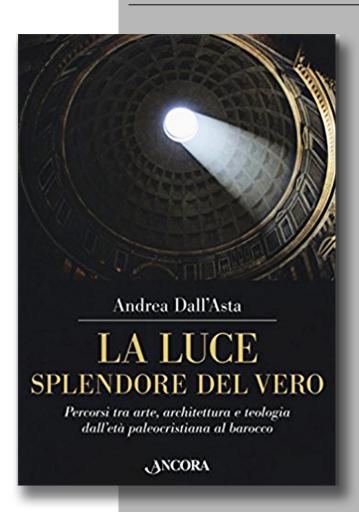
**Renata Pompas** 

### **COLUMN**

Review
Andrea Dall'Asta
The light splendour of truth. Paths
among art, architecture and theology
from early Christian to baroque
Ancora Editrice, Milan, 2018.



In contemporary art the light emitted by different types of illuminants is today matter and subject of numerous works, but it has been also in its ancient art, in its pictorial representations and in the organization of the volumes and lighting of buildings. The artists, in different period, have interpreted not only its visual aspect, but also its communicative, symbolic and spiritual meaning.

The interesting book by Andrea Dall'Asta - Director of the Gallery and

Nell'arte contemporanea la luce emessa da diversi tipi di illuminanti è materia e soggetto di numerose opere, ma lo è stata sin dall'antichità nelle sue rappresentazioni pittoriche e nell'organizzazione dei volumi e dell'illuminazione degli edifici. Gli artisti, nelle diverse epoche, ne hanno interpretato non solo l'aspetto visivo, ma anche il suo significato comunicativo, simbolico e spirituale.

L'interessante libro di Andrea Dall'Asta – Direttore della Galleria e del Museo San Fedele di Milano e della raccolta Lercaro di Bologna – indaga l'aspetto teologico della rappresentazione della luce nella pittura e negli edifici religiosi, con una scrittura limpida ed erudita. Il libro La luce splendore del vero. Percorsi tra arte, architettura e teologia. Percorsi dall'età paleocristiana al barocco (Pagg. 239, € 32) si articola in sette tappe-capitoli, arricchiti da riferimenti documentali, bibliografia e illustrazioni a colori.

L'appartenenza di Dall'Asta (d formazione architetto) alla Compagnia di Gesù spiega la profonda preparazione con cui analizza la relazione tra arte e teologia, offrendo un punto di vista originale e inusuale.

# Capitolo I. Dio è luce. La luce nella tradizione biblica

Questo capitolo costituisce la premessa teologica della concezione della luce nel cattolicesimo: nella Bibbia la luce è teofania divina di cui Cristo è il Logos che si fa carne. Le opere religiose analizzate si fondano tutte su questo assunto, pur 130 Pompas R.

of the San Fedele Museum in Milan and of the Lercaro collection in Bologna - investigates the theological aspect of the representation of light in ancient painting and in religious buildings, with a clear and erudite writing. The book The light splendour of truth. Paths among art, architecture and theology from early Christian to baroque (Pages 239, € 32) is divided into seven stages-chapters, enriched by documentary references, bibliography and color illustrations.

The membership of Dall'Asta (graduated architect) to the Jesus Company explains the profound preparation with which he analyses the relationship between art and theology, offering an original and unusual point of view.

Chapter I. God is light. The light in the biblical tradition

This chapter constitutes the theological premise of the conception of light in Catholicism: in the Bible the light is the divine theophany of which Christ is the Logos who becomes flesh. Religious works analized are all based on this assumption, although with different expressions.

Chapter II. The Byzantine architecture: the theophany of light

This chapter explains the "contemplation of the Principle", at the base of Byzantine art, which manifests itself in the gold funds of icons and in mosaics that dematerialise the volumes of churches, transforming them into "temples of light".

Chapter III. The Middle Ages: from shadow to light, from death to life.

This chapter describes the new aesthetic sensibility of the Gothic, which empties the walls by inserting stained glass windows with "clear and shining colors" (Thomas Aquinas).

Chapter IV. The Renaissance: the light of a utopia

This chapter demonstrates how the light in the Renaissance represents a physical phenomenon. It is an intellectual, serene con diverse espressioni

Capitolo II. L'architettura bizantina: la teofania della luce

Questo capitolo spiega la "contemplazione del Principio", alla base dell'arte bizantina, che si manifesta nei fondi oro delle icone e nei mosaici che smaterializzano i volumi delle chiese, trasformandole in "templi di luce".

Capitolo III. Il Medioevo: dall'ombra alla luce, dalla morte alla vita.

Questo capitolo descrive la nuova sensibilità estetica del gotico, che svuota le pareti inserendovi vetrate colorate dai "colori nitidi e splendenti" (Tommaso d'Aquino).

Capitolo IV. Il Rinascimento: la luce d un'utonia

Questo capitolo dimostra come la luce nel Rinascimento rappresenti ur fenomeno fisico. Si tratta di una luce intellettuale, serena, in cui umano e divino si incontrano nella chiarezza della ragione.

Capitolo V. Da Correggio a Tiziano, dalla notte della rivelazione alla notte del dramma.

Questo capitolo si concentra sull'arte della Controriforma in cui una lucemateria si disintegra in ambienti notturni simbolo dei drammi umani.

Capitolo VI. Caravaggio e "caravaggismo". La luce della Grazia

Questo capitolo mostra come nel XVI secolo la luce rappresentata dissolve i disegno, facendo vivere la materia.

Capitolo VII. Il Barocco: la gloria della luce Infine l'ultimo capitolo dimostra come nel barocco il fedele è attratto verso la luce divina stesso, interpretando l'insegnamento di Ignazio di Loyola, per cui tutto è chiamato a essere Ad majorem Dei Gloriam

Una dissertazione attraverso le opere dei maggiori artisti che per la prima volta svela i riferimenti religiosi della light, in which human and divine meet in the clarity of reason.

Chapter V. From Correggio to Titian, from the night of the revelation to the night of the drama.

This chapter focuses on the Counter-Reformation art, in which a material light disintegrates in nocturnal environments, as a symbol of human dramas.

Chapter VI. Caravaggio and "caravaggism". The light of grace

This chapter shows how in the seventeenth century the represented light dissolves the drawing, making the matter live.

Chapter VII. The Baroque: the glory of light

The last chapter shows how in the Baroque painting the faithful is attracted to the divine light itself, which interprets the teaching of Ignatius of Loyola, for whom everything is called to be "Ad maiorem Dei Gloriam".

An original dissertation through the works of the major artists, who for the first time unveiled the religious references of the representation of light: a work that will certainly interest even those with a good knowledge of the history of art.

rappresentazione della luce, opera che interesserà sicuramente anche chi ha una buona conoscenza della storia dell'arte 132 Lecca M. and Da Pos O.

<sup>1</sup>Michela Lecca lecca@fbk.eu <sup>2</sup>Osvaldo da Pos osvaldo.dapos@unipd.it

<sup>1</sup>Fondazione Bruno Kessler, ICT, Technologies of Vision, Trento, IT; <sup>2</sup>Università degli Studi di Padova, Italia

#### COLUMN

## Communications and Comments

"Psychological colour space is the relational structure among colours colour stimuli that can be found using empirical tasks that assess colour similarities. Colour terms are the lexical categories (which can vary across different ethnolinguistic groups) that are used to label, or describe, colour appearances organized as meaningful partitions of the psychological colour space."

(from: Encyclopedia of Color Science and Technology - https://link.springer.com/referencework/10.1007/978-1-4419-8071-7#toc)

In this column, Prof. Da Pos reports some considerations from the talk he gave during the Munsell 2018 International Congress, held in Boston last June to celebrate the centennial of the Munsell Color System.

Briefly, we remind that Munsell system is a colour space where colours are characterized by hue, lightness and chroma identified by decimal numbers. This colour space, introduced at the beginning of 1900 was officially adopted for researches on soil in 1930, and still today is known and used all over the world.

The talk of Prof. Da Pos was not directly related to technical features of the Munsell system, but it coped with the more general problem of the meaning and the relationships among colour perception, stimuli, and colour terminology, that we partially investigated in our previous column.

In the following, Prof. Da Pos discusses about these concepts and about the need and difficulties to define a colour system capable to capture and relate the three fields of research, often studied separately, colorimetry, perception, and verbal language. A new theory of perception is then highlighted to explain the nature of (perceived) colours and their relationships with the physical world.

----

As is probably known, last June the Munsell 2018 International Congress was held in Boston to celebrate the centennial of the homonymous colour system. A series of important keynote talks started a week of extremely rich works from both the scientific and the artistic point of view. I was invited, to my great surprise, to keep one of the introductory talks on the subject, expressly requested, 'Colour names, stimulus colour, and their subjective link' [1]. The lecture seems to have fully met the expectations of those who had invited me and the interest of the audience. I asked myself: why this interest in a subject that apparently is only collateral to the Munsell system? The answer I gave is already somehow present in the previous edition of this column, namely that the research in question clarifies the fundamental relationships between physical stimuli, colour perception and verbal language of colour, relationships that are often only implicitly assumed in colour studies or even misunderstood (Figure 1). The assumption of the research is that perception is essentially subjective and conscious, and we can discuss about it not only because we have direct experience, but we can formulate it verbally so as to reflect on it as an object, independent from our subjectivity: secondly, the verbal formulation, although limited, also allows us to communicate the subjectively perceived colour to others.

However, this is not the only way to objectify a subjective impression of

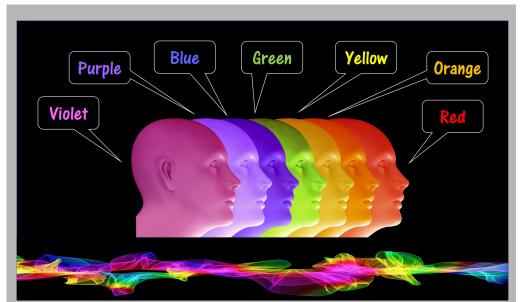


Figure 1 - What's the relationship between color perception, stimuli and terminology? This topic has been discussed by Prof. Da Pos at the Munsell 2018 International Congress, held this year in Boston. USA

colour, because we can also act on the physical world and produce (or eventually choose) a set of stimuli that induce the perception of the same colour in other people. While in the first case, using a verbal term to describe a colour. perception and linguistic formulation are both present in our consciousness, in the second case physical stimulation and perception are not both conscious, but only the perception is. The stimulus colour, on the other hand, can be known only through scientific knowledge, psychophysics essentially and particular colorimetry. The link between a particular stimulus colour and the corresponding perceived colour, not being conscious, can only be inferred with a limited degree of certainty: is it true that I and the others have the same colour impression when we look, under the same observing conditions, an object? (perceived object, of course).

A recent theory about the relationships presented here has been formulated by D.D. Hoffman et al. in the form of 'Interface Theory of Perception' [2]. The theory essentially says that perception has the function of inducing in the individual a behaviour that is adaptive with respect to the physical environment. This function is accomplished by producing, both in man and in the animal, a phenomenal world, the one that appears around us and of which we are aware: this is an interface between us and the physical environment. Perception therefore has

no cognitive purpose, it is not intended to make us know the 'physical reality' as it is, but it is a simplification of our interaction with the environment as it draws from the physical world the information needed to build a subjective world with the essential characteristics to adapt to the environment. It is like the interface of a computer that shows the operator a set of icons on which it acts to accomplish something that affects the physical level, but without knowing its modality. In fact, a person can use the computer effectively without having to know anything about what is beyond what he sees.

Contrary to what happens in animals, in man perception is accessible to rational knowledge, which can therefore not only verbalize what one "sees" in order to be able to reason on it, but can arise questions about its meaning (how it works) to give answers that satisfy his curiosity and his needs. This further step can fix those unavoidable mistakes (in relation to the adequacy of its outcomes as respect to the environment requirements) which perception. being an approximate capability can sometimes encounter: where animal failure brings to death, science and technology increase human fitness.

The colour is therefore an aspect of this interface, and as such it cannot be considered true, but only useful (a yellow icon does not mean at all that the bit sequence 00101001110101 to 134 Lecca M. and Da Pos O.

which it is pointing is yellow). Long ago I maintained that our colours are pseudocolours, or false-colours, that is colours artificially produced to make us 'see' something where events otherwise unreachable by our perception are occurring, and therefore allow us to perform the appropriate behaviours.

Ultrasound is a clear example where false colours are used: the colours that this technique shows the observer are not characteristics of the filmed objects or events, clearly unreachable by our perception. On the contrary, they are colours produced by algorithms that experienced engineers and psychologists have decided to attribute to the images displayed on the screen, on the basis of their operational efficacy to achieve specific purposes.

The assumptions of this theory are not entirely new, for example the perception [chromatic] colour brings evolutionary advantage to the species that possess it compared to those that do not possess it, despite the colour stimulus be the same for both [3]. In other words, a good software with suitable icons performs better than a poor software with few or inefficient icons, while the physical realm is the same. Colour vision is therefore an enhancement of animal capability to fit the environmental requirements. The gain in fitness is not so absolute as it would be obtainable by a perfect knowledge of the physical world, but it is enough appropriate as its cost is much lower.

The objects and events that occur in the phenomenal world (that is, in the interface man / physical environment) have their own internal logic that can be studied regardless of their link with the underlying physics. This kind of study is performed by the phenomenology of perception, which investigates the characteristics of this world of appearances by finding their reasons in specific relations between elements within it. For example, the impression

of transparency that a coloured surface can produce in the observer is explained phenomenologically as follows: the colour of the overlapping area of that surface with another below must be a psychologically intermediate colour (that is it must look like both) between the colour of the overlying surface and that of the underlying surface one [4]. As can be seen, what is treated in the study of perceptive transparency are colours and relationships of similarity between colours, properly quantified but always at a perceptual level. Moreover perceptive transparency does not necessarily derives from physical transparency, although sometimes this happens, only depends but its occurrence chromatic and configurational οn properties of the image. This way of interpreting perception in general, and colour perception in particular, as an interface between subject and physical environment, seems to constitute a paradigm shift in current colour science [5]. Many authors are enthusiastic about this, but there is no shortage of criticism, especially regarding some details of the theory [6].

#### **BIBLIOGRAPHY**

- [1] Liliana Albertazzi, Osvaldo Da Pos 2017 Color names, stimulus color and their subjective links. Color Research and Application Vol. 42, Iss. 1, pp. 89-101. s
- [2] Donald D. Hoffman, Manish Singh, Chetan Prakash. 2015 Interface Theory of Perception. Psychonomic Bulletin & Review. Vol 22 (6), pp 1480–1506. https://doi. org/10.3758/s13423-015-0890-8
- [3] John D. Mollon. 1989 "Tho' she kneel'd in that place where they grew ...". The uses and origins of primate colour vision. J. exp. Biol. 146, 21-38
- [4] O. da Pos, Trasparenze, Transparency, Milano: Icone, 1989
- [5] Gregory Hickok 2015 Editorial: The interface theory of perception: the future of the science of the mind? Psychon Bull Rev (2015) 22:1477–1479 DOI 10.3758/s13423-015-0930-4.
- [6] Hoffman, D.D., Singh, M. & Prakash, Probing the interface theory of perception: Reply to commentaries. C. Psychon Bull Rev (2015) 22: 1551. https://doi.org/10.3758/s13423-015-0931-3