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The colours of the ancient Greek architecture

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The Associate Editors evaluate each article in order to determine if the topic and content are of interest to the journal. Once the article passes the initial review, the Associate Editors select several referees in the Editorial Board based on their expertise in a particular subject area or topic.
Second review level
Each article is reviewed by two or three referees and submitted to a double-blind peer review process where both the authors and the reviewers are kept anonymous. Referees are asked to evaluate the manuscript based on the following criteria:
- Originality
- Relevance to journal's aims and scope
- Technical merit and/or validity
- Soundness of methodology
- Completeness of the reported work
- Conclusions supported by the data
- Correct acknowledgment of the work of others through reference
- Effectiveness of the manuscript (organization and writing)
- Clarity of tables, graphs, and illustrations
- Importance to color researchers
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Editorial

Dear Readers, with vol 11 n. 2 we close a six-year cycle and go on for a future of consolidation of our journal in the next year. As announced, the journal web management is now available online via the Open Journal System and DOI database has been updated accordingly, given that the old joomla site has been discontinued and the URLs of all the previously published papers have been changed. This will allow a better indexing of the published articles and will guarantee the compatibility with Open Archives Initiative Protocol for Metadata Harvesting (OAI-PMH).

Since 2014 we have published 11 volumes for a total of 12 issues, adopting from 2019 the new numbering which publishes one volume per year with two or more issues for each year. Since 2015 we have applied the double blind peer review and since 2016 we have applied the Digital Object Identifier System. This has been possible thanks to the voluntary support of the members of the "Associazione Italiana Colore" who work in the editorial committee, thanks to the members of the editorial board, thanks to the deputy editor Alessandro Rizzi and the President of our association Marcello Picollo who, from the beginning of his mandate, has guaranteed support to the CCSJ. A special thanks goes to Filippo Cherubini of IFAC-CNR who oversaw the migration of our archive to the Open Journal System, to Veronica Marchiafava, the secretary of our association, for the management of DOI database and to Andrea Sinicalco, the vice-president of our association, for the graphic support for the new layout. After six year of publishing of the CCSJ it is also useful to recall the importance of the concept of double open access under which our journal is managed and published: the journal is completely free for both readers and authors. Since 2019 we have also had the significant support of the Associate editors and from this issue we also have a new entry, Agata Kwiatkowska-Lubańska of the Academy of Fine Arts of Kraków (Poland), who will support the peer review process of the papers in the area of Color and Design: furniture, design, fashion, textiles, cosmetics, food design, museography.

The peculiarity of our journal, also written in the statute of our publisher, the Associazione Italiana Colore, is to collect papers on color and related areas in a multidisciplinary way. This basically means that in our peer review process we could have papers ranging from the science of colorimetry to the culture of color in the history of art. Moreover, these papers have very different styles and ways of writing, as diverse is the group of the peer reviewers that constitutes our editorial board.

This *multidisciplinarity* is a richness for the mind, for color science and for color culture, and I will not get tired of repeating it to all those who collaborate in the journal or at the Conferenza del Colore, and specially to those few people who tend cyclically and obstinately to forget it.

December, 2019
The Editor-in-Chief
Maurizio Rossi
Full professor of Lighting Design and Design Methods
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The colours of the ancient Greek architecture

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ABSTRACT

The use of colour has developed over time with the evolution of culture, the arts, commerce and the expansion of exchanges and knowledge on materials and construction techniques. In particular, in architecture, every intervention on new or existing buildings is conceived and realized without neglecting the chromatic aspect, both because colour represents a characteristic inherent in the material, and therefore inseparable from it, and because most of the time it is seen as an added value, which transcends the material itself and is expressed through different channels. If we think of the lively and extensive polychromy that covered the ancient architectures (here the interest is directed in particular to the Greek architecture), this presence can certainly contribute to a more correct definition of the overall architectural aspect. The idea that ancient Greek architecture was characterized by the absence of colour comes from a false vision; its origins are to be found in the dispute over the primacy of the arts, which arose during the Renaissance, which saw the opposition and a progressive estrangement between the "form" (seen as an instrument of ratio) and colour (the result of the most irrational temptations of the senses). Only in the mid-nineteenth century, in contrast to the current opinion still strongly conditioned by the neoclassical heritage, the theme of the use of colour in the restitution of an ancient building was addressed. This first and decisive stance was followed by heated discussions, but also numerous other contributions, solidly documented by archaeological evidence, which helped to overcome the residual resistance on the part of the most conservative scholars and to consolidate a less idealized image of the ancient buildings. The contribution analyzes the most significant phases within this process of re-appropriation of a more coherent and less idealized identity by ancient architecture, highlighting the importance of colour in the phases of reading and interpreting forms now lost.

KEYWORDS Ancient Greek architecture, myth of white, ornament, architectural orders, polychromy, chromatic research

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1. Introduction

Since the dawn of civilization, colour has always been the most popular and widespread expressive tool, it was chosen for ornamental, symbolic or representative purposes, but also to meet the perceptual needs of the whole. Throughout history, the use of colour has developed in parallel with the evolution of the arts, culture, commerce and the expansion of exchanges and knowledge of materials and pictorial and constructive techniques. We could say that there is no surface, no volume, no body in general, that avoids being interested in chromatic conditioning.

As Pietro Zennaro states in his book *Colore e luce in architettura. Fra antico e contemporaneo*, «colour is not just a perception or a material, or a frequency of light, ...colour is culture» (Zennaro, Gasparini, Premier 2010). When used culturally, colour hides and dissemble other meanings, which for some reason are not aimed at everyone, but at the same time it privileges and gives meaning to what it protects. Each epoch has been able, or "wanted", to see and use only a few colours, setting aside the infinity of variations of which this visible phenomenon is constituted [1]. Therefore, the use of colour can be considered a privileged filter in the reading and interpretation of the past. Architecture depends on its own time and colour is to be understood as the crystallisation of the structure of society and the individuals that make it up (Albarello 2014). In this regard, it can certainly be said that considering the presence of the lively and extensive polychromy that covered the ancient architecture can contribute to a more correct definition of the overall architectural aspect, avoiding the possibility that the current state of conservation of most of the ancient buildings may still lead to the erroneous association between ancient architecture (and art) and lack of color.

2. The myth of white in ancient art and architecture

In architecture (and in art in general), the "myth of white" has a "historical" dimension that over the centuries has taken on different meanings: from the aesthetic misunderstanding following the archaeological discoveries of the eighteenth century, which influenced neoclassicism, through the analysis of spontaneous architecture of the Mediterranean and European rationalism, to arrive at minimalism and contemporary architecture. A myth destined cyclically to rise again with different attributions of meaning, at the same time equal and different. The myth of white, through Winkelmann's aesthetics, has become an immutable ideal of beauty, formal purity, sobriety, rationality and abstraction. «If myth is a language, architecture as art feeds on it» (Albarello 2014).

Colour is not an exact science, but its field covers an area of borderline between art and science, between physics and psychology and since forever «every philosopher scientist has stopped with suspicion to consider colours: they represent the laws of mutation, seduction, non-truth, the suddenness of the opposite phenomenon; the irrevocability of a strong message and at the same time a passing destiny (Eros was born from Iris)» (Brusatin 2000). If we refer to the Sophists, the "colourful speeches" recall some truths close to things and "colouring the speeches" involves the creation of inconstant images and suggestions, to make believe some truths in place of others. It is well known that in the Greek world the theme of suspicion towards colour has manifested itself more openly: the Pythagoreans, for example, consider it profoundly extrinsic, "superimposed" and purely evocative (Brusatin 2000).

This type of consideration would be objectively confirmed by referring to the etymology of the word colour, whose root can have three derivations: from Sanskrit "*kalanka*" (stain) and "*kala*" (black, dark); from Greek *κελαινός* (black, dark), as well as from Latin "*celare*" (hide, in the sense of making it dark) (resource: www.etimoitaliano.it); therefore, it is clear that in the original meaning of the term there is a negative meaning, as if the colour served only to "stain, obscure and hide".

In the real artistic production, the "form/colour" contraposition begins with classical philosophy and continues with the theoretical convictions of the Renaissance with a neoplatonic background. The contrast between drawing and colour, a meditation already academic in itself and of late 16th century, seems to be inspired by a passage from Aristotle's Poetics that unmistakably assigns a primacy to the drawn form: «whoever, in fact, casually throws down the most beautiful colours, would never delight the sight as whoever has drawn a figure in white» [2].

In the fifteenth century, with the advent of the geometric science of perspective, in an even more evident way the reproductive arts were considered bearers of wisdom and truth, while the world of colours remained within the sphere of "seductive and apparent". «Therefore, alongside a primacy of the historical sovereignty of the arts of drawing, there is the discontinuous production of colour, always removed from safe laws and devoted to the uncertain destiny of the life and fortune of the individual artist» (Brusatin 2000).

Fig. 1. The Laocoon Group from an original bronze statue from around 140 BC, Vatican Museums. Photo by the author.

In 1506 the discovery of the Laocoon Group (fig. 1) decrees the undisputed victory of the white; from some scholars this discovery is considered the first true perceptive-aesthetic "falsification" of the ancient sculpture. The work of art, during its millenary stay under the ground, had obviously lost its original colour. This extraordinary effect of intense white of the masterpiece had the inevitable consequence of dazzling all the artists of the time, including Michelangelo, determining such a strong impact on the aesthetic taste of the time, to impose as predominant artistic genre the sculpture not painted, preferably of nude marble (resource: http://post.uniurb.it/?p=5467).

Winckelmann, with his book *Gedanken über die Nachahmung der griechischen Werke in der Malerei und Bildhauerkunst* (Thoughts on the imitation of Greek works in painting and sculpture) of 1756, succeeds in definitively "authenticating" and sealing the myth of white in classical antiquity, raising the white marble sculptures to a tangible sign and symbolic image of the aesthetic ideal (Winckelmann 1756). And this happened at the very time when archaeological discoveries and closer examinations of the works brought concrete evidence that the monuments of classical antiquity, such as the Parthenon of Phidias, were in fact colored, something that in fact also the sources spoke of, as was able to demonstrate Quatremère de Quincy (resource: http://post.uniurb.it/?p=5467). In fact, Pliny the Elder, Pseudo Aristotle, Theophrastus and Vitruvius provide detailed descriptions of the raw materials used in architecture, the procedures for the preparation of colorants and even their prices (resource:http://www.arkeomania.com/colorisculturagreca.html).

As the archaeologist Antonio Giuliano [3] reports in his rich manual on Greek art, the sculptures of the Parthenon were all in marble, enriched with bronze details, probably gilded, while the sculptures were certainly painted. Traces of red and blue have been found in several places, so it can certainly be said that the bottom of the metopes was painted with red and blue and that the base of the frieze was blue. All this had to be enriched by details and figures in gilded bronze or coloured red, green and gilded. According to the author, however, the polychromy was not very intense, as it was used mainly to give prominence to the figures (fig. 2) (Giuliano 1987).

Fig. 2. The Acropolis of Athens: the Parthenon and the Erechtheum in a colour reconstruction. Images from National Geographic, Archeologia. Le città del passato ricostruite, Macrolibros, Milano 2017.

2.1. *Winckelmann and the imitation of the Ancients*

The heated dispute over the primacy of the arts reached its peak in the 18th century with Johann Joachim Winckelmann, one of the most important and influential art historians, archaeologist and critic, considered the father of art history.

His thought is rich and contradictory, crossed by a latent critique of contemporary society, strained between the almost desperate search for the intangible norms of a timeless and superhuman perfection and the fascinating discovery of its incarnation in a place and in a determined time: the Athens of the fifth century (Pommier 1991).

Winckelmann exalts the whiteness and the absence of colour as the signature of the absolute immaterial purity of the masterpieces of classical statuary, with a double objective: «to preserve the universality and the historicity of the Classic and to favour the reproduction of the ideal Beauty in contemporary art by imitating ancient models» (Winckelmann 1763).

Greek art (for Winckelmann the space of time between Phidias and the age of Alexander the Great circumscribes the period during which the art of antiquity reaches its peak, identifying a peak of classical perfection) is not only considered as “worthy object of study”, but also, and above all, as an object of imitation, to find “the rules” to be applied in your own *modus operandi*.

The crucial problem that emerged from Winckelmann's aesthetic reflection was the impossibility of clearly establishing “the rule and the canon” to define what true beauty is and prevent Beauty from sinking into the abyss of subjectivity, in the same way as individual judgment and taste. To oppose this subjectivist corruption, Winckelmann resorts to the works of antiquity, to what he defines as “*exempla*”, concrete, visible objects, characterized by pure form, without ornament. Greek art elevates itself «above matter» (Testa 1999), passing from the sphere of the empirical to the spiritual and the absence of ornaments and colours contributes to this sublimation. For Winckelmann, «a beautiful body will then be all the more beautiful when it is white, and when it is naked it will seem larger than it actually is» (Winckelmann 1764). The essence is manifested in the naked white body, in the whiteness of the ascetic absence of colour of the marble and in the expression of the uncontaminated interiority, that is, without the degradation caused by the addition of colour. Taking up the Platonic ideology, according to which colour is intended as a misleading expression of passion and works in the field of evil, Winckelmann's idea of colour is linked to the transience of life, to the body, to matter, to temporality, to appearance and to sensitivity. Colour is therefore accessory and inessential and over time is doomed to lose its expressive power.

Winckelmann reserves the same type of treatment for ornament: «he implements a precise theoretical strategy aimed at neutralizing the subversive potential of which the ornament is considered the repository because of its intrinsic vocation to obscure the purity and perceptive clarity of the form. For Winckelmann the form must be based on the principle of simplicity, and therefore must appear absolutely naked and devoid of any ornament, in its original epiphany» (Testa 2009).

In his famous work *Anmerkungen über die Baukunst der Alten* (Observations on the architecture of the ancients) Winckelmann tries to temporalize the affirmation of the ornament by describing it as «a pernicious pathological alteration that, over time, has corrupted an origin-essence

conceived as unadorned purity: After all the essential parts of Architecture were invented, the ornate were thought of, which could serve to embellish the buildings» (Winckelmann 1762). In his idea of aesthetics, the ornament represents the deplorable emblem of a Baroque ideal, which cyclically returns to manifest itself over time and to ruin the classic perfection of the form, in order to tickle the lowest instances of individual sensoriality. «When the ornament is superimposed on the form, the latter is literally erased: with the ambition of making it richer, the ornament annihilates it» (Testa 2009). Taking up a definition of Kant's drapery used for sculptural works: «those things that do not belong intimately, as a constituent part, to the total representation of the object, but only as exterior accessories, increasing the pleasure of taste», Winckelmann compares the ornament in architecture to the *parergon* for the nude body in sculpture. Ornament is in fact added to what is essential to embellish it, making it more vividly perceptible to the senses but, in his opinion, without «making a homogeneous contribution to the pleasure of form» and moreover blurring its contours, at the expense of the perfection and beauty of the work (Winckelmann 1764). The use of colour and ornament is therefore an evil that has marked discontinuity, fracture and differentiation within the cycle of historical development of ancient architecture: «When good taste began to lose, and when appearance was praised more than reality, ornaments were no longer considered as mere accessories; but places, which until then had remained naked, were enriched. Then came the petty taste in Architecture: for, as Aristotle says, the rule is that when each part is small the whole still has to be small. It happened to Architecture as to the ancient languages, which became richer as they lost their energy and their beauty, as it is easy to prove taking as an example the Greek language and the Latin language: and since the architects saw that they could not surpass or even equal their predecessors in the beauty of the works, they tried to overcome them in wealth and profusion» (Testa 2009).

This theorization on the role of absolute aesthetic model attributed to the Antique has been fundamental for the neoclassical art that, recovering and imitating that deep-rooted idea of purity and compositional rationality of the Greek art, has marked and identified an artistic season inspired to the ancient models, of which one of the greatest representatives has been the sculptor Antonio Canova (fig. 3).

3. Polychromy in ancient Greek architecture

The Italian painter Raphael (1483-1520) was the first to realize that the ancient world, as it appeared to his eyes and as it was represented, was only the faded echo of that richness that necessarily had to characterize its artistic value: «those famous works» are defined by him as «the bones of the body without flesh» [4]. When he speaks of “flesh” he obviously refers to the decorations, the richness of the covering materials and the colours. He invests in his dream of reconstructing the ancient Rome, now lost, all his sensitivity and attention to the documentation in his possession, managing to draw, from that confused set of incentives and impulses, an all-round view of the ancient architecture with an almost scientific method (Di Teodoro 1994).

More than two centuries later, in the drawings of the architects-archaeologists Stuart and Revett, authors of the *Antiquities of Athens* (1762) a book containing their daring plan to study and represent the most important monuments of the city of Athens and its surroundings, there is a first, pale interpretation of some buildings with painted ornamental parts, but which is not explained (Stuart, Revett 1762). There is therefore a lack of specific attention to the use of colours, which was found about sixty years later in the thought and works of Quatremère de Quincy.

The famous French archaeologist and essayist assigns colour a leading role in the aesthetics of Pericles' age, and defends its use as a valid and tasteful choice, demonstrating its original effect with a series of hand-coloured reconstructions. His drawings of the colossal Chryselephantine statues by Pheidias are famous, characterized by the combination of different materials and therefore polychrome: Zeus of the frontispiece is the colour of ivory in the nude parts and the colour of gold in the clothes, decorated with sober ornamental motifs in blue and red. This study by Quatremère is the first sign of an estrangement from white, characteristic of neoclassical aesthetics at the end of the 18th century and establishes itself as a point of reference for subsequent scholars and interpreters of ancient art and architecture (Quatremère de Quincy 1814).

In the mid-19th century, for example, the Franco-German architect and archaeologist Jakob Ignaz Hittorff presented his research on colour as a transposition into architecture of the studies on sculpture carried out by the great French master. His restitution of the Temple B of Selinunte, characterized by an amazing chromatism, is famous (fig. 4) (Rocco 1994). It is one of the smallest sacred buildings in the city, located on the Acropolis, on which Hittorff concentrated much of his research, which resulted in the publication *l'Architecture antique de la Sicile*.

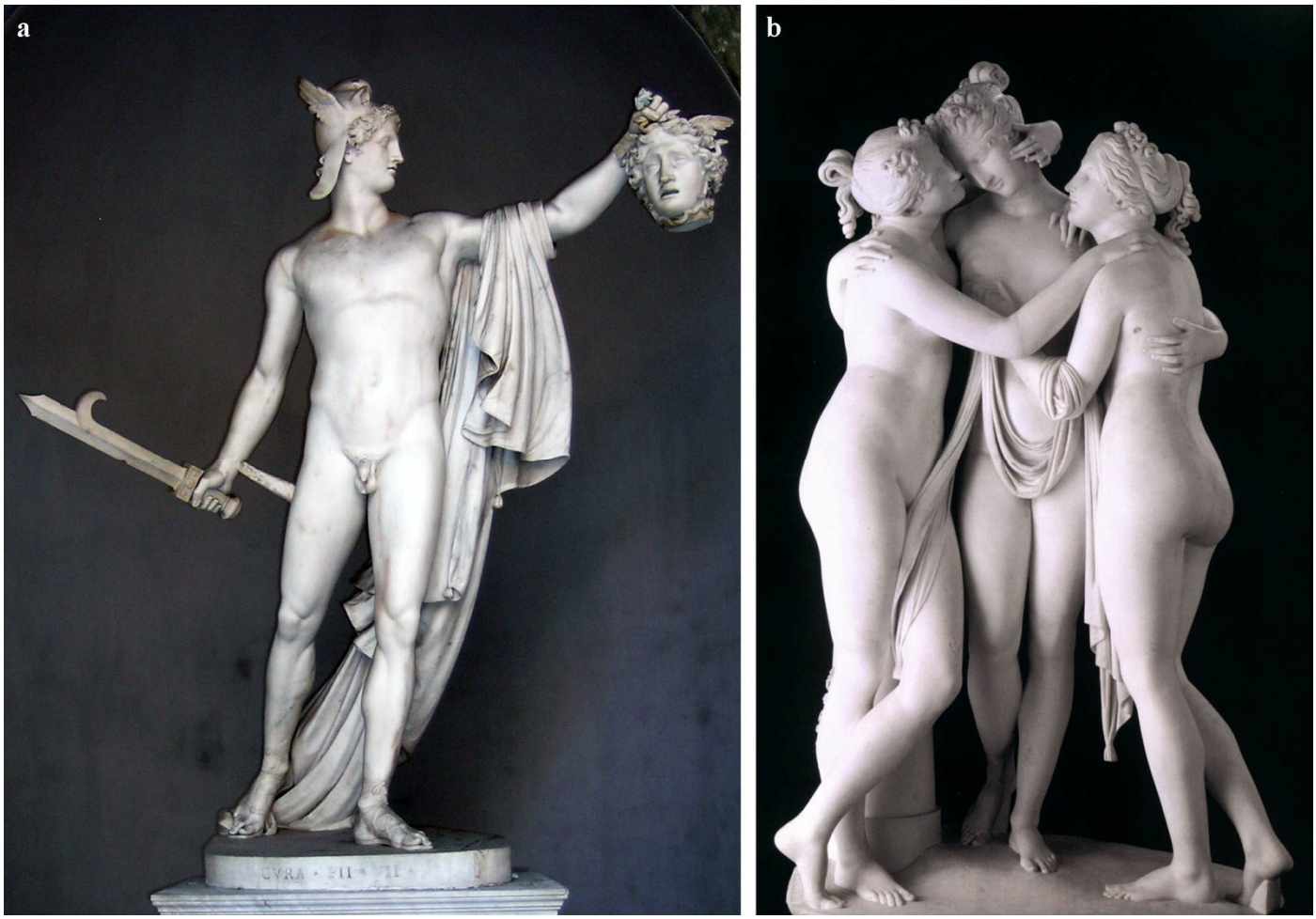

Fig. 3. Antonio Canova: a) Perseus Triumphant (1797-1801), Vatican Museums, photo of the author; b) Three Graces (1812-1817), Hermitage Museum of St. Petersburg. Image from www.ergsart.com.

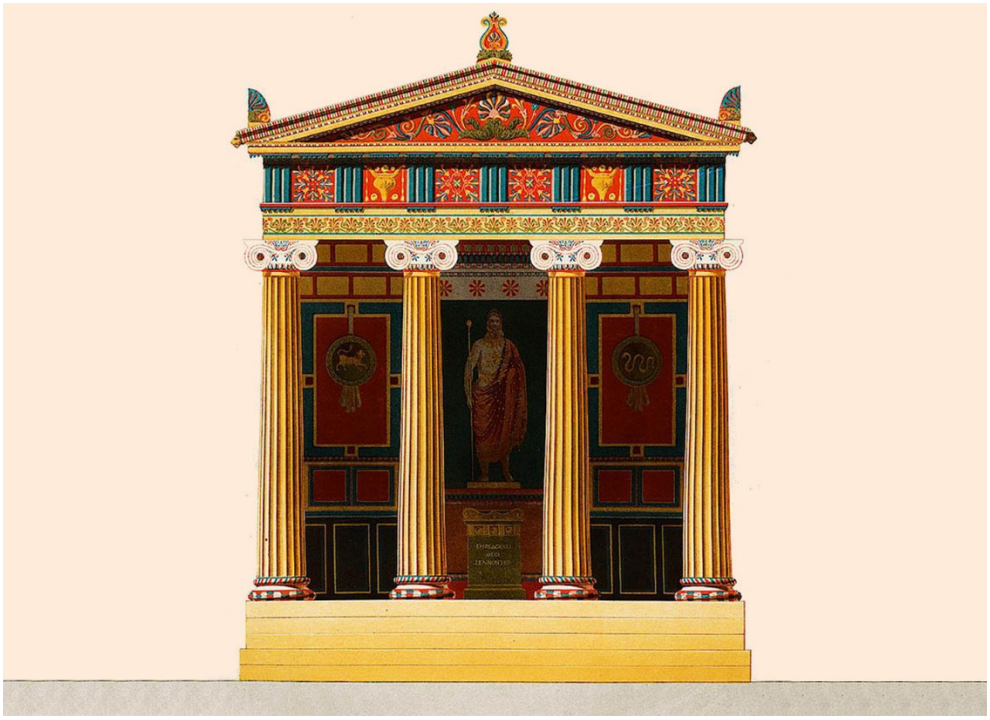

Fig. 4. Jakob Ignaz Hittorff, graphic representation of Temple B of Selinunte. Image from www.pinterest.it.

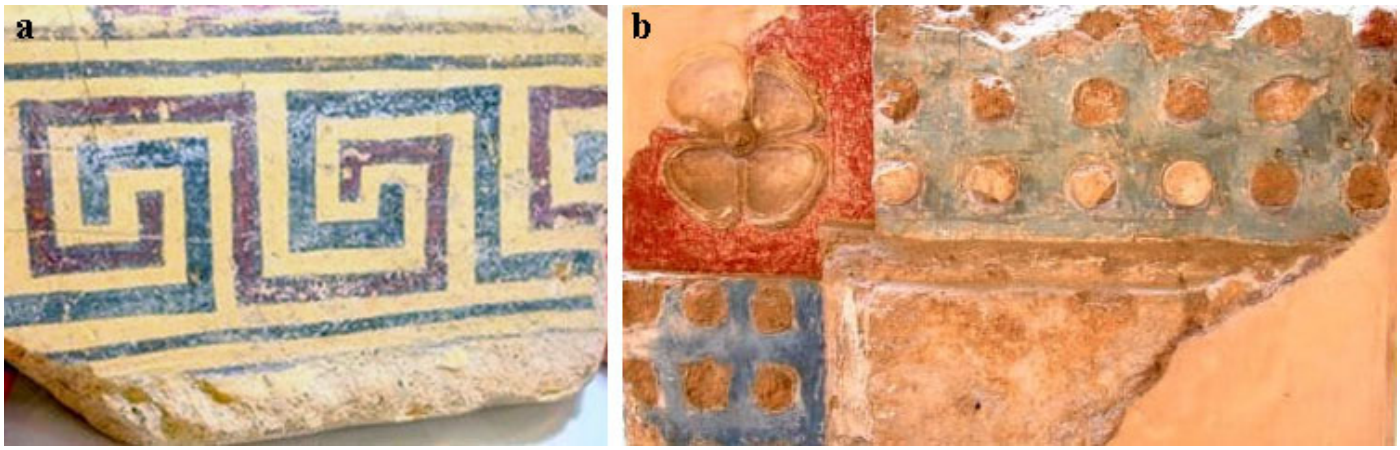

Fig. 5. a) Fragment of a sima found at the Acropolis of Selinunte by the team of Professor Clemente Marconi; b) fragment of the geison-sima of the pediment, Palermo, Regional Archaeological Museum. Details of images taken from the site http://www.castelvetranoselinunte.it/gli-straordinari-colori-dellantica-selinunte/.

Although the Temple B is not the main object in the book, its presentation is in fact the most articulated and detailed in its decorative aspect. Hittorff reconstructs the building in plan and elevation, characterising it in all its parts with a rich polychrome decoration (Hittorff 1870). The principles that guided Hittorff in the reconstruction of the temple are published in the *Annales de l'Institut de correspondance archéologique* of 1830, in his essay *De l'architecture polychrome chez les Grecs* [5]: first, he states that the system of polychrome architecture is valid throughout the history of the Greeks, understood as one of the most suitable means of adding charm to the majesty of their temples; such a system would be the only means available to Greek architects to integrate buildings into the context and thus in perfect harmony with nature; and finally, the full application of this system to a building of antiquity makes it absolutely worthy of the perfection and beauty of Greek Art (Hittorff 1830). According to Hittorff, the origins of colour in Greek civilization are very distant, we could say almost primitive; the idols in coloured wood, arrived from Egypt, would have suggested the use of colour in architecture. The numerous traces of colour still visible on some important stone or marble buildings, including the Parthenon, the Erechtheum and the Theseion in Athens, the temple of Aegina, and the temple of Apollo in Bassae would be proof of an uninterrupted use of colour throughout the history of the Greeks. According to the architect, the silence of ancient sources on the use of polychromy in architecture cannot, therefore, be used as evidence for its absence, but can even derive from the opposite motivation, namely that the colour was so widely diffused as not to strike for its uniqueness. However, his research and related results are characterized by an evident distortion of the archaeological reality, which probably derives from the need to find in the past the approval of his work (Marconi 2008).

The recent researches conducted by Professor Clemente Marconi [6], through the discovery of architectural terracottas that still preserve the original polychromy of the Temples of Selinunte (fig. 5), shows the arbitrariness of the reconstruction of Temple B by Hittorff [7]. In fact, he would not have limited himself to using the documentation relating to the building, following a rigorous philological method, but he would have used a series of sources, both literary and recovered from the comparison with other monuments, in order to produce an integral reconstruction of the Temple.

The work of the French architect, although characterized by errors of archaeological interpretation, represents still a very important contribution to the broad and complex theme of polychromy in the ancient world, which was followed by heated discussions, contrasts, but also further relevant evidence to support and consolidate a less idealized image of ancient monuments (Rocco 1994).

According to the studies of Professor Giorgio Rocco [8] on ancient architectural orders, polychromy is not a specific character of a particular order, but would affect all orders, without distinction. However, careful analysis and comparisons have shown that colour was never used randomly, but with precise functions, with inevitable differences between the various architectural orders. In Doric architecture, for example, the presence of colour is manifested in two distinct forms: the first sees colour as an aspect complementary to architectural decoration in the strict sense, especially in the mouldings, helping to accentuate the highlights and complete the reproduced motif in detail (fig. 6); the second concerns chromatism in large backgrounds that mark the different elements of the order (fig. 7) (Rocco 1994). In the archaic age (VII-VI sec. b.C.), the colours used for the mouldings are the warm

Fig. 6. The colour used on the mouldings: a) Athens, Acropolis, sima decorated with palmettes (about 480 B.C.); b) Corinth, straight sima with acanthus spirals with leonine protomes (IV century B.C.). Images taken from: Rocco, 1994.

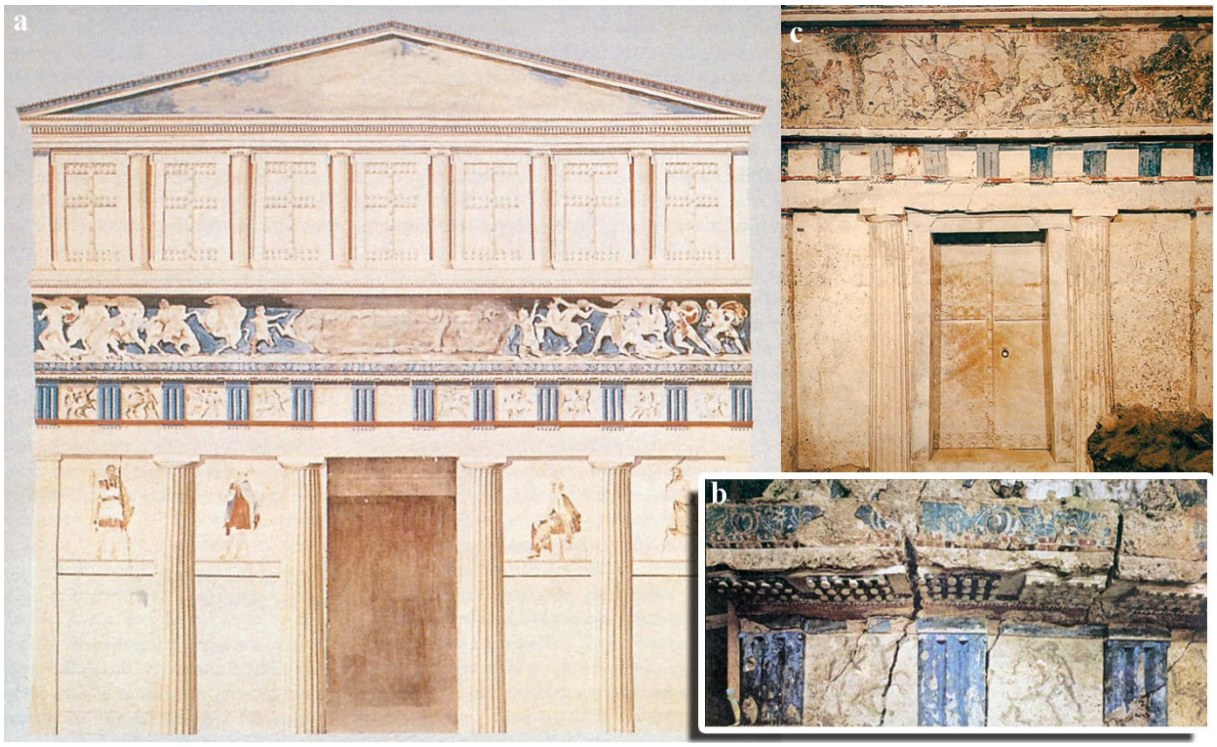

Fig. 7. The color used to scan the elements of the order: a) Lefkadia, Great Tomb, facade drawing. Image taken from HELLMANN, 2002; b) Lefkadia, Great Tomb, detail of the trabeation that preserves the original colour backgrounds of the elements of the order and the mouldings unaltered; c) Vergina, Tomb of Philip, elevation of the monument that preserves the original colouring of the different elements of the order. Images taken from Rocco, 1994.

Fig. 8. a) Athens, Acropolis, archaic votive capital with globular echinus; b) Delphi, Treasure of the Siphni, floral motif on the lower surface of the geison; c) Delphi, Treasure of the Siphni, detail of the frieze. Images from Rocco, 2003.

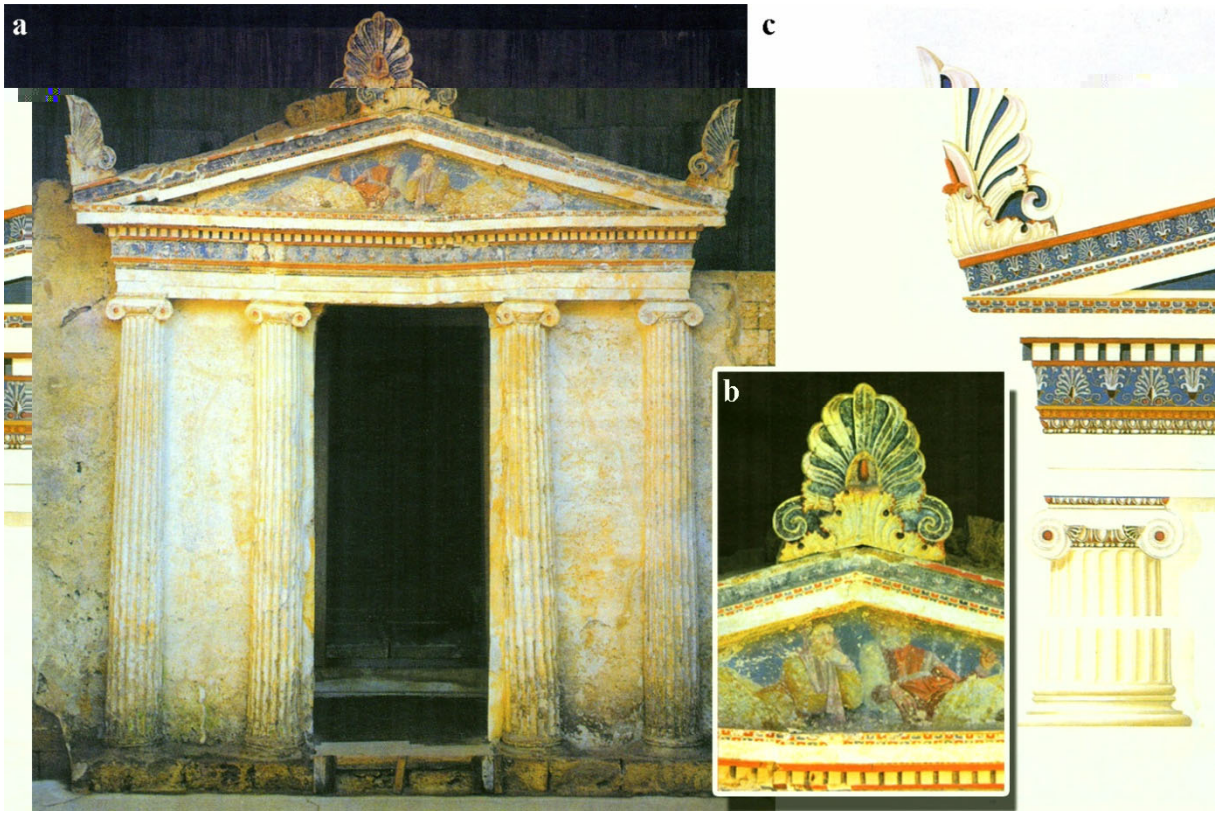

Fig. 9. Lefkadia, Tomb of the Palmettes, first half of the third century BC. Excellent state of preservation of the painted decoration. a) Prospect; b) detail of the pediment; c) detail of the pediment in a color reconstruction. Images taken from: Rocco, 2003.

Fig. 10. Examples of architectures and decorative devices that testify to the evolution in the use of colors over time. Images taken from Hellmann, 2002.

tones of brown and ochre, but also red, green and blue, as well as white and black, mainly used for the general design and the borders of the various motifs; later on, red and blue prevail, flanked by white, black and often golden yellow. Instead, the choice of colouring the load-bearing structures probably responds to a logic aimed at accentuating highlights and underlining correspondences, in addition to the desire to lighten the shadows that the strong sunlight would create on the light surface of the marble. A very important aspect that emerges from this careful examination of the chromatic characteristics in the Doric order is the desire to underline the correspondence between some elements of the order: regula, triglyph and mutulo, for example, are correlated not only by a uniform width and by the arrangement on the same axis, but also by a common colouring that contributes to increasing their interrelation (fig. 7). The use of complementary colours, arranged in close alternation according to a combination that appears both in the decorative motifs and in the colouring of the various elements, consciously aims to visually accentuate protrusions and recesses, in a formal research that takes concrete form in the accentuation of plasticism, at the same time contributing to making the internal articulation of the order more legible (Rocco 1994). In Ionic architecture, on the other hand, unlike the Doric order, the colour is limited to the more properly decorative elements, in particular the mouldings, the sima and the frieze, if present; the use of colouring the structural or functional elements of the order is not supported by objective evidence; the surfaces free of decorations are left in the natural colour of the marble or painted white. Some examples of capitals found in Athens are emblematic, with the characteristic decoration of the leaves in alternate colours, red and green, as well as some parts of entablature found in Delphi, characterized by the alternation of the usual colours, already found for the Doric order: yellow gold, green, red and blue (fig. 8). But the most significant documents are certainly represented by the Macedonian underground tombs of the Hellenistic period. Their concealment under the ground has allowed for a state of conservation that is sometimes surprising, with the stucco covering that still bears the lively colouring of the various parts almost intact (fig. 9) (Rocco 2003).

4. Conclusions

It is clear that the use of colours for the Greeks has changed over the centuries, from a simple contrast of light and dark, typical of the geometric era, to the so-called “archaic triad”, characterized by games of red and white on a blue background, and then move on to richer chromatic manifestations, with the addition of metals and natural inorganic pigments (fig. 10) (Hellmann 2002). The documentation on the use of colour in ancient architecture, which continues to be enriched by new finds, thus highlights a chromatic research that contrasts significantly with the current state of most of the most famous monuments, leading the image of Greek architecture to a context historically and culturally more consistent and less idealized than that which has been handed down to us, because of the persistence of neoclassical ideals, which have ignored or simply denied incontrovertible archaeological acquisitions (Rocco 2003).

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6. Conflict of interest

The author declares that nothing has affected her objectivity or independence in the production of this work. There are no actual or potential conflicts of interest, including financial, personal or other relationships with other people or organizations within three years of beginning the submitted work, that could inappropriately influence, or be perceived to influence, this work.

7. Short biography of the author

Rossana Netti is an architect, Ph.D. in Cultural Heritage and since 2018 researcher at the Department of Architecture and Design (DAD) at the Polytechnic of Turin. Her research activity concerns the study of methods and advanced digital technologies for the survey, enhancement and communication of Cultural Heritage, from the acquisition of field data to their processing and integration in virtual reality environments.

Notes

[1] Interview to Pietro Zennaro, *The value of colour in architecture*, on www.laterizio.it.

[2] Aristotele, *La Poetica*, 1450a, 1-3.

[3] Antonio Giuliano (1930 – 2018) was an Italian academic and archaeologist among the major of the second half of the twentieth century.

[4] *"…quelle famose opere, che oggidì più che mai sarebbono florenti e belle, furono dalla scelerata rabbia e crudel impeto di malvagi uomini, anzi fère arse e distrutte; ma non però tanto che non vi restasse quasi la macchina del tutto, ma senza ornamenti, e - per dir così - l'ossa del corpo senza carne*…" These are the words with which Raphael, through the elegant speech of Baldassarre Castiglione, described the ruins of the antiquities of Rome in his famous letter to Pope Leo X, as he was about to embark on one of his most grandiose projects: the survey and graphic reconstruction of ancient Rome. (Borghini, Carlani 2011).

[5] Hittorff presents his theory of polychromy for the first time in detail in *De l'architecture polychrome chez les Grecs, ou restitution complète du temple d'Empédocle dans l'acropole de Sélinunte*, a memory read in front of the members of the *Institut de France* and immediately published (1830) in the Annals of the *Institut de correspondance archéologique*. According to his theory, Greek architecture cannot be understood without admitting the use of polychromy.

[6] Clemente Marconi is Full Professor of Classical Archaeology, Department of Cultural and Environmental Heritage, University of Milan; James R. McCredie Professor of Greek Art and Archaeology and University Professor Institute of Fine Arts, New York University; Director, Institute of Fine Arts-NYU and UniMi excavations on the acropolis of Selinunte.

[7] In 2005 Professor Clemente Marconi undertook a project of documentation, research and excavation in the area of Temple B of Selinunte, sponsored by the Institute or Fine Arts of New York University, in agreement with the Superintendence for Cultural and Environmental Heritage of Trapani.

[8] Giorgio Rocco is an architect, Full Professor in History of Ancient Architecture at the Polytechnic of Bari.

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