example yellow, yellow-orange and orange. The orange and yellow may be, perceptually, too distant and distinct to be held together by the intermediary colour, though this may be a point of personal taste. In the urban environment most colours appear in a much modified form which reduces this problem, if indeed it is a problem. Polychromatic brickwork decorated with bands or patterns in the orange to yellow range fall within this category of colour schemes (Plate 7.4). Colour arrangements of this type may look unresolved particularly when the building is aggressively new but when the brickwork weathers the colours are modified and the harshness softened.

THE HARMONY OF OPPOSITES

When complementary colours are set in strong contrast the result is found agreeable to many, exciting and vibrant to some. The harmony of opposites has a visual quality which is intellectual. The harmony of opposites usually juxtaposes a warm colour against a cool one, that is, enhancing the positive quality of the warm colour with the passive quality of the cool one. Complementary colours are found diametrically opposite each other on the colour circle, for example, blue and orange, or green and red. Due to the law of simultaneous contrast, each of the pairs of complementary colours heighten the intensity of the other. In nature this is a colour scheme often found in birds, butterflies and flowers, examples are the violet flower with yellow centre or the blue bird with orange flash. In the Algarve, an orange sunset is often seen against a deep blue sky. In the built environment one must turn to a less sophisticated setting to find this exciting colour combination. Some of the cottages of the Mediterranean countries have red shuttered windows juxtaposed against a green frame and set within whitewashed walls. The use of blue and gold on medieval vaulting in Cathedrals such as Canterbury uses this heightened intensity of the colours to impress the viewers even from the lofty height of the nave ceiling.

The harmony of opposites includes also black set against white. Such an achromatic scheme is of great sophistication, a cerebral rather than emotional response to colour. For natural examples of this colour harmony, one must turn to the northern European countries when the landscape is covered with snow, the sky drained of colour and the shapes of trees stand out in stark black contrast. In northern Europe, particularly in Britain, there is a long tradition of black and white buildings, Chester being a particularly fine example.

THE HARMONY OF SPLIT-COMPLEMENTS

In the harmony of split-complements a key colour is combined with the two hues that lie next to its exact opposite on the colour circle. Examples would include red with yellow-green and blue-green; red-orange with green and blue; and orange with blue-green and blue-violet. As with adjacents the primaries and secondaries (red, yellow, blue, orange, green and violet) probably look better with split-complements than do the tertiary colours. This, however, may be a matter of personal preference. The result is more sophisticated and less direct than the simple harmony of complements. It offers the opportunity to attain greater variety and subtlety into the colour scheme, an important requirement in decorating the city.

THE HARMONY OF TRIADS

This harmony offers the possibility of a wider palette for the designer and one that may be particularly useful for the urban designer in particular. The basis of the triad is a choice of three equally spaced colours in the spectrum which produce a weighty balance. There are four triad possibilities:

the primaries, red, yellow, blue; the secondaries, orange, green, violet, the intermediaries (tertiaries), red-orange, yellow-green, and blue-violet; and another group of tertiaries, yellow-orange, blue-green and red-violet. The primary triad of red, yellow, blue is primitive, direct and normally has a universal unsophisticated charm. Used however with white, as Le Corbusier did, it then takes on a highly sophisticated quality. The combinations of intermediary or tertiary hues is violent and startling. Chinese temples exhibit colour schemes of this type based upon a widely spaced triad of colours (Plate 7.5).

THE HARMONY OF THE DOMINANT TINT

The colours of nature and those fashioned by man, are commonly seen under conditions of tinted light. Distant landscapes may be enveloped in a greyish or purplish mist or a distant hilltown tinted by the pink of early dawn. The city, too, may be marked by the haze of heat or less pleasurably by the pall of pollution. Hong Kong Island seen from Kowloon at times rises from a pale cream light softening the colours of the structures whether they be the traditional stone of early colonial buildings or the structural frames of the Hong Kong and Shanghai Bank. Artists have been aware of these effects and have experimented with harmony produced by the influence of an all-pervading hued tint. A normal series of colours when washed over with a transparent tint will harmonize colours of wide disparity. A yellow tint will shift the original ground colours towards a warm sunny harmony; a blue tint moves the ground colour towards a moonlight effect. The method almost guarantees a concordant and harmonious result regardless of how crude the underneath colours may be before they are tinted. This is a most fortunate phenomenon for the urban designer. Nevertheless it is important to know the precise tinting effects of the micro-climate at various times and seasons so that those tints can be reinforced using a concordant background of colour and materials. The pale milky white of Paris, for example, is in part due to its atmosphere but it is strengthened and enhanced by the pale grey of its architecture and the black trim of its ironwork.

THE HARMONY OF MODIFIED COLOURS

The colour triangle along with the colour circle are the two most important tools of the artist for colour analysis and the harmonic control of the palette. The colour triangle consists of a pure hue, taken from the colour circle, and placed at one point of the triangle, white is placed at the second point and black at the third point of the triangle. Within this triangle it is possible to arrange sequentially all the *tints*, *tones* and *shades* of the chosen hue. A triangle can be constructed for all pure hues. Along the side of the triangle from the hue, say clear red, to white are arranged the *tints* of red, becoming paler until white is reached. Along the second side are the *shades* of red getting darker until they reach black. Along the third side of the triangle are the *greys*, that is, a transition from black to white. From the various greys back to red would be the *tones* of red. A *tint*, therefore, is a mixture of pure colour and white. A *shade* is a mixture of pure colour and black. A *tone* is a mixture of pure colour, black and white. *Grey* is a mixture of black and white.

In combining colours for a design whether it is a painting or an environmental colour scheme it is usually thought that hues light in value as pure colours, make the best tints. Hues that are normally dark in value as pure colours make the best shades. If this is true then tints would be confined to yellow, orange, yellow-orange, green and yellow-green, while the shades used would be from red, red-violet, violet, blue-violet and blue. This, however, may be another case of personal taste for many would admire the pale pinks and pastel blues of the country cottages of some coastal villages, while others would prefer the use of white in such places. The basis for this rule is one of natural