

BOOK REVIEW

Tanja C. Kleinwächter, Sarah Lowengard and Friedrich Steinle (eds.), *Ordering Colours in 18th and Early 19th Century Europe*

Cham: Springer Nature, 2023. Pp. 201. ISBN 978-3-031-34955-3. £99.99 (hardcover).

Alexandra Loske

University of Sussex

This anthology of essays on colour order, classification and systematization in the long eighteenth century focuses on European cultural and scientific ideas, techniques, inventions and publications. Its authors span Europe and the United States and offer a truly international collaboration. The editorial team comprises German academics Friedrich Steinle and Tanja C. Kleinwächter, and conservator Sarah Lowengard from New York, with more international variety from other contributors.

The editors' introduction surveys the theme of colour order in eighteenth- and early nineteenth-century Europe, with intelligent remarks on how the perceived simplicity of the ROY G BIV mnemonic quickly splits and refracts into much more complex and elusive concepts. These are informed by an interplay of the materiality of colour and philosophical views, and the connection between the arts and the sciences, in particular the need to classify and depict the natural world using colour standards and standardization. The book is divided into three parts, each containing essays related to a theme: Part 1, 'Evolution of colour system and standards'; Part 2, 'Colour theory and colour order'; Part 3, 'Arts, crafts, commerce and colour order'.

Part 1 comprises two excellent introductions to the general theme of the book. José Luis Caivano offers a fascinating overview of the development of the shape of colour concepts in visual representations, from simple linear forms, to closed circles, to three-dimensional spherical, conical and pyramidal shapes. He links this to the change from dualistic to trichromatic colour concepts based on primary colours and adds an important section on colour theory in general, distinguishing between additive, partitive and subtractive colour mixture. Next, André Karliczek discusses early colour standards in science and art, adding concrete examples to Caivano's overview of colour theories. Karliczek explains the important difference between *colour systems* and *reference systems*, the former based on philosophical concepts, the latter on relationships between individual colour samples in combination with descriptive language. While hand-coloured or early printed colour charts, tables and scales enjoy great popularity and visual appeal, Karliczek also points out their material limitations, as they are informed and often compromised by their own materiality. There is an intrinsic gap between each colour diagram's materiality and what materials and techniques it represents. The perfect colour standard was not created in the period covered in the book, but serious attempts were made, many with the aim of finding a scientifically sound reference system. Karliczek

identifies specific requirements for a successful colour order system: reproducibility, consistency/reliability and compatibility.

Parts 2 and 3 are more in-depth, offering some of the latest research in colour history. In Part 2, Ad Stijnman discusses the well-known figure of Jacob Christoff Le Blon with great clarity and a deep understanding of the technical process of trichromatic colour printing. It is useful to have a solid academic piece on Le Blon that also traces his international influences. Nadezhda Stanulevich introduces the eighteenth-century Russian polymath Mikhail Lomonosov's interest in colour theory, his experiments with light and colour based on chemical and optical experiments, and the application of his expertise to the manufacture of coloured glass for decorative work and mosaics. The final essay in this part is by co-editor Kleinwächter. This one shines a light on a previously overlooked figure in colour history, the Meersburg-born Franciscan monk Franz Uibelaker, who was heavily influenced by Ignaz Schiffermüller's work in Vienna. There Uibelaker wrote his little-known work *System des Karlsbader Sinters* (sinter being colourful patterned stones found in the Bohemian spa town of Carlsbad), published in 1781. In this geological survey Uibelaker incorporated a plate with two beautiful and complex colour circles, labelled with colour names (in German), here expertly analysed by Kleinwächter. The discussion of this obscure figure in colour history is one of the highlights of the book.

Part 3 focuses on arts, crafts and commerce, and the materiality of colour in the context of colour order. The examples are porcelain colour samples in European manufactories (Gabriella Szalay); a meticulous discussion of an extensive discourse on colour, pigments and imaginary colour harmony instruments in Kassel (Sophie-Luise Mävers-Persch); and the volume's most substantial essay, the outstanding contribution by Giulia Simonini on Calau's wax, Lambert's colour pyramid and prefabricated watercolour cakes. Simonini puts Lambert's colour diagram into the context of the production of artists' tools and prevalent painting techniques and tastes, which explains the pyramid's complex numerical system. But what about the mysterious 'Calau's wax'? Having established that the pyramid diagram should be read like a system of mixed colour samples for practical use in painting, with Lambert's and Benjamin Calau's twelve colour swatches forming the base, Simonini tells the story of Calau's real triangular colour box, containing twenty-eight round colour tablets, prepared with pigments and gum arabic. At least seventeen of these boxes were manufactured and sold between 1773 and 1774, as a material representation of the printed pyramid. None survive, but Simonini and Andrea Rinaldo have reconstructed one, which appears as a colour illustration. Calau's product was not commercially successful, but that it existed at all adds greatly to our understanding of the history of colour.

The production values are unfortunately low. There is no focus on book design or high-quality images, but the images that are included are well chosen and in several cases are the first sighting in print of certain objects, colour diagrams and charts. The bibliographies, footnotes and appendices for each essay are invaluable for any serious researcher in the field.

This book represents exemplary scholarship, providing a novel, exciting and sometimes surprising read for scholars, artists, chemists and art historians interested in the overlap of print culture, colour theory and material colour. It does not claim to be a historiographical survey like Kuehni and Schwarz's exhaustive *Color Ordered* (2008) or Lowengard's own *The Creation of Color in Eighteenth-Century Europe* (2008). Instead, it shows the richness of historical colour material that is still under-researched in any time period or cultural focus area.