

## Supports in Roman Marble Sculpture

### Workshop Practice and Modes of Viewing

Figural and non-figural supports are a ubiquitous feature of Roman marble sculpture; they appear in sculptures ranging in size from miniature to colossal and of all levels of quality. At odds with modern ideas about beauty, completeness and visual congruence, these elements, especially non-figural struts, have been dismissed by scholars as mere safeguards for production and transport. However, close examination of these features reveals the tastes and expectations of those who commissioned, bought and displayed marble sculptures throughout the Mediterranean in the Hellenistic and Roman periods. Drawing on a large body of examples, Greek and Latin literary sources, and modern theories of visual culture, this study constitutes the first comprehensive investigation of non-figural supports in Roman sculpture. The book overturns previous conceptions of Roman visual values and traditions and challenges our understanding of the Roman reception of Greek art.

ANNA ANGUSSOLA is a Lecturer in Classical Archaeology at the University of Pisa and directs field projects at Pompeii and Hierapolis in Turkey. She is the author of *Intimità a Pompei: Riservatezza, condivisione e prestigio negli ambienti ad alcova di Pompei* (2010) and *Difficillima Imitatio. Immagine e lessico delle copie tra Grecia e Roma* (2012).

# Supports in Roman Marble Sculpture

## Workshop Practice and Modes of Viewing

---

ANNA ANGUISSOLA

Università di Pisa



**CAMBRIDGE**  
UNIVERSITY PRESS

University Printing House, Cambridge CB2 8BS, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre, New Delhi – 110025, India

79 Anson Road, #06-04/06, Singapore 079906

Cambridge University Press is part of the University of Cambridge.

It furthers the University's mission by disseminating knowledge in the pursuit of education, learning, and research at the highest international levels of excellence.

[www.cambridge.org](http://www.cambridge.org)

Information on this title: [www.cambridge.org/9781108418430](http://www.cambridge.org/9781108418430)

DOI: 10.1017/9781108290036

© Anna Anguissola 2018

This publication is in copyright. Subject to statutory exception and to the provisions of relevant collective licensing agreements, no reproduction of any part may take place without the written permission of Cambridge University Press.

First published 2018

Printed in the United Kingdom by TJ International Ltd., Padstow, Cornwall

*A catalogue record for this publication is available from the British Library.*

*Library of Congress Cataloging-in-Publication Data*

Names: Anguissola, Anna, author.

Title: Supports in Roman marble sculpture : workshop practice and modes of viewing / Anna Anguissola, Università degli Studi, Pisa.

Description: New York : Cambridge University Press, 2018. |

Includes bibliographical references and index.

Identifiers: LCCN 2017046248 | ISBN 9781108418430 (hardback)

Subjects: LCSH: Marble sculpture, Roman. | Struts (Stone carving)

Classification: LCC NB115 .A47 2018 | DDC 730.28/4–dc23

LC record available at <https://lccn.loc.gov/2017046248>

ISBN 978-1-108-41843-0 Hardback

Cambridge University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

Cambridge University Press  
978-1-108-41843-0 — Supports in Roman Marble Sculpture  
Anna Anguissola  
Frontmatter  
[More Information](#)

---

*To Sarah*

Contents

*List of Figures* [page viii]  
*Preface* [xv]  
*Acknowledgements* [xx]  
*List of Abbreviations* [xxiii]

Introduction [1]

PART I MATERIAL AND HISTORY [25]

1 Narrative and Individuality [27]  
2 Supports and Greek Marble Sculpture [44]  
3 The World of Struts [59]  
4 Surface and Colour [84]

PART II THE LIMITS OF STONE [103]

5 The Quest for Solidity [105]  
6 Statuesque Statues [128]  
7 Value and Ingenuity [157]  
8 Carving and Tradition [179]

Conclusion [199]

*References* [222]  
*Index* [253]

## Figures

- 1 Agostino Cornacchini, Equestrian monument of Charlemagne, 1720–5. Marble. Vatican, south end of the atrium of the basilica of St Peter (photograph: © Getty Images) [page 2]
- 2 Statue of Ganymedes abducted by the eagle. Marble. H. 103 cm. Vatican, Museo Pio Clementino, Galleria dei Candelabri, inv. no. 2445 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-4862) [6]
- 3 Group of the Scylla from Sperlonga, detail of the boat and helmsman. Marble. H. max preserved of the boat 165 cm and L. max 290 cm; L. max preserved of the helmsman 160 cm. Sperlonga, Archaeological Museum (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-65.110, J. Felbermeyer) [17]
- 4 Statue of Melpomene from the Baths of Faustina at Miletus, early Antonine period. Marble. Detail of the neck strut. Istanbul, Archaeological Museum, inv. 1993 (photograph: German Archaeological Institute, Istanbul, neg. D-DAI-IST-78-165) [20]
- 5 Statue of Melpomene from the Baths of Faustina at Miletus. H. 151 cm (photograph: German Archaeological Institute, Istanbul, neg. D-DAI-IST-78-168) [21]
- 6 Statue of a Dancing Satyr, Antonine period. Marble. H. 146 cm. Rome, Galleria Nazionale d'Arte Antica di Palazzo Corsini, inv. 710 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-74.717, C. Rossa) [30]
- 7 Statue of a Dancing Satyr from the Kerameikos, late Hadrianic or Antonine period. Marble. Athens, Museum of the Kerameikos, inv. 8071 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-Kerameikos-10701. All rights reserved) [31]
- 8 Statue of the Diadoumenos from Delos, ca. 100 BC. Marble. H. 195 cm with the plinth (186 cm without the plinth). Athens, National Archaeological Museum, inv. 1826 (photograph: German

- Archeological Institute, Athens, neg. D-DAI-ATH-NM 5321, Eva-Maria Czakó. All rights reserved) [35]
- 9 Statue of Dionysus with a personification of grape vines (Ampelus), second century AD. Marble. H. 158 cm. London, British Museum, reg. no. 1805,0703.1/no. Sculpture 1636 (photograph: © The Trustees of the British Museum. All rights reserved) [37]
  - 10 Group of Silenus cradling Dionysus, first century AD. Marble. H. 199 cm with the plinth (191 cm without the plinth). Munich, Glyptothek, inv. Gl. 238 (photograph: © Staatliche Antikensammlungen und Glyptothek München, Renate Kühling) [40]
  - 11 Group of Silenus cradling Dionysus, Flavian period. Marble. H. 190 cm. Paris, Louvre, inv. MR 346/Ma 922 (photograph: © Musée du Louvre, RMN-Grand Palais, Thierry Ollivier) [41]
  - 12 Aristodikos *kouros*, ca. 510–500 BC. Parian marble. H. 198 cm. Athens, National Archaeological Museum, inv. no. 3938 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-NM-5049, Eva-Maria Czakó. All rights reserved) [47]
  - 13 Statue of Hermes with infant Dionysus. Marble. H. 215 cm. The statue has either been considered an original carved by Praxiteles of the fourth century BC or a copy made in the late Hellenistic or Roman period. Olympia, Archaeological Museum (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-Olympia-392. All rights reserved) [50]
  - 14 Statue of Aknonios from the so-called Daochos monument, seen from the left side. Marble. H. 180 cm. Delphi, Archaeological Museum (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-Delphi-397, Gösta Hellner. All rights reserved) [53]
  - 15 Statue of a boy from the shipwreck of Antikythera, early first century BC. Parian marble. H. 111.5 cm with the plinth. Athens, National Archaeological Museum, inv. 2773 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-1969-1706, Gösta Hellner. All rights reserved) [56]
  - 16 Statue of Silenus from a Roman villa at Ariccia, Trajanic period. Marble. H. 175 cm. Vatican Museums, Galleria Chiaramonti, inv. 1441 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-90Vat.384, K. Anger) [60]

- 17 Group of Three Graces from the *frigidarium* in the baths of Cyrene, Hadrianic period. Marble. H. 140 cm. Shahat (Cyrene), Museum, inv. 14.348 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-58.2307R, F. X. Bartl) [64]
- 18 Group of Three Graces from the *frigidarium* in the baths of Cyrene, Hadrianic period. Marble. H. 116 cm. Shahat (Cyrene), Museum, inv. 14.346 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-58.2197R, F. X. Bartl) [65]
- 19 Headless statue of Ulysses from the nymphaeum at Punta Epitaffio, first half of the first century AD. Marble. H. 175 cm. Baiae, Museo Archeologico dei Campi Flegrei, inv. 222736 (photograph: © Bildarchiv Foto Marburg / Schumacher, Dieter; Gloc, Jan; Haag, Paul) [67]
- 20 Statue of a youth, interpreted as Eros, Thanatos, or Apollo, second century AD. Marble. H. 164 cm. Rome, Musei Capitolini, inv. 1092 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-2001.1900R, K. Anger) [71]
- 21 Statue of a Pouring Satyr from Torre del Greco near Naples (Villa Sora), mid-first century AD. Marble. H. 146 cm (163 cm with the raised right hand and *oinochoe*). Palermo, Archaeological Museum A. Salinas, inv. 1556 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-71.661, G. Singer) [73]
- 22 Statue of the Diadoumenos, last quarter of the first century AD. Restored with casts of the Delos Diadoumenos. Marble and plaster. H. 185 cm. New York, Metropolitan Museum of Art, Fletcher Fund 1925, acc. no. 25.78.56 (photograph: © The Metropolitan Museum of Art) [76]
- 23 Drawn reconstruction of the Diadoumenos at the Metropolitan Museum. Plaster integrations are in grey; the reconstructed right hand and wrist, fillet and struts are represented with a dotted line (drawing by the author and Donato Bruscella) [77]
- 24 Drawn reconstruction of the Discobolus from Castel Porziano (now in Rome, Museo Nazionale Romano). Reconstructed parts are in grey (drawing by the author and Donato Bruscella) [79]
- 25 Statue of Polyphemus from Sperlonga, right arm and hand. Marble. Sperlonga, National Archaeological Museum (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-69.1941, G. Singer) [81]
- 26 Standing male portrait from Delos, best known as pseudo athlete, early first century BC. Marble. H. 225 cm. Athens, National



- Archaeological Museum, inv. 1828 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-1994-32, Elmar Gehnen. All rights reserved) [85]
- 27 Portrait statue of Faustina the Elder with the body type known as Large Herculaneum Woman, mid-second century AD. Marble. H. 210 cm. Detail of the veiled head with the neck strut. Malibu, The J. Paul Getty Museum, inv. 70.AA.113 (photograph: © The J. Paul Getty Museum, digital image courtesy of the Getty's Open Content Program) [90]
- 28 Amazonomachy sarcophagus from Rome, mid-second century AD. L. 247 cm. Rome, Capitoline Museums, Palazzo Nuovo, inv. S 726 (photograph: © Archivio Fotografico dei Musei Capitolini) [93]
- 29 Medea sarcophagus from Rome, mid-second century AD. L. 227 cm. Detail of the left corner. Berlin, Antikensammlung, inv. SK 843 b (photograph: © Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz) [94]
- 30 Group of Aphrodite, Pan, and Eros (so-called 'Slipper-Slapper group' or *Pantoffelgruppe*) found in the House of the Poseidoniasts of Berytos at Delos, ca. 100 BC. Marble. H. 155 cm with the inscribed base. Athens, National Archaeological Museum, inv. 3335 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-NM-2989, Gabriel Welter. All rights reserved) [99]
- 31 Gianlorenzo Bernini, *Apollo and Daphne*, 1622–5. Marble. H. 243 cm. Rome, Galleria Borghese, inv. N. CV. Detail (photograph: © Getty Images) [106]
- 32 Statue of a boy, Augustan period. Bronze. H. 132.4 cm. New York, Metropolitan Museum of Art, acc. no. 14.130.1, Rogers Fund 1914 (photograph: © The Metropolitan Museum of Art/Art Resource/Scala, Florence) [110]
- 33 Statue of Polyphemus from Sperlonga, left foot. Sperlonga, National Archaeological Museum (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-65.67R, J. Felbermeyer) [113]
- 34 Drawn reconstruction of the ship of Ulysses from the group of Scylla at Sperlonga (drawing by the author and Donato Bruscella) [123]
- 35 Drawn reconstruction of the group of Polyphemus at Sperlonga (drawing by the author and Donato Bruscella) [124]
- 36 Statue of Aristogeiton, Hadrianic–Antonine period. Marble. H. 183 cm. Naples, National Archaeological Museum, inv. 6010

- (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-58.1796, F. X. Bartl) [130]
- 37 Statue of Aristogeiton from the area of S. Omobono, first century B.C. Marble. H. 180.5 cm without plinth. Rome, Musei Capitolini, inv. 2404/Centrale Montemartini, no. II.58 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-99.1606, K. Anger) [131]
- 38 Statue of Pouring Satyr from Rome, second century AD. Marble. H. 144 with the plinth. Paris, Louvre Museum, inv. 2333 (photograph: © Musée du Louvre, RMN-Grand Palais, Daniel Lebée/Carine Déambrosio) [135]
- 39 Statue of the so-called Protesilaos, Antonine period (head). Marble. H. 220 cm. New York, Metropolitan Museum of Art, acc. no. 25.116, Hewitt Fund 1925 (photograph: © The Metropolitan Museum of Art) [136]
- 40a–b Drawn reconstruction of the so-called Protesilaos. Front and rear views. The reconstructed struts are represented with a dotted line (drawing by the author and Donato Bruscella) [137]
- 41a–b So-called Dresden Artemis, mid-second century AD. Marble. H. 152 cm with the plinth. Front and rear views. Dresden, Albertinum, inv. Hm 117 (photograph: © Skulpturensammlung, Staatliche Kunstsammlungen Dresden, H. P. Klut/Elke Estel) [140]
- 42 Statue of a Pouring Satyr, late Hadrianic–early Antonine period. Marble. H. 156 cm. The head is a plaster cast of the Dresden replica. Berlin, Antikensammlung, inv. Sk 257 (photograph: © Antikensammlung, Staatliche Museen zu Berlin – Preussischer Kulturbesitz) [151]
- 43a–c Detail drawing of the strut under the left hand of the Pouring Satyr in Palermo. The strut is 39 cm long (drawing by the author and Donato Bruscella) [153]
- 44 Statue of a man using the body-scraper (Apoxyomenos), mid-first century AD. Marble. H. 205 cm. Vatican Museums, Museo Pio-Clementino, Gabinetto dell'Apoxyomenos, inv. 1185 (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-57.898, R. Sansaini) [158]
- 45 Headless statue of Venus from the Baths of Faustina at Miletus, second century AD. Marble. H. 135 cm. Istanbul, Archaeological Museum, inv. 2004 (photograph: German Archaeological Institute, Istanbul, neg. D-DAI-IST-78-94) [161]

- 46a–b Statue of Dionysus with a panther from the nymphaeum at Punta Epitaffio, first half of the first century AD. Marble. H. 140 with the base. Front and left-hand side view. Baiae, Museo Archeologico dei Campi Flegrei, inv. 222739 (photograph: © Bildarchiv Foto Marburg/Schumacher, Dieter; Gloc, Jan; Haag, Paul) [162]
- 47a–d Drawn reconstruction of the Vatican Apoxyomenos. The reconstructed strut is represented with a dotted line. Front, rear, left-hand side, and right-hand side view (drawing by the author and Donato Bruscella) [166]
- 48 Statue of the so-called ‘third companion’ of Ulysses, from the Polyphemus group of Sperlonga. Marble. Sperlonga, National Archaeological Museum (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-65.1932) [173]
- 49 Group of the Scylla from Sperlonga, detail of a sailor seized by the monster. Marble. H. max preserved 186 cm. Sperlonga, Archaeological Museum (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-65.120, J. Felbermeyer) [174]
- 50 Michelangelo, *Bacchus*, 1496–7. Marble. H. 209 cm with the base. Florence, Museo Nazionale del Bargello, inv. S.10 (photograph: Kunsthistorisches Institut in Florenz – Max-Planck-Institut) [180]
- 51 Statue of the wineskin-bearing companion of Ulysses from the nymphaeum at Punta Epitaffio, first half of the first century AD. Marble. H. 169 cm. Left-hand view. Baiae, Museo Archeologico dei Campi Flegrei, inv. 222737 (photograph: © Bildarchiv Foto Marburg/Schumacher, Dieter; Gloc, Jan; Haag, Paul) [184]
- 52 Torso of Zeus, from the Nymphaeum of Herodes Atticus at Olympia, mid-second century AD. Marble. H. max preserved 167 cm. Olympia, Archaeological Museum, inv. A 170 (photograph: German Archaeological Institute, Athens, neg. D-DAI-ATH-1979-3529, Gösta Hellner. All rights reserved) [186]
- 53 Statuette of Heracles, from Rome. Marble. H. 57 cm with the plinth. Boston, Museum of Fine Arts, inv. 14.733 (photograph: © Museum of Fine Arts, Boston) [192]
- 54 Statuette of Diana, late fourth century AD. Marble. H. 71 cm. Dresden, Albertinum, inv. Hm 270 (photograph: © Skulpturensammlung, Staatliche Kunstsammlungen Dresden, H. P. Klut/Elke Estel) [197]
- 55 Utagawa Kunisada I, Scene from a Bunraku theatre performance, 1856. Woodblock print, ink and colour on paper. 35.5 × 24.3 cm.

- Boston, Museum of Fine Arts, William Sturgis Bigelow Collection, acc. no. 11.30063 (photograph: © Museum of Fine Arts, Boston) [200]
- 56 Statue of a sacrificing woman, Severan period. Marble. H. 189 cm. Florence, Galleria degli Uffizi, inv. 1914 no. 131 (photograph: © Gallerie degli Uffizi, Gabinetto Fotografico) [202]
- 57 Discus of a lamp, first half of the first century AD. L. 20.7 cm, W. 9.8 cm. London, British Museum, Reg. 1856,12–26.552.a (photograph: © The Trustees of the British Museum. All rights reserved) [209]
- 58 Sarcophagus chest with the myth of Prometheus, late third or early fourth century AD. L. 117.5 cm, H. 66 cm, D. of side 43.5 cm. Detail. Rome, Capitoline Museums, Sala delle Colombe, inv. 329 (photograph: Forschungsarchiv für Antike Plastik, Cologne, neg. FittCap71-108-05\_16404,10, <http://arachne.uni-koeln.de/item/marbilder/3563418>) [211]
- 59 Replica of the Pouring Satyr in Palermo. Left-hand view (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-71.662, G. Singer) [214]
- 60 Replica of the Discobolus from Castel Porziano. Rear view (photograph: German Archaeological Institute, Rome, neg. D-DAI-ROM-8396, C. Faraglia) [220]

## Preface

‘Inartistic’, ‘offensive’, ‘disfiguring’, ‘unsightly’, ‘disturbing’ – these are but some of the words that scholars have used to describe the subject of this book: the structural supports of Roman marble sculpture. Functionally, a support is a mass of stone left in place to reinforce a point of potential weakness in a statue. We can distinguish two classes of supports: first, the figural supports shaped like tree stumps, vases, animals, weapons, etc., that secure a marble statue’s stance and contribute to the narrative; and, second, the non-figural or structural supports which in most Roman marble statues seem only to sustain protruding extremities such as outstretched arms. This book focuses on the latter, commonly known as ‘structural supports’ or ‘struts’ (‘Stützen’, ‘Stege’, and ‘Streben’ in German, ‘tenons’ in French, and ‘puntelli’ or ‘tenoni’ in Italian).

Scholars have seldom and only cursorily engaged in the task of accounting for the function of struts in Roman sculpture, wavering between two main explanations. The first envisions struts as tools that enabled Roman workshops to transform lighter bronze prototypes into heavier marble replicas. Precisely because they were made of comparatively light-weight bronze, these prototypes did not need any additional reinforcements. The second interprets struts as devices to secure appendages for transport. In consequence, struts testify to a sculpture’s travel from workshop to the site of display.

In contrast to past scholarship, this book revolves around aspects that have so far remained unexplored. Do the conventional readings of supports actually address the diverse phenomena that they physically represent? How did the carving, shape, and display of supports influence the readings of Roman marbles in different times and contexts? How can the assessment of supports contribute to the debates about the visual values of Roman culture? In order to answer these and further questions, figural and especially non-figural supports need to be analysed within a comprehensive approach to Roman sculpture, Roman techniques of marble carving, and Roman debates about arts especially from the first to the third centuries AD.

Certainly, many supports were primarily structural and not meant to play an important role in the appearance of the sculpture. Sometimes, however,

their share in the visual impact of a work outweighs their tectonic role. The careful finish of many struts belies the idea that they were mere technical devices, intended to be concealed from the public eye – an assumption rooted in the modern aesthetic interpretations of the classical past. While stabilising an expressive body gesture, struts draw attention to the pose and encourage consideration of its meaning. These observations contradict the hypothesis that struts were always intended as practical precautions for transport. Besides not being removed once a statue was finally put in place, they were occasionally added without regard to actual static concerns, in prominent yet non-functional positions. The exceptionally large dimensions of some struts put them (and the limbs they support) at greater risk of breaking than any other part of a statue. Expert craftsmanship was required to chisel out such struts without damaging or destroying them.

The question of supports in statues that belong to well-known replica series, too, prompts further considerations. The shape, size, and position of both figural and non-figural supports tend to differ within a single replica series. Some of the versions of a given prototype avoid supports almost entirely, while elsewhere struts proliferate in both useful and unnecessary spots. The implications seem to be more complex and wide-ranging than has been anticipated by traditional copy criticism. Supports and conspicuous struts might have stimulated the memory of similar sculptures, the composition of which followed different criteria, and might have tied multiple copies into a system of mutual references. Besides, supports may have been recognised as copyists' additions and, in turn, as distinctive quality markers of Roman marbles. Since supports were the only features not defined by the prototype, they complicated the already difficult process of translating bronze into marble. Roman sculptors had to devise new methods and technologies to both reproduce their model and insert huge three-dimensional struts. Struts may show the workshop's ability to retain the basic forms of the bronze prototype while producing striking, creative modifications, from both the visual and narrative points of view, in its marble versions.

The choice of appending large struts to a statue also advertised the conspicuous consumption of marble. Larger struts required a great deal of extra marble and implied that the figure was carved from a single block. Acquiring such a block was a much more expensive alternative to carving the extended limbs separately and then fixing them to the core.

Perhaps most essentially, supports complemented the standardised poses and played an essential role in adapting a set of visual formulae derived from the Greek tradition to Roman visual semantics. In this sense, figural and non-figural supports acted as a means of specification and guided the

viewer in the process of reading the image. Within an essentially conservative visual culture, the value of supports and struts as indicators of both Greek tradition and Roman innovation, in terms of either composition or content, may explain their widespread popularity.

The Introduction sets the topic within the broader scholarly debate. How did scholars respond to the ubiquity of struts in the corpus of Roman statuary? Which explanations were offered to account for this material? Do technical needs necessarily rule out aesthetic choices? The problem of struts is laid out here in a broader perspective, including later periods of Western art.

My argument unfolds over two sections and eight chapters. I address the topic by discussing individual case studies in detail and relating them to two main sets of broader issues: first, the ancient Roman technologies for marble sculpture and second, the contexts and modes of viewing sculpture in the Roman world. This book explores a pervasive – yet largely overlooked – phenomenon about the presentation of Roman marble statuary as a source of information about the mechanisms of production, trade and appreciation of art.

The first section, ‘Material and History,’ lays the groundwork to contextualise the discourse on struts in Roman marble sculpture. To do so, I first reconsider the question of figural supports, which, unlike the subject of this book, have traditionally been incorporated in the study of Roman art, as elements deemed integral to the composition. Chapter 1 questions the narrative potential of figural supports and examines their role in defining a figure’s structure, symmetry, and movement – a perspective that has much broader implications in the case of non-figural supports. Chapter 2 discusses the emergence of supports in the Greek art from the sixth to first centuries BC. The concept and practice of supports was deeply ingrained in the Greek tradition of marble sculpture. However, it was from the late first century BC onwards that supports and struts became one of the most familiar features of marble sculpture, in a variety of shapes and with different surface finish. In Chapter 3, I describe the types and shapes of struts in the Roman sculptural production. Struts occur in statues of exceptionally high quality as well as those of poorer workmanship. They are found in both colossal groups and statuettes. As is described in Chapter 4, the types of surface treatment are equally various and idiosyncratic. Within this framework, the issue of colour is, at the same time, exceptionally relevant and elusive. Painting has traditionally played an important role in the belief that struts would be hidden from sight. Unfortunately, traces of paint have been detected on the struts of very few sculptures. This remarkably scanty



record hardly warrants general conclusions. This empirical presentation of the material provides the coordinates to navigate the subject, as well as the basic categories to distinguish and describe non-figural supports. Since these features have, at best, attracted only cursory remarks, the study of struts cannot ignore the need for a review of the evidence and a vocabulary to discuss it. While doing this, the presentation of the material helps to pinpoint certain geographical and chronological concentrations.

In the second section, ‘The Limits of Stone’, I review the main functional arguments that account for the presence of struts, and then explore the potential of struts in conveying information about the quality of a statue and the ingenuity of its maker. Struts may be useful to copy a bronze prototype into marble, to brace protruding extremities during the work, to guarantee the safety of a statue during transport, or to ensure stability and balance once the statue was in place. Most struts certainly had an immediate functional utility of this sort. Yet, as I show in Chapter 5, these explanations are not all equally persuasive. Connecting bars were not exclusive to marble statuary. Although rare, they also occur on bronze statues, where they serve as stabilisers or attribute holders. Additionally, the evidence that struts could serve as safeguards against the percussive strokes of the sculptor’s tools does not apply to the whole sample. On the contrary, the shaping and smoothing of very long struts with deep undercuts poses a further threat to the safety of a statue. Lastly, struts do not seem to be the sole or the safest choice to ensure that a statue would survive transport intact. Alternative methods, such as shipping the statue unfinished or in pieces, would reduce the risk of damage and breaks during transport.

Chapter 6 moves away from merely functional questions and addresses the case studies with a view to the compositional role of struts in highlighting expansive gestures and dramatic poses. Sometimes, struts function as abstract complements to the human body and framing devices. The use of struts counts among several strategies – including typology, style, labelling, the representation of a statue base or architectural niche – that the artist may exploit to establish the artificial nature of his figure. Especially in the case of sculptural copies, struts contribute to shifting the reference from the statue’s living counterpart to the art-object in itself, the series to which it belongs and the prototype. As I argue in Chapter 7, the use of large and structurally unnecessary struts may also advertise the means for the conspicuous consumption of marble. These struts demonstrated the availability of marble and therefore the material value of a work of art. Furthermore, struts enable a variety of expressive and emphatic poses comparable to those of bronze statues and the figures in paintings or reliefs. The use of



struts displayed the sculptor's proficiency and ability to overcome the limits of his material.

Chapter 8 examines regional and chronological concentrations. The number, size, placement, and shape of struts cannot provide, alone, any positive attribution to individual ateliers – let alone to individual carvers. However, if the display context is known, these technical features may confirm attributions based on style and treatment. This chapter also discusses the function of struts in small-size statues and miniatures. As in larger works, struts may serve to announce the sculptor's skill in carving the details. Additionally, struts could be used as a more generalised allusion to full-scale statuary. The presence of intricate struts in miniatures becomes increasingly significant in the sculptural production from the mid-third century to the mid to late fifth century AD, reflecting the popularity of elaborate compositions.

The Conclusion wraps up the main points of my argument. Struts had a general, undeniable structural utility. Nevertheless, they could also function as both allusions to a model and a testament to the carver's ability. I believe that, with all due precautions, non-figural supports should be included among relevant stylistic features upon which to rely to examine the production, choice, exhibition, and viewing of sculpture in the ancient Roman world.

## Acknowledgements

The general idea and the main arguments of this book took shape while working on another essay on imitation in Roman art and thought (then published with the title '*Difficillima imitatio*'. *Immagine e lessico delle copie tra Grecia e Roma*, 2012). In that earlier work, my remarks on struts and supports in Roman marble statuary remained confined to a few lines of text and footnotes. Only as my thoughts developed into a self-standing paper to be presented at the 22nd Theoretical Roman Archaeology Conference, held in Frankfurt in 2012, did it become apparent that none of these was sufficient and that the subject required a whole monograph. It would have to describe the types and forms of figural and especially non-figural supports, illustrate their possible role in the construction and reading of images, and explain how this material could have been so widely undervalued throughout the history of classical scholarship.

When one of the press' anonymous referees commented that this 'is really a German book written by an Italian in English', I found their remark to be quite reflective of my experience during the research and the writing. This book is indeed the result of several years of work at a number of institutions, where I had the chance to discuss my ideas with many colleagues from different backgrounds, whose approach to the material was at times strikingly different from my own.

At the time when I first focused on supports and struts in Greek and Roman sculpture, I was affiliated with the School of Historical Studies at the Institute for Advanced Study in Princeton, as the Gladys Krieble Delmas Foundation Member (2011). There I had the rare privilege to commence my study in an equally challenging and secure environment. Further research for a catalogue of supports, struts, and props in Roman marble statuary has been made possible by a grant for early-career scholars, generously awarded by my *alma mater*, the Scuola Normale Superiore of Pisa (Fondo Giovani Ricercatori). To both institutions go the warmest thanks; my thinking and learning have enormously benefited from their cosy and intellectually lively atmospheres.

I wrote the majority of this book, however, in Munich where, from the winter of 2012 until summer 2015, I held a post-doctoral teaching

position linked to the Centre for Ancient Worlds (MZAW) of the Ludwig Maximilian University. Leading the junior research group ‘Constructions of the Beautiful’, within the framework of ‘Distant Worlds: Munich Graduate School for Ancient Studies’, was an invaluable experience in terms of scientific growth and increased theoretical awareness. My gratitude goes to the faculty, fellows, graduate students, and staff of Distant Worlds, who have been a source of support and intellectual challenge throughout my research. Finally, the work of preparing the manuscript for the press was conducted at the Friedrich Alexander University of Erlangen–Nuremberg, where I served as assistant for the academic year 2015–16, and at the Getty Research Institute in Los Angeles.

In the writing of this book, over the years, I have incurred a great many personal debts, and it is a pleasure to acknowledge some of them. Many colleagues and friends, along with the press’ reviewers, read earlier drafts of the manuscript at various stages with care and generosity, each improving it in distinctive ways. I am indebted to everyone who has read and commented on this text, especially to Lucia Faedo, Martin Hose, Sarah W. Lynch, Rolf Michael Schneider, Salvatore Settis, and Paul Zanker. For advice, criticism, and suggestions on various individual points of the research, impulses to and comments on my ideas, I am thankful to Ruth Bielfeldt, Clarissa Blume, Vinzenz Brinkmann, Hans-Ulrich Cain, Petra Cain, Gabriella Cianciolo Cosentino, Amanda Claridge, Emily Cook, Patrick Crowley, Whitney Davis, Lorenzo Fatticcioni, Andreas Grüner, Felix Henke, Tonio Hölscher, Michael Koortbojian, Irving Lavin, Paolo Liverani, Jan Stubbe Østergaard, Annamaria Peri, Arne Reinhardt, Corinna Reinhardt, Thoralf Schröder, Verena Schulz, Lucia Simonato, Giovanna Targia, Cornelius Vollmer, William Wootton. Besides, I am immensely grateful to Silvano Bertolin, Astrid Fendt, Michael Pfanner, and Peter Rockwell, who kindly shared with me some of their first-hand knowledge about stone carving and workshop’s practices. Needless to say, any errors remain my own responsibility.

Sections of this work were presented at conferences and workshops in Frankfurt (22nd Theoretical Roman Archaeology Conference) and Oxford (Classical Art Research Centre), and as lectures at the Universities of Basilicata (Matera, Scuola di Specializzazione in Beni Archeologici), London (Institute of Classical Studies), Leipzig, Heidelberg, Munich, Erlangen, Berlin (Humboldt University), as well at the Kunsthalle in Kiel and at the Getty Villa in Los Angeles. I am thankful to the audiences of all of these places for their questions and remarks that enabled me to focus on aspects that were previously underdeveloped and crystallise my thinking on various elements of this project.

A number of institutions and foundations met the substantial costs of visiting many of the museums and sites mentioned in the following pages and preparing the manuscript for publication. I gratefully acknowledge the help of 'Distant Worlds: Munich Graduate School for Ancient Studies,' the American Philosophical Society (Franklin Research Grant, 2015), and the Max Weber Foundation (Gerald D. Feldman Travel Grant, 2015–17). A generous grant from the Henry Moore Foundation (Small Research Grant, 2013–14) covered the illustration costs and some of the travel associated with this project.

Thanks are also due to numerous curators, who assisted during my long work of inspection and close examination of sculptural works in many collections of antiquities. Acquiring the illustrations included in this book would have been impossible without the collaboration of numerous colleagues, curators, and assistants. It is a pleasure to acknowledge the particular aid of Daria Lanzuolo (German Archaeological Institute, Rome), the staff of the German Archaeological Institutes at Athens, Istanbul, and Madrid, as well as of the Cologne Digital Archaeology Laboratory (University of Cologne). For their support in searching and obtaining pictures, my warmest thanks go also to my research assistants at the Scuola Normale Superiore, Elisabetta Stinco, and at the Getty Research Institute, Roselyn Campbell.

My translations of the Greek and Latin authors owe much to those of the Loeb Classical Library, and at times – as acknowledged in the relevant passages – borrow directly from them. The bibliography makes no attempt to be comprehensive: to have cited it all would have more than doubled the size of an already long list. Rather, I have tried to acknowledge those works to which I have been directly indebted for specific information or which arguments I have depended on explicitly, as well as those contributions that have played a relevant if only implicit role in the formation of my own views. This book was submitted for peer review in May 2016; citations of works published afterwards are selective.

Abbreviations

With few exceptions, the names of ancient authors and artists, as well as the titles of texts and artworks, are cited according to S. Hornblower and A. Spawforth (with E. Eidinow), *The Oxford Classical Dictionary*. 4th edn. Oxford: Oxford University Press, 2012.

An author-date scheme is used for all secondary references to works cited in the text.

ABV	Beazley, J. D. 1956. <i>Attic Black-Figure Vase-Painters</i> . Oxford: Clarendon Press (reprint: New York, Hacker Art Books, 1978).
ARV <sup>2</sup>	Beazley, J. D. 1963. <i>Attic Red-Figure Vase-Painters</i> . 2nd edn. Oxford: Clarendon Press.
ÄGB	Barck, K., Fontius, M., Schlenstedt, D., Steinwachs, B. and Wolfzettel, F. (eds) 2000–5. <i>Ästhetische Grundbegriffe</i> . 7 vols. Stuttgart: Metzler.
Clarac	Clarac, F. (comte de), 1839–41. <i>Musée de sculpture antique et moderne</i> . Paris: Texier.
CVA	<i>Corpus Vasorum Antiquorum</i>
DNO	Kansteiner, S., Hallof, K., Lehmann, L., Seidensticker, B. and Stemmer, K. (eds) 2014. <i>Der Neue Overbeck. Die antiken Schriftquellen zu den bildenden Künsten der Griechen</i> . 5 vols. Berlin: De Gruyter.
EAA	<i>Enciclopedia dell'arte antica classica e orientale</i> . Rome: Istituto della Enciclopedia Italiana.
Helbig <sup>4</sup>	Helbig, W. 1963–72. <i>Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom</i> . 4th edn. 4 vols. Tübingen, Wasmuth.
LIMC	<i>Lexicon Iconographicum Mythologiae classicae</i> . 1981–97. 8 vols. Zurich: Artemis.
LSJ	Liddell, H. G. and Scott, R. 1996. <i>A Greek-English Lexicon</i> . 9th edn (revised and augmented by H. S. Jones). Oxford: Clarendon Press.