



THIS ARTICLE WAS EXTRACTED FROM *The Complete Guide To Colour* by Tom Fraser and Adam Banks published by new graphics publisher, ILEX – the digital creative's publisher of choice.

A comprehensive, cutting-edge reference book for a new generation of colour-users, *The Complete Guide to Colour* brings together key elements of colour theory,

practise, and application in one easy-to-use format. From abstract colour theory to the more practical implications of using CMYK and RGB, this authoritative volume may well be the only colour book you'll ever need.

Tom Fraser founded Designer Training Ltd, a firm specializing in professional instruction for design-orientated software. Adam Banks has worked with digital imaging since the

early 80s, and contributes regular reviews and tutorials to computer publications.

The Complete Guide to Colour is available at a retail price of £19.95. However, Digit and ILEX have teamed up to save you money.

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DESIGNING WITH COLOUR

There are many conventions governing composition and layout, and all will interact with colour to produce an overall impression. The principles outlined in the following pages are not presented so that you can follow them slavishly – most are too vague for that anyway – but to provide a framework that you can bend and twist to a point where it may be close to snapping.

Perhaps that seems a little melodramatic, but once you get into the swing of designing according to certain rules, whether learned or developed intuitively, it is all too easy to fall into a rut. This is especially true if you are working on a publication or in an environment where style is set rigidly, welded into templates that rarely shift. In such circumstances, it is worth remembering that the smallest changes can lead to exciting results.

One of the benefits of computer-based design – contrary to prejudice – is that the computer has no fixed ideas. When you sketch a layout on a pad, your brain and

hand will tend to guide elements into conventional positions. On the monitor, your mouse hand can whiz objects around much more randomly and generate new possibilities. Having produced a happy accident, you can always use your knowledge of conventions to analyze why something looks good and develop it rationally.

Negative space should perhaps be mentioned first. In page layouts, white space radically influences a reader's perception of text and images. Opening up the leading between lines of type or surrounding a block of text with generous margins can allow a page to breathe. In graphics and photos, negative space (not necessarily white) can add drama and influence an interpretation of the visual content. For example, in cropped photos, extra space is conventionally left at the side the subject is facing; cropping the opposite way allows political editors to show a figure with nowhere to go and a dangerously exposed rear.



Right: This 1930s magazine cover provides a classic example of colour composition. Both colour and form are carefully balanced. The vein of the leaf, which is depicted in flat colour fields, provides an opposing diagonal to the figure, shaded three-dimensionally in monochrome. Yellow – a stronger colour than red – is tempered by a larger neighbouring area of blue.

BASICS OF COMPOSITION The way we take in a composition is rooted both in the evolution of our eyes and brains and in our cultural experience of reading texts and looking at pictures. Although it is impossible to predict how random individuals will respond to a given arrangement of elements, some useful rules of thumb are widely accepted.

The place where the viewer's eye will land first is the 'focal point'. Before we begin influencing the eye with colours and forms, there are certain natural focal points on a page or canvas. One is near the centre, but a little higher, and can be slightly to one side. Others are found in a square surrounding this and can be located either by dividing the canvas into nine equal squares (the 'rule of three' or 'thirds'), or by drawing diagonal lines between the corners of the canvas and bisecting them.

Try placing two or three elements of different sizes and colour values at focal points, or working out from just one focal point. You can use a focal point indirectly or negatively: forms may surround it, or lines may lead the eye to it. Of course, you can ignore the conventional focal points altogether, as long as your composition makes some kind of visual sense. Key elements are often arranged to form a triangle, or within an imaginary circle. All of these principles can be scaled to govern smaller areas within a composition.

When laying out two-dimensional static artwork, we need to remember that our brains evolved to interpret activity in a three-dimensional scene. This has a number of consequences. Because moving objects are of more immediate significance in the real world than still ones, we instinctively look for movement in a scene. Movement

can be defined as consecutive sightings of a similar form in different positions. But even simultaneous instances can trigger a sense of movement.

A sequence of shapes scattered across a page can suggest motion, with the assumed direction being left-to-right or top-to-bottom. There is some uncertainty about whether this differs in cultures that do not write text this way. The shapes need not be identical, or even very similar – colour is one of the cues that can encourage us to associate them. If the shapes vary consistently in size, from large to small, there will also be an impression of perspective, with smaller forms receding into the distance.

Lines often serve the functional purpose of dividing an area, but they can also be used to lead the eye. When our attention is attracted by a figure that consists of a line, we tend to follow it, again in the conventional directions. Lines or shapes radiating from a point give the impression of moving towards that point, and draw the eye to it. A similar effect occurs wherever lines cross, while parallel lines reinforce each other. Horizontal lines make the page appear wider and give an impression of calm and expansiveness. Verticals can be elegant and imposing, but they may feel restricting. Diagonal lines appear dynamic.

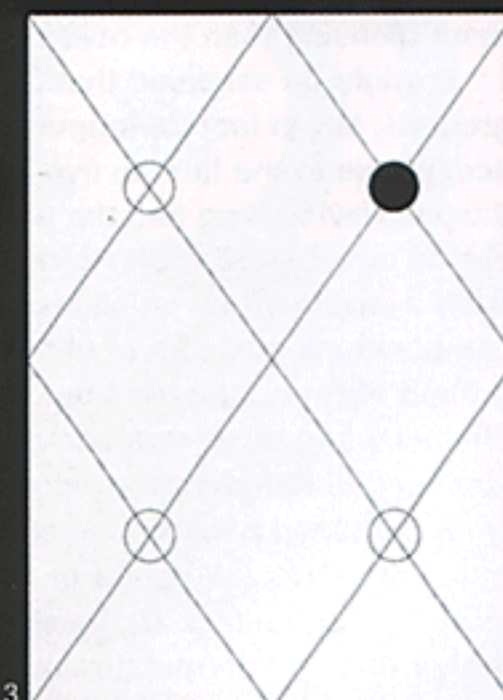
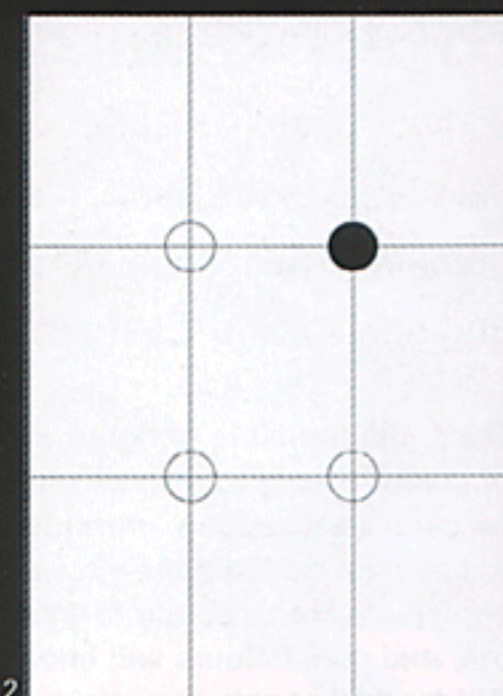
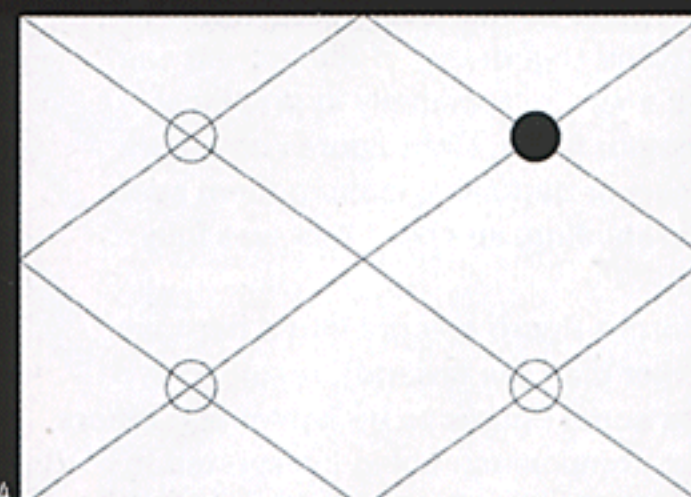
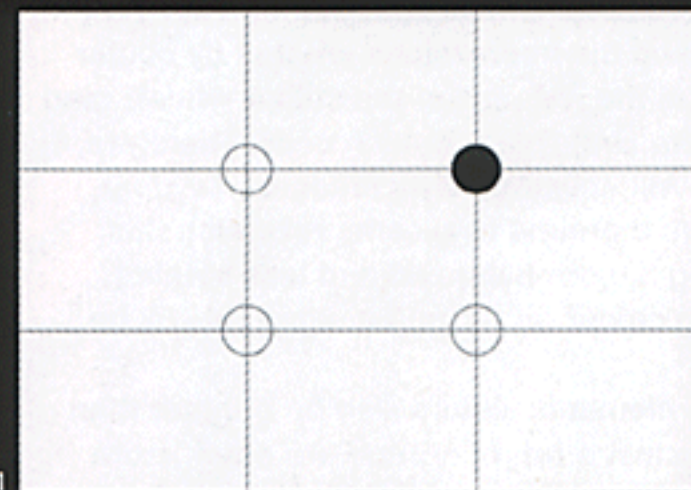
Below: These diagrams show two ways to fix the conventional focal points within a rectangular composition.

1. Rule of three in horizontal (landscape) format: a photographer's favourite, also suitable for paintings and graphical compositions.
2. Rule of three in vertical (portrait) format: supremely elegant (it's no coincidence that the diagram is reminiscent of a Georgian window), but can feel pinched.
3. Bisected diagonals in portrait format: the focal points move outwards horizontally compared to the rule of three, expanding the composition within the canvas.
4. Bisected diagonals in landscape format: again, feels more expansive than the rule of three, but risks a lack of interest at the centre.



Left: This photo is more artful than it might seem. The window and the mailbox centre on diagonally opposite focal points. Horizontal lines draw the eye outwards: what is through the door? Around the corner?

Below left: Compare this monochromatic composition with the focal point diagram opposite, top left. The small highlight on the chair back is essential to the painting.



#11 COLOUR IN COMPOSITION



above: We instinctively interpret colour and form as if they are part of a real-world scene. The photo on the left shows an interior receding into the distance. Reduced to a few simple colour fields (**right**), the image gives a similar impression of perspective and recession. Such effects play a part in how we 'read' any graphical composition, whether or not it aims to depict reality.

COMPOSING WITH COLOUR Within a scene, we tend to see relatively large, plain elements as a backdrop to smaller, more distinct ones. The latter catch our attention first and seem closer. This principle is known as 'figure and ground', and is important for several reasons. First, it contradicts the assumption that smaller items will necessarily seem less significant: in fact, they may well dominate. Second, it tells us that a composition in which figure and ground are not immediately distinguishable may seem lifeless and uninviting. Elements should be differentiated by size and colour.

Third, the principle of figure and ground combines with our knowledge of colour theory to help us understand the impressions created by colour within a composition. Warm hues (in the red part of the colour wheel) tend to advance towards the viewer, while cool (blue) hues recede. Therefore, applying a warm colour to a figure will accentuate its tendency to jump out, and cool colours will encourage a ground to recede; reversing this will tend to negate the effect, giving a more balanced and less striking impression. A small splash of warm colour on a cool background will be more pleasing than the reverse.

It might be assumed that figure elements should also be brighter than grounds, but in fact dark figures against a bright ground are much more acceptable to the human eye. We write in black on a white background, despite having long had the technology to do the reverse, because it seems more natural. Changing the value (lightness) of the ground can have a strong effect on an image as a whole, especially in graphical compositions made up of uniform colour fields. Light figures on a dark ground seem to emerge from shadows or darkness, making them seem luminous and often mysterious or foreboding, an effect that was fully exploited in Renaissance painting.

A midtoned background either forces figure colours into a narrower range of values (all lighter or all darker than the ground), resulting in a muted or hazy effect. Or, by allowing some figures to be lighter and others darker than the ground, prevents the composition being interpreted in terms of spatial recession, an effect that is visually disorienting but can be graphically rewarding.

Elements that differ most in value from the background will always draw the eye first, almost regardless of differences in hue. Colours are intensified by being placed on a very dark or very light ground, but their



This carefully judged composition sets warm, advancing earth tones against cool, receding blues to give an immediate impression of scale and distance, despite comprising only simple forms. Note the use of repetition and leading lines.

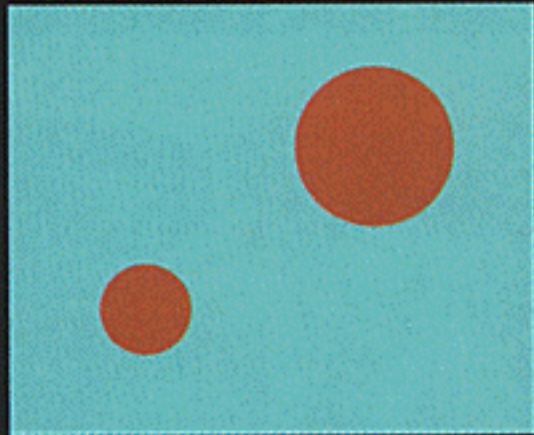
Agent: Digital Vision;
Artist: Nigel Sandor

If you enjoyed this article, extracted from ILEX's book, *The Complete Guide to Colour* by Tom Fraser and Adam Banks which costs £19.95, you will also enjoy ILEX's *Getting Colour Right: The Complete Guide to Colour Correction* by Michael Walker with Neil Barstow, priced at £19.95.

Highly recommended by Digit, ILEX is a must for anyone interested in the graphic arts.

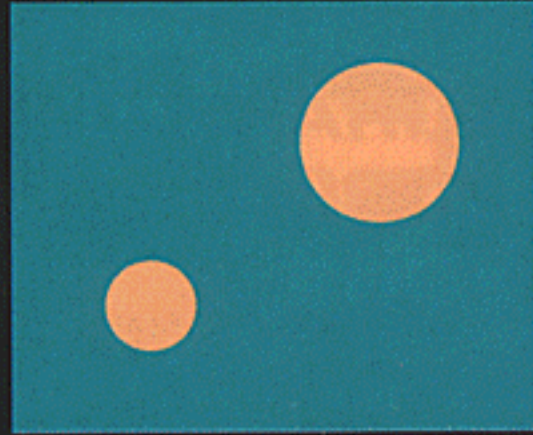
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Top: A natural figure/ground relationship. A large field of cool hue is interrupted by darker, smaller fields of warm hue.

Bottom: With the colours reversed, the cool figures are equally well distinguished, but appear more numinous.



Defeating expectations of figure/ground colour relationships can create a more harmonious composition.

Top: Normal temperature relationship, reversed value relationship.

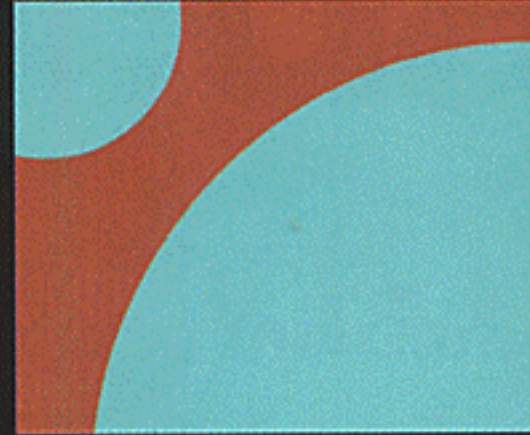
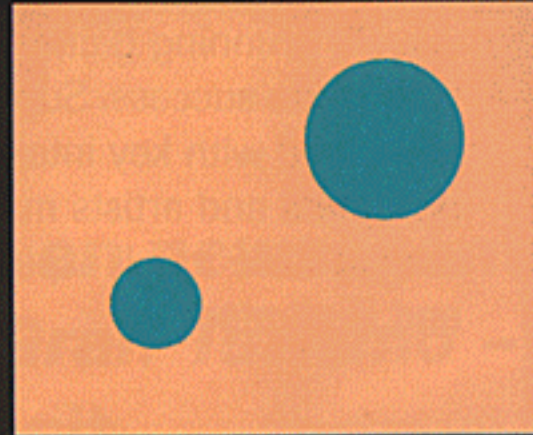
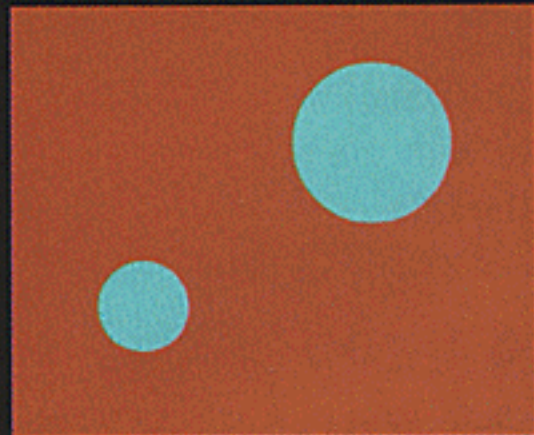
Bottom: Normal value relationship, reversed temperature relationship.



Playing with proportional relationships.

Top: Because the large shapes are more regular, darker and warmer than the negative space, they tend to appear as figures in front of a ground.

Bottom: With figure/ground cues now thoroughly confused, we flip between seeing blue discs and a red arch.



temperature and tendency to advance or recede may also be affected: blue on white can advance, while red always advances against black, even in extremely dark shades, as is powerfully demonstrated in the well-known paintings by Mark Rothko.

Repetition, or rhythm, is an important feature of many compositions. The use of colour can contribute to the effects of repeating lines and shapes: gradation of lightness and saturation can tell us which way movement is going, or reinforce the impression of forms fading off into the distance. More distant objects appear lighter, less saturated, and less distinct, an effect that can be created by blurring or 'feathering' elements or reducing the detail with which they are drawn.

Progressive sequences of colour lead the eye and make the composition more dynamic, while repetitive sequences give a sense of order and balance. Closely spaced repetition of hues creates optical mixing, giving the overall effect of a continuously coloured surface. Similarly, exact repetition of lines, shapes or colour fields – pattern – can allow an area to appear uniform even though it may contain a large amount of detail.



Above: The repetition of colour and form within patterns such as this tartan creates a sense of order and balance which prevents them seeming garish or distracting.



Progressive colour sequences are dynamic, suggesting motion or depth.

Top: Increasing values lead the eye towards the centre of the composition.

Bottom: Deprived of a contrasting ground, the dark central figure appears to recede into shadow. The lighter rings at the outside also recede, giving a less dynamic effect than above.



Repetitive colour sequences are static, discouraging the eye from travelling in any direction.

Top: Contrasting shades preserve some of the depth effect created by the rings. Note the slight optical illusion of a spiral, which occurs when rings are broken or partly concealed.

Bottom: Complementary colours further reduce any dynamic effect.

