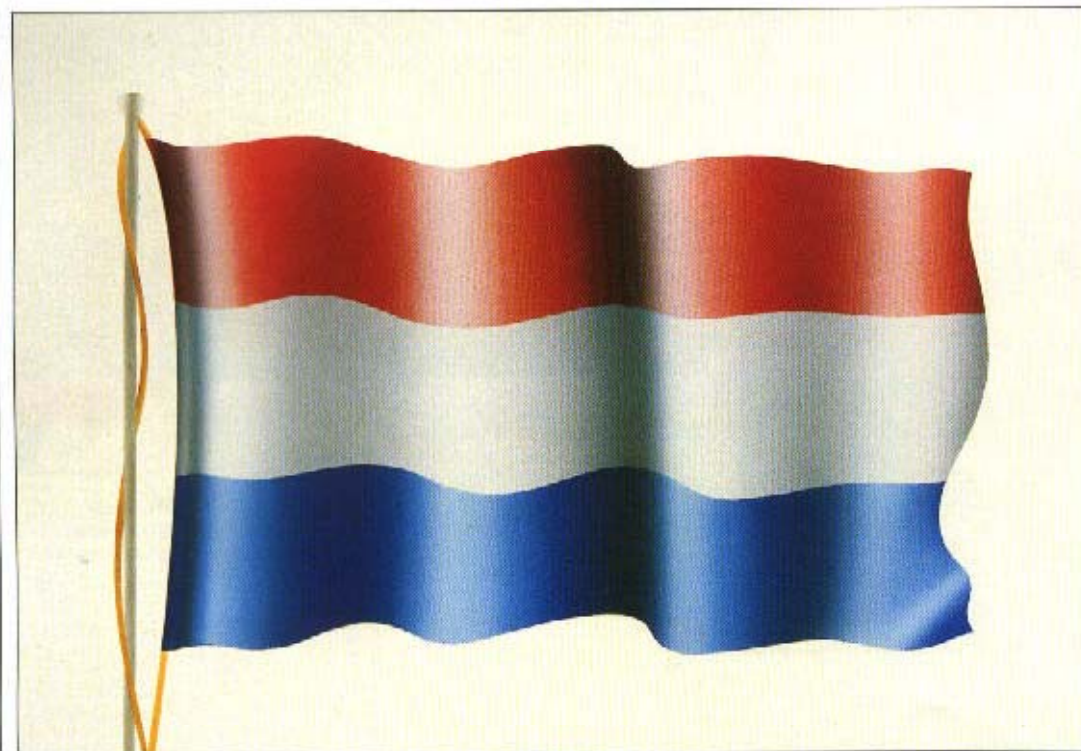
Using Opaque White

1 The artwork has been covered with masking film and the complete

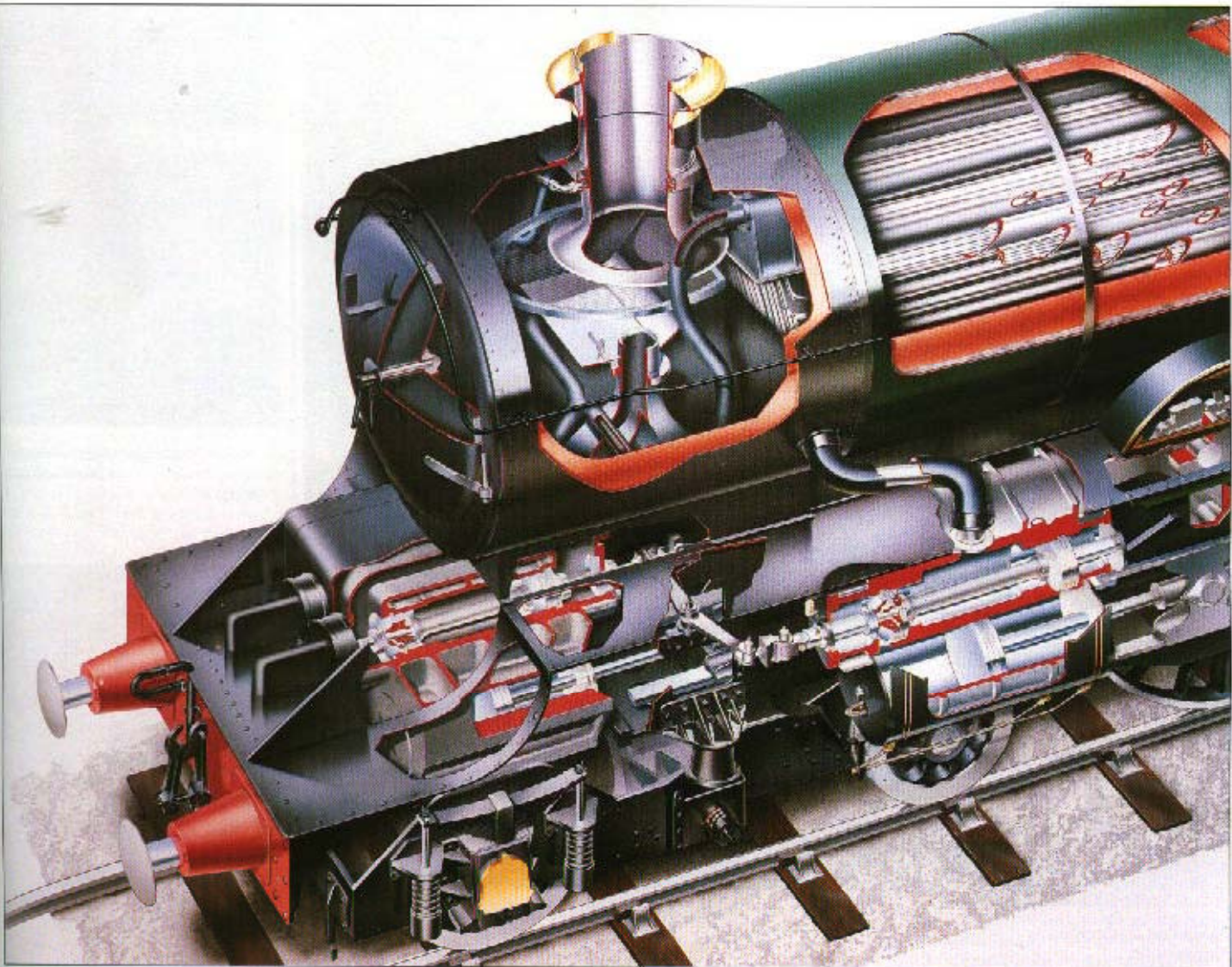
flag exposed for spraying, as it is intended to increase the contrast by overspraying highlights.



2 Opaque white is now sprayed freehand in the appropriate places, bearing in mind the chosen direction of the light source.



3 When the required depth of contrast has been achieved, the masking film is removed, revealing a more pronounced image.



Great Western Railway King Class
4-6-0 locomotive *King Edward II*
(detail)

James Weston

Without highlighting, most illustrations would look bare and unfinished.

They would lack that final quality which enhances, complements and clarifies the image portrayed.

Highlighting is, therefore, along with **RULING** and **UNING-IN**, an important and integral part of an airbrushed illustration.

The example shown here is a detail of the complete illustration reproduced on page 102. All techniques described in the practical demonstrations of highlighting have been used on this illustration, with

the exception of scratching out with an art knife blade, because this is not suited to the surface quality of the paper on which the illustration was drawn. The underlying white of the paper is evident on the highlight to the smoke box and boiler, and in the polished steel of the pistons and valve rods. Cosque white has been used on the suspension springs to

the bogie axle, the lightening holes of the bogie wheels, some of the pipework and the running boards.

To appreciate fully the techniques of highlighting, reference should also be made to the various effects to be seen in many of the other finished illustrations.

KNOCKING BACK

When it is not possible to take a photograph of a subject in the exact conditions required to show it off to advantage, it is usual to resort to the technique of knocking back the less appropriate areas of the image by overspraying with either dark or light shades. To maintain interest and visual impact, it is not necessary to eliminate these areas completely.

This technique is used extensively in photo-retouching and can also be applied to airbrushed artwork when, for example, the background detail of an illustration appears to compete too strongly with the subject.



Darkening an Obtrusive Background

1 In this photograph the primary subjects are the headstones in the foreground. However, the intensity of the light is such that the highlights on the tree compete with those on the ground and on the headstones. To overcome this, it is necessary to knock back the tonal contrast in the tree. Prior to spraying, the photographic print is dry-mounted onto board.



2 The whole print is covered with masking film, and the area of film covering the tree trunk is cut out and removed.



3 A dark tone of transparent color is sprayed over the exposed surface of the print.



4 When the required depth of shading has been applied, the masking film is removed, leaving the foreground untouched and the tree trunk now appearing to be set back, but without losing its natural contrast.



Weakening Background Tones and Contrast

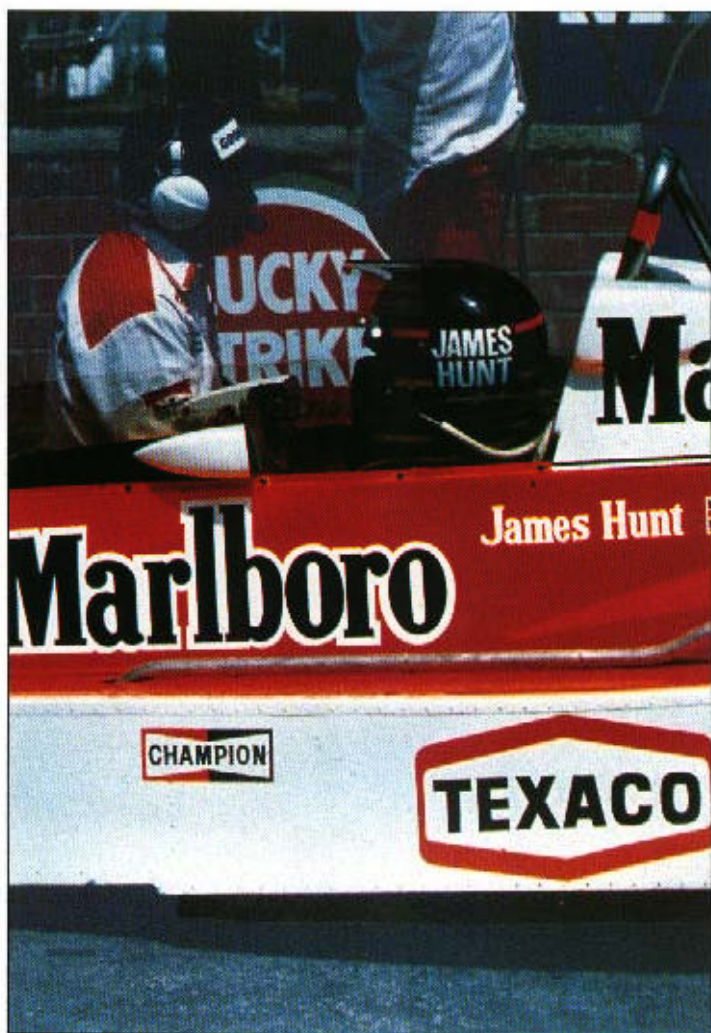
1 This photograph shows a racing car with figures and details in the background. The latter appear, because of their close proximity, to be on the same plane as the car and therefore it is not absolutely clear where one ends and the other begins. To rectify this, the background must be knocked back. The first stage is to dry-mount the print onto board.



2 Masking film is placed over the whole print area and the sections covering the background and track are cut and removed for spraying.



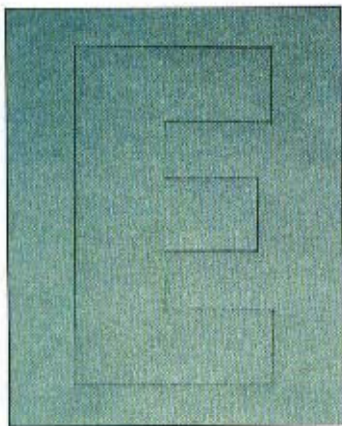
3 The exposed areas are oversprayed with white. This is not so opaque as to destroy the definition, but it causes a surface effect of light "veiling" over these parts of the image.



4 Once the revised shading clearly separates the background from the principal subject, the masking film is removed. The difference in clarity and emphasis between stage 1 and the completed image is obvious, and it has improved the impact of the picture.

LETTERING TECHNIQUES

The use of an airbrush in lettering is helpful when flat or gradated color is required as a backdrop, or when a characters or words are to be treated as objects and sprayed to give form. This is often seen in advertising, a typical example being the rendering of words and letters to create the impression that they are made of chrome, or some other highly reflective material.



Using Self-adhesive Masking Film

1 The sans serif character "E" has been drawn on detail paper and transferred to board. A sheet of masking film is applied and the character cut out.



2 The film covering the character is removed, and the exposed shape is then sprayed in the required color and style of finish; here the paint has been gradated leaving a reflected highlight, or glow, to the lower part of the character.



3 The masking film is removed, leaving a strong, hard-edged finish.



Using a Stencil

1 The same style of letter form is now drawn on stiff cardboard and the shape cut out. In the example shown, the character is comparatively easy to work with, having only straight lines and right angles. Others which incorporate curves and acute angles may appear neat and accurate at the stencil stage, but any slight imperfections in cutting will be more than noticeable on the finished artwork. Practice in cutting is therefore recommended.

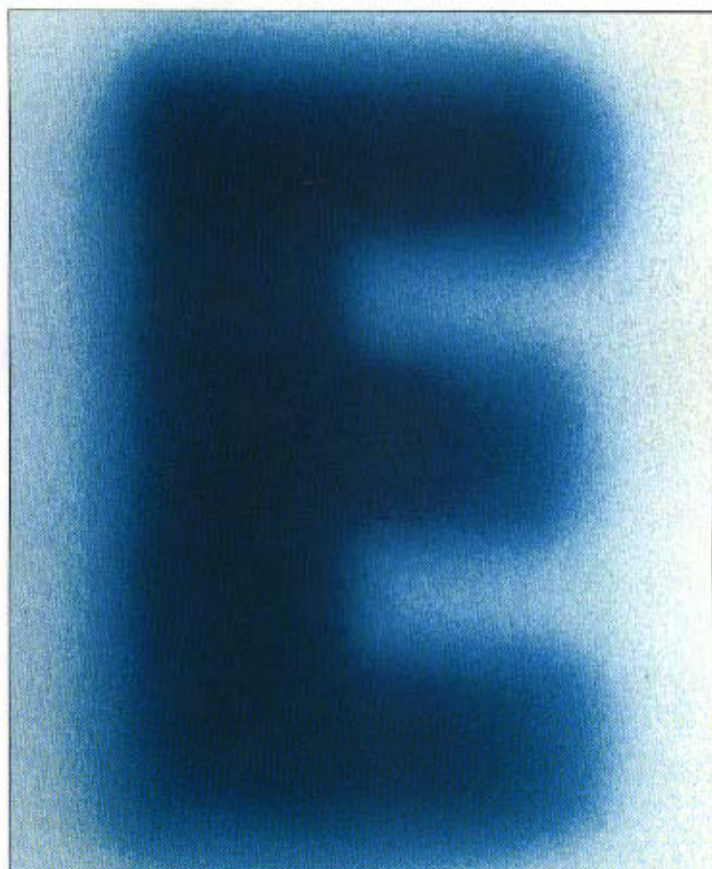


3 Removing the cardboard shows that the character has slightly soft edges as a result of residual color seeping under the edges of the stencil.



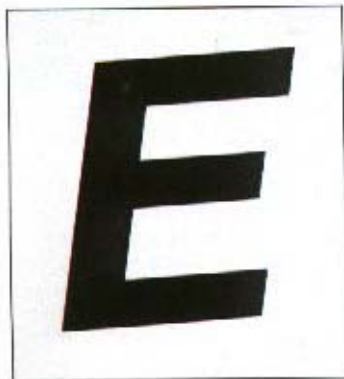
2 The cardboard stencil is held close to the board on which the finished artwork is to appear. It is then

sprayed as required.



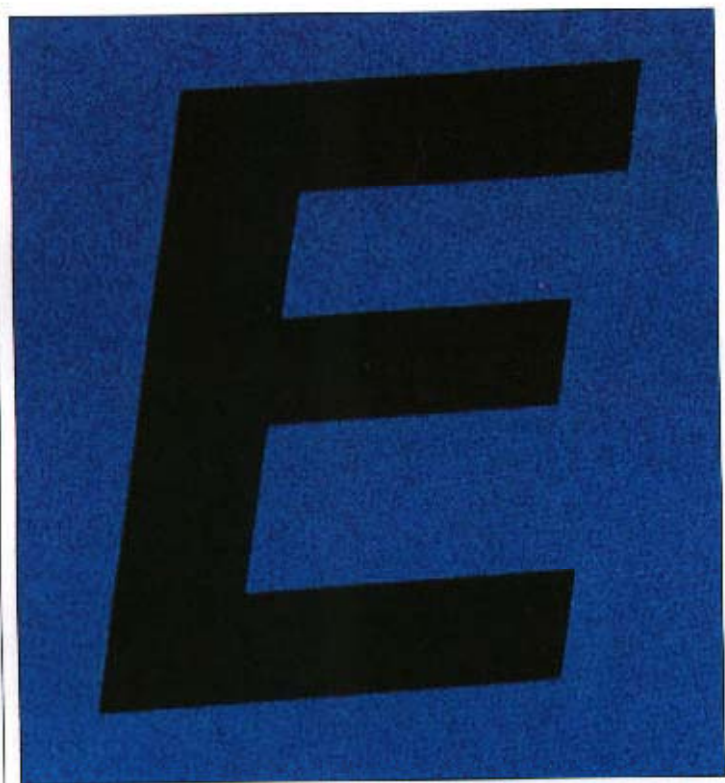
4 In this example the card stencil was held further away from the

board, giving even softer and more blurred edges to the character.



Using Dry-transfer Lettering

1 An italic character "E" has been rubbed down on board.



2 What will become the background or base color is then sprayed over the character and surrounding area.



3 The dry-transfer character is removed by using low tack drafting tape to pick it up. Although not shown in this example, it is obviously possible to spray a second color over both the character and existing base color. Further characters may also be laid on top of the base color; when the area is re-sprayed and the characters removed, they would appear on the artwork in the original base color. However, extreme care is needed in removing the dry-transfer lettering so as not to damage the sprayed color underneath or, indeed, the surrounding color.

B L A C K C A D I L L A C



Judas Priest
Mark Wilkinson

The lettering reproduced above is a classic example of how two words have been rendered with an airbrush which almost makes them an illustration on their own. It is representative of a trend which started in the 1960s and shows little sign of abating. As a style, it is very popular in

advertising and the music world; the example above is the name of a group airbrushed for the four posters.

The approach has been to create an impression of a highly polished and smooth surfaced, metallic logo. As a technique, it follows closely with that described for CHROME EFFECTS, except that an intentionally exaggerated choice of colors has

been used. Hard-edged FILM MASKING has been used throughout, with an extensive use of reflected colors.

The whole image relies solely on the color and shading to hold it together, as no lining-in has been used. In masking letterforms which are shown with beveled edges, accurate and neat mask cutting is essential, for a slight imperfection would soon "jump" out and spoil the illustration.

Black Cadillac
Dave Bull

This is the title from a poster illustration which has been hand-drawn in a style befitting the period of the car. The rendering has been executed to make the lettering appear black and shiny. Again, as with the body of the car, pure black has not been used — you rarely see a pure black with no color bias — but blue and blue-black have been chosen. The top half of the lettering, down to the hard-edged mask representing the reflection of an imaginary horizon line, starts with an opaque blue-black, gradated into deep blue which in turn gradates into a very pale blue just above the horizon. From the horizon line down, gray-black has been sprayed in a GRADATED TONE toward the base of each character. To guarantee an equal and even number of gradated tones, all lettering would have been masked and sprayed at the same time.

The complete illustration from which this title was taken can be seen on pages 108 and 109.

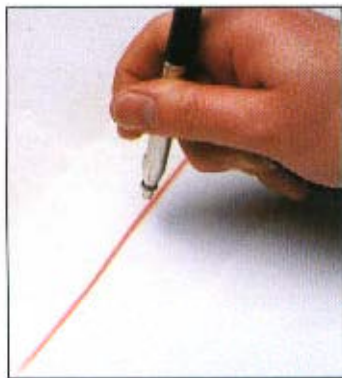
LINE CONTROL

Line control techniques develop, with practice, the skills needed in controlling and handling the airbrush. In application, any of the techniques shown can be used as part of the general process of arriving at a finished piece of artwork and, more often, in adding the finishing touches which enhance the detail of an illustration.



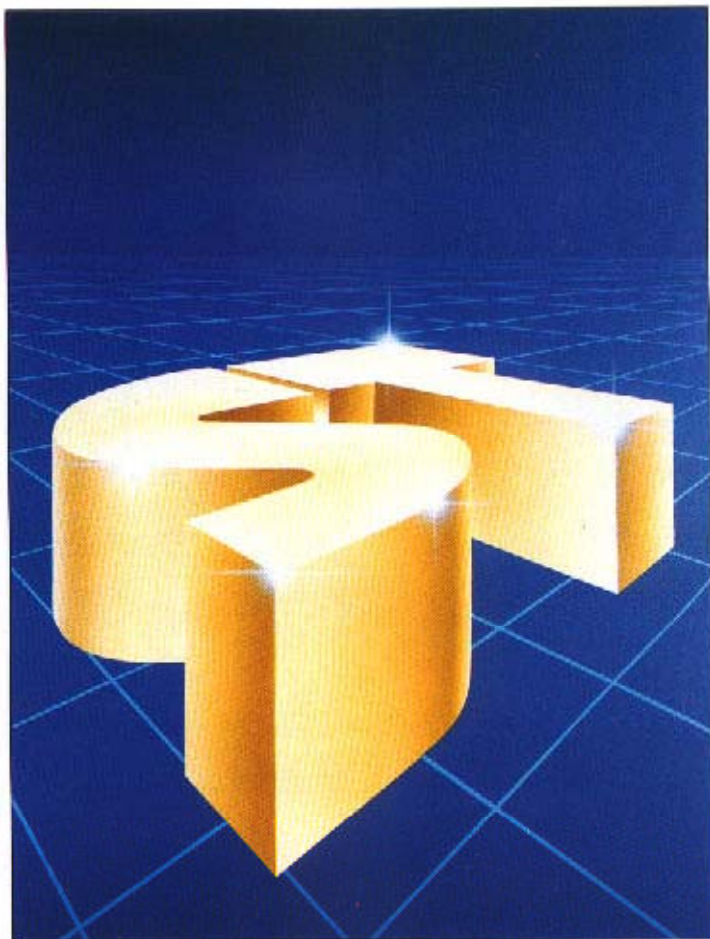
Using a Ruler

This photograph shows a line being sprayed with the aid of a ruler. The ruler must be held at an angle until the line is completed with the correct air pressure. When using this technique on finished artwork and with a mask to protect the ends of the line, it is always advisable to start and finish the line on the masking film rather than at the edges of the masked shape, to avoid including any irregularity caused by starting and stopping the flow of medium through the airbrush.



Freehand Spraying

This photograph demonstrates a vital element in the ability to control an airbrush. It shows the freehand use of an airbrush to produce fine, straight lines. The initial problem when first attempting this is the tendency to spray lines which curve toward the ends; this is because of the natural, flowing movement of the hand and a conscious effort is required to prevent it.



Using Masking Film

This illustration shows a magazine cover, on which the initials ST have been drawn three dimensionally on a base representing a two-point perspective grid. The technique involved covering the artwork with masking film and cutting along each of the grid lines; these lines were left covered while the base color of dark blue was sprayed. When the color was the right density, the film was removed and a paler blue was oversprayed to tint the grid lines.

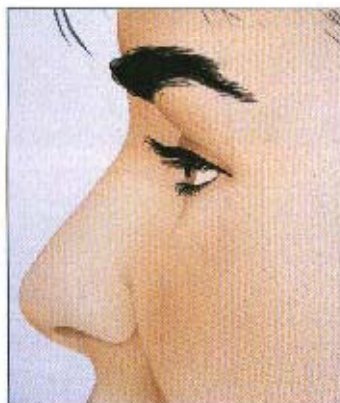
LINING-IN

While the major part of an illustration may be completed with an airbrush, it is unlikely to be left without any drawn or hand-painted lining-in. The reason is to establish and delineate detail which could not successfully be applied with the airbrush, regardless of the skill of the illustrator. Lining-in becomes, therefore, a very important part of the process of completing an illustration and should be applied with the same care as that given to the airbrushing. So often, beginners to airbrushing techniques see lining-in as a boring chore—the final stages in completing their artwork—with the consequence that a good piece of airbrushing can easily be ruined by rushed and poorly applied hand-work.

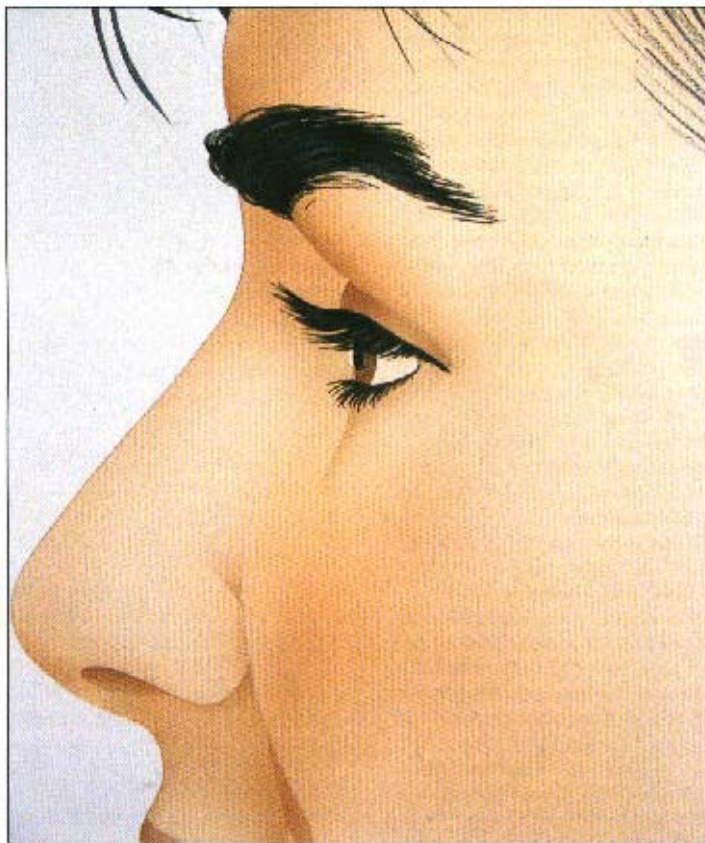
Lining-in may be completed using pencil, paint, crayon or ink, or a combination of media and with any of the wide range of drawing aids available to illustrators such as ellipse templates or French curves.



1 The basic details and form for a face profile have been sprayed in using various masks and stencils as appropriate.



2 Freehand brushwork is now applied to bring out the finer details such as the eyelashes, the iris, and the eyebrows.



3 Finally, using a sharpened white pencil, highlights have been drawn in to complete the picture.

LIQUID MASKING

Liquid masking is achieved by using a rubber-based solution which is applied to the surface with a technical pen. The commercially available varieties of liquid masking, also known as masking fluid, are usually tinted to assist in their application. When dry, they leave a water- and paint-repellent film. Color can be sprayed over and around this rubbery skin formed by the dried masking, and the mask is subsequently peeled or rubbed away, taking care not to damage the surface color.

Masking fluid is particularly useful for covering small and intricate details, when more conventional methods of masking become cumbersome and difficult to cut accurately. It can be laid on a clean, unsprayed surface or overlaid on areas previously sprayed. However, on certain surfaces such as rough-finished boards and papers, extreme care is needed when removing the masking to avoid surface fibers being damaged. If in doubt, it is advisable to test the fluid on a sample of the paper or board to be used.

On completion of each stage in using masking fluid, the brush used to apply it should be thoroughly cleaned in fresh water, never the same water which is used to mix the colours for spraying or cleaning the airbrush. Before proceeding with successive stages of spraying, it is essential that each application of masking fluid is allowed to dry thoroughly.

**Dot Pattern Sample**

1 In this example, liquid masking is used to create a layered dot pattern in selected colors. In the first stage, twelve roughly equal spots of fluid are laid down in three horizontal rows.



2 Here the first glaze of transparent watercolor has been sprayed over and around the masking fluid.



3 The original twelve spots of masking fluid have been removed by careful rubbing with a finger, leaving the white of the board showing in their place. A second pattern of masking fluid dots is then applied and allowed to dry.



4 A second glaze of color is sprayed over the first. The true color is apparent where it covers the white spaces left by the first application of masking fluid.



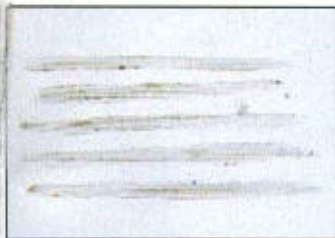
5 The second layer of masking fluid is removed and a third applied. The white areas of the board which are visible are the result of the second layer of masking fluid overlapping the first.

6 A third glaze of color is sprayed over the whole area.



7 The final result is visible on the removal of the third layer of masking fluid. Naturally it is possible to add several layers of masking fluid and an equal number of glazes as desired. It is also possible to apply

the masking fluid within clearly defined parameters on occasions when self-adhesive masking film or any other type of mask is inappropriate. Its use depends very much on what is to be achieved.



Partial Removal of Liquid Masking

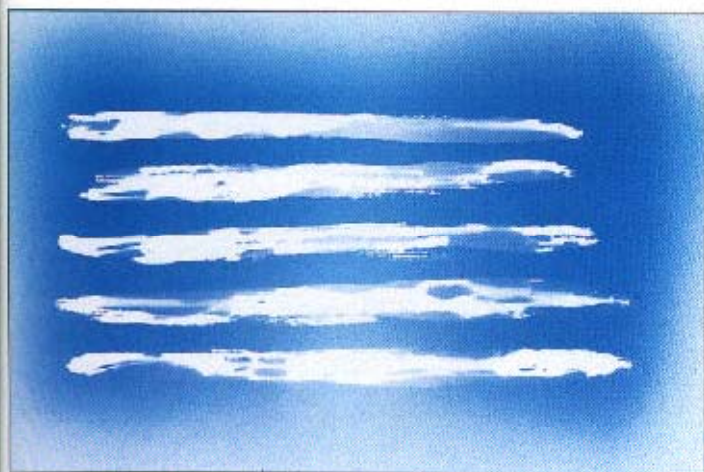
1 Five horizontal stripes of masking fluid are applied to the board.



2 The first glaze of transparent watercolor has been sprayed.

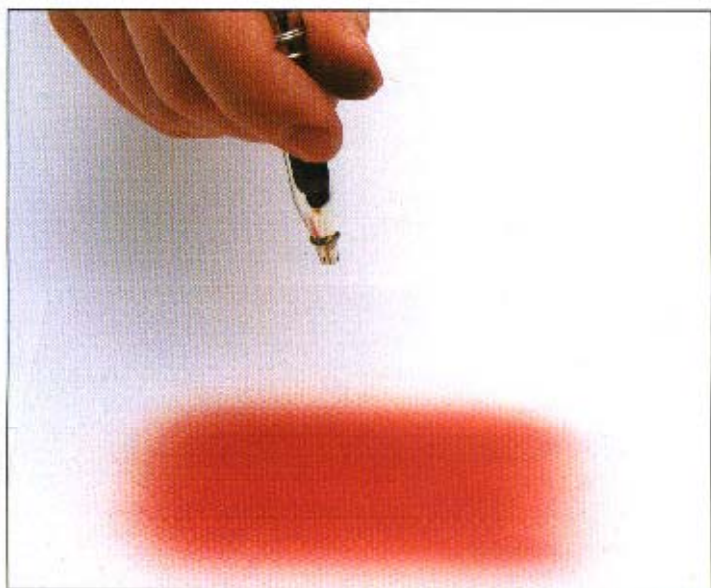


3 In this stage the first layer of masking fluid has not been completely removed. This is deliberate and is achieved by rubbing a finger unevenly over the surface. When the required amount of white surface is visible, a second glaze of color is sprayed.



4 The remaining masking fluid is finally removed, with the first glaze showing clearly on the stripes and appearing visually at the front, while the second glaze appears as a

backdrop. Again, as in the first example, additional layers of both liquid masking and glazes could be added if desired.

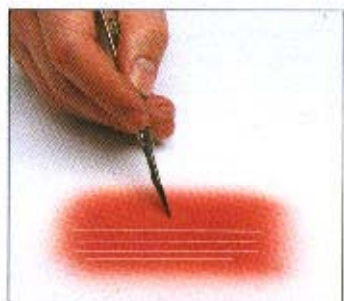


Using a Ruling Pen

Liquid masking applied with a ruling pen allows for fine linear detail to be drawn where the white of the artwork or a previously sprayed base color shows through after spraying. In all cases the masking fluid must be allowed to dry thoroughly before spraying, just as the sprayed color must also be allowed to dry before removing the fluid.

This particular technique requires extreme care in the removal of the masking fluid because the sprayed color is easily damaged. While it is possible to draw straight lines with masking fluid on a rough-surfaced board, a hard china-clay surface is preferable, as the fibers of the board are less likely to be damaged by "furring" and removal of all of the masking

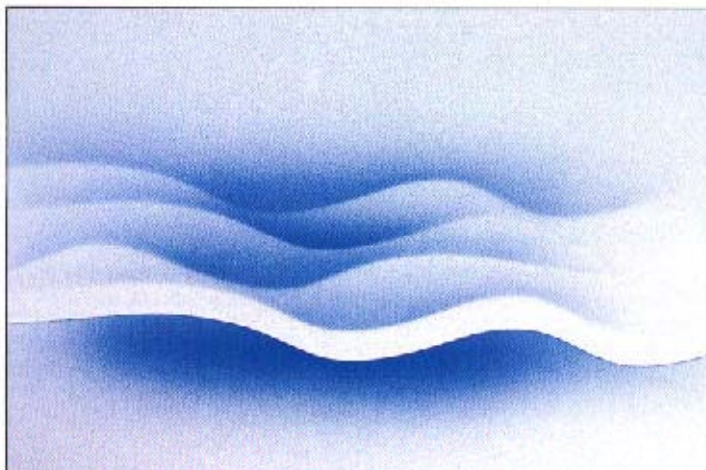
1 In this example, a series of horizontal lines have been ruled using masking fluid. These are then oversprayed.



2 When spraying with watercolor or gouache, it is advisable to remove the dried masking fluid with the tip of an art knife blade, as shown here. With waterproof acrylics, it is possible to remove the mask with a fingertip, although care is required when spraying to prevent a build-up of paint that binds the fluid permanently to the artwork.

LOOSE MASKING

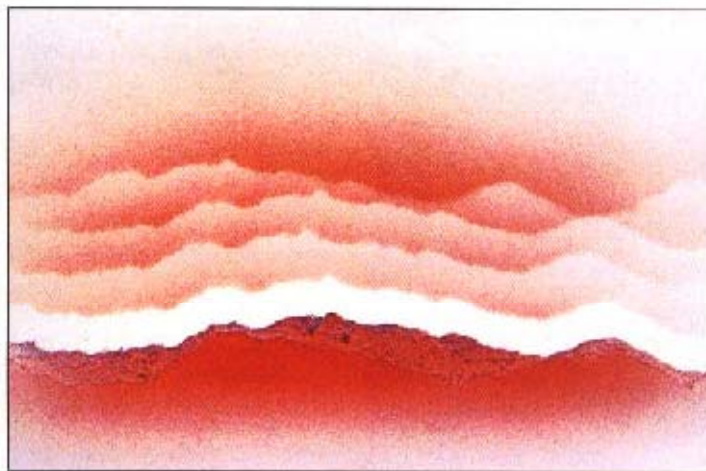
This refers to the use of paper and cardboard masks which, depending on use, give a clear but soft delineation to the sprayed edge. Besides giving specific effects, loose masking is a quick method of spraying areas without having to resort to masking film, as long as care is taken with the direction of residual spraying. Reference should also be made to ANGLED SPRAYING, CARDBOARD MASKING and TORN PAPER MASKING.



Using Paper Masks

1 Paper masks cut accurately to a pre-determined shape are laid directly on the artwork and sprayed over with a variety of different

shades. Because the paper is directly in contact with the artwork, the edges are fairly well defined, with only a small amount of residual paint seeping underneath.



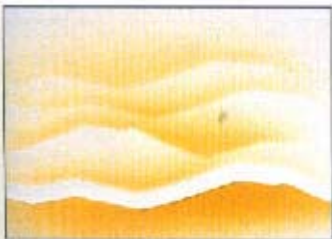
3 Here paper masks are used again, but on this occasion the paper is torn rather than cut. This example shows the effect when the mask is laid directly on the artwork. The irregular texture of the torn edge is accurately reproduced.



2 In this example the paper masks are held a distance away from the artwork, which allows for more color to spread under the mask. This gives a much softer finish to the edges; this softness naturally increases the further away the paper mask is from the artwork.



4 The same torn paper masks are used here, but held away from the artwork, giving the softer effect.



Using Cardboard

1. Cut cardboard, as shown here, gives very much the same effect as cut paper, although it is possible because of the increased thickness to limit the amount of residual color seeping under the mask.



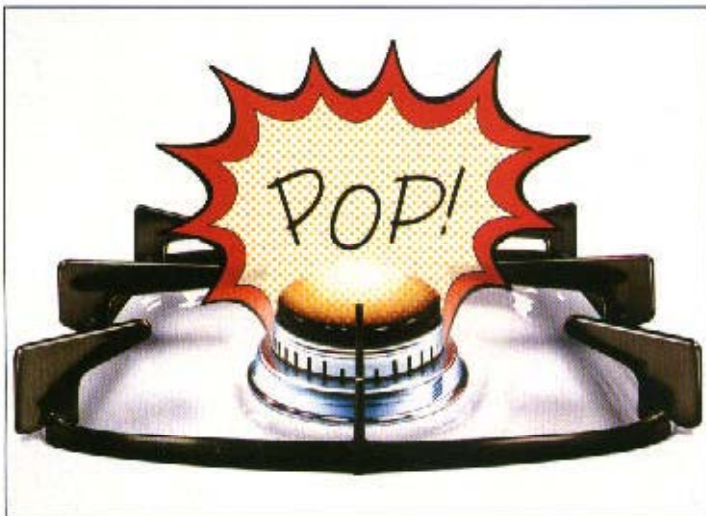
2. The cut cardboard is used again, but held away from the artwork, giving softer edges.



Using Absorbent Cotton

To enable even more hazy, abstract shapes to be sprayed, cotton is taped in place on the artwork and oversprayed. This can be extremely effective when, for example, stylized skies with soft clouds are needed, although care is required not to

spray over the tape as well as the cotton, or to allow residual spray to encroach and cause the silhouette of the tape to become visible.



Pop! Brian Robson

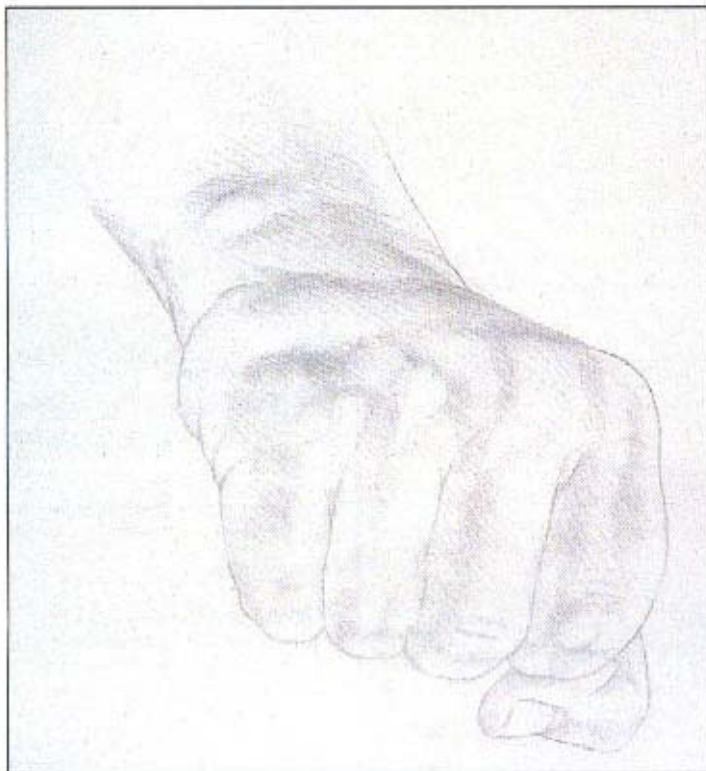
An airbrushed illustration will often show the use of many different techniques. Although the effect is often heavily dependent on FILM MASKING, it is unlikely that an illustration will be completed without recourse to more than one masking or spraying technique. The above illustration is a case in point: it shows the use of loose masking to achieve a particular finish. While the majority of the color has been sprayed with hard-edged masks, the darker shades on the cast-iron saucerpan supports have been sprayed with a loose mask,

held slightly away from the surface of the artwork. This gives the impression of representing the glossy enameled finish of the real thing, without appearing too severe, as harder contrasts would make them look chromed.

When assessing which technique should be used, film masking or loose masking, consideration needs to be given to the desired finish and, as important, the materials and surface finishes to be rendered in other parts of the illustration. Yet again, pre-planning is useful.

OVERSPRAYING

Keen observation of the range of values in color, light and shade will make it apparent that the base color of an object is rarely seen by itself. The reflective nature of light means that other colors will be included, usually from objects or colors immediately surrounding the principal object. Additionally, the composition of some subjects means that the colors and shades cannot be separated and sprayed in isolation from each other. This then requires the application of overspraying to model shape and form. The use of overspraying when airbrushing is similar to overpainting and gives depth and body to a subject.



1 The preliminary drawing of a clenched fist has been drawn in pencil on detail paper, with the tonal

values shaded in. These will be a useful reference when spraying the image.



2 Once the drawing has been corrected, the outlines are transferred to illustration board.

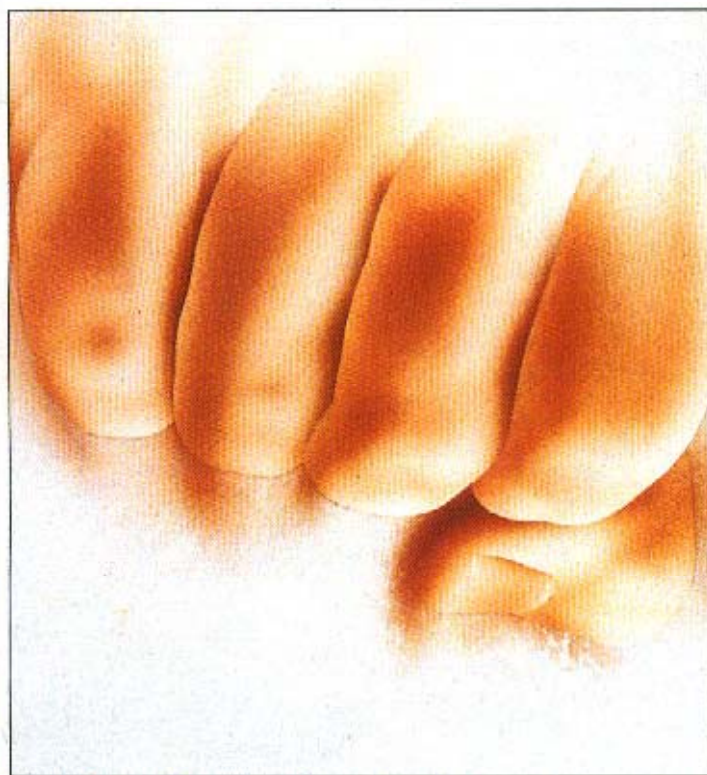


3 The drawing is covered with masking film and the complete exterior shape of the fist and the finger joints are cut in the film. Starting with the thumb, the mask is removed and ringed; the spraying is carried out with a medium shade using an appropriate color in gouache.



4 Darker shades are added over the medium ones, thus increasing the apparent depth of the subject.

5-8 The spraying sequence now proceeds with each individual finger until all have been modeled with the airbrush using the medium shades. At all times the separate mask pieces are cut and hinged to allow for accurate repositioning. In a subject such as this, good control of the airbrush is essential due to some areas requiring a hard edged finish, where one finger is touching its neighbor, but where a finger joins the back of the hand, a subtle freehand technique is required. The depth of contrast must also be carefully controlled, so that on completion of the modeling of the form, there is no evidence of the sequence followed.



9-12 The process is repeated re-using the previously hinged masks, but this time each finger is over-sprayed with the darker shade.



13 When both tonal values have been sprayed onto the fingers, all separately hinged masks are completely removed from the artwork. The medium shade is then sprayed freehand to model the back of the hand and the wrist.



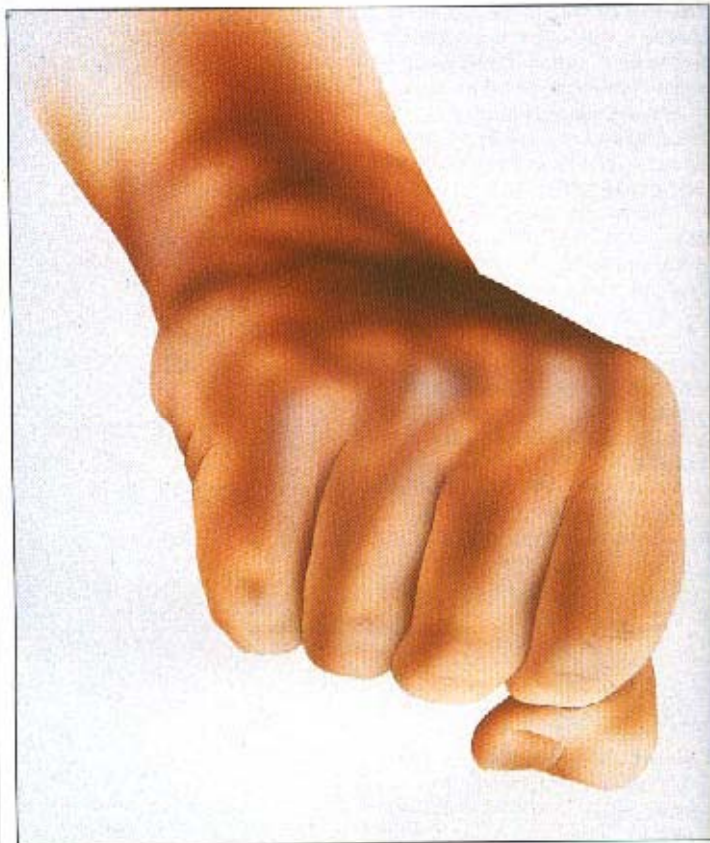
15 The darkest shade is added, primarily over the shadow area on the back of the hand.



14 A medium-dark shade is now oversprayed to increase contrast and to indicate natural shadow.



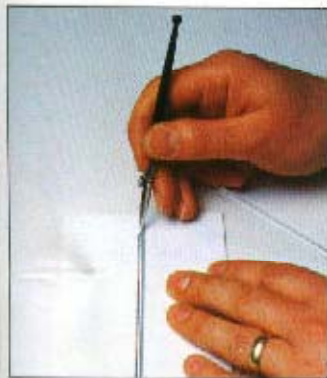
16 Finally, a very light shade, which is almost pure white, is oversprayed to add highlights to the fingers and knuckles.



17 The artwork is completed on the removal of the final piece of masking film. Depending on the size and purpose of the illustration, additional detail could be added with pencil and brush.

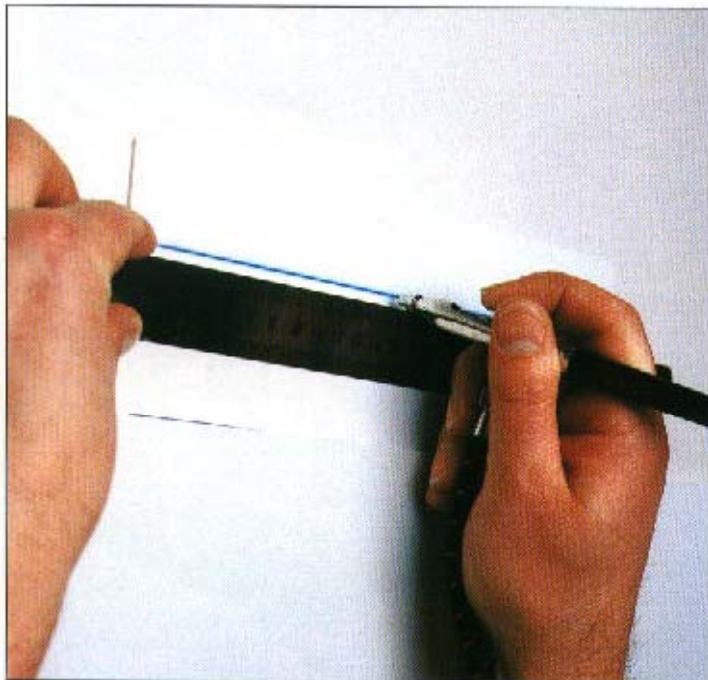
RULING

Together with **LINE CONTROL** and **LINING-IN**, drawing straight lines with a ruler is an essential technique for adding detail and finish to an airbrushed illustration. It must never be rushed, as it could so easily make or mar the finished work.



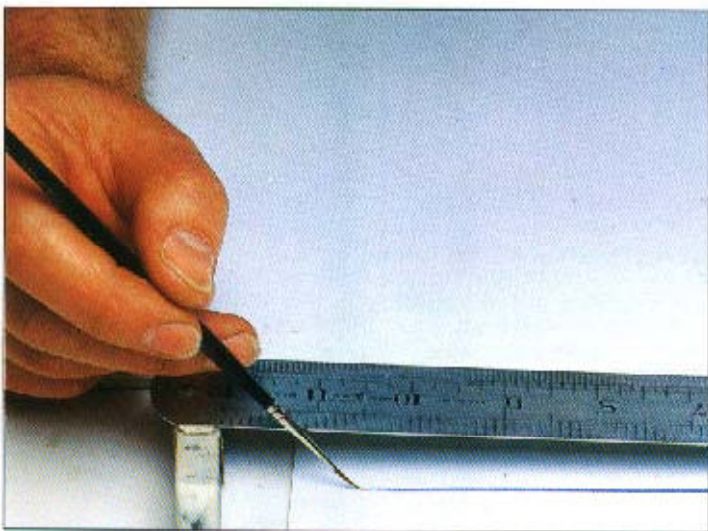
Using a Ruling Pen

The traditional and indispensable ruling pen is shown being used against a T-square. When using a ruling pen, care must be taken to maintain the same angle throughout the length of the line. It is also important to hold the pen at a slight angle to the T-square or ruler to prevent paint or ink from flooding underneath the edge.



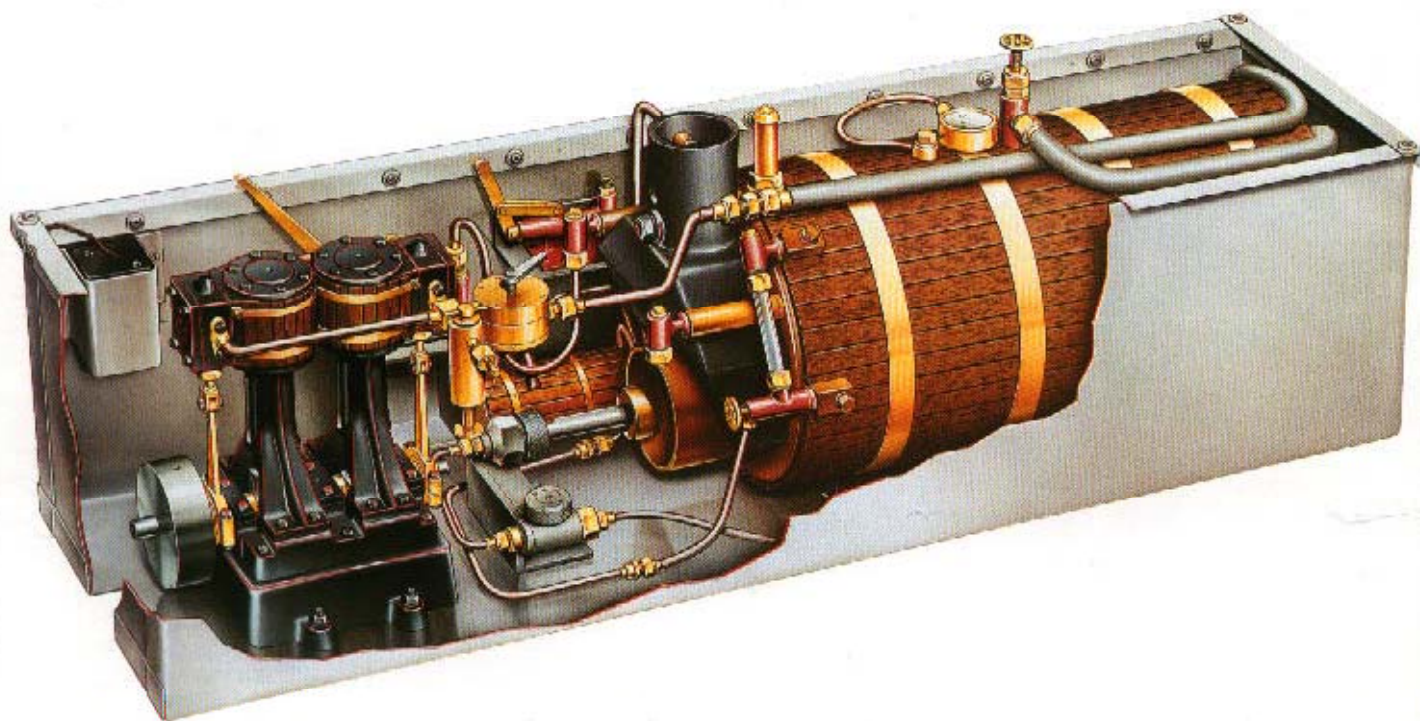
Using the Airbrush

A line is being sprayed using a ruler, held at an angle, as an aid. This gives a clean finish with varying degrees of gradated shade extending from the edges of the line, depending on the strength of medium and the air pressure allowed through the airbrush. With less pressure, the line would appear grainy.



Using a Paintbrush

This photograph shows the illustrator drawing a clean, even line with a brush, using a ruler to ensure straightness. This technique requires steady pressure to maintain even thickness along the required length of the line.



A self-contained model steam power plant
Peter Jarvis

This three-quarter view perspective illustration was commissioned by Argus Books Ltd for the book *SS Great Britain: the Model Ship*, and it clearly demonstrates the application of RULING and LINING-IN with a ruling pen and a fine sable brush. The technique adopted followed conventional methods for the preparation of full-color, airbrushed artwork for reproduction, using masking film.

However, the subject is made up of many small components which could not be airbrushed and which

required extensive hand-painted work. In addition, it was decided to present the subject in a new, unused state which would enhance the various components and the materials from which they were made, but which would also add contrast between the different surfaces and the way they had been machined or finished. To create some of this contrast, a ruling pen was used.

The aluminum casing which contains the boiler, pumps and twin-cylinder steam engine has straight lines on those edges which would show a shadow. Edges facing the light source have been highlighted with a straight line which is a much

lighter mix of the base color. The detail, HIGHLIGHTS and contrast on the rivets have been applied with a brush, as have the edges of the cuts. These are rendered in two shades of red, to show the thickness of the aluminum, with the leading edge picked out in a very light gray, while the shadow edge has been picked out with a dark gray. The red castings forming part of the boiler fittings were first sprayed; semi-opaque white highlights and shadow lines were applied afterwards by hand. The brass nuts also have a sprayed base color, with shadows and highlights subsequently added. This approach has been adopted throughout the illustration.

An airbrushed illustration such as this, composed as it is of so many small details, requires an extensive use of hand-rendered ruling and lining-in. As much, if not more, patience is needed at this stage of an illustration to ensure that the finish is compatible with the quality of the airbrushing. Inexperienced artists should be wary of rushing the work.

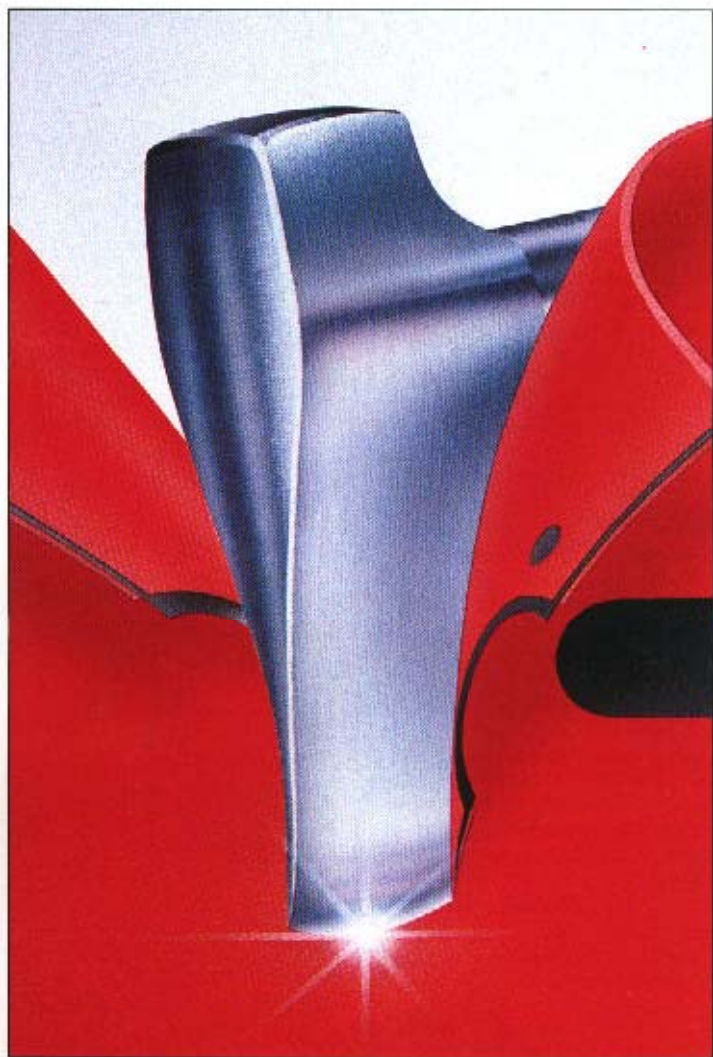
SCRATCHING BACK

The point of a new on an art knife blade is an effective and indispensable tool for adding fine highlights and texture to illustrations; this kind of detail sharpens the finish of an illustration and adds crispness to it. To achieve the effect, the surface of the artwork is scratched back to expose the white of the board.



Thin Highlights

The illustration of part of a palette shows one use of an art blade to scratch back thin, white highlights on the straight and curved edges. Although not very wide or pronounced, they are enough to add to the quality of the finished illustration.



Sprayed Highlights

In this artwork of an axehead slicing through material, scratching back is used to enhance the machine surface finish of the blade and to create a sprayed highlight which emphasizes the cutting edge of the blade.



Thick Highlights

In this example, highlights in the eyes, eyebrows and lines surrounding the eyes have been subtly

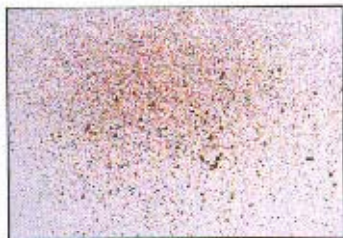
scratched out, giving emphasis to these features.

SPATTERING

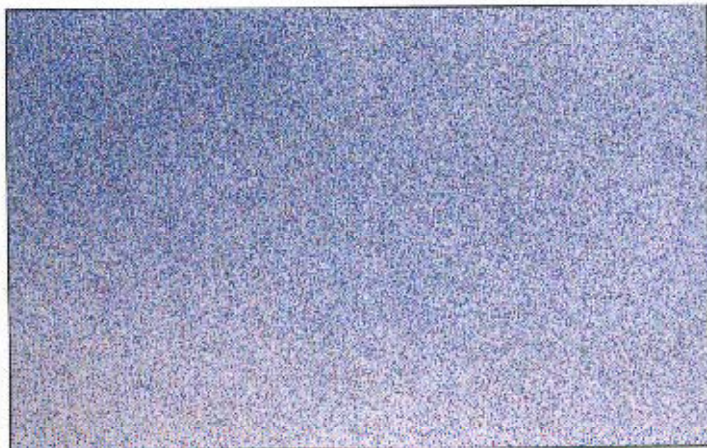
Spattering can be achieved either by lowering the air pressure allowed through the airbrush, or by fitting a splatter cap in place of the usual nozzle. Additional control is achieved by varying the distance the airbrush is held away from the artwork and adjusting the combined amount of air and medium which is allowed through the airbrush. The effect is to give a stippled or grained finish with varying densities and sizes of dots.

Because a splatter cap can create quite a crude finish, practice is required before attempting to use this technique on serious illustration work. However, the use of a splatter cap does have practical applications. It can be used to represent the ground and thereby add interest and contrast, especially when the principal subject is of a polished nature; it can also be used to represent unmachined castings or the surface of a section in a cutaway illustration, to name but three examples. The use of spattering to create texture, and the finish achieved from it, does not preclude its use in adding, in a controlled manner, form and tone to a shape or object.

Two practical demonstrations are included here which illustrate how spattering can be used to simulate specific textures.



1 The above demonstrates the basic effect obtained when using a splatter cap fitted to an airbrush. The variety in density and size of dots is achieved by controlling the distance the airbrush is held away from the artwork. Not all makes of airbrush include the splatter cap as an accessory.



2 This example shows a fine spatter effect which has been sprayed from a standard nozzle by using decreased air pressure.

**Galaxy Effect**

Using a solid black or blue-black base to the artwork, opaque white is oversprayed through a splatter cap

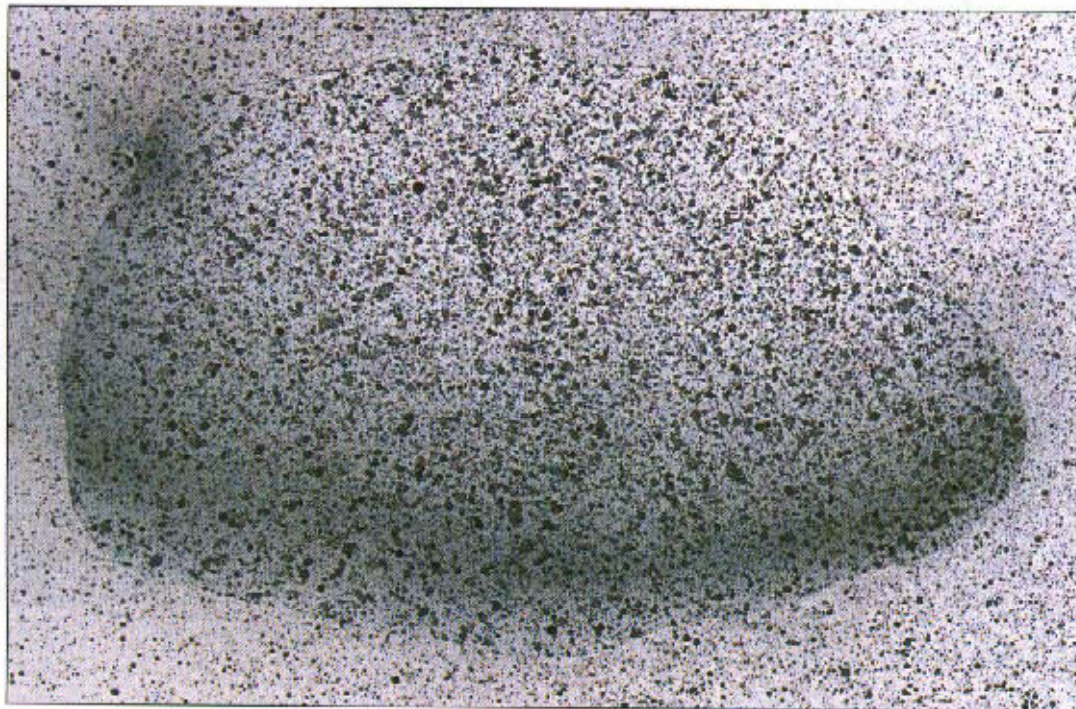
to give an impression of a galaxy of stars. This could be further worked on by applying hand-painted or sprayed "starbursts." The base

spraying and the initial stars could also be sprayed with a variety of shades and colors.

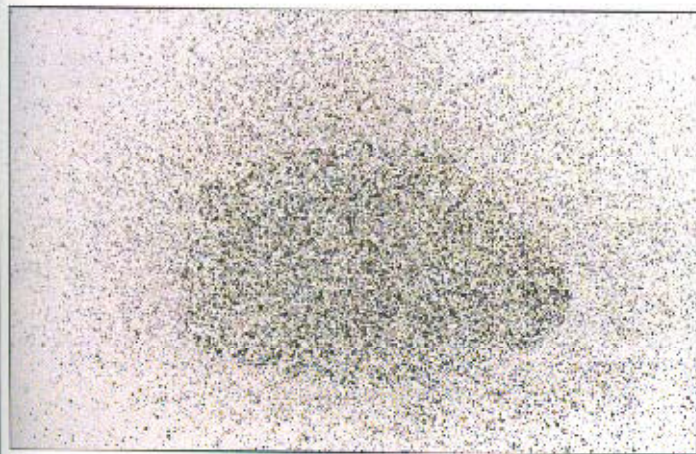


Stone Finish

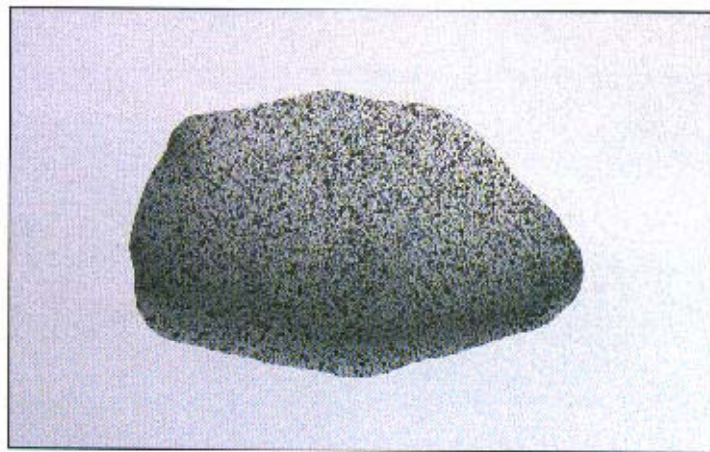
1 This shows one method of spraying a stone. The shape of the stone is first drawn on board and the whole area is covered with masking film, with the shape of the stone cut out. Couache is sprayed through a splatter cap.



3 The form of the stone is modeled by overspraying the shadow tone using a standard nozzle.



2 A second color, slightly lighter in shade, is now sprayed, again using the splatter cap.



4 The masking film is removed from the artwork, revealing a simple but effective rendering of a stone. With further practice it is possible to

increase the variety of shades and the number of colors, even to the point of using the splatter cap



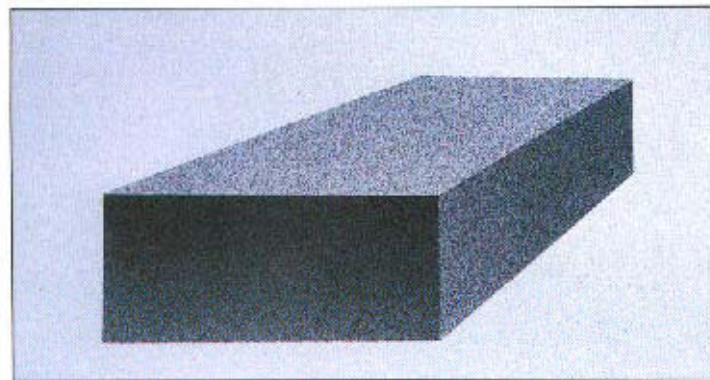
Rubber Texture

1 The second illustration demonstrating the application of a splatter cap is a rectangular box which is sprayed using watercolor to resemble a piece of rubber. This example again uses both the standard nozzle and the splatter cap. In the first instance, the shape is drawn and the artwork covered with masking film. The basic shades are sprayed using very low air pressure, beginning with the face nearest to the observer.



2 The side of the box is exposed and sprayed, again using both the standard nozzle and the splatter cap to develop the texture.

3 The top is the final surface to be sprayed. By following the sequence illustrated, there is no need to re-cover the previous stages with masking film: successive sprayings increase the tonal depth. Not only does this speed up the process, but it prevents errors which can be made by repositioning the film inaccurately, which tends to create unsightly double edges on the finished artwork.



4 When the required tonal values and depth of contrast have been achieved, the masking film is finally removed.



Birthday cake John Brettner

This illustration demonstrates an excellent application of the use of SPATTERING, although close study will reveal that it also includes many other techniques described in this book. Interesting contrasts have been made between the cake, which has been sprayed without a splatter cap, and the headstones and the foil-covered base, which are spattered. This has created a strong visual image, which emphasizes differences in the surface textures and the various materials.

The headstones were conventionally sprayed with a base color to establish the general shades and the color variations between the different types of stone. Following this, the shadow edges to the chipped and damaged areas of the stones

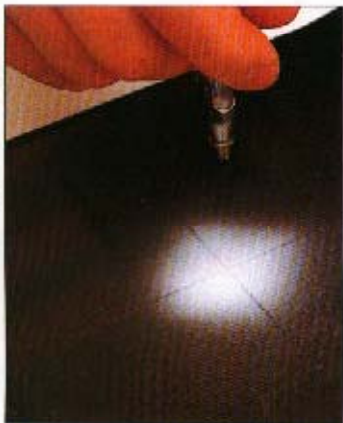
were added by brush. Spattering was then oversprayed on the base color using a mixture of whites, grays and blacks. Next the HIGHLIGHTS to the chipped edges were applied with opaque white, with UNIFORMITY by brush completing the headstones.

The cake base followed much the same sequence as the headstones, with the base color and form being applied first, without a splatter cap. The spattering was then oversprayed using a mixture of opaque white and blue-black, the latter in varying densities depending on the direction of the light source. Hand-painted crease marks and highlights were added, with shadows on the crease marks being applied with transparent watercolor, allowing the spattered effect to show through.

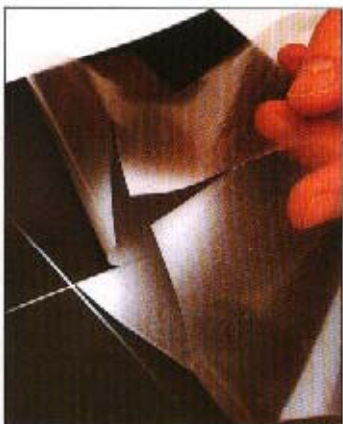
STARBURSTS

This is a particularly effective airbrush technique which can be used in many different ways. Besides the obvious use in rendering realistic impressions of stars in a night-sky or descriptive detail in fantasy or science-fiction illustrations, starbursts are also applicable in showing diffused reflections or dazzling highlights, as in the headlights of vehicles seen photographed with a long exposure.

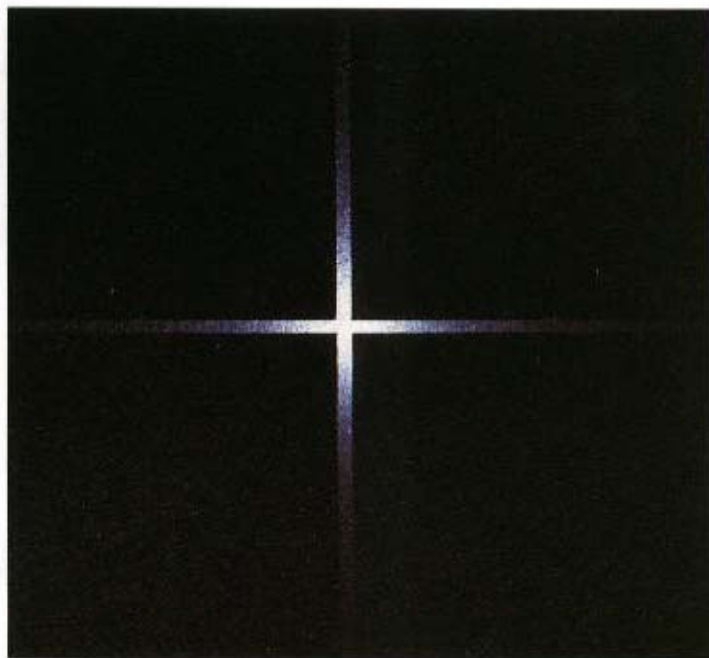
The following sequence demonstrates the most effective method of applying starbursts, using an acetate mask. The reason is twofold, in that the artwork is always clearly visible, allowing for accurate positioning, and that a certain amount of residue color will seep under the mask, softening the edges slightly. Self-adhesive masking film can be used, but this will give a very hard-edged finish which, unless oversprayed color for the starburst is subtly applied, will be less convincing.



1 This stage shows the acetate mask with a simple cross cut into it. The lengths of the arms of the cross are cut much longer than required to avoid even the slightest hint of an edge appearing after spraying. Opaque white is sprayed through the mask, concentrating on the center of the cross and allowing the residual spray to find its own limits.



2 The mask is shown being removed, revealing the greater density of white at the center of the starburst, fading out toward the ends of the arms.



3 The finished example. If required, the number of arms may be increased in any proportion using the same mask, or new masks could be cut depending on the desired effect.

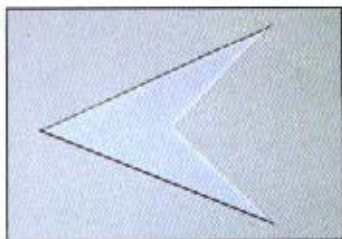


4 In this example, the same mask has been used twice, but in different positions and with different degrees of intensity at both the center and in the lengths of the arms, making the larger of the two appear brighter and nearer to the observer. Note, too, that they are both angled in relation to the artwork.

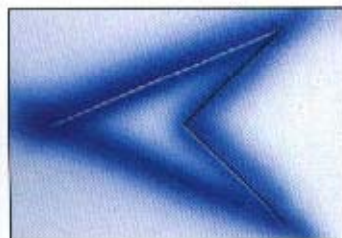
STENCILS

When it is necessary to produce repeat pattern artwork, the stencil becomes a useful aid, although excessive use of a paper stencil will soon give distorted images because of the effect the paint will have in wrinkling the paper. Thick cardboard is a more stable material for stencils, but it can be difficult to cut intricate shapes.

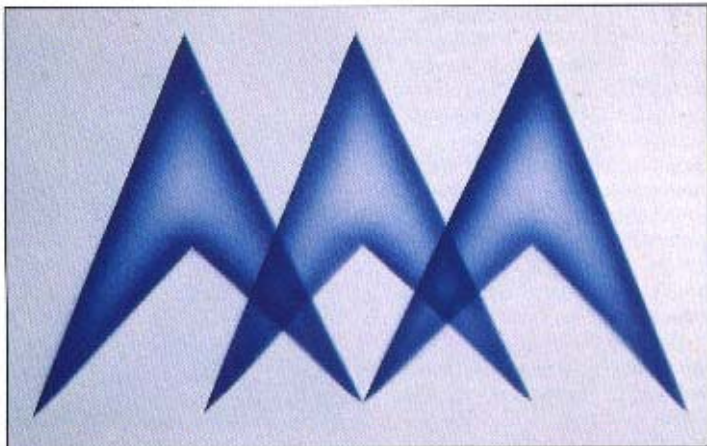
The thickness of the cardboard may also cause a narrow, unsprayed edge around a shape, if the airbrush is held at an angle while spraying. Natural or man-made objects can also be used as stencils, giving an infinite number of patterns.



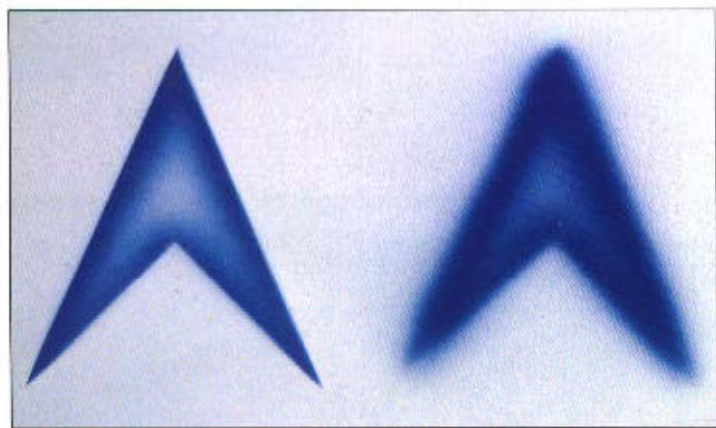
1 A simple shape has been cut into stiff cardboard for use as a stencil.



2 Here the spraying is restricted to the edges of the stencil, with no color being applied to the center.



4 A simple symmetrical pattern obtained by overlaying the same stencil.



3 The finished result shows, on the left, the effect when the stencil is held flat on the surface, while that on the right shows the effect when the stencil is held above the artwork. Notice that when it is held away from the artwork, the residual color encroaches over a wider area, both outside and inside the stenciled shape.



5 This example is the reverse, in that the stencil now consists of the shape originally cut from the cardboard. This has been laid on the board and the color sprayed around it. When using a flimsy stencil, such as paper, it is possible to hold it in place, but care is required to prevent the spray from producing a distorted silhouette shape or whatever is holding the stencil down.



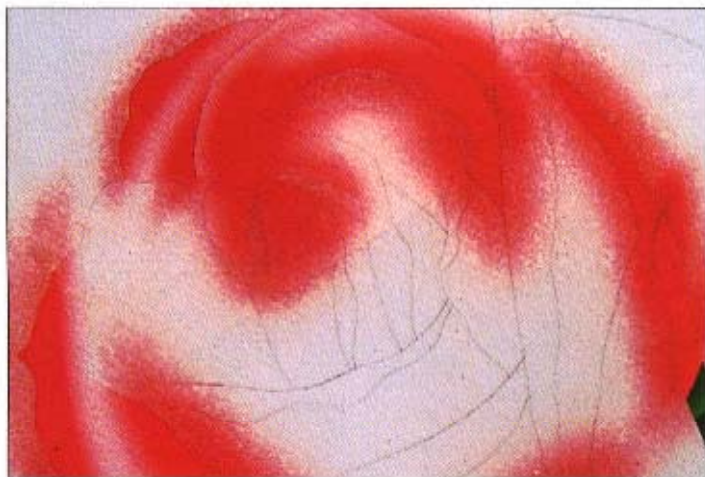
6 Using the same stencil as in step 5, a multiple overlapping pattern has been achieved.

TAPE MASKING

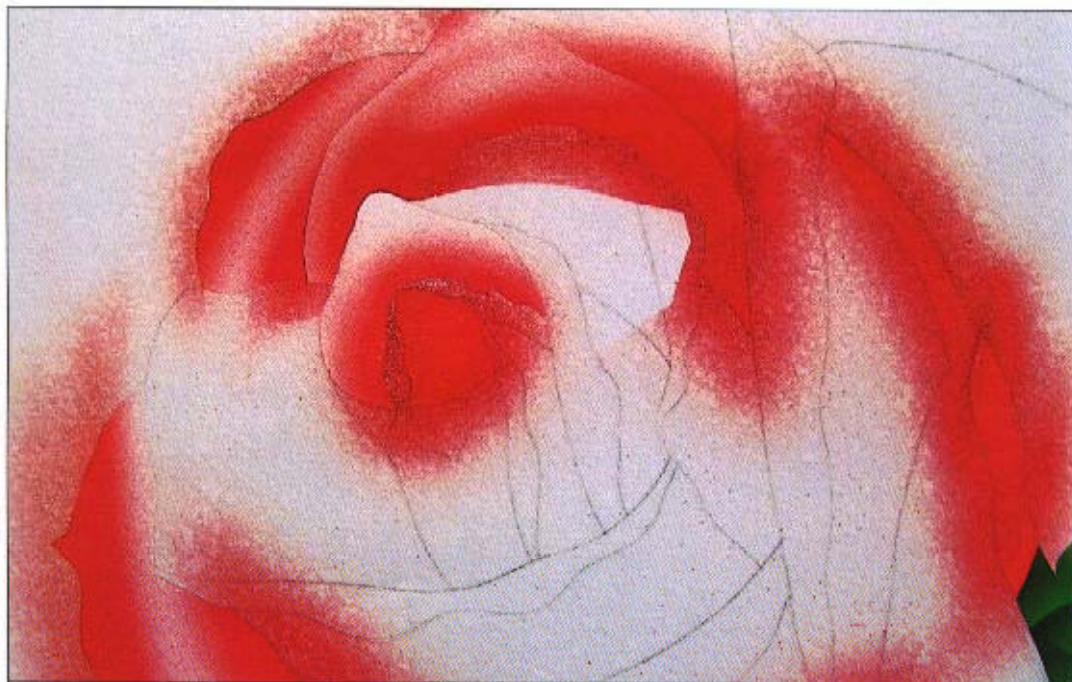
People who do drafting work use a transparent, self-adhesive masking tape, called invisible masking tape, which is matte-finished. It is suitable for drawing or inking on, and therefore ideal for repairing drawings, especially when these are prepared on drafting film. This tape is also useful in airbrushing when, as in the example illustrated here, small areas have been exposed out of sequence. It may be cut and used in the same way as masking film and similarly has a low-tack adhesive which does no damage to the artwork.



1 Referring to the example described and illustrated under the heading film masking, three stages in the use of tape masking are shown here. In the process of cutting and removing film for different areas of the rose, a piece of film was taken off prematurely. Matte transparent tape was used to re-cover the exposed petal, which was then cut to shape.



2 With the tape in place, the petal was sprayed corresponding to the correct order in the sequence.

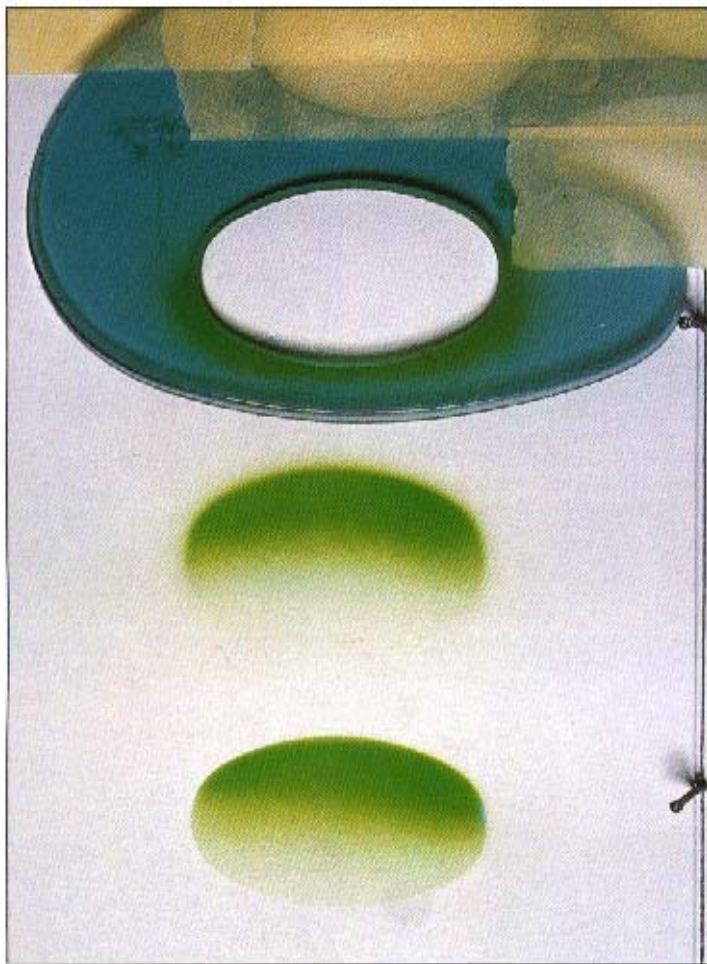


3 When complete, the transparent tape was lifted off and the spraying sequence continued.

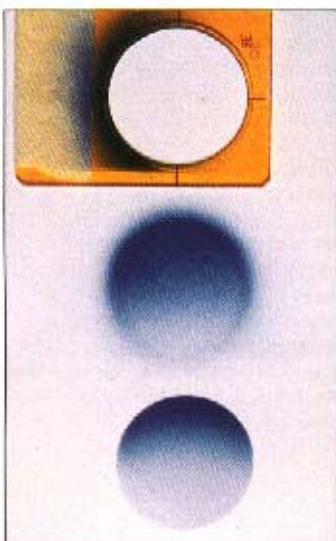
TEMPLATES

Useful aids in airbrushing are the many and various die-cut templates used in drawing illustrations. These are used in much the same ways as hand-cut stencils. The examples which follow show simple applications for ellipse, circle and French curve templates.

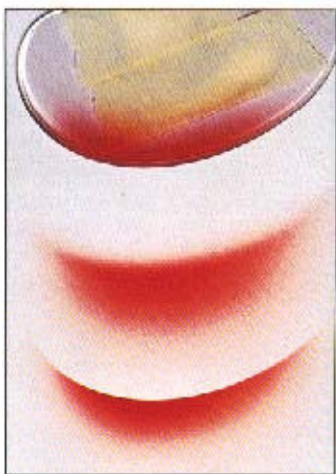
There are two things which need particular attention if you are using plastic templates in airbrushing. One is that the sprayed color dries slowly on the plastic, so you should make sure the underside of the template is clean and all excess color has been wiped away if you are using it more than once. Also, if the template consists of multiple shapes, use tape to mask off the ones surrounding those being sprayed; otherwise, residual color may fall through and create shadowy silhouettes where color is not wanted.



1 This example demonstrates the use of a typical ellipse template. The spraying is directed through the required size and angle of the ellipse, either as flat color or, as here, graduated color. The uppermost ellipse has been sprayed holding the template at a distance away from the artwork, while on the lower one the template has been laid on the surface of the artwork.



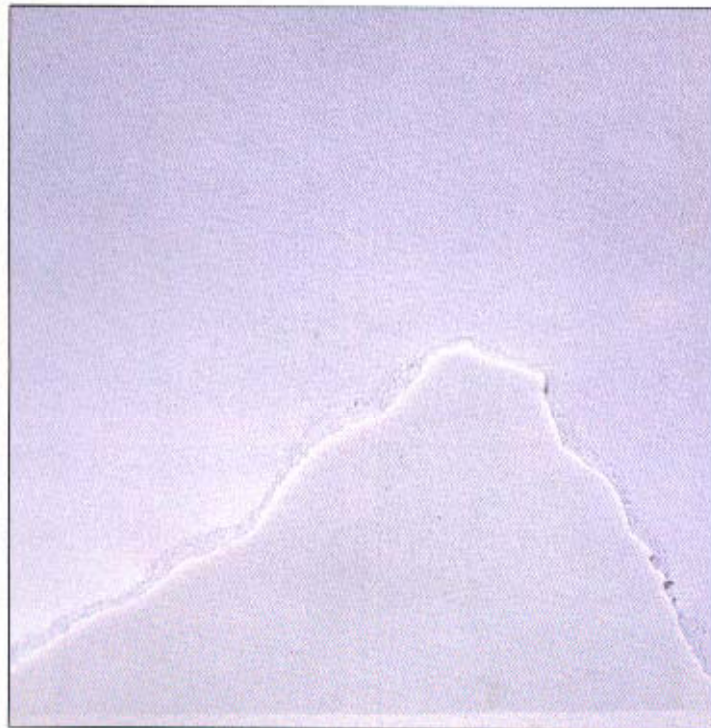
2 A circle guide template has been used here, both holding it away from and laying it on the artwork, as in the previous example.



3 This shows a French curve being used in the same two ways. The use of French curves, as with any template, needs special care to prevent residual color from being sprayed around those parts of the curve not required.

TORN PAPER MASKING

If the exterior silhouette being sprayed is not confined by predetermined dimensions, torn paper can be an effective form of masking. To illustrate one application, it might be required to create an impression of the sea, and torn paper prepared in a variety of wave shapes could be used to define the waves over a pre-sprayed base color. By slightly moving the torn paper horizontally to the left or right after the first spray, the waves will take on a quite convincing appearance, albeit in a stylized manner. Reference should also be made to ANGLED SPRAYING, CARDBOARD MASKING and LOOSE MASKING.


Special Effects

1 In this example of special effects, a simple illustration of receding mountains is shown, and in the first stage, a torn paper or thin cardboard mask is prepared. The border of the illustration is protected with masking film which will remain in

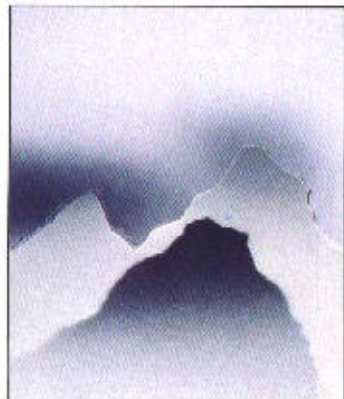


place until the final stage. Note that what has been removed from the paper mask is the shape of the mountain, and not the surrounding area. Because this first shape will be in the foreground, the mask is positioned on the lower part of the artwork.

2 The first application of color is sprayed in transparent watercolor, gradating from the top to the bottom of the mountain. As this mountain is nearest the observer, the strength of color and shading is the most intense – the subsequent stages will show a gradual softening of tonal values as they appear to recede from the observer.



3 A new shape is torn into the paper, positioned on the artwork and sprayed in a slightly less intense color.



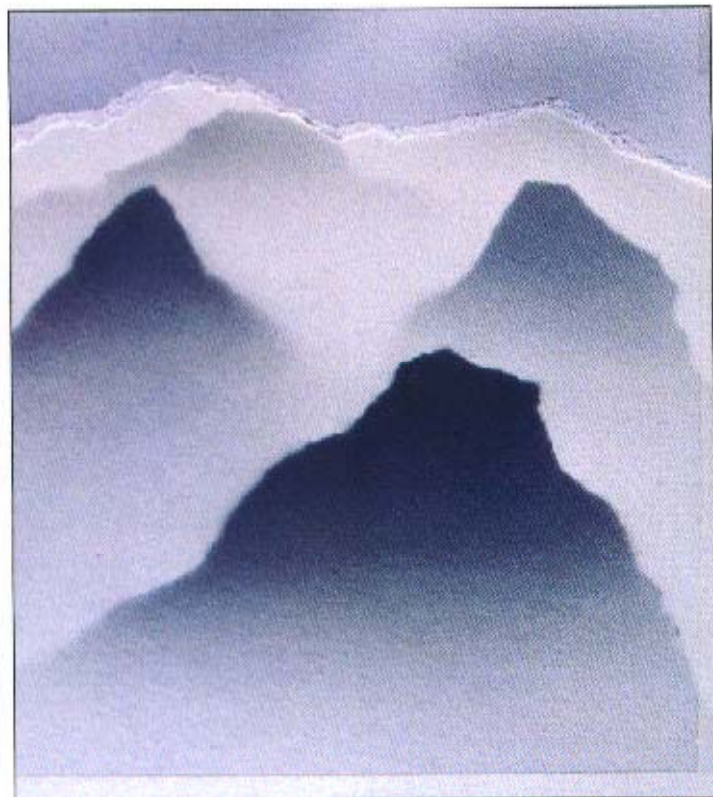
4 The process is continued as the impression of depth is increased. It will be noted that shapes already sprayed are not protected by a mask. This ensures that the tonal value of those shapes representing mountains in front of the one currently being sprayed retain their strength.



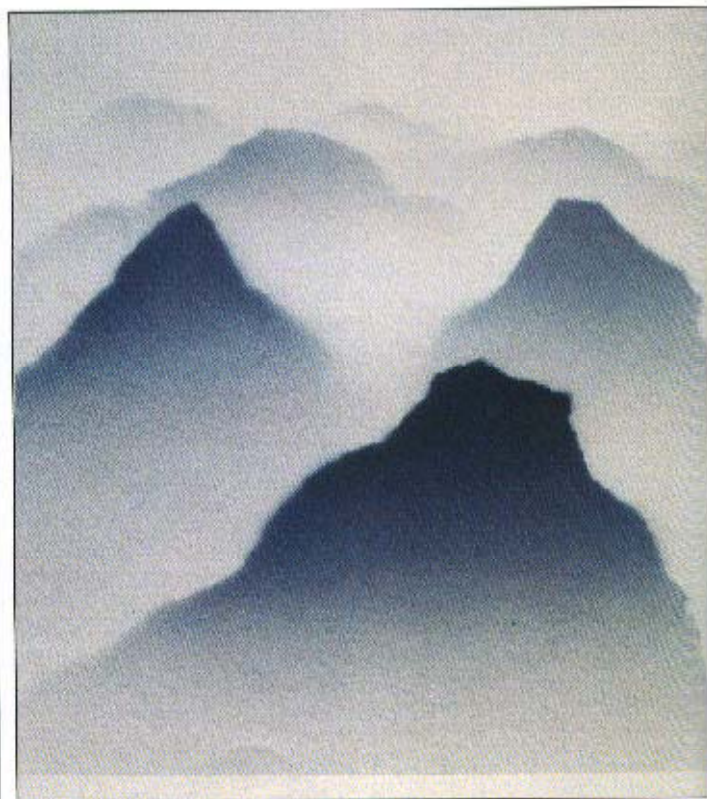
5 Again the shape is changed, sprayed more lightly. It, covering less area than before.



7 When the very pale shapes in the far distance have been completed, the torn paper masks are discarded and the sky is sprayed. This is a lightly graduated shade of color running from the top of the artwork to a level just above the mountain tops.



6 Another background shape is sprayed, maintaining the lighter shades established previously.



8 The masking film delineating the outer borders of the illustration is now removed and the final result gives an illusion of depth, distance and space.

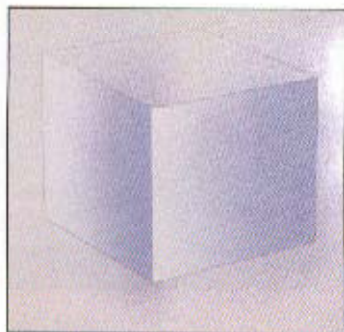
TRANSPARENCY

This technique refers to objects which are transparent to a greater or lesser extent. It requires a far greater control in the application of sprayed color than does the representation of solid objects, because it is easy to overspray and in so doing to knock back the transparent effect, in which case the process has to start again. The example used here to illustrate transparency is a simple cube, and no allowances are made to include reflected colors or highlights which might be apparent from surrounding objects.

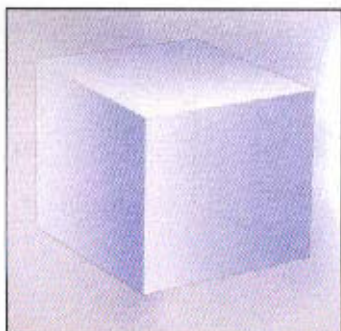
In advertising illustration, there are many examples of objects airbrushed in this way which would not, in reality, be transparent. Many of these illustrations come from the imagination of the illustrator and are done to achieve a particular effect and often for impact. To reach this standard requires skill, practice and an understanding of the changes in light and reflections as seen through a transparent object. GHOSTING is very much related to this technique, and the two may be used together in order to gain a better understanding of the application of transparent effects.



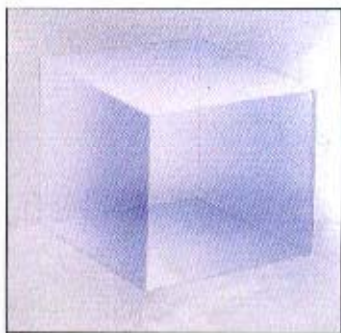
1 The drawing of a cube showing all six faces has been prepared and covered with masking film. The naturally visible left-hand face in the foreground is exposed and sprayed with a graduated shade of color running from the leading edge to that furthest away from the observer.



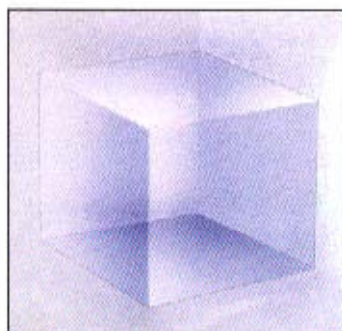
2 The right-hand face is now cut and sprayed, again with a graduated shade, but from the extreme right-hand edge toward the leading edge.



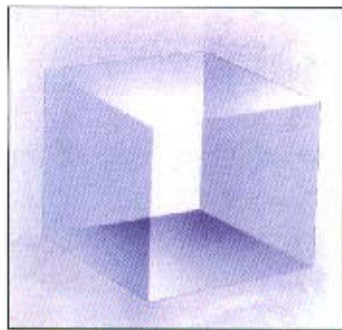
3 The top, horizontal plane is sprayed next, the shading running from top to bottom.



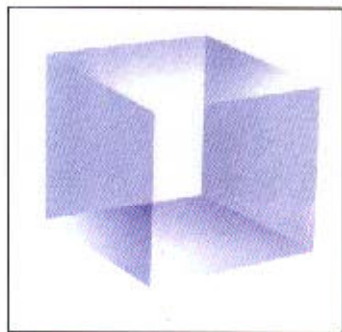
4 The inner face of the cube lying on the ground plane is sprayed next, with the depth of shading graduating from the furthest corner away from the observer toward the leading edge corner.



5 The vertical edge representing the corner of the cube furthest away from the observer is masked and sprayed with a graduated shade running from left to right.



6 The left-hand inner face at the back of the cube is sprayed with a graduated shade.



7 Finally, all masking film is removed.

Finger Style Brian Robson

Some consider the airbrush to be a tool only for technical illustration, which has no place in any other type of graphic imagery. Such viewpoints misunderstand the reason for using any aid in the production of an illustration. If a desired effect or finish is best obtained with an airbrush, or any other tool, then would it not be appropriate and sensible to use it? The illustration reproduced here is a case in point, for it might at first appear that spraying would not be the best means of arriving at the finished result. Nevertheless, an airbrush has been used, showing the illustrator to have complete control over the airbrush and the density of color applied to each part of the illustration. It relies very much on the technique of rendering transparency, with FABRIC MASKING at the top left and bottom right contrasting well with the FLAT TONES of the two circle segments.



BACS John Brettner

As mentioned in the introduction to this technique, far greater control is required in the spraying of transparent objects than solid ones, especially if other objects are to be shown behind. Control is required both of the amount of color applied and the density of the shades, each being dependent on the degree of transparency of the object. Careful planning is also required to ensure that any oversprayed color is applied in the correct sequence, so that there is no doubt as to which

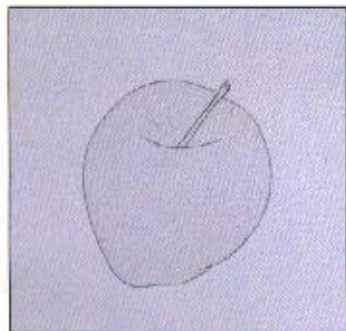
surfaces or objects are transparent, and which are in front or behind. The technique applied to spraying transparent objects cannot be identified from a single example of a finished illustration. Because of this, preparatory color notes should be made before starting on a piece of finished artwork and the sequence of spraying worked out beforehand.

The example reproduced here shows a very simple, but highly effective, rendering of eight glass balls centered around a larger one carrying the BACS logo, all set against an opaque background with a subtle reflection of part of the

grouping. The quality of transparency has been achieved by overspraying the ball immediately behind the one in front with a soft shade of the latter's base color. This is particularly obvious with the black-and-white ball lying behind the gold-colored BACS ball. It will be noted that the ball at the back has a HIGHLIGHT which has been sprayed with a lower-key shade of the gold, rather than the white applied to its neighbors.

VIGNETTING

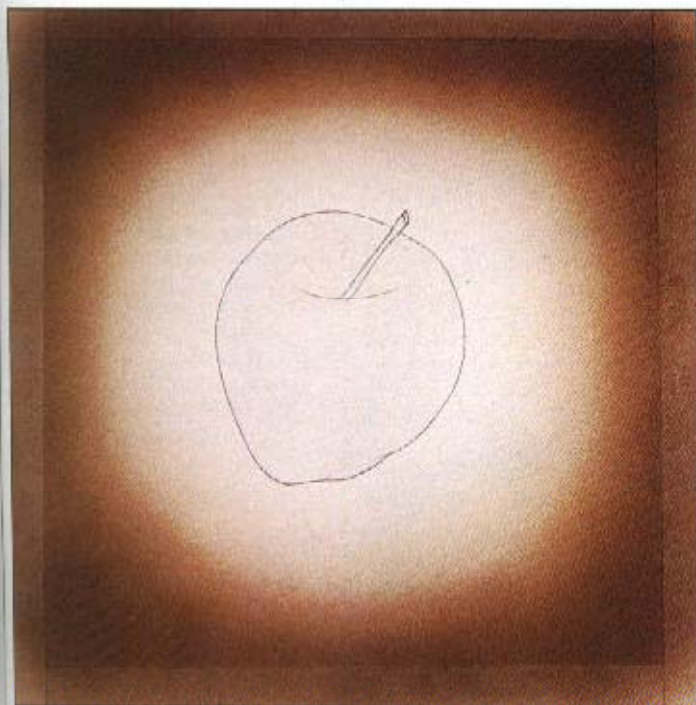
A vignette is a drawing which is not contained by any clearly defined borders or edges, but either fades into the background or stands on its own. In airbrush illustration work, vignetting is used to achieve the same result by gradating the colors that make up the background. Sometimes it can be used to fade out the object itself, especially if one side or area is considered unimportant to the central theme of the illustration.

**Fading In a Background**

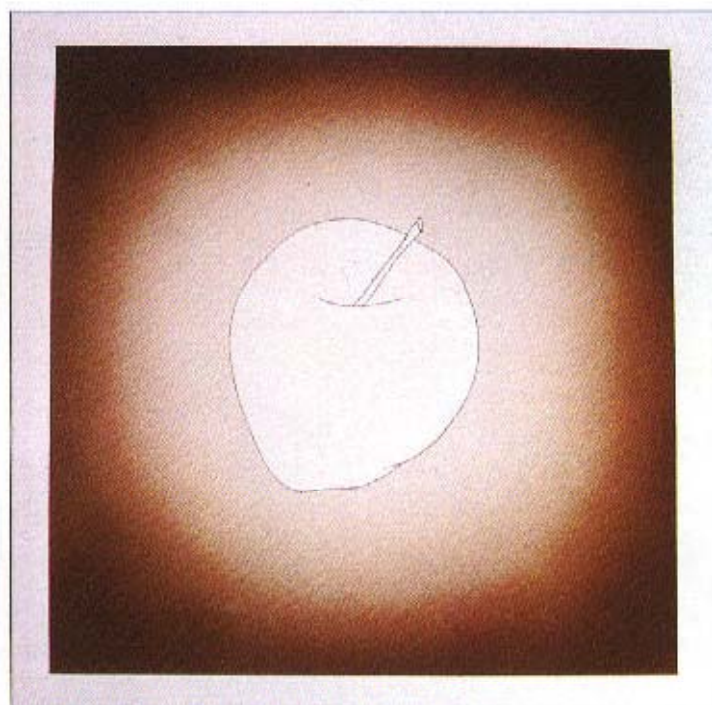
1 An illustration of an apple has been drawn and, to protect it from the background spraying, has been covered with masking film. The edges of the square which will contain the apple and its background have also been masked.



2 The spraying begins with a gradual build-up of a gradated shade, from the outside edges of the box inward.



3 The shade is increased until the required depth is reached.

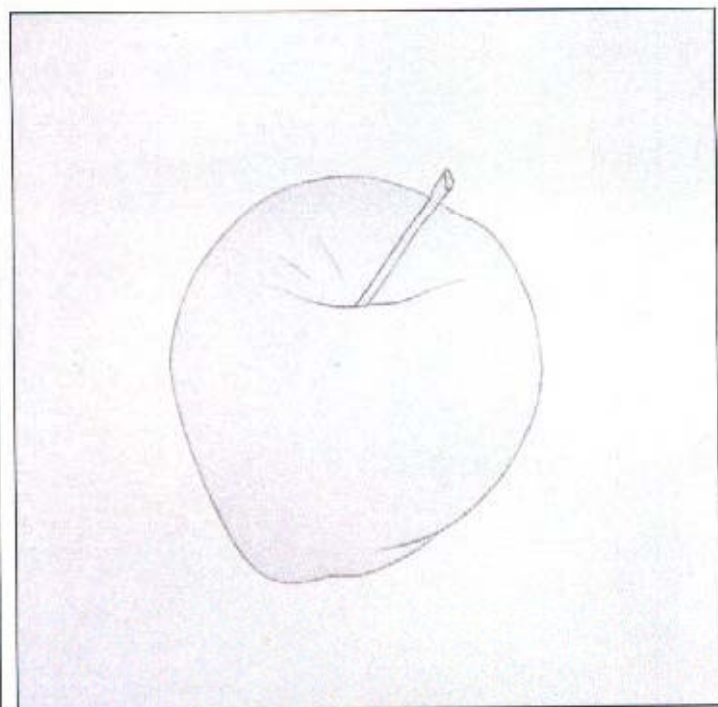


4 When the vignette is completed, the mask protecting the edges of the box is removed.

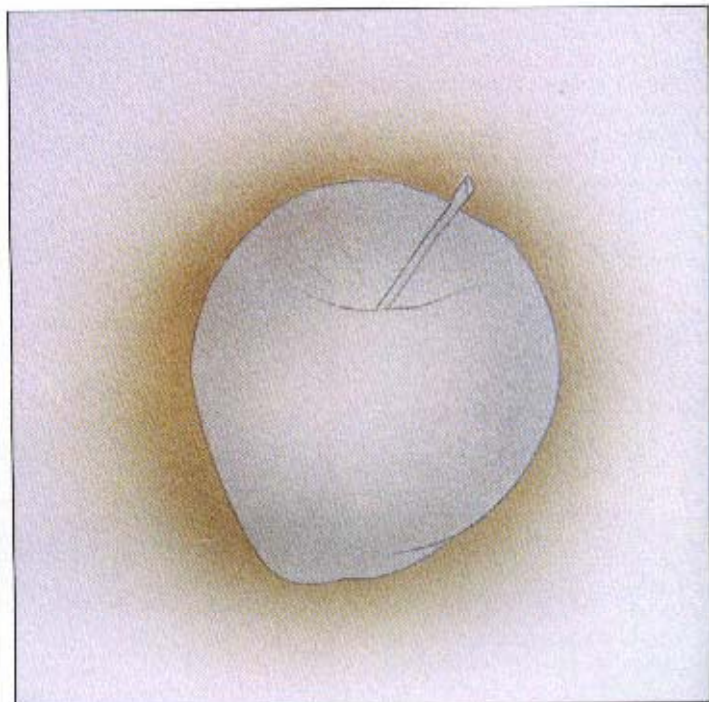


Fading Out a Background

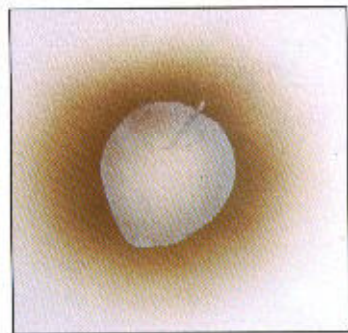
1 In this demonstration a faced background is required, but graduated from the object outward. Here the apple has been protected with masking film.



2 Spraying has started from just within the edges of the mask and an even shade is built up all around the apple.



3 The depth of color is increased to harden the contour of the form.

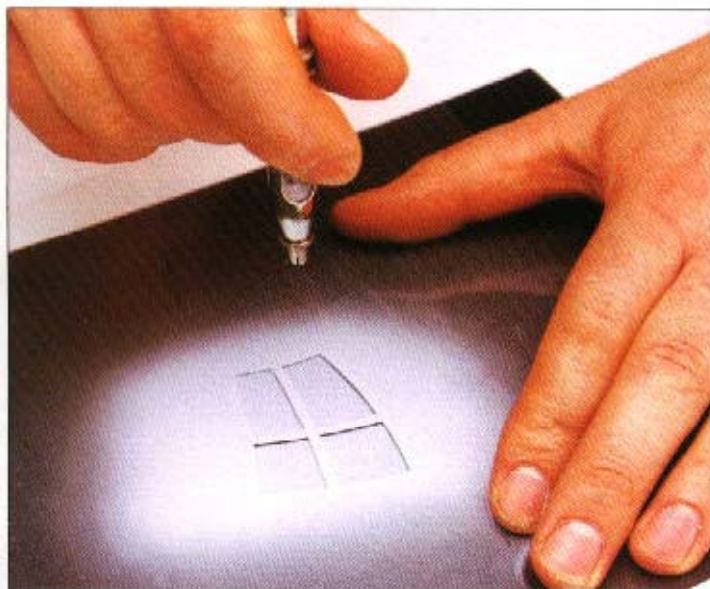


4 When enough color has been sprayed, the mask on the apple is removed, showing the vignettted background outlining the shape and fading gradually outward.

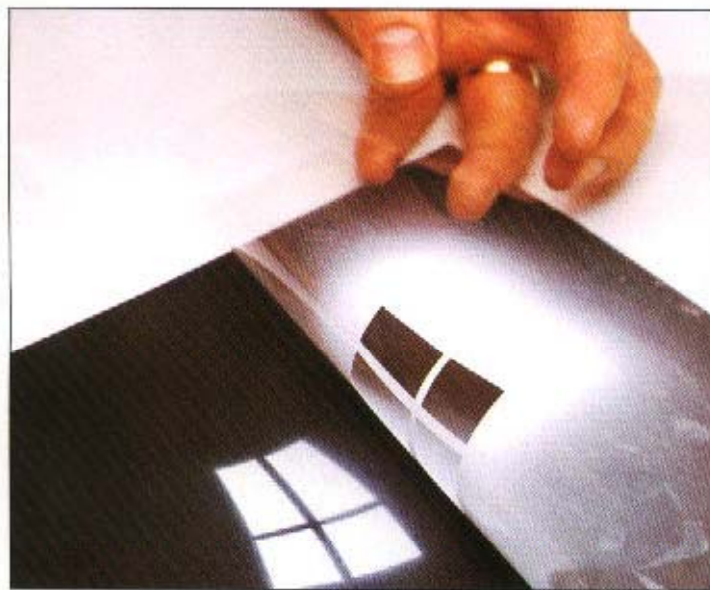
WINDOW HIGHLIGHTS

By its very name, this technique refers to the reflection, usually on a curved surface, of a window. It is visible under a range of light conditions, but as a highlight is more pronounced when the light source coming through the window is particularly strong. As a technique, this is useful for enhancing the appearance of a highly polished, but opaque object in a stylized manner, especially when no other reference source is available. It is an extremely popular device and can be seen in airbrushed illustrations from any period. When taken further by the inclusion of surrounding detail, both on and near the window, the effect can be one of super-realism, a style developed with great expertise by many of the Japanese exponents of the airbrush.

Though effective, window highlights should be used with caution, and they are not applicable to all surfaces or subjects. For example, it would be inappropriate to use a window highlight on the hubcaps of a modern 18-wheeler, regardless of how polished and glossy the metal: the chances of such a vehicle being housed indoors so that it would accurately reflect patches of light passing through a window would be very slim.



1 In this demonstration the window shape has been carefully cut out of acetate sheet and placed in the required position over a pre-sprayed base color. Opaque white is then sprayed through the mask.



2 This photograph demonstrates the effect with the mask pulled back. Notice that the shape of the stylized window is curved. When used on a curved object, the curves of the window should conform to those of the object. It is, of course, acceptable to cut the mask with allowances for the distortion which sometimes becomes apparent through perspective, but this will require close observation of a real example. By using an acetate mask, the resulting effect will be to give a soft edge to the highlight. The degree of softness will be determined by the distance the mask is held away from the artwork. Of course, a hard edge could be obtained by using self-adhesive masking film.