

# 6 | The Birth and Second Life of the Minerva of Arezzo

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## ILLUSTRATION CREDITS

Figs. 6.1, 6.6: Courtesy of the Soprintendenza per i Beni Archeologici della Toscana, Florence, Italy

Figs. 6.3–6.5, 6.7, 6.9–6.14, 6.16, 6.19–6.25, 6.27, 6.28: Salvatore Siano

Fig. 6.8: Courtesy of Dr. Marco Giamello, University of Siena, Italy

Figs. 6.15, 6.18: Courtesy of Marida Risaliti of the Soprintendenza per i Beni Archeologici della Toscana, Florence, Italy

Figs. 6.17, 6.26: Courtesy of Marcello Miccio of the Soprintendenza per i Beni Archeologici della Toscana, Florence, Italy



**FIGURES 6.1a–b.** Minerva of Arezzo, 300–270 B.C.  
Bronze, H. 155 cm (61 in.). Florence, Museo Archeologico Nazionale (inv. 3). The statue is shown after study and treatment between 2000 and 2008.



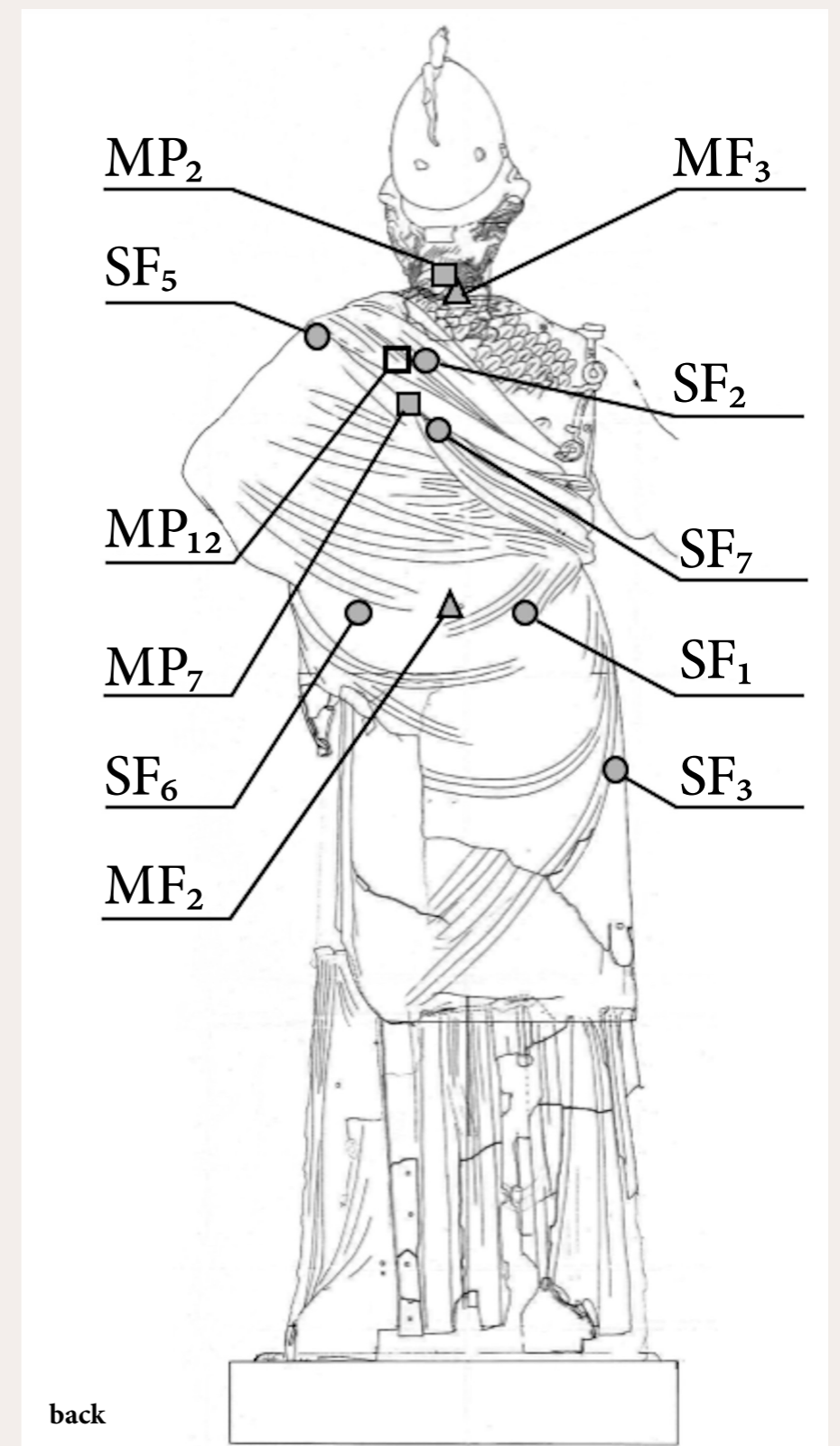
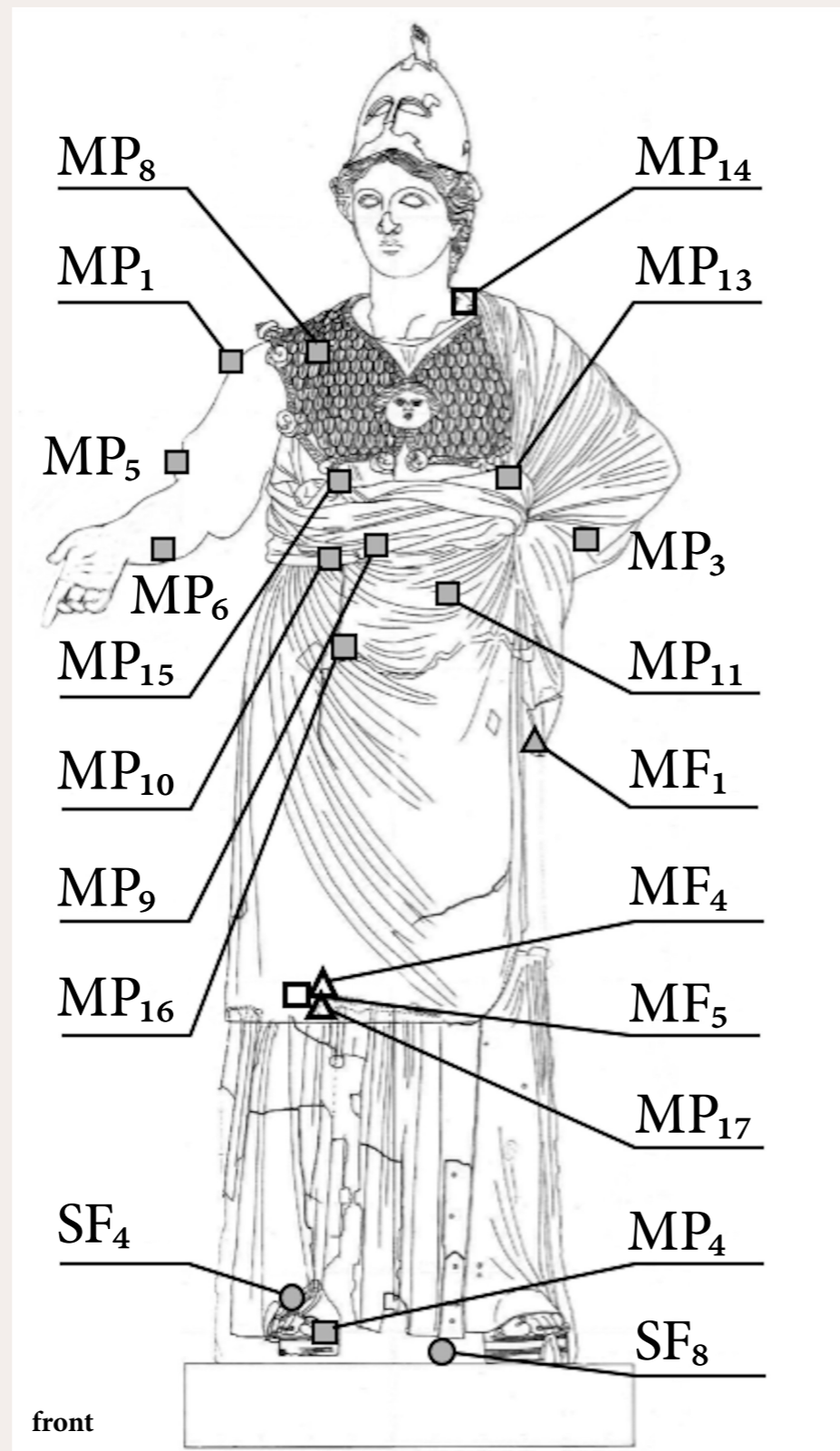


**FIGURE 6.2.** Drawing of the Minerva by Giuseppe Menabuoni (Italian, 1708–after 1745), line engraving by Antonio Pazzi (Italian, 1706–after 1768). From Antonio Francesco Gori, *Museum Etruscum*, vol. 2 (Florence, 1737), pl. XVIII

**FIGURES 6.3a–b.** The Minerva before the recent conservation project. Yellow dots: screws. Red dots: nail heads. White dotted line: upper border of area of missing ancient metal

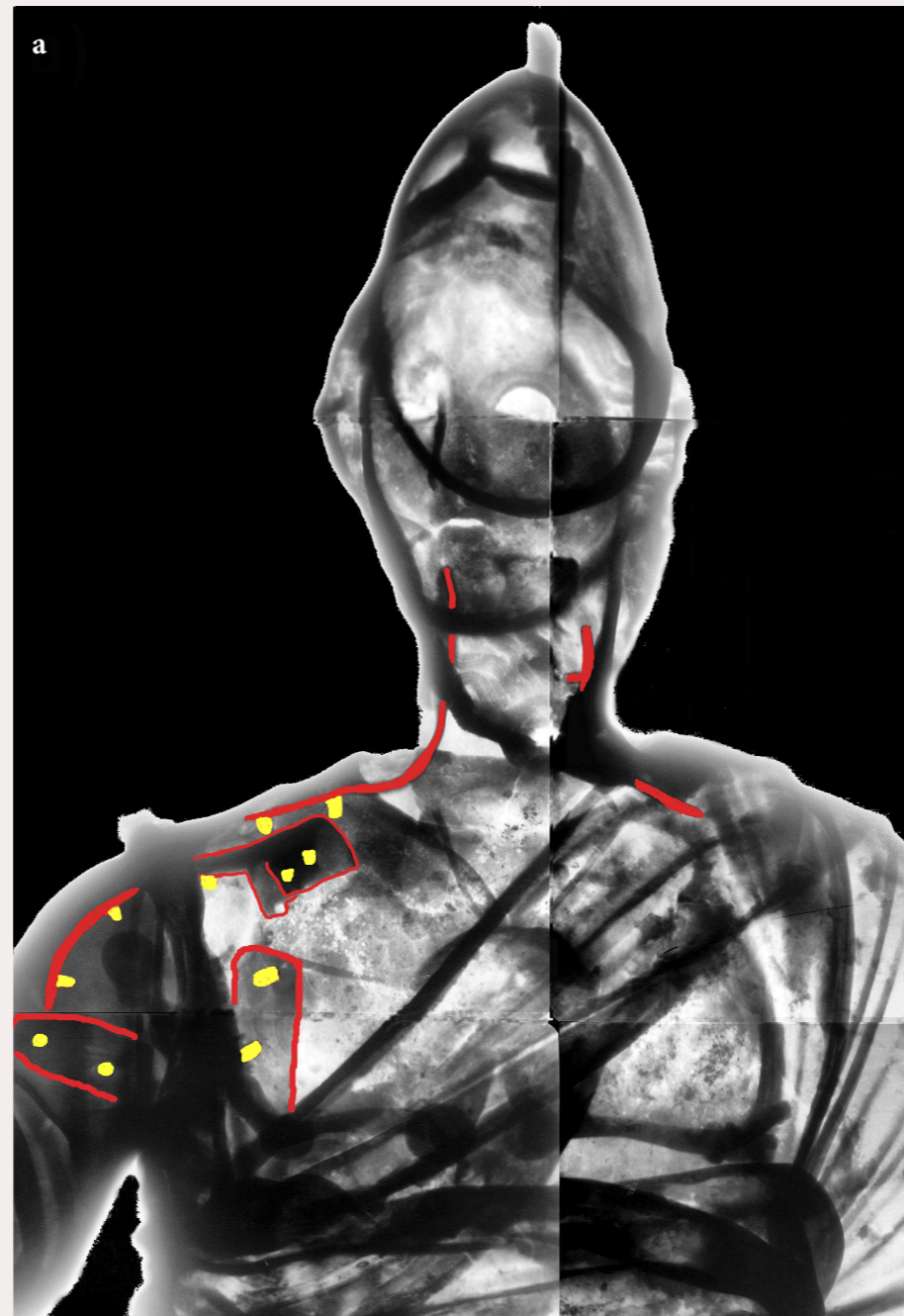


FIGURE 6.4. Locations used for material sampling



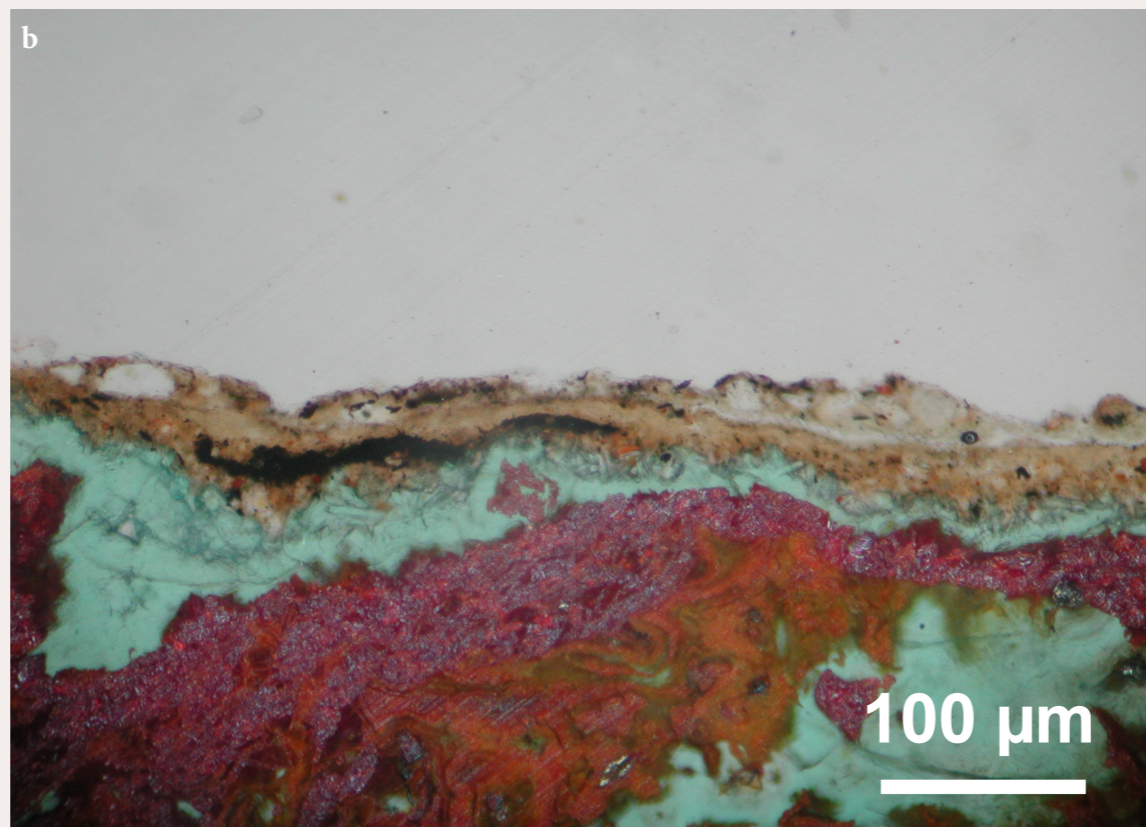
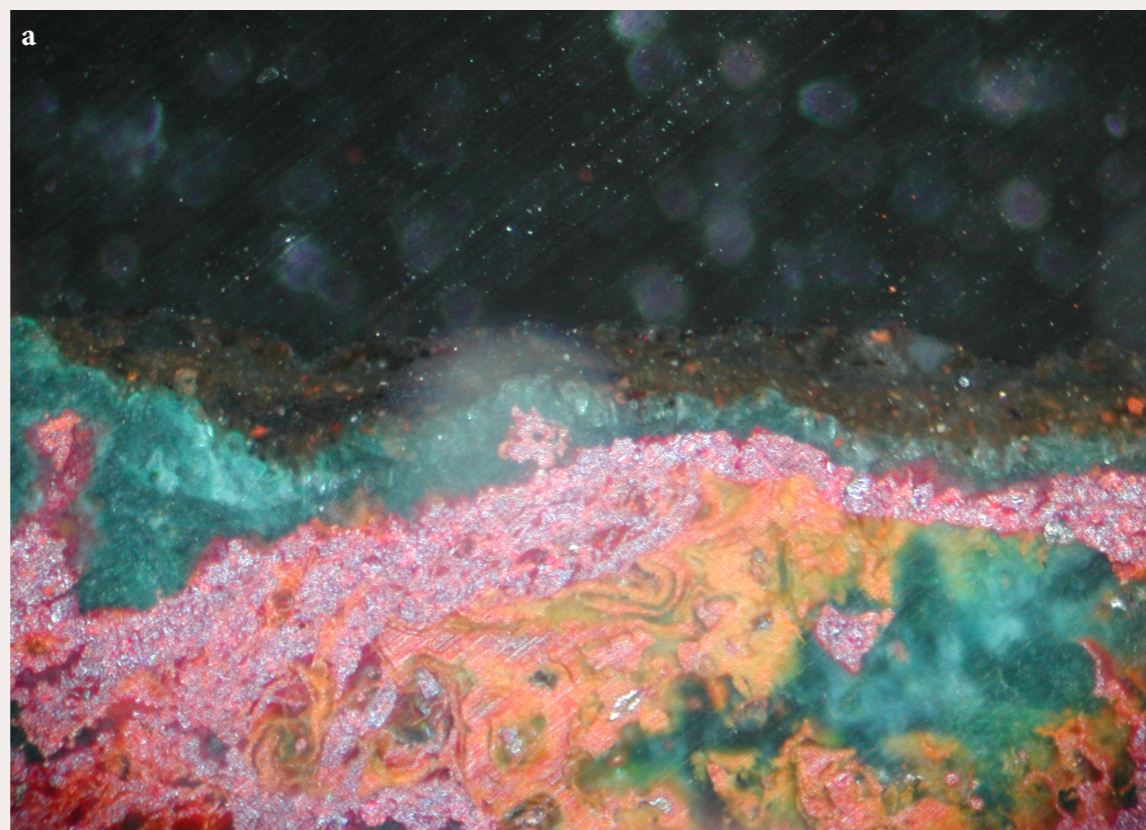
**FIGURE 6.5.** Detail photograph taken before disassembly of the statue, showing the internal wood support visible through the aperture of the left eye, along with details of the dark brown surface





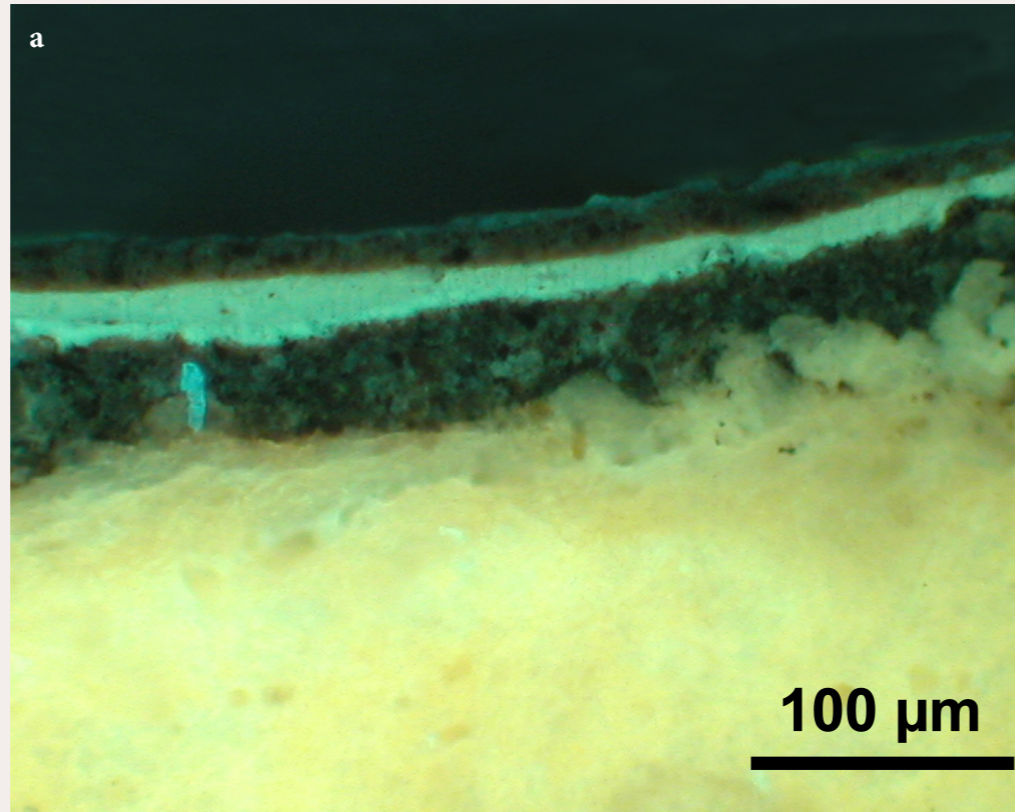
**FIGURES 6.6a–b.** X-radiographs (negative rendering) of the upper (a) and lower (b) parts of the sculpture. In figure 6.6a, iron sheets and screws are highlighted in red and yellow, respectively.

**FIGURES 6.7a–b.** Metallographic cross sections under reflected light showing representative stratigraphy of a corroded bronze surface with two superimposed patination layers (6.7a: black field; 6.7b: bright field)

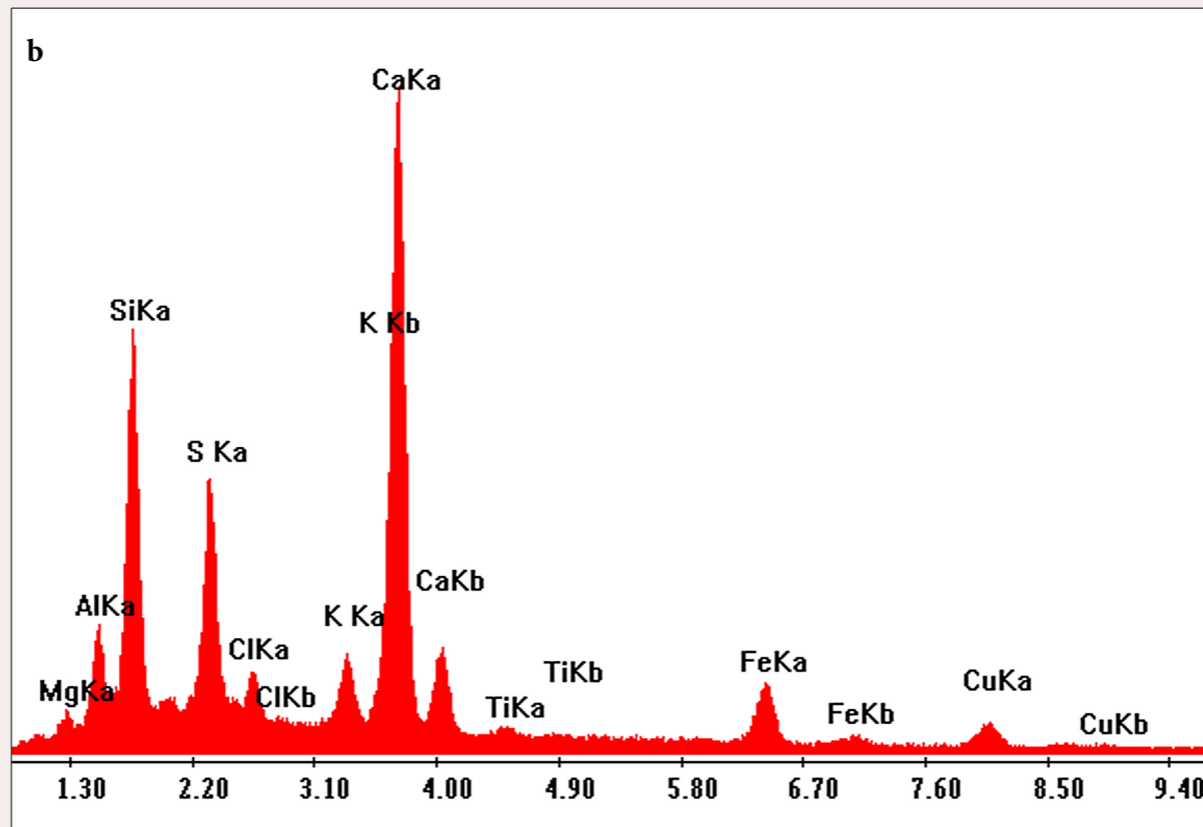




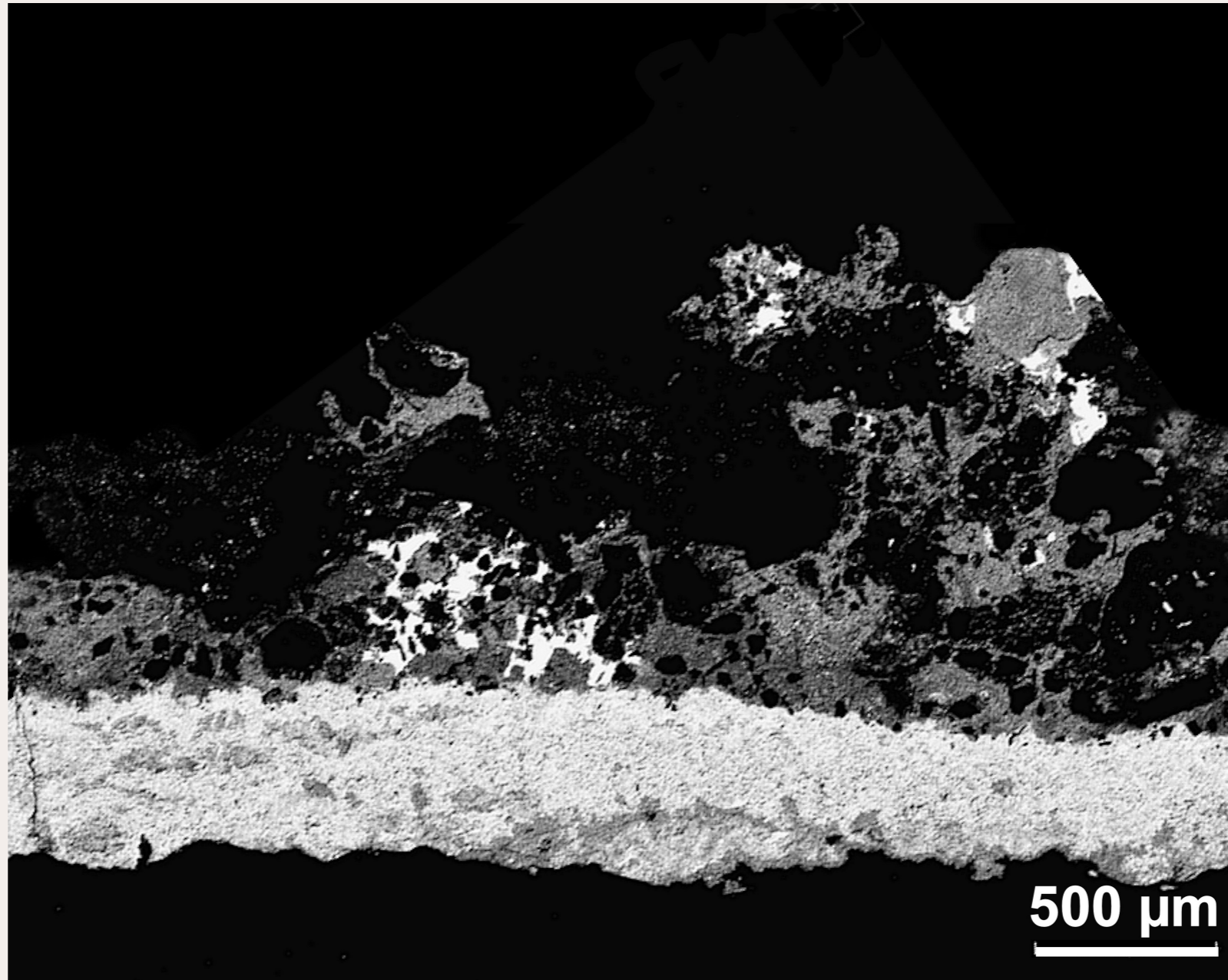
**FIGURE 6.8a.** Cross section of the sample SF<sub>8</sub> (from the base) showing two main patination layers separated by a gypsum layer



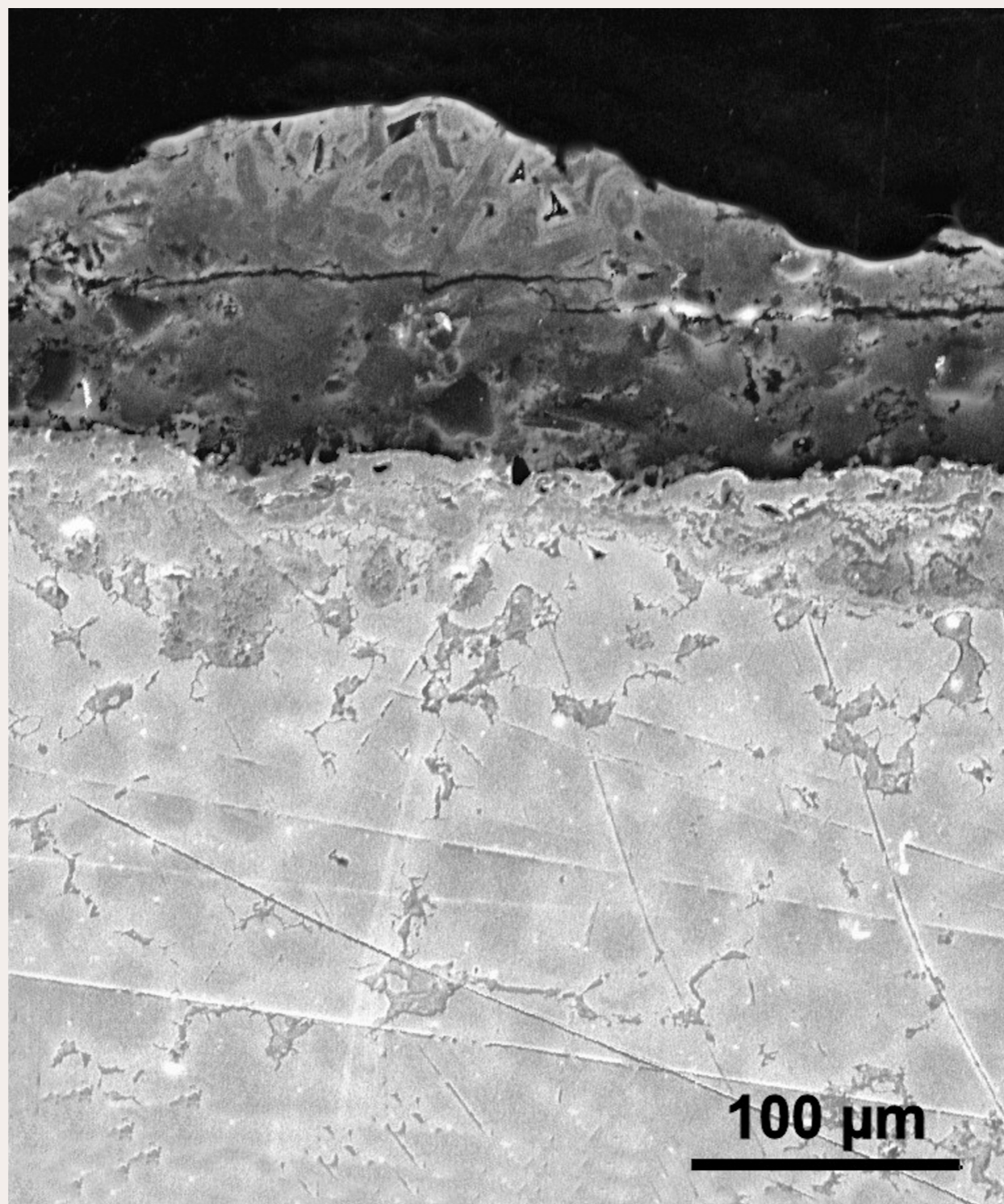
**FIGURE 6.8b.** Representative EDX spectrum of the patinations



**FIGURE 6.9.** Cross section (SEM, backscattering) of a mineralized metal sample (from the back), with earthy concretions ( $SF_2$ ) embedding lead minerals (white spots)



**FIGURE 6.10.** Cross section (SEM) of the sample  $\text{MF}_2$  showing moderate surface corrosion under the earthy concretion



**FIGURE 6.11.** Preliminary cleaning treatment carried out by the conservators Renzo Giachetti and Manuela Nistri





**FIGURES 6.12a-d.**

(a) Uncovering of the mineralized bronze surface from the dark patinations in the area of two large nails at the top of the left thigh.

(b) Early phases of the removal of stucco integrations in the area of the right foot.

(c, d) Examples of a fragment of the himation set free from the stucco integrations and nails.

FIGURE 6.13. 2000–2008 project: fragments dismantled



**FIGURE 6.14.** Right arm with screws removed, and detail of one of the screws



### Screws N. 1, 2, 5, 11

— Ø 7.5 mm  
— Ø 7 mm

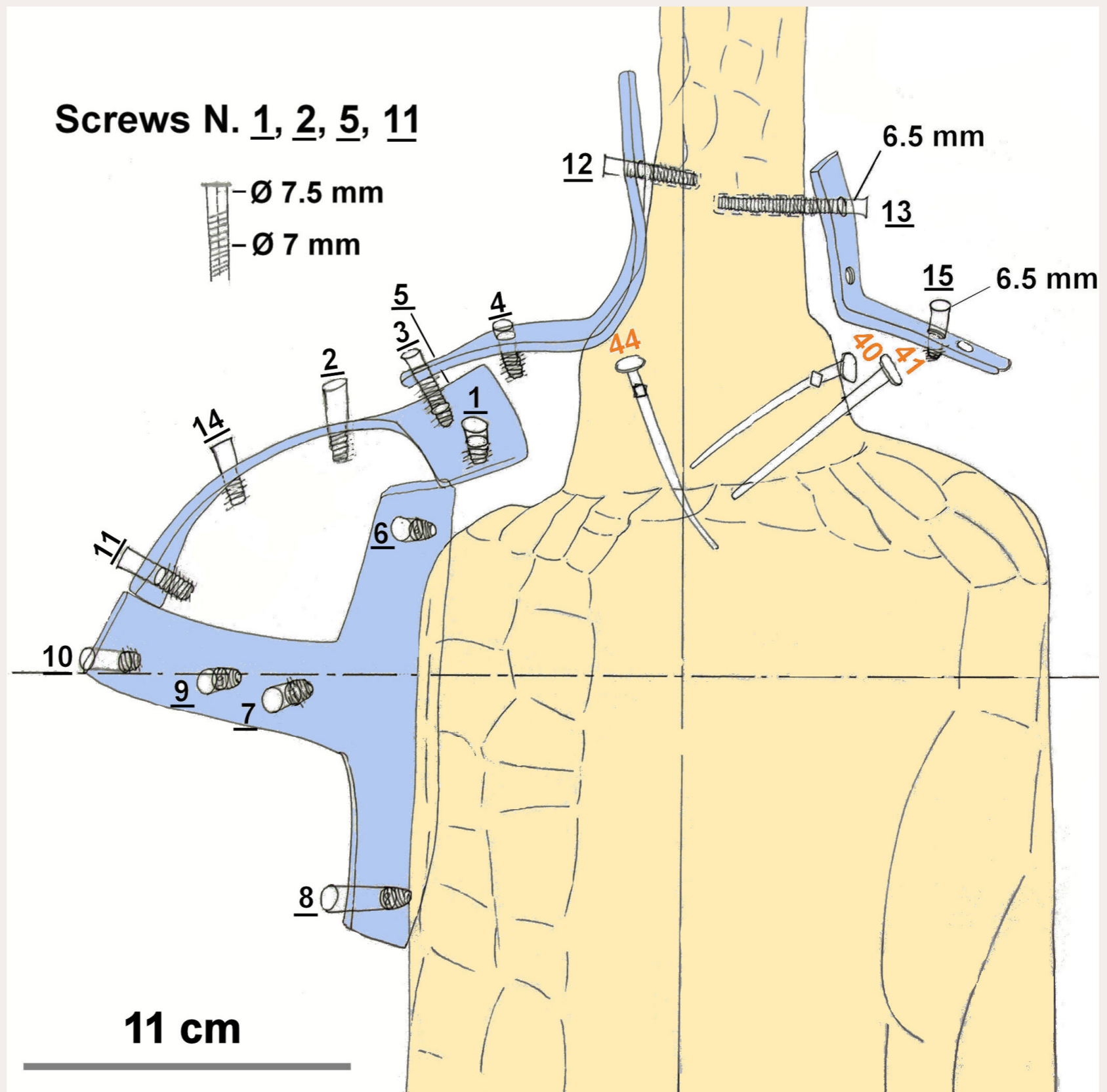


FIGURE 6.15. Supports of the head and right arm made by Francesco Carradori

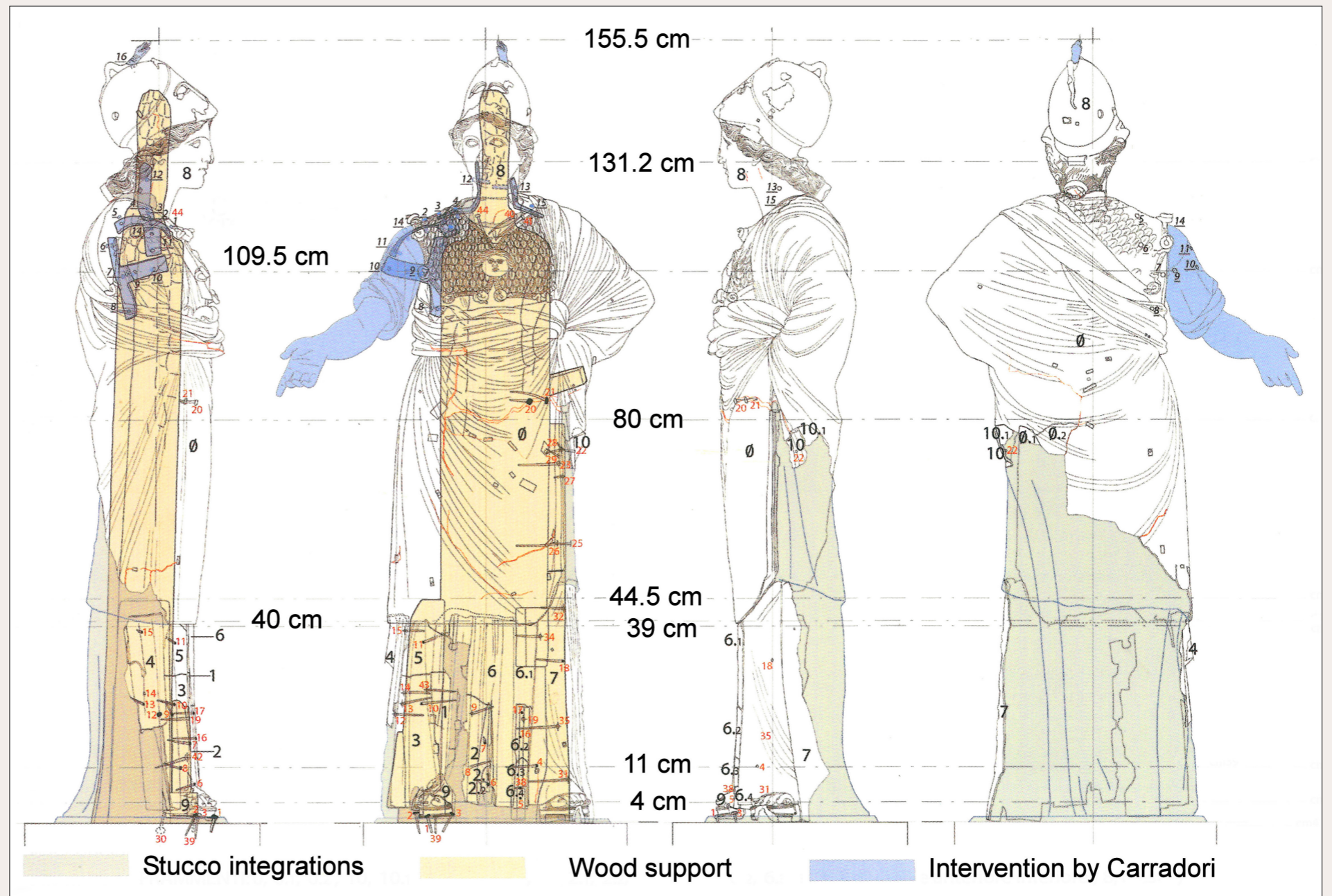


**FIGURES 6.16a–c.** The Minerva’s internal wood support (and Carradori’s iron armatures for the head and right arm) and main stucco integration (a–b); thirty-two of the forty-four fixing nails extracted during the dismounting of the sculpture (c)



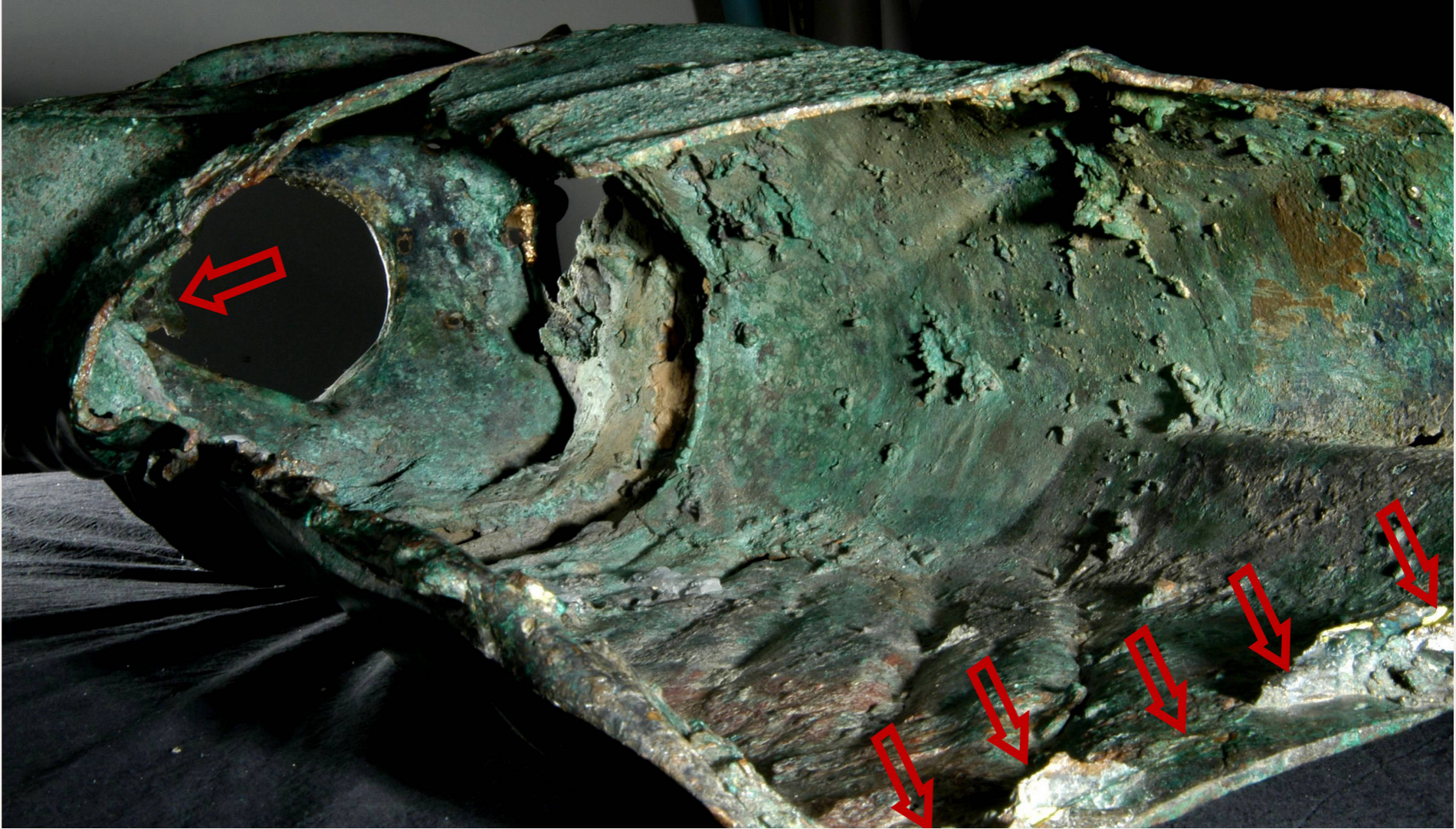
FIGURES 6.17a-b. X-radiographs of the right arm





**FIGURE 6.18.** Plans including all the elements of the Minerva's assembly before the recent restoration.  
 Fragments: bust, 0, 0.1, 0.2, 10, 10.1; head, 8; peplos, 1, 2, 2.1, 2.2, 3, 4, 5, 6, 6.1, 6.2, 6.3, 6.4, 7, 9  
 Nails: 1–44. Through holes drilled in the bronze walls: 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 16, 17, 18, 22, 38  
 Screws: 1–16  
 Adapted from Marida Risaliti, “Documentazione grafica,” in *La Minerva di Arezzo*, ed. Mario Cygielman (Florence, 2008), p. 134

**FIGURE 6.19.** Inner surface of the bust. Arrows indicate hard brazing zones.



**FIGURE 6.20.** 2000–2008 project: early phase of intervention on the lower part of the peplos



**FIGURES 6.21a–b.** Housing area of the right arm (a) and a detail (b) of the corresponding inner surface indicated by the red dot



**FIGURE 6.22.** Gap in the drapery on the chest, lit from within



**FIGURE 6.23.** Protruberances marking junction of wax sheets

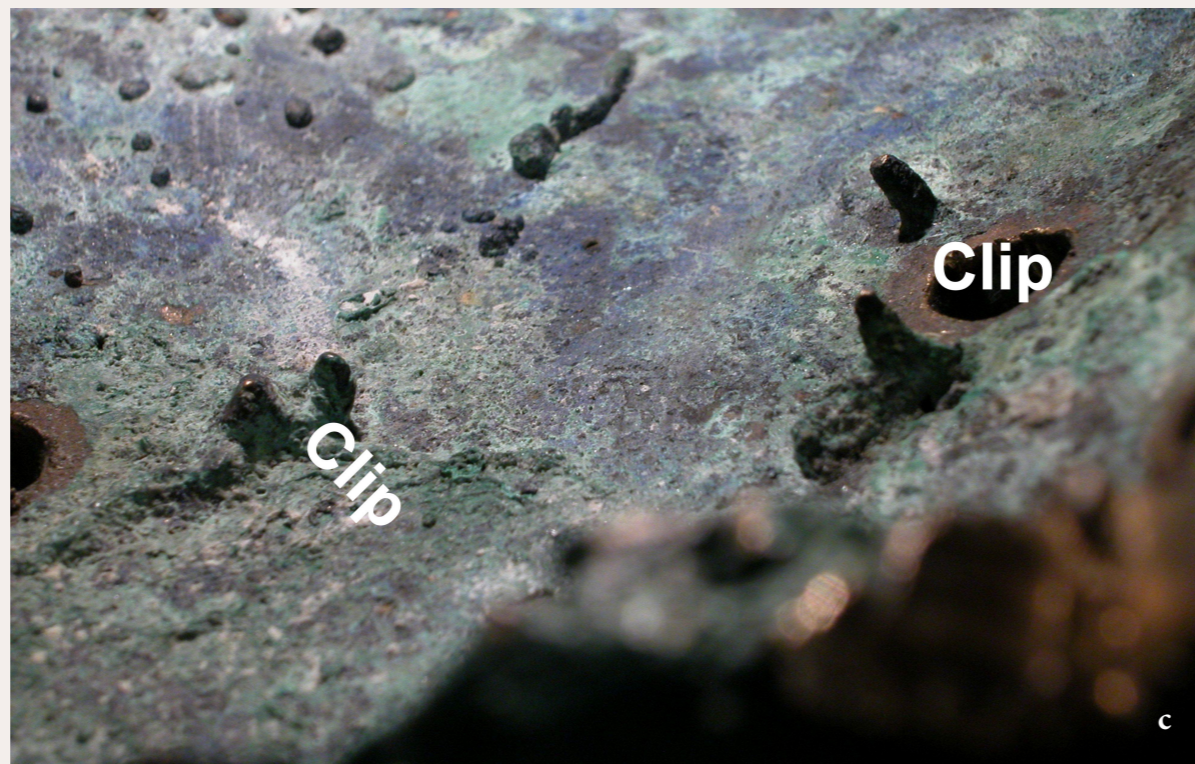
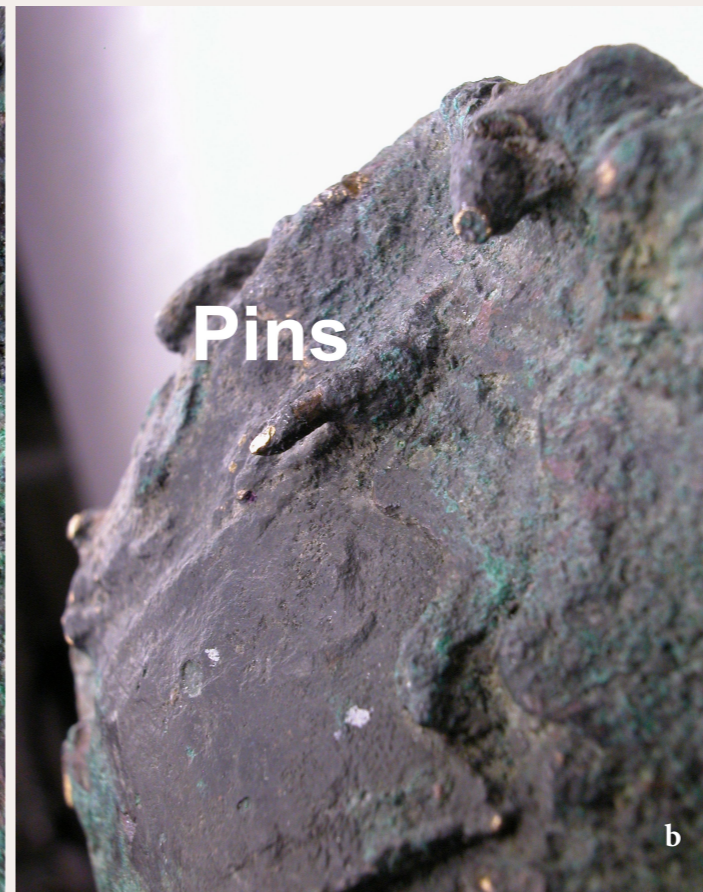






**FIGURE 6.24.** Juxtaposition of four wax sheets in the area of the left flank and arm

FIGURES 6.25 a–c. Pins emerging from the inner surfaces of the peplos (a–b) and clips in the shoulder (c)



**FIGURE 6.26.** Waxing of fabric by the conservator  
Stefano Sarri



**FIGURE 6.27.** Direct modeling of the missing parts of the peplos and himation





FIGURES 6.28 a–c. Right arm (a) and details of the right arm (b, c)

