Daniel GRAEPLER – Jorun RUPPEL (eds.), Weiß wie Gips? Die Behandlung der Oberflächen von Gipsabgüssen/White as Plaster? Plaster Casts and the Treatment of Their Surface. Göttinger Studien zur Mediterranen Archäologie Bd. 10. Rahden/Westfalen: VML 2019, 304 pp., 371 figs.

Once upon a time, plaster cast collections of European and especially ancient Greek and Roman sculpture enjoyed an enormous popularity. So great was their importance for the arts, education, and industries of certain countries that even heads of state took an active interest in the cast business. This happened in 1867 when, at the initiative of Henry Cole, first director of London's South Kensington Museum (now Victoria and Albert Museum), several crowned heads of Europe signed the "Convention for promoting universally reproductions of works of art for the benefit of museums of all countries". And so it was, when in 1875 the German government launched a competition to develop a proper way of cleaning plaster casts (pp. 8-10).² The seemingly mundane problem must have been a pressing concern: chancellor Otto von Bismarck himself is said to have had the call for submissions distributed via embassies in London, Paris, and Rome. Prior to this, an interdisciplinary "imperial committee on sculpture casts" (Reichskommission für Skulpturenabgüsse), had identified why cast collections, despite regular cleaning efforts, usually appeared so shabby. Dust and dirt, generated by museum visitors, heating systems, and polluted air had settled in the casts' pores from which they were difficult to remove, and turned the plaster white into shades of grey. Several layers of paint, added in desperate attempts to restore a 'neat' aspect, only worsened the effect as they dulled sharpness and detail of relief.³

About 140 years later, these problems largely remain – if exacerbated by destructions in two world wars, deliberate acts of vandalism, or simply the everyday impact of inappropriate storage, next to renewed exposure to larger groups

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¹ E.g. Rebecca Wade, Domenico Brucciani and the formatori of 19th-century Britain (New York et al. 2019) 112-114.

² See also Henning Wrede, "Das Material und das Tränken klassischer Skulpturenabgüsse als mediales Problem Preußens, des deutschen Reiches und der nordatlantischen Staaten," in: Stephanie Gerrit-Bruer/Detlef Rössler (eds.), "...die Augen ein wenig zu öffnen." (J. J. Winckelmann). Festschrift für Max Kunze (Ruhpolding/Mainz 2011) 217-228.

The call for proposals asked for developing either a sealing that would facilitate the washing of a cast's surface without altering it, or for developing an entirely new, but plaster-like and washable material. While winners were nominated for the first part, the competition's second part was reiterated in 1877. Ultimately, the commission did not follow up on the issue; ibid.

of beholders after the revival of cast collections since the 1970s. Otherwise, the world of plaster casts is no longer the same – reason enough for the University of Göttingen to celebrate its cast collection's 250th anniversary with a colloquium on the topic.⁴ The volume under review presents the proceedings of the meeting which took place in 2016. It was the organizer's explicit goal to put curators and conservators into conversation with one another. As they (curator and conservator of Göttingen's casts) explain in the introduction (pp. 7-16) several factors warranted revisiting the problem of surface treatment, such as new developments in restoration science, or the increased valuation of casts as monuments in their own right – rather than mere substitutes of their ancient prototypes – with their own 'object history' (*Objektgeschichte*).⁵ As such, they also belong to the history of collections and or of academic disciplines.

The majority of the collections represented in the volume⁶ serve research purposes, academic, and also public instruction. They belong to departments of classical archaeology in which the time-honored tradition of teaching with casts still plays a fundamental role in the curriculum, namely in Austria (Innsbruck: pp. 127-160) and Germany: Berlin (pp. 81-90), Frankfurt am Main (pp. 161-174), Freiburg (pp. 209-218), Göttingen (pp. 17-50), Halle (pp. 91-98), Jena (pp. 99-106), Leipzig (pp. 51-80), Mainz (pp. 107-114), Munich (pp. 181-198), and Tübingen (pp. 199-208). Other institutions beyond classical archaeology dealt with here include very specific collections, such as the 18th century plaster busts of German literati in the Anna Amalia-Library at Weimar (pp. 219-234), or more comprehensive ones such as those at the Herzog Anton Ulrich-Museum in Braunschweig (pp. 115-126) or the famous cast courts of London's Victoria and Albert Museum (pp. 249-268) once installed to further British design. The collections in the Royal Academy of Fine Arts of San Fernando in Madrid (pp. 235-248), assembled by Velázquez and

⁴ Göttingen's cast collection is the oldest academic one of its kind. Its founding year, traditionally understood to be 1767, can now be antedated to 1765 as research in preparation of the conference revealed: pp. 18-23.

The plaster cast collection of the university of Montpellier, for example, holds the status of a "monument historique": https://www.univ-montp3.fr/fr/node/44 (accessed March 29, 2020). See different articles in Rune Frederiksen/Eckart Marchand (eds.), Plaster Casts. Making, Collecting and Displaying from Classical Antiquity to the Present (Berlin/New York 2010); Tatjana Bartsch/Marcus Becker/Charlotte Schreiter, The Originality of Copies. An Introduction", in: Tatjana Bartsch et al. (eds.) Das Originale der Kopie. Kopien als Produkte und Medien der Transformation (Berlin/New York 2010) 27-43; for cast collections in aristocratic and academic contexts see now Ellen Suchezky, Die Abguss-Sammlungen von Düsseldorf und Göttingen im 18. Jahrhundert (Berlin/New York 2019).

⁶ It is regrettable that no representatives from France or Italy seem to have joined the meeting.

Anton Raphael Mengs, among others, speak to the importance of casts as models for artists. Three contributions deal with 19th and 20th century original casts as part of the artistic process, namely the intermediary product between the terracotta 'draft' of a sculpture and its final marble or bronze version (Ny Carlsberg Glyptotek, Copenhagen: pp. 269-280; the Monument to Empress Elisabeth in Territet, Switzerland: pp. 281-292; the Mausoleum of torero Joselito, Valencia: pp. 293-303). Finally, a paper on work at the Berlin cast workshop (*Gipsformerei*) reminds us of the commercial side of the cast business that still caters to people and institutions beyond those already mentioned (pp. 175-180).

Even though not made explicit, almost all of the contributions focus on (mostly classical) sculptures of the human body, none discusses casts of architecture or small objects (coins, gem stones etc.). The majority of the 23 single contributions (17 in German, 6 in English) concern themselves with different methods of how to free the surface of casts from various layers of dust, dirt/patina, or coating, whether in a form of dry/mechanical (e.g. Rebecca Hast, pp. 269-280) or wet/chemical cleaning (most of the others). Different agents are explained and discussed with abundant illustration in color photographs; two of them, the wellknown Agar-Agar (Horst Ziegler, pp. 189-198), and the new Anusil®, specifically developed for the art academy in Madrid (Ángeles Solís Parra, pp. 235-248), were presented in a workshop (p. 14). The papers agree that treatment has to be carefully weighed against the historical significance of a cast, its base material, its use, audience(s), and the budget at hand. Institutions with restricted financial means will envy large museums or academic collections, such as those at Göttingen, Leipzig, or Tübingen that can afford a curator and a conservator. The deliberate waiving of a "one size fits all"-solution is all the more encouraging for anybody trying to salvage a cast collection or to secure basic maintenance with a low budget and minimal infrastructure at hand. All contributors should be commended for their careful and thoughtful approaches, their attention to detail, as well as for the amount of time, commitment (and certainly frustration!) they have devoted to maintaining, cleaning, conserving, studying, and seriously thinking about the plaster casts in their custody. In their technical detail the contributions will be of particular interest to conservators, even though the many single case studies presenting similar, if not identical problems generate a fair amount of redundancy.

On those see e.g. Mari Lending, Plaster Monuments. Architecture and the Power of Reproduction (Princeton/Oxford 2017); Valentin Kockel/Daniel Graepler/Gergana Angelova, (eds.), Daktyliotheken. Götter und Caesaren aus der Schublade. Antike Gemmen in Abdrucksammlungen des 18. und 19. Jahrhunderts (Munich 2006).

The volume's inclusion in a series on "Mediterranean archaeology", its title, especially in the German version, and some of the introductory remarks, raise different expectations: How about broader conceptual implications the (white) surface of plaster conveys? Given how critical casts were in the development of a "canon" of (European) art, and given the role they still play as a medium for research and instruction, what do they tell us about the ideological assumptions underlying the fields of art history and especially classical archaeology? Concepts such as 'object history' or 'materiality', referred to by the editors (p. 10. 13), offer ideal points of entry to address such questions, but they seem to be understood by most authors in a very hands-on way as a cast's physical properties or physical traces caused by aging and external incidents. A couple of articles, in a truly archaeological manner, even try to date strata of paint or dirt as part of a collection's very specific history (e.g. Patrick Schollmeyer, pp. 106-114; Aurelia Badde, pp. 218-234). Yet an object's making, reception, and different contextualization also form part of its history, independent of whether these factors leave a visible physical trace or not. The volume has something to say about such issues, but most of the interesting observations are hidden among the proceeding's predominantly practical concerns. I shall point out a few of them and end with some considerations about how to open up the discourse, especially for cast collections of "classical" art.

In his book "Chromophobia", David Batchelor argues that color in Western tradition carries notions of illusion and deceit and designates the Other in numerous instantiations, such as the excessive, the irrational, the artistically or socially inferior, the feminine, the oriental etc. 'White' in that equation stands for clarity, purity, rationality, beauty, form as essence or neutral objectivity, in other words (higher) truth.⁸ While such a dichotomy can – pace Batchelor – not be maintained for classical antiquity itself, ⁹ it certainly applies to the plaster casts' heydays from the 18th century onwards – as confirmed, if inadvertently, by many of the

David Batchelor, Chromophobia (London 2000) esp. 9-71; see also Andreas Blühm et al. (eds.), The Colour of Sculpture 1840-1910 (Amsterdam 1996).

E.g. Thomas Lersch, "Farbenlehre II. Antike," in: Reallexikon zur deutschen Kunstgeschichte VII (Stuttgart 1981) 158-166; Ursula Mandel, "On the Qualities of the Colour 'White' in Antiquity," in: Vincenz Brinkmann/Oliver Primavesi/Max Hollein (eds.), Circumlitio. The Polychromy of Antique and Medieval Sculpture (Frankfurt a. M. 2010) 303-323; Fabio Barry, "A Whiter Shade of Pale. Relative and Absolute White in Roman Sculpture and Architecture," in: Sébastien Clerbois/Martina Droth (eds.), Revival and Invention: Sculpture Through its Material Histories (New York 2011) 31-62.

volume's contributions. 10 Still, Batchelor's dictum would need to be qualified. Rather than a dichotomy, the treatment of color presents a broader spectrum. The credit here, beginning in the 19th century, mostly goes to classical archaeologists, not art historians or art critics. Always keen to get as close to the altered, fragmented, faded, if not entirely lost (bronze) originals as possible, they experiment(ed) with different ways of coloring.¹¹ Several of the proceeding's papers add nuanced evidence here. Hans-Peter Müller mentions a practice introduced by Johannes Overbeck (1826-1895) at Leipzig, where a shade of yellow or eventually red lines were deployed to distinguish ancient from restored parts of the original on the casts (p. 54 with n. 6). From 1901-1916, as Kerstin Grein reports (pp. 116-126), the museum at Braunschweig - in its permanent collection, it should be noted, not in a temporary exhibition – featured only coated casts in imitation of their originals' material or polychromy. The decision was made by then curator and classical archaeologist Paul Jonas Meier (1857-1946) who employed a sculptor and a decorative painter for that purpose. Even a color reconstruction of the Parthenon frieze was exhibited. In the 1920s, the cast collection at Göttingen also experimented with polychromy (Daniel Graepler, pp. 27-28). At Tübingen, conservator Sönmez Alemdar has worked in recent years with the department's archaeologists on reconstructions of polychromy and metal additions (pp. 205-228). The combined use of digital imaging and artisans' craft in recreating colored versions of sculpture casts is explained by Thomas Schelper from the Berlin Gipsformerei (pp. 175-179).

Florian Martin Müller provides a rich and welcome systematic survey – the first to my knowledge – on the phenomenon of coloring casts in imitation of the original's material, be it bronze or stone (pp. 127-160). The practice which can be traced back to the Renaissance makes casts look more authentic, a result that, even if it does not always meet scholarly standards, seems to be particularly appreciated by the "public at large" (e.g. p. 158. 173). This is also conceded by Matthias Recke, who otherwise duly criticizes the casts produced in the workshop of the Fund of Archaeological Proceeds at Athens for distorting the evidence (pp. 164-174).

The call for proposals in the above mentioned 1875 competition, for example, did not want to see the casts' surface altered, conceding a minor turn to "warmer" or "yellowish" hues at the utmost; Wrede, op. cit. (n. 2), p. 225.

Already noted by Georg Treu, Sollen wir unsere Statuen bemalen? (Berlin 1884) 11. Treu's influential show which toured Germany and the United States in the 1880s is referred to several times in the volume at hand. One could also mention the colored Parthenon pediments mounted in 1851 by Owen Jones in London's Crystal Palace: Kate Nichols, Greece and Rome at the Crystal Palace (Oxford 2015) 74-77.

As the example of scholarly unsatisfying replicas reminds us, casts still enjoy popularity beyond academia or museums, if to a lesser degree than in the 19th century; think of home and garden decoration, restaurant, or store window props, travel souvenirs, or settings for fashion advertising etc.¹² Taking these contexts of display into account illuminates one aspect of the casts' materiality that is not discussed in the volume, namely that they are multiples. And yet, multiplication has an impact on casts' surfaces, both in terms of production (depending on the molds, multiple use can result in increased dullness of relief, not to speak of after casts) and of reception (canon formation, rejection, or transformation). More than just a result of individual collections' chronology, the "object histories" hence appear as a function of (i.e. conditioned by and conditioning) the casts' own materiality and mediality.

Another property of the casts that could have been addressed more explicitly, is their allegedly "absolute" (p. 130) replication of the prototype. Even though there remains an indiscernible interstitial space between inner surface of the mold and outer surface of the cast, 13 correspondence is so close that at least classical archeological discourse constantly blends prototype and replica. This becomes apparent in the different meanings with which the term "surface" is used throughout the individual papers. At times it designates the structure of a sculpture's outer face insofar as it is inherent to its material. It primarily refers to the shape of the prototype and rarely that of the cast only, which may or may not preserve the seams of the piece mold. In other instances, "surface" is understood as what has been added to a sculpture's outer face, but is not inherent to its material, such as pigment or dirt/patina. In a third sense, the term is used to capture the interplay of form and light as affected by matter such as marble or bronze. Under the guiding principle of scholarly accuracy, of faithfulness to the original – ambiguous terms in themselves –, or the material of plaster, preferences turn out to differ. Those who take a cast as a substitute for its prototype (almost all the classical archaeologists

The wide spectrum of customers catered for by e.g. Brucciani in the 19th century is discussed in Wade, op. cit. (n. 1). For casts in modern upscale home decoration and events see James Perkins, "Living with Plaster Casts," in: Frederiksen/Marchand, op. cit. (n. 5), 627-634. While Perkins loves to frame his collection as resulting from a "modern grand tour", he capitalizes on it either for high-end 'events', or by auctioning off many of the casts he had acquired in 2006: https://amoderngrandtour.com/pages/the-james-perkins-studio; https://aynhoepark.co.uk; https://www.christies.com/aynhoe-park--a-14900.aspx?saletitle= (all accessed May 1st, 2020).

Georges Didi-Hubermann, La ressemblance par contact. Archéologie, anachronisme et modernité de *l'empreinte* (Paris 2008).

among the contributors) want to see its form reproduced as precisely as possible. In this group, some insist on form as contour and therefore prefer white or barely treated casts (e.g. pp. 60-61. 64-65. 76. 112. 164), while others who understand form as volume contend that chalk-white or untreated casts flatten the relief to the eye, are thus difficult to read and should be tinted or colored (e.g. pp. 141. 217-218). Only as long as the dirt/patina does not threaten appreciation of the form, does it seem to be accepted as a part of the cast's history (pp. 64-65; 114). 'Faithfulness' to the original can result in the removal of the seams from the piece mold (p. 129), whereas 'objectivity' would require to leave them visible as traces of the reproductive medium (pp. 57-58). With a few exceptions (most notably, Innsbruck), a preference for white or only slightly tinted casts still seems to be the rule, as many of the volume's contributions reveal.

This brings us to the 'elephant in the room': whiteness as one of plaster's defining properties is never really problematized. Lorenz Winkler-Horaček is the only one to raise concerns about exhibiting snow-white casts in view of their neo-classicist legacy (p. 88). If addressed explicitly, whether in the context of cleaning or of faithfulness to the prototype, plaster's whiteness is exclusively understood in aesthetic and/or epistemological, but never in representational terms, in other words as ideal form or impartial 'objectivity'. Yet, more than an artistic ideal or artificial product, the white casts of figural sculptures have always evoked actual human bodies, especially specters or corpses (e.g. p. 8) – a notion reinforced by the wide spread practice of casting death masks in plaster. In the present volume, Jens-Arne Dickmann alone connects the ivory hue of coated plaster to European skin color (p. 216). Indeed, the ideal bodies could also stand in for living ones – with troubling consequences, as a 'detour' via extra-European territory shall clarify.

Recently, the polychromy of classical sculpture has become hotly debated in (social) media in the United States. Years after the exhibition "Gods in color" toured the country, 15 the topic has gained renewed attention because of political

Vinzenz Brinkmann (ed.): Gods in Color – Painted Sculpture of Classical Antiquity (Munich 2007) and the recently updated version Bunte Götter. Golden Edition: https://buntegoetter.liebieg

According to Hannah Philip, "Winckelmann und das Weiß des Rokoko," Antike Kunst 39, 1996, 88-100, Winckelmann's perception of white as "dematerialized" and "sublime" was influenced by Rococo aesthetics. Ingeborg Kader, "Gipsabgüsse und die Farbe 'weiß'," in: Henri Lavagne/François Queyrel (eds.), Les moulages de sculpture antique et l'histoire de l'archéologie (Geneva 2000) 121-155 instead emphasizes the cognitive aspects of perceiving 'white'. She considers white plaster casts a product of philosophical discourse, a "philosophical artifact" (philosophisches Kunstprodukt).

urgency. An increasing number of right-wing and white-supremacy groups – encouraged by the election of Donald J. Trump to presidency – support their claims of Western, i.e. "white" superiority with reference to ancient Greece and Rome, including white marble statues. Archaeologists such as Sarah Bond, who in response has repeatedly pointed out factual evidence of ancient statues' polychromy, are met with abuse in social media or even receive death threats.¹⁶ Contention is so fierce because in the imagination of the general public, not only that of white supremacists, these statues do not function as artistic constructs but as representations of real (European, white) humans; the whiteness of marbles or plaster casts is equated with white skin color and by extension, "white people". It is of little importance here that, as has been pointed out by numerous scholars, the ancient Greeks did not conceive of themselves as "white" 17: centuries of erecting marble monuments and of exhibiting plaster casts of classical sculpture in the United States have consolidated the notion that white marble or plaster represents white and, more importantly, not black skin - in other words the masters, not their slaves.¹⁸

From a Eurocentric perspective, as presented in the volume at hand, this might at first seem an interpretation peculiar to US American society, and classical archaeologists might consider it unconnected to their field. But it is founded on discourses and practices surrounding race, slavery, and colonialism that originated in Europe and that involved classical art. This brings us back full circle to the contexts the colloquium took its cue from: enlightenment Göttingen and imperial Berlin. In 1773, Christian Gottlob Heyne (1729-1812), director of Göttingen's university library and founder of the plaster cast collection, appointed physician and naturalist Johann Friedrich Blumenbach (1752-1840) as keeper of the university's academic museum. Blumenbach, whose Göttingen PhD on the "natural variations of humankind" saw several editions and translations into

haus.de/en/ (accessed June 9, 2020); see also Roberta Panzanelli, Eike Schmidt, Kenneth Lapatin (eds.): The Color of Life: Polychromy in Sculpture from Antiquity to the Present (Los Angeles 2008).

E.g. Sarah E. Bond, "Why We Need to Start Seeing the Classical World in Color," Hyperallergic, June 7, 2017: https://hyperallergic.com/383776/why-we-need-to-start-seeing-the-classical-world-in-color/; see also https://www.newyorker.com/magazine/2018/10/29/the-myth-of-whiteness-in-classical-sculpture (accessed March 30, 2020); Donna Zuckerberg, Not All Dead White Men (Cambridge, Mass./London 2018) 1-10.

If at all, skin color was gendered: Mary Ann Eaverly, Tan Men/Pale Women. Color and Gender in Archaic Greece and Egypt (Ann Arbor 2013).

American Indians can be shown in white, not the enslaved Africans: Kirk Savage, Standing Soldier, Kneeling Slave (Princeton ²2018); see also Charmaine A. Nelson, The Color of Stone. Sculpting the Black Female Subject in Nineteenth Century America (Minneapolis 2007) esp. 57-72.

various languages, is credited with having classified humans into five "varieties" that he distinguished by physiognomy, shape of skull, skin color, and territory in which they lived: Caucasian (white), Asian (yellow), American (red), African (black), and Malay (brown). A monogenist, Blumenbach maintained that all these races had a common origin and none could claim superiority. He therefore opposed the enslavement of Africans. Yet his legacy remains ambiguous. Blumenbach considered the Caucasians, for example, the most beautiful, a theory he based on the skull of a woman from the Caucasus region in his private collection. To picture and 'prove' this "Georgian girl's" beauty in life he 'matched' the skull with a classical sculpture, the bust of the so-called Clytia, a cast of which belonged to Göttingen's collection from early on and which also figures in the present volume (pp. 25-26).

As his notebooks reveal, Blumenbach was an avid reader of Winckelmann's.²² In general, the enlightenment discourse on the human species closely connected anthropology with aesthetics.²³ Winckelmann himself extensively excerpted the writings of ancient and modern physicians and naturalists; he founded the beauty of Greek art as much on the skills of Greece's artists as in her climate, and

De generis humani varietate nativa (Göttingen 1775); Über die natürlichen Verschiedenheiten im Menschengeschlechte (Leipzig 1798). On Blumenbach and his reception Nicolaas Rupke/Gerhard Lauer (eds.), Johann Friedrich Blumenbach. Race and Natural History 1750-1850 (Abingdon/New York 2018).

²⁰ In that he disagreed fundamentally with his Göttingen colleague Christoph Meiners (1747-1810) who deployed the alleged inferiority of other races to legimitize disfranchisement and slavery; see Susanne Zantop, Colonial Fantasies. Conquest, Family, and Nation in Precolonial Germany, 1770-1870 (Durham and London 1997) 82-94.

It was Blumenbach who had an after cast of the bust sent to Goethe and who received an after cast of the (alleged) skull of Raphael in return; see Norbert Klatt, "Klytia und die "schöne Georgierin". Eine Anmerkung zu Blumenbachs Rassentypologie," in: id., Kleine Beiträge zur Blumenbachforschung I (Göttingen 2008) 70-101; Robert J. Richards, "The beautiful skulls of Schiller and the Georgian girl. Quantitative and Aesthetic Scaling of the Races, 1770-1850," in: Rupke/Lauer, op. cit. (n. 18), 142-176. For a summary of scholarship on this (Roman and/or Neoclassicist) bust see: https://research.britishmuseum.org/research/collection_on line/collection_object_details.aspx?objectId=460064&page=1&partId=1 (accessed April 18, 2020).

Londa Schiebinger, Nature's Body. Gender in the Making of Modern Science (New Brunswick 1997) 130 n. 52; 188 n. 13.

²³ E.g. Miriam Claude Meijer, Race and Aesthetics in the Anthropology of Petrus Camper (1722-1789) (Amsterdam 1999); Stefan Hermes/Sebastian Kaufmann (eds.), Der ganze Mensch, die ganze Menschheit. Völkerkundliche Anthropologie, Literatur und Ästhetik um 1800 (Berlin 2014).

the life style and biology of her people.²⁴ The ideal human body as represented in Greek classical art (or Roman copies thereof) in turn shaped the conception of beauty of actual human bodies. One statue in particular played a key role here, the Apollo Belvedere. Not only did this marble figure constitute the cornerstone of Winckelmann's foundational History of the Art of Antiquity – a reproduction of the Apollo therefore proved a must for any serious cast collection²⁵ – it also came to embody the pinnacle of man.²⁶ As such it would later on grace cast collections in (former) British colonies, i.e. the United States, South Africa, or Australia.²⁷ By casting the head of the sculpture without its hair so that the ideal form of the skull would become apparent, early 19th century phrenologists tried to support the idea of European racial superiority.²⁸ The ideology behind the alleged 'science' of measuring skulls and brains becomes apparent in numerous, blatantly racist and pro-slavery publications, such as Julien-Joseph Virey's Histoire naturelle du genre humain from 1801 or the infamous Types of Mankind published by Josiah C. Nott and George R. Gliddon in 1854 in the United States. Here, the bust of the Apollo Belvedere figured on top of a chart that subordinated, in descending order, a head of a black African and that of a chimpanzee to the classical work of art.²⁹

E.g. Elisabeth Décultot, "Winckelmanns Medizinstudien. Zur Wechselwirkung von kunstgeschichtlichen und medizinischen Forschungen," in: Heidi Eisenhut/Anett Lüteken/Carsten Zelle (eds.), Heilkunst und schöne Künste. Wechselwirkungen von Medizin, Literatur und bildender Kunst im 18. Jahrhundert (Göttingen 2011) 108-130; Sebastian Kaufmann, "Klassizistische Anthropometrie: Idealschöne Griechen vs. "entlegene Völker" in Winckelmanns "Geschichte der Kunst des Alterthums"," Aufklärung 27, 2015, 7-29.

A plaster bust of the statue reached Göttingen in 1771; see Charlotte Schreiter, Antike um jeden Preis (Berlin 2014) 90-91; here: p. 25 n. 53.

David Bindman, Ape to Apollo. Aesthetics and the Idea of Race in the 18th Century (Ithaca/New York 2002); Éric Michaud, Les invasions barbares. Une généalogie de l'histoire de l'art (Paris 2015) esp. 68-86; id., "Was die moderne Anthropologie und Ethnologie von Winckelmann lernten. Eine kritische Sichtung," in: Elisabeth Décultot et al. (eds.), Winckelmann: Moderne Antike (Weimar 2017) 115-126.

E.g. Ian Cooke, "Colonial Contexts: The changing meanings of the cast collection of the Auckland War Memorial Museum," in: Frederiksen/Marchand, op. cit. (n. 5) 577-594.

Philippe Sorel, "La phrénologie et le moulage," in: Edouard Papet (ed.), À fleur de peau. Le moulage sur nature au 19ème siècle (Paris 2001), esp. 100. 169 no. 90 (cast made in 1820 ca.).

Julien-Joseph Virey, Histoire naturelle du genre humain [...] vol. III (Paris 1801) pl. 2 (4); Josiah C. Nott/George R. Gliddon, Types of Mankind: Or, Ethnological Research: Based Upon the Ancient Monuments, Paintings, Sculptures, and Crania of Races [...] (Philadelphia 1854) fig. 339-344.

How such ideologies transpired into positivistic, allegedly "disinterested" science becomes apparent in the later 19th century, when collecting, measuring, and counting - whether of statues, bodies or bones - were systematized on a much larger scale. The humanities had to stand their ground against the natural sciences.30 This is the time that coined the idea of cast collections as "laboratories", their holdings serving as specimens for "objective" research with its encyclopedic results.31 The heyday of plaster cast production and the Berlin competition for a solution to clean them belong here: motivated less by a concern for classical art or the Classics, the international call and the interdisciplinary committee behind it (next to archeologists and artists, it consisted of engineers and chemists) were supposed to demonstrate the power and superiority of Germany's educational system, universities, and more generally, its cultural, economic, and technological potential. Only a few years earlier, in 1871, had the country been unified, the Prussian king made emperor and Berlin declared capital of the new nation state. Germany had to catch up with other European nations and Empires, especially France and Britain. It did so not only by expanding its research capacities, but also the empire itself. Joining the "scramble for Africa" in 1880, Germany's colonial enterprise combined brutal conquest and genocide with 'scientific' research on the colonized. In close collaboration with the colonial troops and administration, anthropologists measured and collected humans or their remains. Real bodies became specimens. Life casts were taken from individuals native to Germany's colonies, only to end up in a colored version in exhibitions, dioramas and panopticons, or in the anthropological collections of Berlin's museums and universities - next to the skulls or stuffed bodies of these persons' own people.32 Although anthropology, recently established as an academic discipline, counted itself among the sciences and not the humanities, the project to record humanity as a whole relied in many ways on parameters set in enlightenment discourse. Prominent protagonists such as Rudolf Virchow (1821-1902) or Felix von Luschan (1854-1924) worked as physician,

Still, the natural sciences adopted their organizational research structure from the Classics as it had been designed by Theodor Mommsen in Berlin; see Annette M. Baertschi, "'Big Science' in Classics in the Nineteenth Century and the Academization of Antiquity," in: Rens Bod/Jaap Maat/Thijs Weststeijn (eds.), The Making of the Humanities III. The Modern Humanities (Amsterdam/Chicago 2014) 233-249. On the nationalist agenda behind 'objective' scholarship see Lorraine Daston, "Objectivity and Impartiality. Epistemic Values in the Humanities," in: ibid. 27-42.

E.g. Mary Beard, "Casts and Cast-offs: The Origins of the Museum of Classical Archaeology," Proceedings of the Cambridge Philological Society ns. 39, 1993, 1-29.

Andrew Zimmermann, Anthropology and Antihumanism in Imperial Germany (Chicago 2001) 149-198.

anthropologist, and archaeologist, not dissimilar to polymath naturalists of the 18th century.³³ And they relied on the same technical tools, such as plaster casts, and their providers. The Berlin Gipsformerei has recently faced this uneasy part of its history and tried to give names and voices back to some of the individuals that were depersonalized and turned into artifacts by European scholars.³⁴

While these invisible layers of the meaning of plaster casts might not have an immediate effect on how to conserve their surfaces, they deserve to be brought to the fore to heighten awareness of the conditions and effects (if uncomfortable) of media used in scholarship or education. The specific challenge a replica in plaster poses is that we have to think it simultaneously as an object in its own right, as a multiple, and as substitute of its respective prototype. To visualize such complexity, we might in the future not only rely on archaeologists and conservators, but, as used to be the case and as the Royal Cast Collection at Copenhagen has done more recently, also on contemporary artists.³⁵

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On Virchow and Troy see e.g. ibid. 188; Joachim Herrmann (ed.), Die Korrespondenz zwischen Rudolf Virchow und Heinrich Schliemann (Berlin 1990); on Felix von Luschan's research in Asia minor see several articles in Peter Ruggendorfer/Hubert D. Szemethy (eds.), Felix von Luschan (1854-1924): Leben und Wirken eines Universalgelehrten (Vienna 2009), although a rather hagiographic volume.

Veronika Tocha, "Too near to Life. Anthropological Casts in the Collection of the Gipsformerei – a Stocktaking," in: Christina Haak/Miguel Helfrich/Veronika Tocha (eds.), Near Life. The Gipsformerei. 200 Years of Casting Plaster (Berlin 2019) 60-89.

The Royal Cast Collection Copenhagen is housed in the former Danish West Indian Warehouse. Work done under senior curator Henrik Holm: e.g. La Vaughn Belle, I am Queen Mary (https://www.iamqueenmary.com) or Jeannette Ehlers Whip it Good (https://www.jeannetteehlers.dk/m4v/video21.htm; accessed May 20, 2020).