Figure 79

Figure 80

Figure 81

Figure 82

Figure 83
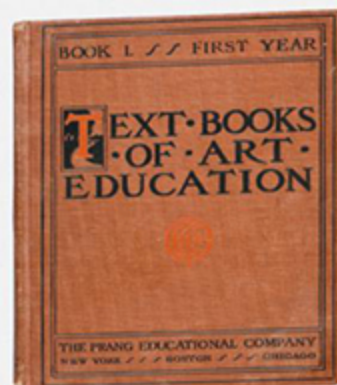
16

Walter Gropius (1883–1969) in Weimar in 1919, the short-lived school of art and design had its roots in German avant-garde and spiritualist groups, as well as the English Arts and Crafts movement. It was concerned with simplicity and functionality of design, based on giving artists a thorough training and on quality of craftsmanship. Members, teachers and students in the Bauhaus included Ludwig Mies van der Rohe, Paul Klee, Johannes Itten and Josef Albers, as well as several women, whose roles in the Bauhaus story have only recently been fully acknowledged, such as Anni Albers (ill. 64), Marianne Brandt, Gertrud Arndt (ill. 59), Gertrud Grunow (ills. 61, 62) and Gunta Stölzl (ills. 65, 66). In 1925 the Bauhaus moved to Dessau, where Gropius designed the iconic Bauhaus building (see ill. 63), but in 1933, after a year's residency in Berlin, it was forced to close after having come under increasing pressure from the Nazis. Some of the members emigrated to England or the United States, where they were able to maintain ties with each other and continue their work. Although colour was only one element of the Bauhaus courses, it led to many related publications on colour, some of which are featured in this book's closing chapter, including two classic works on colour that were published nearly 30 years after the school's closure: Josef Albers's (1888–1976) *Interaction of Color* (1963, pp. 824–837) and Johannes Itten's (1888–1967) *Kunst der Farbe* (*The Art of Color*, 1961, pp. 804–823). These and other, lesser-known works on colour by associated authors and artists are examples of a near-perfect synthesis of thinking about colour in terms of living and working with it, teaching it and applying it to art and design, while at the same time reflecting the modernist ideals of simplicity, geometry and abstraction. In art, the colour concepts and aesthetics of the Bauhaus are mirrored by the wider move towards abstraction in the 20th century, and the similarities in the use of colour with the extremely geometric work of modern masters such as Piet Mondrian (ill. 68), Henri Matisse and Kazimir Malevich are obvious.

The Timelessness of Colour Concepts

The abstract beauty of colour diagrams, of colour concepts made visual, gives them a timeless appeal. The simple, geometric shapes and forms created to form the framework of early colour charts and tables feel immediately accessible, because the same or similar forms still exist today in art, advertising and design, while colour circles, wheels, triangles, cubes and even more complex diagrams or organic forms are relatable across centuries. Colour theory and colour concepts continue to be a motif and source of inspiration for contemporary artists. Since 2009, the Icelandic-Danish artist Olafur Eliasson (b. 1967) has created a series of large colour wheels in which the various colours bled seamlessly into one another (ill. 70), in similar fashion to one of Chevreul's colour wheels in his *Atlas* from 1861. A set of them, entitled *Turner colour experiments*, was displayed at Tate Britain in proximity to some of Turner's paintings. Just as Turner referenced Goethe and Harris in some of his work, so Eliasson referred back to colour theorists and artists before him, aiming to create his own new colour theory in art.

Human beings have always tried to tame and control colour, this ungraspable yet all-pervading element of our vision. Our attempts at capturing colour, by drawing circles, squares and lines around it, by squeezing it into lists or moulding it into three-dimensional shapes, are ultimately expressions of human thinking and creativity. The perfect colour concept may not yet have been formulated, but turning existing ideas about colour into words, images, diagrams and three-dimensional objects has resulted in a rich history of colour as visual art. Individual expertise, personal choices, new research discoveries and fresh thinking make every new book on colour history exciting, and the authors hope that the selection of colour concepts presented in these two volumes will provide some unexpected and inspiring views and stories that illuminate the history of colour further.

Farb-Tabelle.
für Illuministen und Liebhaber der Wassermalerey.

Philipp Otto Runge (1777–1810)

FARBEN-KUGEL
oder Construction des Verhältnisses aller Mischungen der Farben zu einander, und ihrer vollständigen Affinität

Colour Globe
1 plate, 21.6 x 18.7 cm | 8 ½ x 7 ⅜ in., Hamburg, 1810
Hamburger Kunsthalle

It is to the German Romantic painter Philipp Otto Runge that credit is due for the first visually convincing three-dimensional concept of colour. The multi-dimensionality of colour order had of course been considered earlier, as in 1611 when the Finnish-Swedish astronomer Aron Sigfrid Forsius (1550–1624) presented a colour diagram that seems to have been intended to represent a three-dimensional shape, while a similar notion is evident in the pyramidal forms devised by Tobias Mayer (pp. 112–115), but when Runge gave his diagram the form of a sphere and presented it in the style of a terrestrial globe his model gained a more familiar, and seemingly tactile quality. The development of this spherical form, which was still limited to the two-dimensional format of a flat print, occupied much of Runge's time in the last few years of his life. His research was informed from 1806 onwards by lengthy written exchanges on colour with Goethe, who was sent a copy of the manuscript of *Farben-Kugel* prior to its publication. By coincidence, Runge's *Farben-Kugel* and the first part of Goethe's *Zur Farbenlehre* were both published in 1810, within a few months of each other, and Goethe praised the brilliance of Runge's concept in personal letters and in the later historical part of *Zur Farbenlehre*. It was, however, to be Runge's last work as he died from tuberculosis the same year.

Runge's hand-coloured etching shows the colour globe in four views, with one perspective view aligned so that the white region at the top (equivalent to the North Pole on a terrestrial globe) marks the pure white culmination of the greyscale that runs vertically through the globe, while a second perspective view shows the opposite black region (equivalent to the South Pole) that represents the darkening of the greyscale. A cross section through the poles depicts the complementaries red and green on opposite sides of the globe as a series of concentric rings, while another cross-section represented as a 12-part colour wheel slices through the equator, around which run the pure colours, without any addition of white or black. While in practical terms this was far from being a perfect three-dimensional colour model, it worked well conceptually because it made it easy to perceive the range of colour mixtures, shades and tints within the form of the globe. The perspective views meanwhile add a sense of movement and dynamism to the model. Runge also added coloured plates in this work showing examples of colour harmonies and contrasts in the form of simple squares.