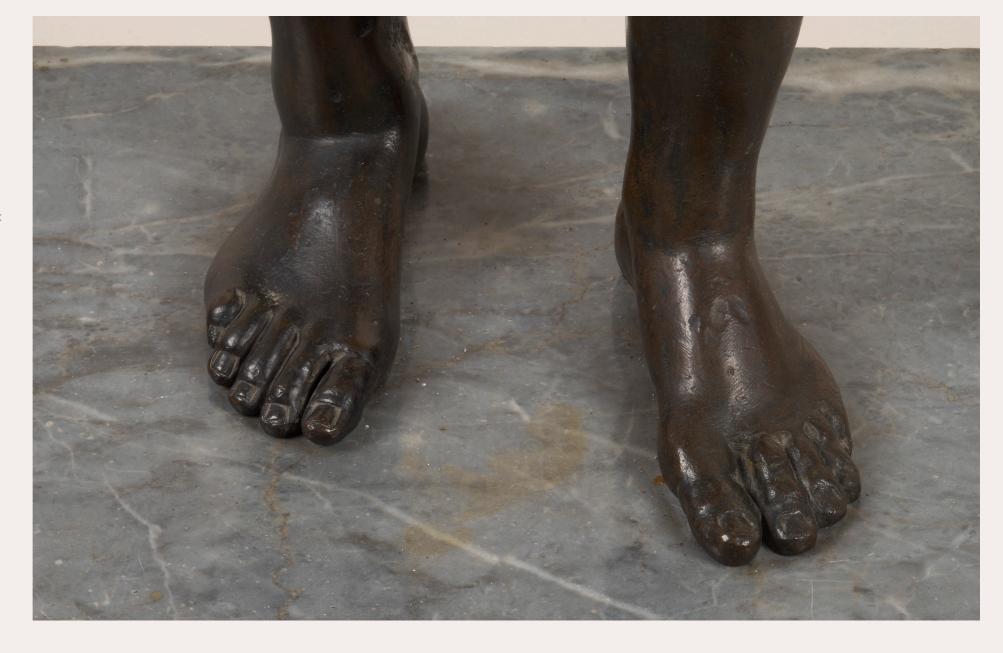
## 7 | The Child with a Bulla in the Louvre History of the Reconstruction and Restoration of an Ancient Bronze

Sophie Descamps-Lequime, Benoît Mille, Dominique Robcis, and Nathalie Balcar

ILLUSTRATION CREDITS Fig. 7.1: © RMN-Grand Palais / Art Resource, NY / Hervé Lewandowski Figs. 7.2, 7.3, 7.10, 7.11, 7.13–7.20, 7.22: © C2RMF / Anne Chauvet Fig. 7.4: Giraudon / The Bridgeman Art Library Figs. 7.5, 7.6: © Musée du Louvre-Documentation DAGER / Chuzeville Figs. 7.7, 7.9: © C2RMF / Anne Chauvet / Benoît Mille Fig. 7.8: © C2RMF / Thierry Borel Figs. 7.12, 7.23: © C2RMF / Dominique Robcis Fig. 7.21: © C2RMF / Nathalie Balcar Fig. 7.24: © C2RMF / Thierry Borel **FIGURES 7.1a–b.** The Child with a Bulla, 2nd century B.C. Bronze, H. 86 cm (33<sup>7</sup>/<sub>8</sub> in.). Paris, Musée du Louvre (inv. Br 17). The statue is shown after conservation in 2010.



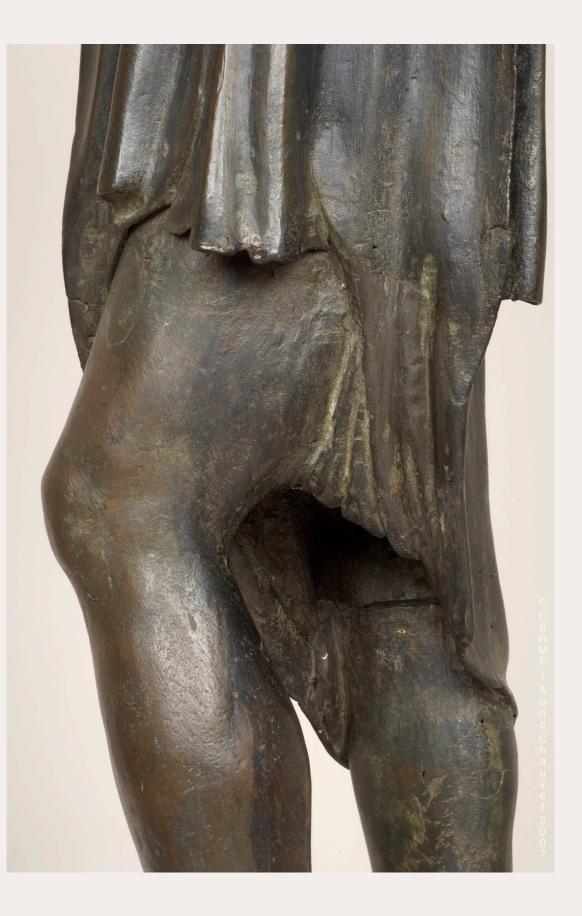




**FIGURE 7.2.** The ancient right foot and the restored left foot (first phase of restoration: late sixteenth or seven-teenth century)



**FIGURE 7.3.** The erroneous construction of the folds behind the modern left leg

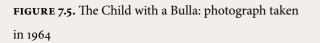




**FIGURE 7.4.** The Child with a Bulla: photograph taken between 1898 and 1902











**FIGURE 7.6.** The Child's head photographed in 1975. It was sloping slightly further back after the restoration that took place between 1944 and 1964.

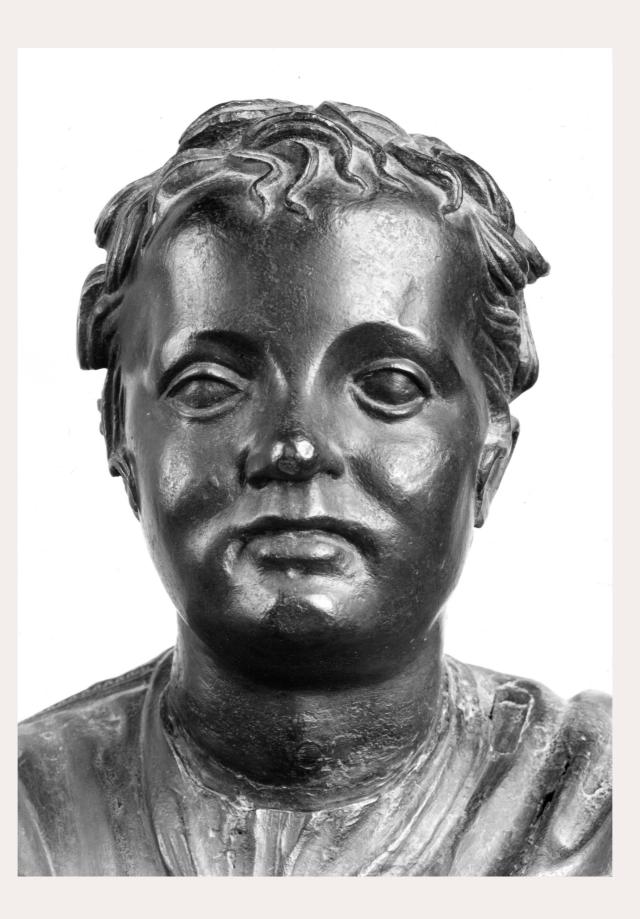




FIGURE 7.7. Cartographic representation of the statue: the different copper alloys. Gray: the ancient leaded bronze. Green: the quaternary alloy of the first phase of restoration (late sixteenth or seventeenth century). Pink: the leaded brass of the second phase of restoration (eighteenth century). Yellow dashed line: the leaded brass used to make a cylinder that was inserted in the neck during the restoration carried out between 1944 and 1964

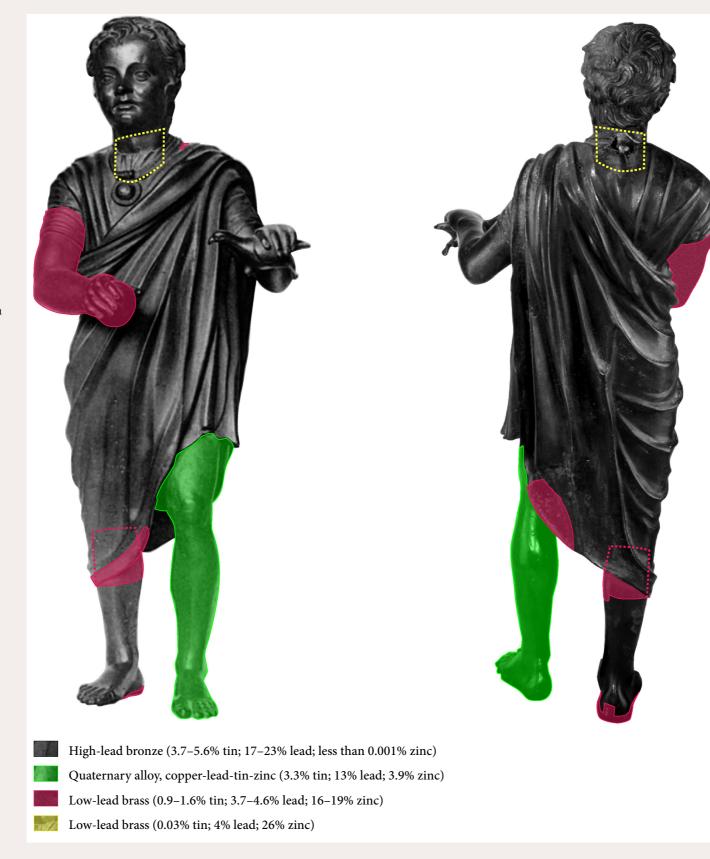
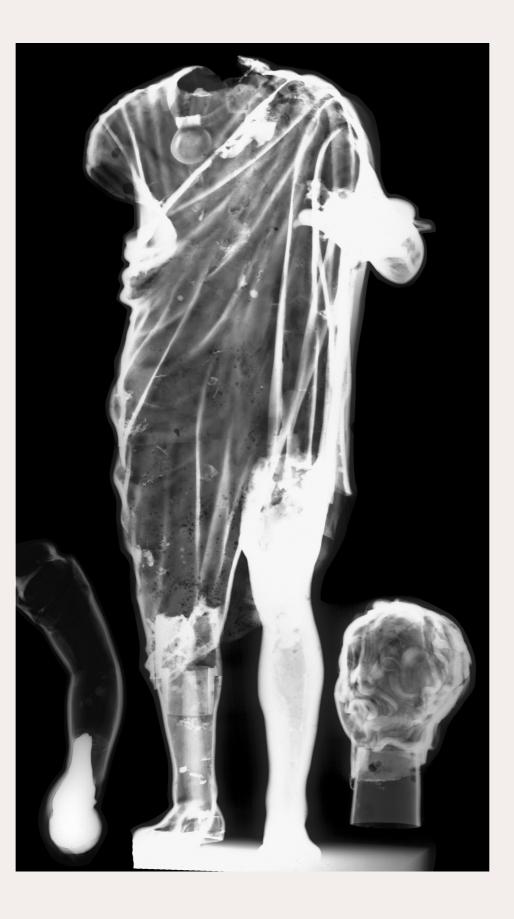


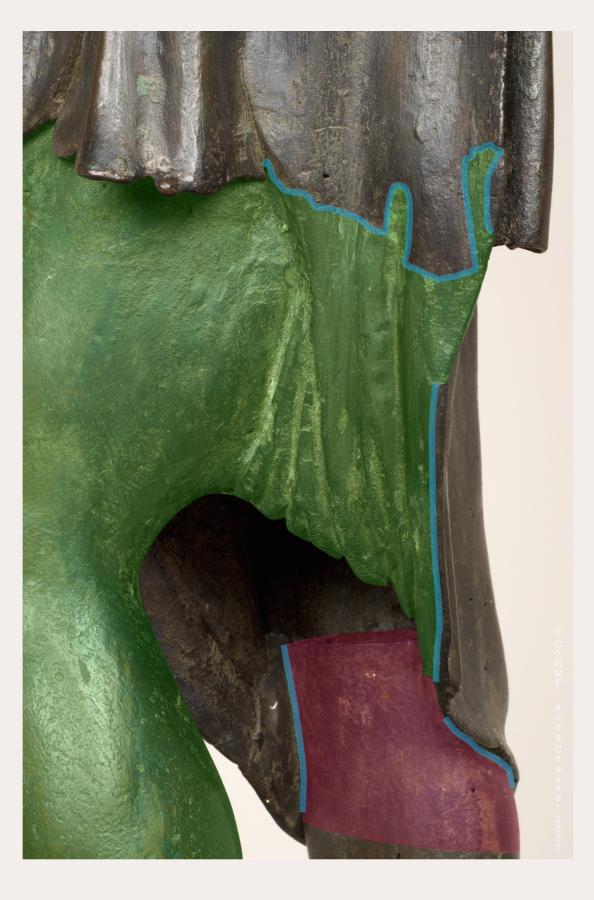


FIGURE 7.8. X-rays (front): right arm, body, head



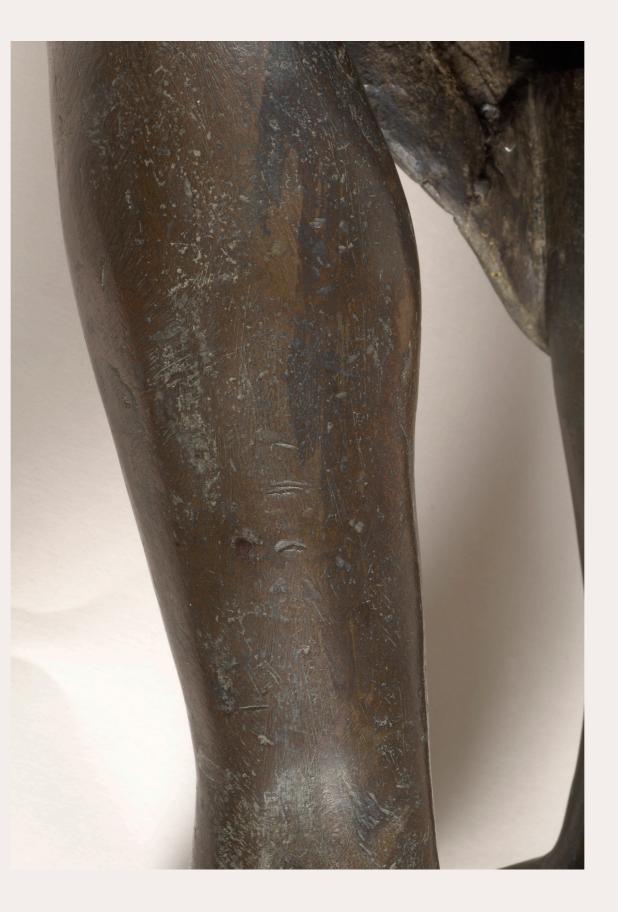


**FIGURE 7.9.** Green: the erroneous construction of the folds behind the modern left leg (first phase of restoration). Pink: the modern addition at the top of the calf of the right leg (second phase of restoration). Blue lines: soldering with a lead-tin alloy





**FIGURE 7.10.** The brownish patina on the left leg (first phase of restoration)







**FIGURE 7.11.** The modern right arm (second phase of restoration)



**FIGURE 7.12.** Endoscopic examination of the join of the modern addition to the right leg. The bronze plate, now twisted, with the hole for a thread screw is clearly visible (second phase of restoration).





**FIGURE 7.13.** A patch across a crack in the drapery, between the neck and the left shoulder (second phase of restoration)

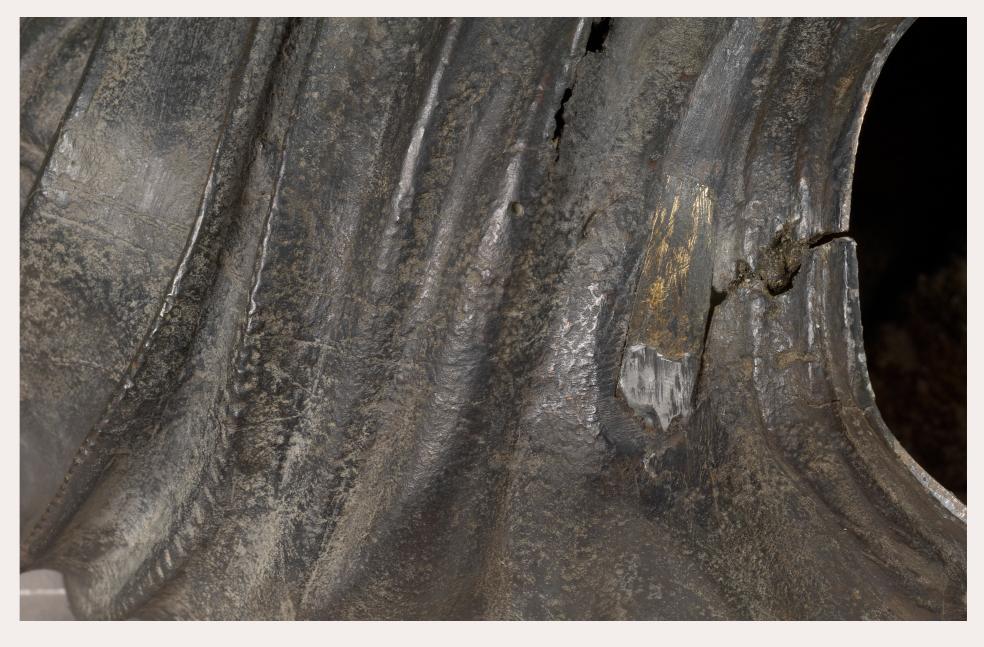




FIGURE 7.14. Evidence of a violent shock at the back of the tunic, under the nape, where the metal has been ripped off (after the second phase of restoration); on the right shoulder, a fixing hole from the second phase of restoration filled with a mixture of paraffin and beeswax between 1944 and 1964





**FIGURE 7.15.** Fixing holes: the metal has been ripped off (after the second phase of restoration) near the larger hole (the former attachment of the modern right forearm). The smaller hole belongs to the third phase of restoration, which took place between 1809 and 1820.

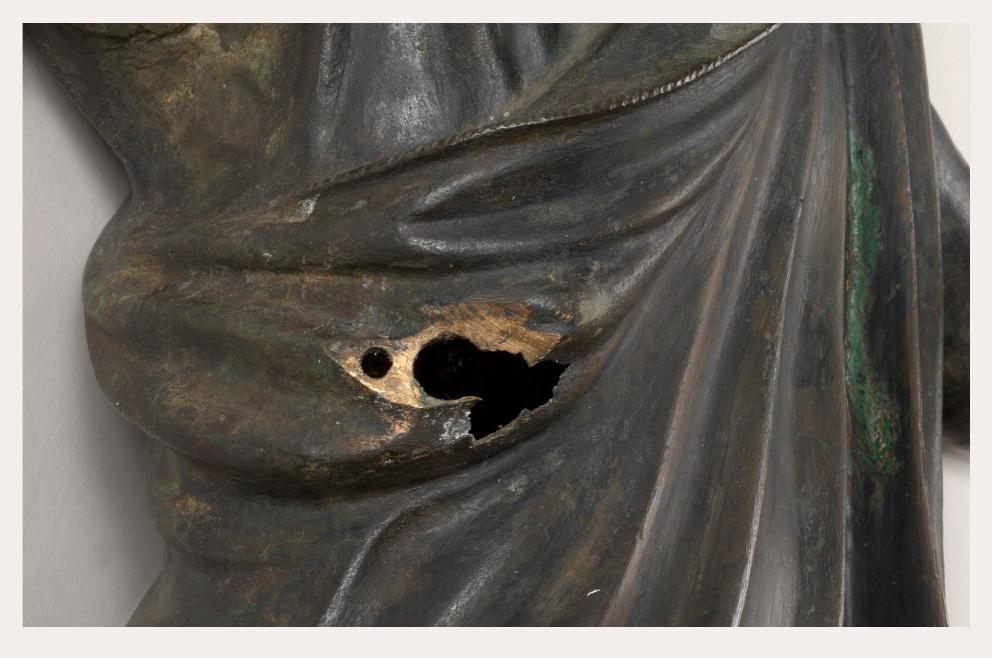






FIGURE 7.16. Neck smoothed with a saw



**FIGURE 7.17.** Between 1809 and 1820 (third phase of restoration), the protruding end of the larger rivet (from the second phase of restoration) was sawn off and a smaller one was driven into the right arm.

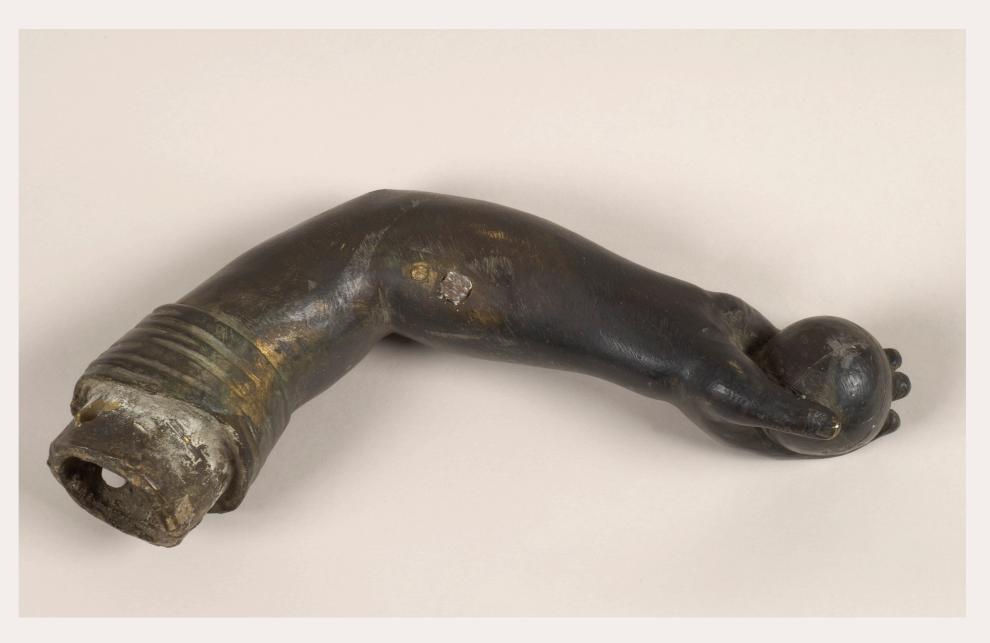


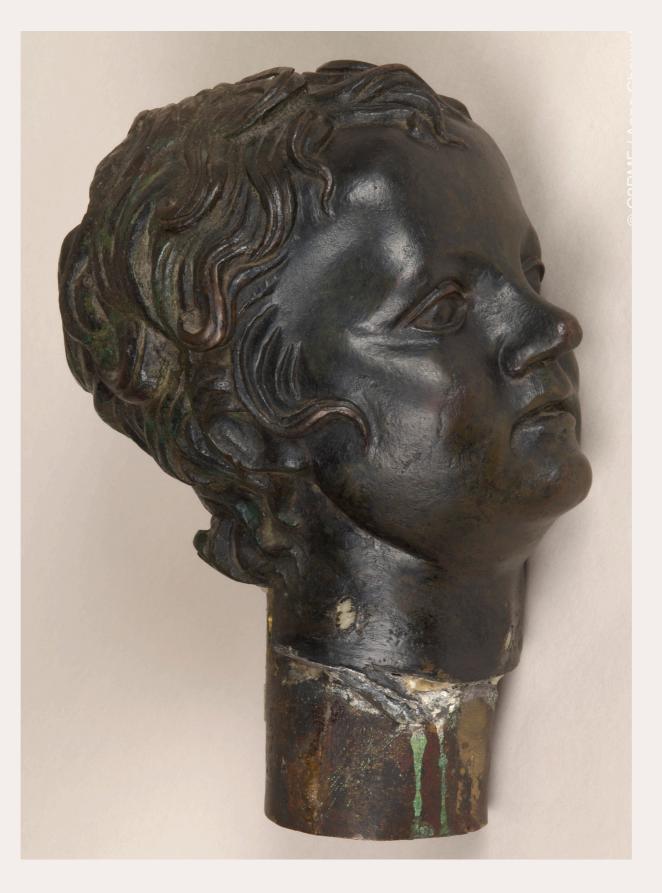


FIGURE 7.18. The dark chemical patina applied between 1809 and 1820 (Delafontaine). Since the modern right arm was already in place, some areas that were too close to the rivets were not reached.





**FIGURE 7.19.** The cylinder driven into the neck between 1944 and 1964. The previous fixing holes were filled with a mixture of paraffin and beeswax at the same time.

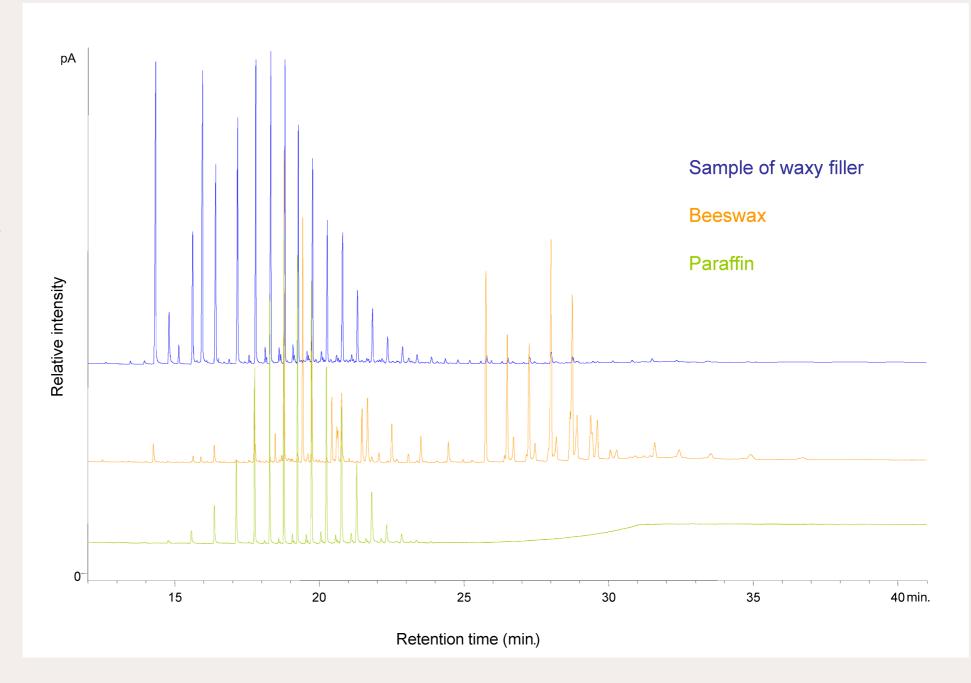




FIGURES 7.20a-b. The black-painted waxy restoration of the bulla ribbon knot was placed on the back of the statue, below the nape, between 1944 and 1964 (a). Figure 7.20b shows the interior of the restoration with cotton added as a fill.



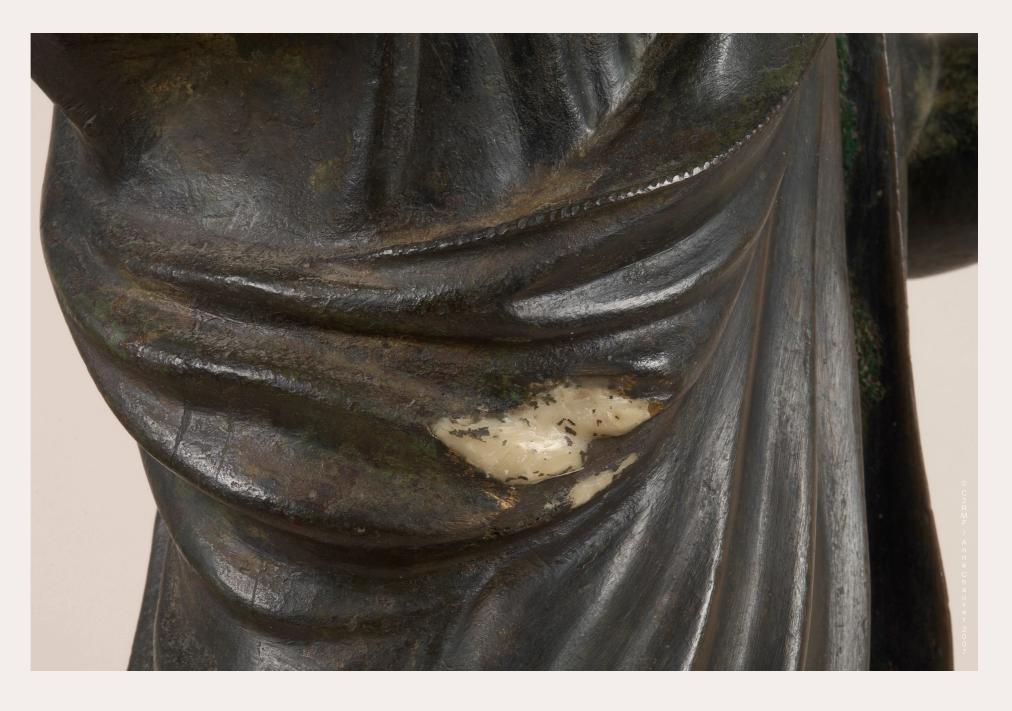




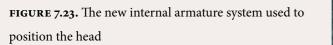
**FIGURE 7.21.** The waxy restoration of the bulla ribbon knot was identified as a mixture of paraffin and beeswax.



**FIGURE 7.22.** The earlier fixing holes of the right forearm and the zone of drapery where the metal had been ripped off were filled with the mixture of paraffin and beeswax between 1944 and 1964.

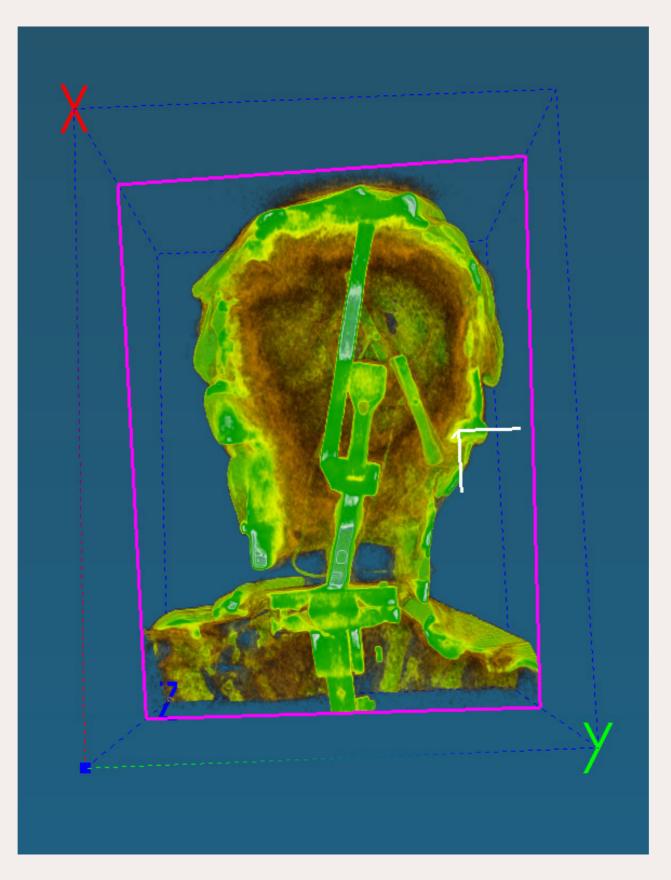












**FIGURE 7.24.** CT scan, taken from the back, showing the internal mechanical system for fixing the head

