

# The marble type of the statue of Augustus from Prima Porta: an isotopic analysis

John Pollini and Norman Herz

## The problem of the marble type (J. Pollini)

During my initial study (Pollini, *Diss.*) of perhaps the most famous of all Roman statues, the cuirassed figure of Augustus from Prima Porta,<sup>1</sup> I was struck by the range of opinions offered about its particular marble type. Although some marbles used in Greek and Roman sculpture are easily recognizable by such characteristics as distinctive color, banding, and crystalline structure, many have been identified with too great confidence on too little evidence. The determination of marble type is especially difficult if there are no fresh breaks or if there is heavy patination.

As a result of the collaborative efforts of classical archaeologists, art historians, and professionals in the physical sciences, considerable progress has been made, especially in the last 3 decades, in gaining a better understanding both of the influence of materials on sculptural techniques and styles, and of patterns of trade in sculptural and architectural stone. A number of international symposia and colloquia on marble and other stones used in antiquity have been held. In response to continued and growing interest there was founded in 1988 the Association for the Study of Marble and Other Stones Used in Antiquity (ASMOSIA) under the presidency of Norman Herz. The newsletter of this organization contains much useful information and bibliography on marble and other stones.<sup>2</sup>

When first writing on the Augustus from Prima Porta, I consulted J. B. Ward Perkins, A. Claridge, and others about the type of marble.<sup>3</sup> The principal suggestions were Luna (Carrara),<sup>4</sup> Dokimeion (Asia Minor), and even a high grade of Pentelic. For a work as important as the statue of Augustus, commissioned for Livia's villa at Prima Porta, one might also have expected Parian *lychnites* marble, the best white marble for high-quality sculpture in the round in the Greek and earlier Roman periods. According to Varro, as reported by Pliny the Elder (*NH* 36.14), this type of statuary marble was called *lychnites* (λυχνίτης) from the Greek λύχνος (lamp) because it was mined in shafts by the light of oil lamps: *quem lapidem coepere lychniten appellare, quoniam ad lucernas in cuniculis caederetur, ut auctor est Varro. Lychnites* was highly prized for the consistency of its whiteness and translucency, but it has never, to my knowledge, been suggested as the marble type of the Augustus from Prima Porta.

There are several reasons for the omission of *lychnites* from the list of possibilities. First, the entire figure (except for the head and right arm) was carved out of a single block of stone at least 2 m in height.<sup>5</sup> Carved separately in the same marble were the head and extended right arm. In his important study

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- 1 The first published report on the statue of Augustus from Prima Porta was that of G. Henzen, *BdI* (1863) 73. For a bibliography and summary of past scholarly views on the statue: H. Jucker, "Dokumentationen zur Augustusstatue von Primaporta," *Hefte des Archäologischen Seminars der Universität Bern* 3 (1977) 16-37. For the statue as a whole, see especially H. Kähler, *Augustusstatue von Primaporta* (Köln 1959); Pollini, *Diss.*, 8-74, 340-42 and "Transformation," with further bibliography.
  - 2 Information about membership in ASMOSIA and its Newsletter is available from Norman Herz. For a survey of current research on Greek and Roman marble, see H. Dodge in *JRA* 4 (1991) 28-50.
  - 3 Pollini, *Diss.* 9 with n.6.
  - 4 The marble type has again more recently been seen as Luna by G. Daltrop in *The Vatican collections: the papacy and art* (New York 1982) 208 (no.128).
  - 5 According to my measurements the height of the statue with plinth but without head is c.1.9 m; the height of the statue from foot to top of head, c.2.08 m. Based on its width (c.0.82 m) and depth (c.0.68 m) the uncut block of marble for the statue must have been at least about 2 x 1 x 0.75 m. For the significance of the statue's height, especially with regard to its prototype, the Doryphoros by Polykleitos, see Pollini, "Transformation".