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Between the Ideal and Artistic Practice. On Research into Ancient Sculptural Polychromy

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Abstract. Antiquity is often synonymous with white marble. Such are the general expectations when visitors enter 21st century museum galleries hosting ancient sculpture. Yet, ancient marble sculptures have never been actually white. They were originally fully painted or otherwise coloured, and today they pose as controlled ruins built by decades of restorations, de-restorations and preservation manifested as encrusted layers and patina. As such they express the modern ideal, meaning ideas of aesthetics developed by 19th and 20th century museums. They do not reflect the ancient artistic practice or the ideas of aesthetics that once guided the ancient craftspeople. The experimental reconstructions -meaning painted copies of authentic sculptures- are therefore often met with suspicion and sometimes frustration, because they explore the artistic practice above the ideal. Unlike the ancient originals, the painted copies are not in any way visually authentic, but fully polychrome, and layers of paint are often applied in thick, opaque layers, thus failing to meet the ideas of aesthetics on behalf of the modern viewer. While the reconstructions serve as seminal research tools in the academic exploration and experimentation with colours on white marble sculptures, they have no precedents in the history of art. This article will therefore explore how reviews of these experimental reconstructions echoes ideas of aesthetics originating from the 19th century, and how a lack of confronting these ideas ultimately empowers the reconstructions with the potential to impose a much-needed material diversity to 21st century classical sculpture galleries.

This paper will discuss the experimental reconstructions of ancient sculptural polychromy as balancing between the Ideal, meaning what kinds of ideas of aesthetics they communicate, and the artistic practice. Factual, meaning what role they play in the re-iterative processes of analysing and identifying the manners of applying paint layers onto marble sculpture. What is evident to most at this point, is that research and increased knowledge of ancient sculptural polychromy holds potential. The nature of this potential, and where it will lead future research in ancient sculpture, is, however, difficult to tell. As antiquity continues to be relevant to the formation and negotiation of western cultural identities, the question remains, as posed by Salvatore Settis, whether research into ancient sculptural polychromy eventually will ‘(...) render the very idea of the “Classical” close to our

contemporary world, or rather make it more distant and difficult to understand.’ One aspect of ancient sculptural polychromy, which reflects this important question, is that of the painted marble skin, which continues to be a topic of much controversy. Interestingly, sculpted hair and garments have long been accepted as once fully polychrome. This paper will take a closer look at how the painted reconstructions serve to confront ideas of aesthetics inherent to the 21st century viewer, by exploring how debates of coloured white marble sculptures of in particular the 19th century continue to shape how we today perceive antiquity.

The colour of ancient sculpture and architectural monuments is a topic to which much attention has been devoted in the twenty-first century. Collaborative projects at universities and museums throughout the world have been accumulating data from scientific research initiatives, while exhibitions on ancient polychromy continue to draw a wide audience. Despite this, questions of how colours were perceived, experienced and applied in past cultures remain poorly understood. While awareness of the preserved pigments on weathered stone surfaces increases, the immaterial, or less tangible, issues related to how and why colours were expressed in the material world – such as the aesthetic, economic, social and cultural values associated with the different colour properties – are more difficult to identify and explore systematically.

This paper will focus on one of the most controversial topics related to ancient polychromy: the painted white marble sculptures, with a particular emphasis on the coloured reconstructions popularly used in museum and research contexts for disseminating what were once vividly painted and gilded shapes. Reconstructions are produced in various ways; in two and three dimensions and through physical as well as virtual media. This paper focuses specifically on the physical reconstructions of ancient painted white marble sculptures, which museum visitors often encounter in exhibitions on ancient sculptural polychromies. We may never know precisely what these marble sculptures originally looked like when fully coloured, but exploring this question is nonetheless necessary, and in this respect the reconstructions matter. The physical reconstructions, where scholars can experiment and test mixtures of pigments, binders and layering techniques, are essential. And, at the same time, it is often the physical reconstructions that receive the harshest critique. This paper will discuss the striking paradox of how best to visualise ancient marble forms when fully painted, when ideas of aesthetics, *the ideal*, are equally important to scientifically attestable research data, which in turn refers back to a creative agency, an *artistic practice*.

The role of coloured and painted reconstructions

Like all other archaeological reconstructions, the painted copies visualising what an ancient marble sculpture once looked like are experimental (*Fig. 1*). They communicate the ideal, such as ideas about aesthetics or different hypotheses concerning technical execution, but not necessarily the factual, as the remains on the originals are, in fact, too sparse to support accurate interpretations. They visualise ideas of what the original may have looked like

Fig. 1 View of four Caligula's from the exhibition 'Transformations. Classical Sculpture in Colour' in 2014. From left to right: the original portrait, inv. 2687; reconstructions Variant A, B and C. Photo: Ana Cecilia Gonzales, Ny Carlsberg Glyptotek ©.

and difficult to observe with the naked eye. Analysis of such remains therefore includes microscope and photo analytical methods, providing complex sheets of information open for interpretation to those who know how to decode them. A few weathered pigments do not testify to how the sculpture once appeared; pigments were mixed and applied in millions of combinations, and defining factors such as what binders were used to make the pigments cohere and adhere to the marble surface would additionally have mattered to the optical finish of the sculpture. This makes research into ancient polychromy a highly specialised field, demanding a certain level of experience and expertise from a broad cross-disciplinary network of scholars.

One concern to most scholars working with creating reconstructions of ancient sculptural polychromy is to limit the influence of modern ideas of aesthetics when interpreting the fragmented remains of the original. Ideas of aesthetics are linked to the subjectivity of an experience, and the scientific reconstructions, meaning the reconstructions that are based on data collected from examinations of the original must preferably be as objective as possible to secure the scientific validity of the outcome. Yet, all visualisations, reconstructions or whatever a painted copy may be labelled as, embody a series of subjective interpretations present in all levels of the experimental process from analysing, identifying and choosing pigments and binders, to how they are mixed and applied onto the marble surface, to how lines are defined in the colouration of details in the hair, contour of the lips, nuance in the eyes, highlights and grading of the skin tone, and so on. Drawing a line where a painted or coloured copy passes from being scientific or objective to speculative or subjective is not possible, because such a line would indicate that an accurate reconstruction of what a painted ancient marble sculpture once looked like is possible to begin with.

Fig. 2 Portrait of Caligula. The head dates to the reign of Caligula (37-41 CE). H.: 28 cm. Photo: Maria Louise Sargent, Ny Carlsberg Glyptotek ©. Inv. 2687.

Fig. 3 Detail image of the painted left sideburn preserved above the ear on the portrait of Caligula. Photo: Maria Louise Sargent, Ny Carlsberg Glyptotek ©.

Fig. 4 Micro-image of a cross-section of a sample extracted from the preserved skin paint on the portrait of Caligula. Photo: Maria Louise Sargent, Ny Carlsberg Glyptotek ©.

The portrait of Caligula

The portrait of Caligula exhibits some of the best-preserved paint remains of all ancient marble sculpture, yet scholars continue to debate how these remains should be reconstructed. Painted eyelashes, pupils and irises can be seen with the naked eye, as well as painted sideburns extending beyond the sculptural shape, and pink paint between the slightly parted lips (*Fig. 2*).

Fig. 5 Reconstruction of the portrait of Caligula, Variant A. Ny Carlsberg Glyptotek.

Results from scientific analysis of the remains concluded that the head was once fully covered in paint: the hair was built from layers of dark underdrawings made from carbon black and Egyptian blue, with painted layers of red and brown ochre on top (*Fig. 3*). The skin was made from what appears to have been a single layer of a fair Caucasian skin tone (*Fig. 4*). And finally, details of the eyes, which were not highlighted by chisel, were picked out in paint using carbon black for finely painted eyelashes and Egyptian blue and carbon black for the pupils and dark brown for the irises. In addition, pink madder lake outlined the upper and lower eyelids, the tear ducts and the lips.

Although the paint remains are much better preserved than on the average ancient marble sculpture, three different variants of physical reconstructions, produced by Vinzenz Brinkmann and Ulrike Koch-Brinkmann for Stiftung Archäologie, show that knowledge about how these paint layers were actually applied remains open for debate.

In the first, Variant A, which was produced in combination with the first line of scientific analysis in the early 2000s, skin, hair and facial details were painted by Ulrike Koch-Brinkman and Sylvia Kellner using the pigments listed above mixed with an egg-tempera binding mixture (*Fig. 5*).¹ It was made from Carrara marble, not in the Parian marble of the original.² It is today on permanent display next to the original in the Ny Carlsberg Glyptotek.

The Variant B reconstruction was produced in 2005 (*Fig. 6*).³ This copy was, however, made from artificial marble (pulverised marble mixed with resin and cast in forms), and was painted again by Ulrike Koch-Brinkmann and Sylvia Kellner – much like Variant A. Yet, this reconstruction embodies slightly new interpretations of the documented paint preserved on the original, which includes highlighting of shaded areas of the skin.⁴

¹ Brinkmann, Kellner, Koch-Brinkmann and Østergaard 2009.

² Østergaard 2009c, 208–209.

³ http://www.stiftung-archaeologie.de/Caligula_NCG_2.html

⁴ Østergaard and Nielsen 2014, 271.

Finally, Variant C was produced in 2011 from acryl (acrylic resin bound in gypsum) (Fig. 7). This reconstruction was painted by Andreas Hickel, and offered yet another interpretation of the results from examinations of the original head, including the use of Egyptian blue pigments, which were not documented before 2010.⁵ Like the preceding two variants, this copy was covered in multiple layers of skin paint, but this time the layers were interspersed with polishing, which created the smooth finish, complimenting the polish of the marble underneath. The manner of painting also included subtle highlights of the sculpted strands of hair as well as a different execution of the pupils, eyebrows and eyelashes.⁶ However, the multiple layers of skin paint used to obtain a smooth and even finish cannot be documented on the original, making such additions purely aesthetic in nature, centring on how the painted finish should *ideally* look.

Fig. 6 Reconstruction of the portrait of Caligula, Variant B. Photo: Brinkmann and Brinkmann, Stiftung Archäologie ©.

A break with expectations

The painted copies of ancient marble sculpture are much debated. The Variant A reconstruction of the portrait of Caligula presented above has been discussed amongst academic peers and visitors to the Ny Carlsberg Glyptotek for many years. Although the painted copy does not convey accurately the appearance of the original, it may – in some ways – be closer to how an ancient white marble form was ideally realised in Antiquity, than the fragmented, restored, de-restored and patinated sculptures on display in the Ny Carlsberg Glyptotek. Yet, to the museum visitor in the nineteenth-century sculpture galleries, the painted copy is a visually disruptive, thought-provoking break away from their own expectations: surely, the painted copy, displayed alongside the original, cannot be expected to aesthetically inspire and arouse in similar ways to the originals?

After visiting the exhibition ‘Classicolor’ at the Ny Carlsberg Glyptotek in 2004, Danish art historian and curator at the National Gallery of Denmark, Hanne Kolind Poulsen reflects on what ‘went wrong’, so to speak, with the painted reconstructions she encountered, which included the Variant A reconstruction of the portrait of Caligula:

⁵ http://www.stiftung-archaeologie.de/Caligula_NCG_3.html

⁶ Østergaard and Nielsen (eds) 2014, 271.

The central problem is that the colours on the copies, in most of the cases, were performed uniformly. After identifying the pigments of the preserved paint remains on the originals, the same areas were coloured on the copies using such colours, but performed without nuance. The colours hide the form, covers it, so to say. Colour and form are not collaborating.⁷

The critique targeting the lack of harmony between marble form and painted finish is interesting. It expresses a certain hierarchy of materials and polychrome effects: colour strips the form, thus also the white marble, of its purpose. The form and the white marble are therefore automatically deemed more important than the coloured finish. This is, in its essence, a legacy of the nineteenth century, and the lack of breaking with it throughout the twentieth century. But the critique, which Kolind Poulsen is not the only one to formulate, also exposes an interesting idea of sculpture and paint (harking back to an age-old discussion of form and colour, the so-called *paragone* debate, initiated in the early Renaissance, which rejected the idea of colour and form as co-existing): that is, the aesthetic premise that painted finish and form should always harmonise.⁸ It is never explicated, but generally automatically accepted that the painted surface and the shape and texture of the form support one another.⁹ To Kolind Poulsen, this is what ‘went wrong’ with the painted reconstructions, which she observed in the 2004 exhibition at the Glyptotek. But there is more at stake. *Factually*, meaning how the reconstruction relates to data obtained from analysing the original, there are details in all painted or coloured copies, which will benefit from close observation and critique. But *ideally*, the painted reconstructions serve an important purpose: to break with traditions of reproducing ideas of aesthetics related to white marble sculpture, including the premises of aesthetic evaluation of *marble* sculpture in colour more generally.

Fig. 7 Reconstruction of the portrait of Caligula, Variant C. Photo: Brinkmann and Brinkmann, Stiftung Archäologie ©.

⁷ Kolind Poulsen 2006, 143; Skytte Jakobsen 2019, 58.

⁸ In general, Bourgeois and Jockey 2002 and 2010; Abbe 2010b; Skovmøller and Therkildsen 2015; Østergaard 2017c. On the *paragone* discussion, see in general Lichtenstein 2008.

⁹ Skytte Jakobsen 2019, 59.

Without ever being truly ‘white’, white marble sculptures are synonymous with Antiquity and sculpture of the highest quality. During the eighteenth- and especially the nineteenth-century, white marble was the prime material for sculpture. Critics, art historians, connoisseurs and artists sought out the finest blocks from quarries all over the world; above all, the *statuario* quarried in Carrara in Northern Italy. The white marble was praised for its material properties: a fine matrix of crystals embedded within the stone made it luminous and shiny – if not badly spotted or marked by veins or discolourings of grey and yellow tones. Although the purest and most flawless type, the *statuario*, was a rare find, it was the material properties of the pure white and luminous stone that was praised and immortalised throughout the centuries.

Why paint on white marble?

This white marble ideal fostered by eighteenth- and nineteenth-century philosophies of aesthetics did not, however, exclude discussions of colour on marble; on the contrary, critics hotly debated how the potential of the white marble was best realised throughout the nineteenth century. These discussions were fuelled by excavations of ancient marble sculptures that exhibited a wealth of colour. Yet, the point of the dispute when discussing how the ancient Greek (and Roman) craftspeople sculpted and coloured their sculptures were questions relating to practices of tinting, – not actual painting.¹⁰

Fig. 8 ‘The Tinted Venus’, sculpted by John Gibson from 1851 to 1856, the Walker Art Gallery Collections, H.: 176 cm. Photo: Walker Art Gallery Collections, Liverpool ©. Inv. WAG 7808.

¹⁰ Hatt 2014, 186.

Sculptors such as Antonio Canova and John Gibson brought ideas of colouring marble into their own workshops creating controversial artworks uniting the idea of the flawless marble with hues of colour. Canova used washes and slight use of pigments to differentiate between skin, garments and hair, of which very little remains today.¹¹ His pupil, John Gibson, created the 'Tinted Venus' in 1868, which embodied his ideas of the perfect marble figure. The sculpture displays a delicate symphony of surface textures, gilding and tinting. Although we may assume that the surface treatment has faded or otherwise altered since it was made, the sculpture in the Art Walker Gallery in Liverpool embodies a subtle surface treatment, realising a delicately tinted, marble white skin colour, with details of the face – including blue eyes – picked out in paint, and coloured yellow/blond hair held in place by a gilded net (*Fig. 8*). She is holding the gilded apple of Paris, who crowned her the most beautiful of all, and draped over her right arm is a mantle with painted details following the edges. The sculpture received mixed reviews; some enjoyed the sculpture and its take on white marble polychromy, of which Gibson had history on his site ('Whatever the Greeks did was right');¹² while others found the statue appalling, indecent and too literal in its fleshy effects.¹³

In the nineteenth century the whiteness of white marble was something of a fantasy-colour; it allowed for a level of abstraction related to viewing sculpture, fostering good and moral virtues by separating lust and the erotic from the aesthetic experience, thus allowing for fully nude male and female bodies to be represented in high art.¹⁴ The whiteness of the marble made the human body present and absent at the same time: present was the form in its pure, inherent innocence, allowing the spectator to see, observe, imagine and dream; absent was the erotic forces of alluring three-dimensional surfaces, which called out for a human touch. In the words of Henry Weekes (1807–1877), sculptor and later professor at the Royal Academy of Arts in London, white marble elevated art and human morality:

The absence of colour in a statue is, in short, one of the peculiarities that removes it so entirely from common Nature that the most vulgarly constituted mind may contemplate it without it causing any feeling of a sensuous kind.¹⁵

Despite such heartfelt defences of the pure, white marble, the negative response towards the Tinted Venus is overstated, and Michael Hatt argues that the statue caused debate and doubts rather than actual outrage.¹⁶ The statue was also positively received, and those who generally enjoyed sculptures such as the Tinted Venus praised the ability of the colours to provide the cold marble with warmth. Yet, none of the critics, whether for or against

¹¹ See in general, Norman and Cook 1997; Bindman 2016.

¹² Ferrari 2015, 1.

¹³ Hatt 2014, 185.

¹⁴ Hatt 2014, 186.

¹⁵ From a lecture at the Royal Academy of Arts in London in the 1870s; Hatt 2014, 186.

¹⁶ Hatt 2014, 186.

colouring white marble, ever considered the possibility of fully-covering layers of paint. The idea of colour on a white marble shape was confined to washes, tints and wax. Thus, the debates revolving around the 'Tinted Venus' and other similar works were concerned with how the white marble was ideally realised, not with whether marble should actually be polychrome.

The 'Tinted Venus' is the epitome of the debate about colour on white marble sculpture in the nineteenth century. As argued by Hatt, tinting is, strictly speaking, not that far from a textured, non-coloured, white marble surface.¹⁷ Waxy or transparent layers of colour serve to highlight the marble form. Unlike opaque layers of paint, tinted shapes elevate the marble underneath. As noted above, most marble sculptors of the eighteenth- and nineteenth centuries routinely applied different washes to their freshly carved sculptures to tone down the sheer whiteness of the raw marble and give shape to the form and highlight chiselled details.¹⁸ Without such washes, the gleaming white shapes and chiselled details would be difficult to differentiate to the human eye. Melchiorre Missirini (1773–1849) writes, in defence of Antonio Canova's treatments of his sculptures, that such washes also protected the marble surface from the effects of time, suggesting that a wash using tobacco-water or soot (perhaps inspired by treatments to marble copies of ancient sculptures) also served strategically and aesthetically to anticipate the inevitable weathering of the surface.¹⁹

Since no artists have tackled the question of covering white marble in paint throughout the twentieth century, thus leaving ideas of aesthetics relating to the marble sculpture from the nineteenth century largely undisputed, it is no surprise that similar ideas of aesthetics are expressed when the painted copies of ancient sculptures are debated today. The Variant A reconstruction of the portrait of Caligula is therefore one of the first attempts to actually paint a white marble sculpture for centuries, which in itself is a thought-provoking accomplishment.

Interestingly, the nineteenth-century predilections for the white marble shape is most explicit, when scholars argue how the painted *skin* of ancient white marble sculptures would have been applied originally. When addressing the idea of a polychromy of the white marble skin, scholars of the twentieth century have often concluded that such a colouration would have been achieved by tinting the surface using wax and not with opaque layers of paint.²⁰ Interestingly, sculptural hair and garments tend to be accepted as originally fully covered in layers of paint or gilding. In this regard, twentieth-century debates, and ideas about aesthetics, particularly those relating to white marble sculpture, have not changed much since the nineteenth century.

¹⁷ Hatt 2014, 187.

¹⁸ For references, see in general Norman and Cook 1997.

¹⁹ Bindman 2016, 121.

²⁰ Richter 1924; Reuterswärd 1960, 242–243.

Preserving white marble

There is, however, more to the critique of Kolind-Poulsen (quoted above), when she visited the Classicolor exhibition in 2004 than just echoes of the nineteenth-century ideas on aesthetics. Museum politics of preservation contributes to this reaction as well, posing challenges to how ancient paint remains are communicated in a museum context such as the Ny Carlsberg Glyptotek. A certain amount of fragmentation and patina is expected from a marble sculpture originating from Antiquity. A freshly carved marble sculpture is pure white, but this is most likely not what most will associate with Antiquity. For decades, sculptors working in white marble have used different washes and varnishes to tone down the whiteness of a freshly carved marble sculpture, to lend it the grace and authority of an ancient figure, and to provide the sculpted figure and plastic shapes depth and volume.²¹ This practice has always been a question of balance, which art collectors, museum curators and conservators have been experimenting with for centuries in order to align newly carved marble sculptures with ideals related to the ancient ones. In addition, the conservation and restoration of ancient marble sculptures is as much a science as it is a question of good craftsmanship, and the decision as to what is removed and what is kept of encrusted or calcareous layers on an ancient marble sculpture, including where and why, is, in the end, an aesthetic judgement that reflects ideologies of preservation in museums.²² To conserve and restore is to stabilise and complete what has broken off; to preserve is to make sure that a sculpture will stay the same for a very long time.²³

It is therefore not accidental that the marble sculptures in the galleries of the Glyptotek look the way they do. They pose as controlled ruins and embrace our expectations, moulded by decades of reception, restoration and preservation. The display is carefully staged with manipulated light settings gently guiding the viewer through the mass of sculpture. Gallery after gallery, they look the same: all frozen in the same particular yet undefinable moment of decay, and never developing beyond the ideas of aesthetics that guide their preservation.

The reconstructions therefore hold great potential to re-evaluate such traditional displays of ancient marble sculpture. The coloured copies, when placed amongst fragmentary and patinated marble originals, challenge modern expectations as to what an ancient sculpture *should* look like.

Summing up: white marble diversity

Ancient sculptures were, on the whole, much more diverse than what most museum displays are able to communicate. Made from a wealth of materials in addition to just painted white marble, ancient sculptural polychromies were very much a question of material manipulation. From the painted surfaces of white marble, to dyed metals, inlays of gemstones or glass, to coloured wood, manipulated polychrome stones and tinted wax,

²¹ On the washes of Canova, see in general Norman and Cook 1997 and Bindman 2016.

²² Campbell, Silveti, Podany and Wood 2008, 16.

²³ In general, see Podany 2015.

ancient sculpture was a magnificent amalgamation of all materials available to the ancient craftspeople.²⁴ But to many museum visitors, Antiquity equals white marble. Yet, it is not the whiteness of the marble that makes the association with Antiquity; it is their fragmentary form and calcareous, patinated surfaces: the polychromy of time.

The repetitive, slightly monotonous, order of display in galleries such as the Ny Carlsberg Glyptotek do not represent what sculptures looked like or where or how they could be experienced in the ancient world. In fact, the assemblage of sculpture serves to obscure the materiality of ancient marble sculpture resulting in a display that is fundamentally anti-material. What lacks in the galleries of the Glyptotek are the sculptures made from wood, bronze, terracotta, gold, silver and coloured stone (although a few are present). What lacks is material diversity.

Within a museum context such as the Ny Carlsberg Glyptotek, which was built in the late nineteenth- and early twentieth centuries, the physical, painted reconstructions hold the potential not to reinstate what is now lost, but to challenge the traditional antimaterial order of marble sculpture display, consequently exposing the rooms as the nineteenth-century sculpture galleries they are. The painted copies, especially the physical ones, disrupt the familiar relationship between the controlled ruins, their stage and the viewer. Put on display in the galleries of the Ny Carlsberg Glyptotek, elaborately decorated with mosaics on the floors, painted walls and stuccoed ceilings, the painted copies seem oddly out of place. They do not fit. This uncanny sense of misplacement serves – once more – to take up the discussion of how to preserve, restore and curate the past. It is a mirror that confronts a generally accepted perception of what ancient cultures looked like, what a marble sculpture *is*, which most museum visitors to the Ny Carlsberg Glyptotek are acquainted with, offering the museum a unique opportunity to bring Antiquity into the twenty-first century.

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²⁴ Skovmøller forthcoming.

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