

comprising classical archaeologists, art historians, restorers and material scientists, took part in the seminar. The introduction offers a useful overview of the essays, and it explains the various strategies towards preservation and presentation of historic casts: no treatment at all, leaving traces of earlier restorations to reveal the history of the cast, applying colourless varnish, emulsion painting, tinting of the surface with skimmed milk, imitation of the original surfaces of the models in e.g. marble and bronze. Finally, it discusses the problems of the removal of earlier layers of painting, an issue considered in most of the articles, too. Eighteen articles, including the introduction, are in German; six articles are in English. All of them are provided with an abstract.

The following cast-collections are discussed, either in overview or with examples only: Göttingen (two articles), Leipzig (two articles), Berlin (Free University), Halle, Jena, Mainz, Brunswick, Innsbruck, Frankfurt, Berlin (Gipsformerei), Munich (two articles), Tübingen, Freiburg, Weimar (the Rococo Hall), as well as the Academy of San Fernando in Madrid, the Victoria and Albert Museum in London (two articles), and the Ny Carlsberg Glyptotek in Copenhagen. Moreover, the restoration of two artists' works in Lugano and in the Academy of Valencia are discussed. Several of the cast collections are situated in the former East Germany with sad results (Leipzig, Halle, Jena) except for the Rococo Hall that, however, was exposed to a fire in 2004.

Plaster casts are vulnerable to damage from water, moisture, dust, dirt, and other sources of deterioration. Moreover, they have a »low scratch resistance« (p. 279) and may have metal cores that can rust and break the surface. The treatment and methods may also vary depending on whether the casts are from a waste mould, glue mould or wedge mould. Finally, the casts may be subject to mould-fungus.

In the eighteenth century, Winckelmann, amongst others, praised the whiteness of casts, but their appearance changed because of heating and the outputs of industrialization. In several articles in the book, events in Berlin in 1872–1875 play a crucial role (pp. 9, 27, 55, 71, 85, and 135). In 1872, Reinhard Kekulé criticized the treatment of the casts in the large cast collection in Berlin. Karl Bötticher, Director since 1868, had taken over from his predecessors and continued the use of the »Trüloffsche Tünche«, where first wax is applied and then a varnish of basic lead carbonate and cadmium. Kekulé argued that because the surfaces were painted with layers of varying thickness, the distinctions between background, skin, and drapery were blurred. A committee was established and produced a memorandum that de facto stated that any painting should be abolished except for casts with a strong patina. It was recommended only to use baryth-hydrate that together with the carbon dioxide in the air hardens the surface of the casts. In Copenhagen in 1893, another commission found no answer as to how to keep plaster casts clean.

The problem of keeping plaster casts clean or reasonably clean has been solved in various ways, most radi-

Daniel Graepler and Jorun Ruppel (editors), **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, volume 10. Publisher Marie Leidorf, Rahden 2019. 314 pages with 371 figures.

The volume »White as Plaster« contains twenty-four papers presented at a seminar in Göttingen October 13 to 16, 2016, following an introduction by the editors, Daniel Graepler and Jorun Ruppel. Altogether sixty scholars,

cally in Göttingen and partly in Berlin Free University, Tübingen, and Freiburg, where plaster casts are brushed or airbrushed followed by a uniform white coat of waterproof paint that facilitates future cleaning. However, as a result the casts appear »uniform« and devoid of their history.

From reading the book it becomes clear that, after the usual dusting, the most commonly used cleaning materials are the agar-agar or agar gel (pp. 12, 35–49, 75, 83, 93, 184, 189–198, 201, 230, 257, 271, 277, 279, and 287) as well as Laponite (pp. 35, 41, 103, 204, 257, and 286), wood glue (p. 202) and Anjusil (pp. 244, 257 and 267).

In the Anna Amalia Library in Weimar, it was after long deliberations (p. 234) they decided to keep the casts without any treatment – as they had been originally since about 1850. This was also the decision in connection with the restoration of a monument by Mariano Benlliure from about 1926 due to the risk associated with removing »the unoriginal slurry patina« (p. 297) which would be more harmful than its preservation. In fact, in several of the studies there is a concern about the preservation of the historicity of the pieces (pp. 97, 279, 289, and 298).

In several collections, the plaster casts have been painted, either like marble or in a monochrome colour. Already in the early twentieth century, Franz Studniczka (p. 59) and Kurt Müller (p. 27) made casts that were coloured to look like their bronze originals and Studniczka quasi-naturalistically even coloured them with skin, hair and eyes (p. 59). Also, in the Victoria and Albert Museum there are several sculptures painted to appear as if made of bronze or wood (pp. 252–253, 260, and 266). Only in the Herzog-Anton-Ulrich-Museum in Brunswick were all plaster casts painted either polychrome, bronzed or in imitation of marble. Most remarkable are the casts bronzed like shown in the photos pp. 118 and 120, as well as the casts from the turn to the twentieth century, shown on pp. 121–122, and 124). Around 1903, the artist Carl Kostmann bronzed casts in Bremen, Berlin, Copenhagen, Strasburg, Tübingen, Leyden, and Moscow. An example of marble imitation is shown (p. 125). Examples of bronzing from the early nineteen-sixties onwards are shown in the Innsbruck collection (pp. 128, 138, 143–145 and 154–155).

From the nineteen-nineties onwards, and based on advanced studies of the colouring of ancient statues and reliefs, plaster casts have also been models for experimental colouring. Examples are shown in the Berlin Free University collection (p. 89) as well as in Tübingen (pp. 206 f.). Three specimens in Frankfurt (pp. 167–173) clarify the problems of the reconstruction of painting as delivered from the plaster cast workshops. But a cast in Frankfurt after a head from the temenos of the Aphaia temple in Aegina (p. 171) illustrates the potential of a careful reconstruction in colour and with bronze attachments in bronze (cf. the cast in Tübingen, p. 206 fig. 12).

The editors preferred footnotes and a bibliography to each paper instead of a joint bibliography at the end.

Considering the advantages and disadvantages of both solutions, one understands the decision. A general index including names might have been useful.

The book is highly recommendable for its detailed studies of the present state of the research and for the initiative to bring so many scholars together to present their problems and not least their solutions: It was a brilliant idea to honour with it the two-hundred fiftieth anniversary of the foundation of the cast collection in Göttingen.

Copenhagen

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