



## Fragments of Large Roman Statuary in the Museum of Catania, Sicily: Review of Stefania Pafumi's 2020 *Disiecta membra. Frammenti di statuaria bronzea di età romana del Museo Civico di Catania*



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This volume examines 21 recognizable fragments of large statuary that mainly originate from Herculaneum but belong to the collection of the Museo Civico di Castello Ursino, Catania (Town Museum of Catania) in Sicily. The beautifully produced book, titled *Disiecta membra. Frammenti di statuaria bronzea di età romana del Museo Civico di Catania*, from the well-known publisher L'Erma di Bretschneider, presents for the first time two very noticeable groups of fragments from excavations carried out at Herculaneum in the eighteenth century, first by Rocque Joachim Alcubierre and then by Pierre Bardet de Villeneuve.

The author is Stefania Pafumi, researcher at the Centro Nazionale di Ricerca (CNR; National Research Centre), Istituto di Studi sul Mediterraneo (Institute of Studies on the Mediterranean), Naples, and research fellow at the Università di Catania in Sicily. Her study shows, for the first time, that not all statuary fragments recovered from Herculaneum were melted down. A number of mainly unrecognizable fragments coming from old excavations or kept at the Museo Herculaneense at Portici were melted in the nineteenth century, but others were dispersed from the original site and offered as gifts to personal friends of the king of Naples or sold to interested collectors. Most probably, some of the fragments were sold under the table when they were deposited in the Royal Foundry to be melted to produce objects, busts, and portraits of the royal family.

Andrew Wallace-Hadrill, professor of Roman studies and director of research in the Faculty of Classics at the University of Cambridge, who studies Pompeii and Herculaneum and coordinates the Herculaneum Conservation Project, wrote the preface of this lavish publication.

The first chapter (pages 13–16) is a kind of introduction, in which the author thanks various scholars and institutions for the help she received during her research and explains how she first came to the pieces and to this topic. In chapter 2 (pages 17–36) the author describes how she, through meticulous and painstaking research in archives and libraries, reconstructed the history of the various pieces and how they arrived in Catania. After the earthquake of 1693, several noble Sicilian families began to collect antiquities brought to light when the town was rebuilt. Several contemporary documents studied by Pafumi testify that in the first half of the eighteenth century in Sicilian towns, and in particular at Catania, there were several small “home museums.” These disappeared rather soon, and the pieces from their collections were lost or were sold

to foreign collectors and museums. Only the collections of the private museum of the Benedictine monks and the museum of the family of the Biscari princes somehow survived, apparently intact, until 1934, when they were incorporated into the collections of the Town Museum. Regrettably, the pieces belonging to the collection of the Benedictines were never cataloged, so it was quite difficult to reconstruct the provenance of the various items. The only available information on this collection came from the letters, account books, and ledgers of the monastery. These were studied in minute detail by the author, who in this way managed to reconstruct part of the history of the objects that belonged to the collection of the Benedictine monks.

The case of the private Biscari Museum is very different. At the beginning of the eighteenth century, the nobleman Vincenzo Paternò Castello founded the collection. Later, in 1743, his family obtained antiquities that were previously on exhibition in the Senators Loggia of the town of Catania. His son Ignazio, fifth prince of Biscari, had part of the family's palace at Catania enlarged and transformed into a museum. The collection was inventoried and cataloged, first in 1844 and again in 1930, when the collection went to the Town Museum. After describing the vicissitudes of the pieces of large statuary from Herculaneum, the author suggests that, with all probability, Sicilian collectors acquired their fragments from the Royal Foundry of Naples, which had the task of melting down fragments of bronze antiquities and producing new items out of this material. This would also be the reason for the lack of information on the provenance of the fragments. It has to be noted that the eruption of Vesuvius that destroyed Pompeii and Herculaneum in AD 79, together with other settlements around the volcano, shattered into many parts and widely dispersed the fragments of many bronze statues erected in the Campanian towns, so that still now it is almost impossible to reconstruct a whole monument. The statues were dismembered (indeed, the title of the volume is *Disiecta membra*, which in Latin means “dismembered body parts”) and the fragments were scattered and swept away by the many pyroclastic waves.

Chapter 3 (pages 37–57) mentions the discovery of tags placed on the various fragments of the Benedictine collection, which allowed the pieces to be attributed to three different archaeological contexts: Herculaneum, Porto d'Anzio, and Syracuse. Descriptions in the handover documents of 1868–1896 and the 1930 inventory also refer to the tags,

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Fig. 1. Horse statue (Cavallo Mazzocchi) reconstructed from fragments of a quadriga from the Pompeii Theater, now in the Museo Archeologico di Napoli. Photo by Alessandra Giunlia-Mair.



Fig. 2. Detail of the left side of the Cavallo Mazzocchi showing various fragments. Photo by Alessandra Giunlia-Mair.

which were probably added to the fragments immediately after their purchase from the foundry. In the following pages, Pafumi brings many examples of texts describing the early excavations at Herculaneum and the way the finds were collected, piled up in corners, given away as presents, stolen, and sold to foreigners. One of these writings is a letter (dated 1762 but published in the nineteenth century) by Johan Winkelmann, in which he criticizes the way the monuments were excavated and ill-treated after they were found. For example, at the top of the Pompeii Theater was a quadriga, obviously found in fragments under lava and rubble. All pieces were collected, transported to Naples, and “thrown in a heap”. After a long time, during which many pieces went lost, taken by people for display or melting, it was decided to melt part of them to cast the busts of the king and queen, and the remaining fragments were employed to reconstruct a horse. However, as there were not enough pieces for the reconstruction of even one horse (out of four), some fresh metal had to be employed (Winkelmann, 1830–1834:7:153–54). The reconstructed horse is now in the Archaeological Museum of Naples (Fig. 1), and the various original fragments, held together with new metal, can be easily recognized on the body of the horse (Fig. 2).

Bits and pieces of the statues from Herculaneum and Pompeii are now dispersed around the world—for example, in the British Museum, the Getty Villa at Malibu, and even the National Museum of Rio de

Janeiro in Brazil, as pointed out by Andrew Wallace-Hadrill in the preface to the volume.

Chapter 3 continues with a description of archival research on the excavations in Herculaneum and a description of the statues recovered in the eighteenth century in various locations in the town. Many finds of statues and statue fragments are mentioned in the vast literature on the site. In particular, a long list of finds appended to a map made by the scholar Andrea de Jorio (published in 1861) still exists, but it is difficult to attribute one fragment or another to the mentioned monuments, although some of them seem to be similar to ones that are now at Catania. The author believes that the fragments of the two Sicilian collections come from the area between the *porticus post scenam* of the theater and the so-called forum, north of the *decumanus*, excavated between 1739 and 1750. The second part of the chapter examines documentation regarding purchases of antiquities that the author found in the archives at Catania. Regrettably, none of entries refer to the fragments published in this volume, but many other objects are mentioned and discussed. It is worth noting that fragment number 7 (inventory number 1696), apparently an example of a statue decorated with the black-patinated Corinthian alloy, does not belong to the group of fragments coming from Herculaneum but was apparently found at Antium, south of Rome. The handover documentation written in 1868 indicates as provenance Porto d’Anzio and mentions 1746 as the year in which the fragment was found.

Similarly, the eagle—number 6 in this volume (inventory number 1753)—was mentioned in an 1846 description of the museum and its collections as “found at Syracuse.”

Chapter 4 (pages 59–120) reports the results of analyses carried out in the Museo Civico di Castello Ursino with portable X-ray fluorescence spectrometry (XRF) and PIXE-alfa equipment belonging to the Laboratorio di analisi non distruttive in situ (LANDIS) dei Laboratori Nazionali del Sud-Istituto Nazionale di Fisica Nucleare (LSN-INFN) at Catania. It illustrates how the casting of large statuary was carried out in antiquity, as well as welding, repair, finishing, and joining methods, using examples and images taken from well-known texts of other authors, such as Bol (1985), Haynes (1992), Formigli (1999a,b), Formigli et al. (1990 [cited as Formigli 1990 in the text]), Lahusen and Formigli (2001 [cited as Lahusen 2000 in the text]), Giunlia-Mair (2012), Bourgarit and Mille (2010), Mille (2007), and Mille et al. (2012). Pafumi also compares the techniques listed above with details of the fragments in the Catania Town Museum. The very short discussion on the composition of the alloys employed for the various pieces that follows this section is based on the regrettably unreliable (see below) analytical results obtained by the analysts of the LANDIS and LSN-INFN laboratories and should be ignored.

In the next section, the author discusses patination, gilding, and applied decorative elements, such as rings on the hand fragments and inlays, all illustrated with images taken from various well-known publications. Several paragraphs are dedicated to artificially patinated alloys, on which Pafumi collected and quoted relevant literature (Boube-Piccot 1966, 1969; Descamps-Lequime 2006; Giunlia-Mair 2002; Giunlia-Mair and Craddock 1993; Giunlia-Mair and Mráv 2014; Mathis et al. 2007 [incorrectly cited in the text as François et al. 2004]). A number of less relevant papers are also perused and quoted.

Chapter 5 (pages 85–120) lists the various kinds of statuary from which the fragments might derive: portraits statues, equestrian statues, *togatus*-type triumphal statues, idealized types, putti, and *lychno-foroi*—that is, lamp-bearing statues. Each type is discussed by illustrating several analogous examples and correlated wall paintings and coins, always together with the related fragments. Through comparisons and parallels of various kinds, the fragments are attributed to specific typologies and iconographies.

The second part of the volume is dedicated to the catalog of the fragments: first those from the collection of the Benedictine monks and then pieces that originally belonged to the collection of the Biscari princes. All pieces are exemplarily and meticulously documented



Fig. 3. Right naked foot, possibly of an athlete, from Herculaneum. Photo by Giovanni Fragalá and Giovanni P. Pavone.

with data collected by Pafumi: inventory numbers, exact locations in the Town Museum, analyses, provenances, archival documentation, bibliography, and dates. All pieces are lavishly illustrated by Giovanni Fragalá and Giovanni P. Pavone, with superb photographs of the items from different points of view and with significant details (Fig. 3).

As already mentioned, the only flaw, for which Pafumi cannot really be blamed, is the analytical part by L. Pappalardo and F. P. Romano, to which the last section (pages 203–36) of the book is dedicated. It is a great pity for such a beautiful volume to be spoiled by completely useless analytical data that cannot even be considered indicative. It is quite clear that the analysts who carried out the XRF and PIXE-alpha measurements have no real experience in analyzing ancient metal objects. They treated them as if they were industrial samples and apparently carried out the measurements without looking for the appropriate spots. In the brief introduction to the analytical part, they do mention the danger of getting wrong results by taking measurements on corroded metal and state that they took three different measurements on each item on “corrosion free” areas, but even being aware of the problem did not help with their results.

In Roman times, the amount of lead employed for large statuary could be very high, but the range of percentages obtained from the XRF analyses goes from 0.8 to 51 wt%. With all probability, the low lead contents, between 0.8% and 4.7%, must be due to corrosion phenomena. However, the analysts hypothesize that the fragment with the lowest

lead percentage might be modern. There also is a gilded fragment with 50.9% lead. This composition in a gilded piece seems very peculiar.

Even worse are the tin results, with a range of 3.6% to 36.3%! It has to be noted that the lead and tin results determined for the black-inlaid *Corinthium aes paludamentum* (inventory number 1696) were not taken into consideration in the evaluation of the results because this is a special and very specific kind of alloy. In Roman times, tin content only very seldomly and in special cases of small decorative objects reaches 12%–13%. The only Roman objects known to be made of alloys with a high tin content (up to around 20%–25%) are mirrors, because mirrors had to have a hard surface that could be polished and a light color. However, in this group of 16 analyzed statuary fragments, seven have tin contents between 15% and 30%, a composition that must immediately strike anybody working on ancient metals as simply impossible and clearly due to corrosion phenomena, such as the redeposition of leached-out tin on the surface of the items. Such high tin contents have never been encountered in Roman statuary (except in the case of corrosion), but in the discussion, the analysts do not even mention the all-important tin results. They simply ignore them. Not one single word is spent to comment on these anomalous data. The calculated analytical error for major elements is quoted as  $\pm 5\%$ . Even allowing for this kind of error, the data are still far too high to be considered reliable or perhaps even vaguely indicative, because the different measurements strongly fluctuate.

A specific example is the analysis of a right arm (inventory number 1752; pages 218–19). Four measurements were carried out on this piece, and the tin content determined by the various measurements oscillates between 21.7% and 36.3%. A difference of 15%! All these facts obviously demonstrate that the entire batch of analyses is useless.

Regrettably, the data are published, and archaeologists will be using and comparing them with other batches of analysis results, creating more and more confusion. This demonstrates once more how important it is to have more specialists with solid knowledge of and experience working on ancient materials of various types—metals, ceramics, glass, stone, pigments, and so on—in all branches of archaeometry. We need more specialists.

To conclude, Stefania Pafumi did a splendid job on the randomly collected pieces that previously belonged to the collections of the Benedictine monks and the Biscari princes of Catania. With a major effort, she managed to reconstruct provenances and histories of the very noticeable and highly interesting fragments of large statuary in the collections of the Museo Civico di Castello Ursino. She also carried out accurate and conscientious archival work and collected a huge amount of data on related facts and analogous pieces. The catalog is valuable and useful, provided with an excellent set of photographs. Her efforts deserved proper analytical work, but very regrettably, this did not happen. When you read the book, just ignore the analyses.

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