



STEFANO ZUFFI

COLOUR IN ART

 LUDION

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 **LUDION**

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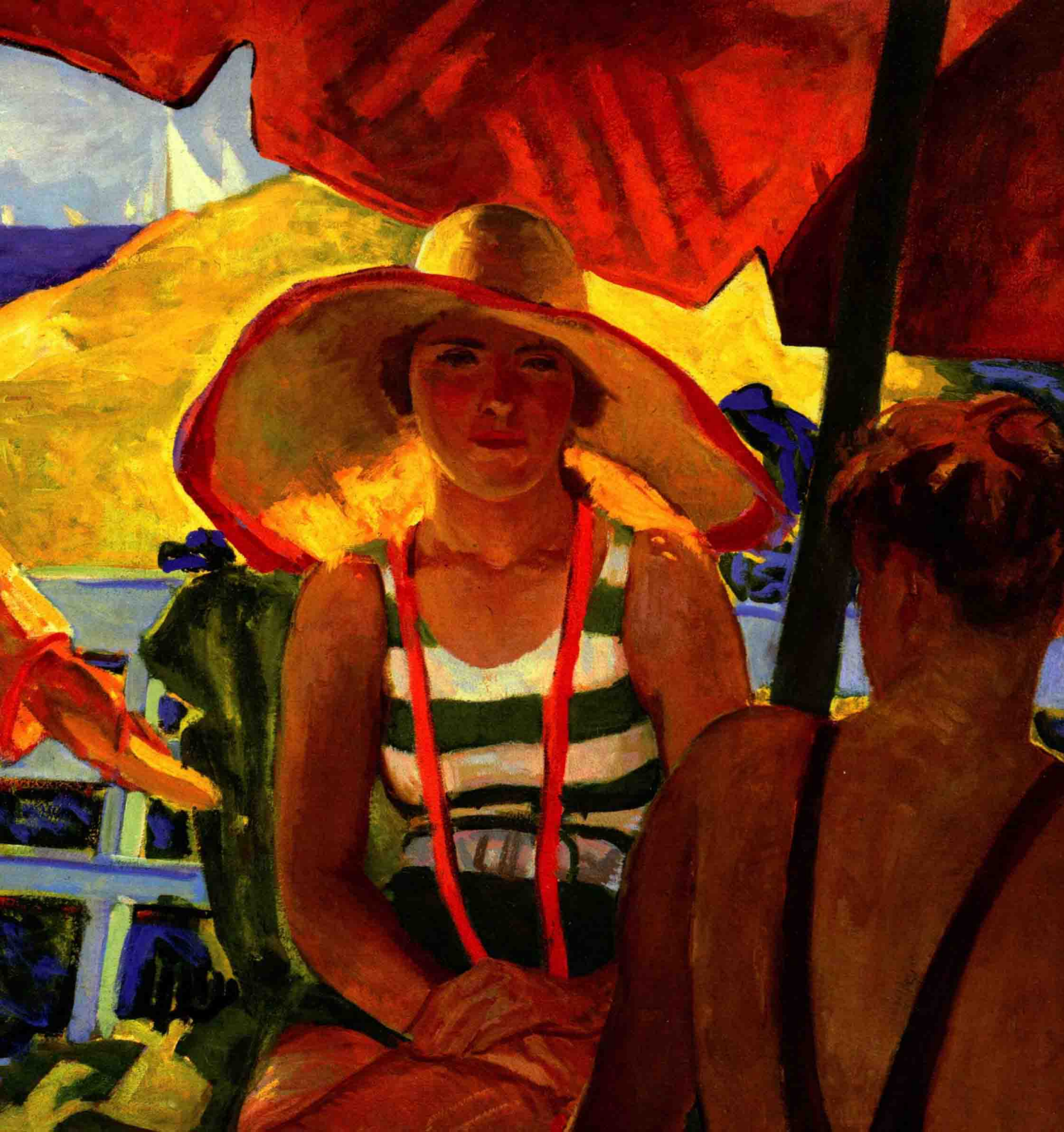
Salvador Dalí

Athens Is Burning! The School of Athens and the Fire in the Borgo

(Stereoscopic work, left component) (detail), 1979-1980, Fundación Gala-Salvador Dalí, Figueras

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INTRODUCTION

*Les couleurs ce sont des sensations physiques,
mais ce sont aussi des symboles.*

*[Colours are physical sensations,
but they are also symbols.]*

René-Lucien Rousseau,
Les Couleurs, 1959

The ancient Romans were a very concrete people. They were not given to the poetical refinement and subtle philosophical speculation of the Greeks. For the Romans, it was of primary importance to establish standards, rules and precepts, for every aspect of life had a corresponding law as its solid basis. But even for the Romans there remained three categories that lay outside any normative legalistic scheme: *De gustibus, coloribus et pulchritudine mulierum non est disputandum* –Taste in food, colours and the beauty of women cannot be debated.

In other words, colours are like feminine beauty and flavours: despite scientific theory, each of us perceives them in an individual manner and has our own favourites. In the course of writing this book, three things struck me more clearly each day:

→ first, the dearth of vocabulary for designating colours, regardless of language, ancient or modern. There are about a dozen words, which are modified by adjectives and other specifiers

→ second, the clash that for 350 years has been pitting those who seek to study colours as a physical phenomenon (since Newton) against those who interpret colours as connected solely with individual emotions and subjectivity (since Goethe)

→ and third, the ambiguity and variation in a

colour's symbolic meanings, which can often be completely contradictory.

Instinctively, many of us would give white a 'positive' meaning and black a 'negative' one, following the duality of the Taoist combination of yin and yang. But are we sure that this is so?

In Jungian psychology, the colours are first of all symbols, archetypes of universal value. The historian Michel Pastoreau, who has specialized in the symbolic and expressive value of colour, states in his *Couleurs, Images, Symboles* (1986): 'For a long time, if not always, in Western civilization, white has had two opposites: red and black. Until the height of the Middle Ages, these three colours were three poles around which all symbolic systems were organized.'

Examples of the symbolic values and visual associations of colours may be drawn from such widely diverse fields as liturgy, heraldry and alchemy. The wish to 'describe' colours often leads to definitions that make no reference to the sense of sight. Yellow, red and orange are 'warm' not because if we touch them they actually have a different temperature from blue or green, but because we associate them with the sun and fire. In the same way, we speak of colours as 'dull' or 'bright', and without being poets like Rimbaud or

Georg Trakl, we commonly use aural metaphors in trying to convey the idea of a colour's 'tone'. Alongside this universally recognized symbolic value, colour has a profoundly subjective dimension. In 1947, Max Lüscher devised a personality test based on the famous Rorschach inkblot test that introduces the variable of colour as a basic element of subjective interpretation. The Italian psychotherapist Luca Coladarci explains that a 'fundamental characteristic of colours (just as for any other symbol) is the rule of opposites, according to which a single shade may have the opposite value, positive or negative, light or dark, according to the setting and the psychic situation in which it is inserted. This is why black, for example – a colour of death and darkness – can also evoke the original chaos from which new light and life emerge. Or aggressive, violent red can likewise be the shade of love and passion.'

We may also call upon Winston Churchill, a not untalented amateur painter, as a witness beyond suspicion. The great statesman was not insensitive to the inner language of colours: 'I cannot pretend to be impartial about the colours. I rejoice with the brilliant ones, and am genuinely sorry for the poor browns.'

We often ascribe to colours an emotional value of happiness or sadness that, once again, is related not to the colour itself but to symbolic associations with situations in which it is usually found. Franz Marc, an impassioned exponent of the German avant-garde group *Der Blaue Reiter* who died in the trenches of Verdun in 1916, even attributed a sexual value to colours, giving priority to his beloved yellow: 'Blue is the male principle, stern and spiritual. Yellow the female principle, gentle, cheerful and sensual. Red is matter, brutal and heavy and always the colour which must be fought and vanquished by the other two.'

Through examples of artists' use of seven different colours – white, black, blue, yellow, red, green and gold – this book hopes to show how, as time has unfurled and cultures have waxed and waned, symbolic meanings have been intertwined with other disciplines such as chemistry, poetry and music.

PIGMENTS, BINDERS, VARNISHES

The basis of a colour in painting is the pigment. Pigments are mainly amorphous and crystalline substances (especially earth, minerals and composites) that are prepared in the form of fine coloured powders. They are usually classified in two categories: organic pigments and inorganic (or mineral) pigments. They are essentially not much different from those used by Palaeolithic painters twenty thousand years ago when they painted the walls of the caves of Lascaux: earth, calcite, iron oxide, clay, red ochre, manganese oxide. In medieval and Renaissance workshops, grinding earth and minerals and crushing plants with a mortar and pestle were tasks typically assigned to young apprentices. Some of the great painters produced special pigments of their own, using basic materials in combinations that were jealously guarded secrets. One well-known case is 'Veronese green', a shade between emerald, jade and malachite, which was invented by Paolo Veronese in the second half of the 16th century. It is still used in the figurative arts, although it is poorly regarded because of its instability. In interior decoration, a particular shade of green is called Veronese green or viridian.

Prior to the introduction of industrially produced tubes of colour in the second half of the 19th century, pigments were available in the form of powder or paste. In order to use them in painting (be it on canvas, wooden panel or wall), they were mixed to a fluid consistency with water (for tempera paint) or oil.

The introduction of oil in place of water as a binder for colours was one of the greatest technical revolutions in the history of painting. For almost the entire 15th century, Flemish painters dominated the European art market and influenced stylistic trends in various countries with the lustrous brilliancy of their paintings, filled with minute descriptive details drawn from everyday life. The 'secret' of these paintings, tenaciously sought by competing artists in other countries, was the technique of diluting the colours with oil from flaxseed, walnut or poppyseed. Tempera paint, diluted with water, has a less enamel-like texture and enables less finesse, producing an effect not unlike fresco.

The Gothic practice of using a gold background (a thin layer of pure gold over a bolus ground) and metal insertions had subsided. The Flemish masters applied oil paint in a succession of thin, translucent coats to obtain effects of transparency,

exceptionally brilliant light and natural atmosphere. They achieved an optically 'true' result by imitating the play of light on every surface. The first great Flemish masters may also have experimented with optical tools like mirrors and lenses as an aid to thoroughly analysing reality and variations of light. Rare and expensive colours like gold, green from malachite, blue from lapis lazuli and red from the cochineal were appreciated all the more for their material value. Avidly adopted by other European schools, oil became the predominant painting medium. Its status was confirmed when canvas subsequently replaced wood as a support.

Siccative oils are used in painting. Olive oil is unsuitable because it never dries. The most frequently used is the oil extracted from flaxseeds. Not highly soluble, it cracks less readily, limiting the appearance of craquelure (the network of fine cracks that forms on the surface of a painting). Its only defect is that it yellows slightly over time, therefore altering the colours. Various remedies were tested to avert this drawback, such as cooking the linseed oil or combining it with walnut or poppyseed oil. Thanks to the properties of oil paint, an artist such as Hans Memling could graduate the effect of light on the landscape, passing from a dark foreground to a very light



horizon, while at the same time creating a celestial vision of the Empyrean circumscribed by a rainbow. Not infrequent in 15th-century Flemish painting, this type of light and colour effect was essentially beyond the reach of painters prior to the advent of oil painting.

Hans Memling

The Vision of St John on Patmos

side panel of the

Triptych of the Mystic Marriage of St Catherine
1479

oil on panel, 172 x 79 cm

Memlingmuseum, Bruges

Nor was the problem of yellowing and the consequent darkening of lighter colours solved by the introduction of turpentine and essential oils, and yellowing remains the first consideration in restoring all old oil paintings. However, it is often possible to clean the surface of a painting without touching the colours, by confining the operation to the removal of the natural and synthetic varnishes that are applied as a final step to protect paintings from light, dust, smoke and pollution.

TREATISES AND THEORIES: FROM SYMBOLIC INTERPRETATION TO A SCIENTIFIC APPROACH

At the height of the Renaissance, Italy produced many treatises and guides on the meaning and properties of colours that suggest how to express oneself through colours, particularly in relation to human relationships such as love. Outstanding among these manuals of ‘colour etiquette’ are those by Mario Equicola (*Libro de natura de amore*, 1525), Fulvio Pellegrino Morato (*Del significato de Colori*, 1535, so popular that it was reprinted eight times) and Ludovico Dolce (*Dialogo dei colori*, 1565). This type of book came under the broader 16th-century literary category of guides to behaviour and proper manners, the most famous of which are *The Book of the Courtier* by Baldassare Castiglione and the *Galateo* (The Book of Manners) by Giovanni Della Casa. When dealing with colour, these etiquette manuals pay particular attention to dress, which is considered to reflect a person’s nature and intentions, based on a curious correspondence between the planets, the temperaments and colours.

In the 17th century, the eclectic knowledge of the late Renaissance gave way to methodical scientific research, the subdivision of knowledge and

experimental verification by means of constantly improved instruments. The year 1666 was one of capital importance for the scientist Isaac Newton, who called it his *annus mirabilis* (year of wonders). His revolutionary discoveries in the field of physics came at the rate of one per season, culminating in the famous episode of the apple falling from the tree. In January, Newton demonstrated that light passing through a prism breaks down into various colours, including the three primary colours: red, blue and yellow. Newton represented humans’ perception of colour as a circle, with the seven ‘spectral colours’ – that is, the colours of the visible spectrum (in the order given by Newton they are red, yellow, green, blue, violet, orange and indigo), which combine through mixture and superimposition into ‘an indefinite variety of intermediate graduations’. Newton discussed his theory with his students, while the first publication, in the form of a memoir to the Royal Society, dates from 1672 (*A Letter of Mr. Isaac Newton Containing His New Theory about Light and Colours*); it was later written up in the form of a treatise (*Opticks*, 1704).

Various subsequent studies referred to Newton’s theories in an attempt to understand and describe the mechanisms by which the human eye perceives colour. In 1810, Wolfgang Goethe (who was himself a passable amateur painter and

draughtsman) published *Zur Farbenlehre* (Theory of Colours) in Tübingen. It is not easy reading, and from the start it was better received by men of letters than by scientists. It mixes science, optical research and personal considerations, passionately maintaining – with the authority of an internationally recognized intellectual – a new point of view, in line with the spread of Romanticism. Colour is above all an individual experience, and the subjective element is no less important than optics and physics.

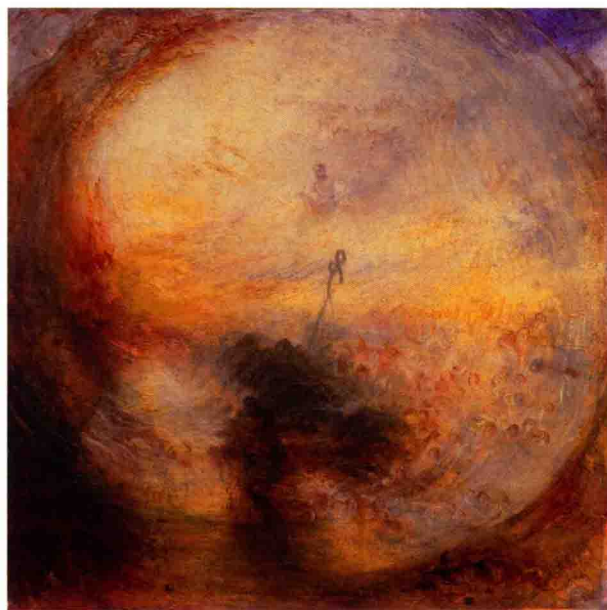
Also in 1810, the painter Philipp Otto Runge published the treatise *Farben-Kugel* (Colour Sphere). Illustrated with watercolours, it was one of the earliest attempts on the part of a painter to coordinate chromatic tones and values in a coherent whole. Abandoning the traditional ‘wheel’ and planar projections, Runge conceived and drew up a three-dimensional colour sphere. At the poles were white and black, at the equator the primary colours and saturated mixtures, and over the sphere’s surface, the intermediate values. In *Farben-Kugel*, Runge did not address the question of colours’ moral connotations but, like Goethe (with whose ideas he was in close contact), he was convinced of the almost mystical value of colour. Runge had planned to adapt the model of the primary colours to the times of day in an

allegorical cycle, but of the four projected paintings only *Morning* was completed.

Between 1813 and 1814, the young philosopher Arthur Schopenhauer, recently graduated from university, was Goethe’s guest in Weimar. The two intellectuals engaged in intense conversations on the physics and physiology of sight. These reflections resulted in the treatise *Über das Sehn und die Farben* (On Vision and Colours), published by Schopenhauer in 1816 and soon translated into various languages.

The writings of Goethe and Schopenhauer had a particular influence on art, especially through J. M. W. Turner. Spurred on by the two Germans’ assertions on the subjectivity of perception, the great English painter freed himself from realistic representation of the landscape to embark upon the evocation of a fantastic vision that went beyond phenomenal facts, projecting them into a spiritual dimension. Following Goethe, Turner interpreted light as the ordering principle of the world, because it reveals the nature of things through colour. Colour thus becomes the ‘supreme manifestation of the world and hence its very soul’, an assertion borrowed directly from Schopenhauer’s essay. In Turner’s late works, colour dominates the space without adhering to

boundaries imposed by drawing. In accordance with his Romantic concept of nature, Turner depicted many sunsets and dawns, with an important role given to the sun's rays, which create infinite shades of abstract colour.



Joseph Mallord William Turner
The Morning after the Deluge
1843

oil on canvas, 78.7 x 78.7 cm
Tate Gallery, London

THE APOTHEOSIS OF COLOUR: IMPRESSIONISM, POST-IMPRESSIONISM AND NEO-IMPRESSIONISM

In the 19th century, research on perception and light made extraordinary advances with the invention and rapid improvement of photography. The main characteristic of the Impressionist painters' approach resides in their use of colour and light. These two elements became the image's principal components, replacing the previously dominant approach in Western painting that centred on the definition of forms in space. It was a revolution. The critic Émile Cardon's annoyed and harsh reaction to the first Impressionist exhibition, which took place at the studio of the photographer Nadar, was symptomatic. In *La Presse* of 29 April 1874, Cardon alludes to the title of Monet's painting *Impression: Sunrise*, writing that 'the aim is not to render its form, its relief, its expression – it is enough to give an *impression* with no definite line, no colour, light or shadow; in the implemen-tation of so extravagant a theory, artists fall into hopeless, grotesque confusion, happily without precedent in art, for it is quite simply the negation of the most elementary rules of drawing and painting.'