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**The Athena Medici Type:
An Interdisciplinary Study for a Lost Original Masterpiece
of the Classical Period**

MA Dissertation

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TABLE OF CONTENTS:

ILLUSTRATIONS	3
TABLES	5
PREFACE.....	6
INTRODUCTION	7
CHAPTER I: the Athena Medici Type copies.....	12
CLASS A: Colossal Heads of Acrolithic Statues	14
CLASS B: Colossal Heads found Acrolithic Limbs (Hands/Feet).....	26
CLASS C: Colossal Acrolithic Limbs (Right Leg)	34
CLASS D: Non-Acrolithic Colossal Statues of Athena Medici	36
CLASS E: Representation of Athena Medici in Statues and Statuettes	41
CLASS F: Representations of the Athena Medici Type on Reliefs	46
CLASS G: Representations of the Athena Medici Type on Coins	48
CHAPTER II: Technical Analysis.....	50
CHAPTER III: Iconographic and Stylistic Analysis	57
I. POSTURE.....	57
II. ATTIRE	57
III. HELMET	59
IV. AEGIS.....	60
V. SHIELD AND SPEAR.....	61
VI. HEAD	62
VII. HAIR.....	63
VIII. FACIAL FEATURES	63
CHAPTER IV: Dating, Identification, and Historical Context	66
BIBLIOGRAPHY	73
ILLUSTRATION SOURCES.....	85
FIGURES.....	89

ILLUSTRATIONS

- Fig. 1:** *Head of Athena Carpegna*, Rome, Museo Nazionale Romano, Inv. No. 55051
- Fig. 2:** *Head of “Athena Parthenos,”* London, The British Museum, Inv. No. 1805,0703.55
- Fig. 3:** *Head of Athena Medici*, Rome, Musei Vaticani, Magazzini, Inv. No. 4389
- Fig. 4:** *Head of Athena*, New York, The Metropolitan Museum, Inv. No. 2007.293
- Fig. 5:** *The Head of Athena*, Selçuk, Ephesos Archaeological Museum, Inv. No. 109/38/81
- Fig. 6:** *Head of Pnyx Athena*, Athens, National Archaeological Museum, Inv. No. 3718
- Fig. 7:** *Head of Athena*, Oberlin, Allen Memorial Art Museum, Inv. No. 1939.139
- Fig. 8:** *Leptis Magna Head*, Khoms, Leptis Magna Museum, Inv. No. unknown
- Fig. 9:** *Head of Athena*, Germany, Academic Art Museum, Bonn, Inv. No. 1801a
- Fig. 10:** *Head of Athena*, Germany, Academic Art Museum, Bonn, Inv. No. 1677
- Fig. 11:** *Head of Athena*, Thessaloniki, Archaeological Museum Inv. No. 877
- Fig. 12:** *Thessaloniki Statue Fragments: Leg*, Thessaloniki, Archaeological Museum Inv. No. 877
- Fig. 13:** *Thessaloniki Statue Fragments: Hand*, Thessaloniki, Archaeological Museum Inv. No. 877
- Fig. 14:** *Head of “Athena Promachos,”* Rome, Musei Vaticani, Chiaramonti, Inv. No. 1434
- Fig. 15:** *Colossal Feet of “Athena Promachos,”* Rome, Musei Vaticani, Magazzini, Inv. No. 4714, marble, 2nd century AD
- Fig. 16:** *Head of Athena*, Vienna, Antikensammlung, Kunsthistorisches Museum, Inv. No. I 168
- Fig. 17:** *Colossal Feet of Athena (left and right)*, Vienna, Antikensammlung, Kunsthistorisches Museum Inv. No. 67 and 75
- Fig. 18:** *The Colossal Right Leg*, Shahhat, Cyrene Museum, Inv. No. 14.176
- Fig. 19:** *The Colossal Right Leg*, Ariccia, Palazzo Chigi, Inv. No. 19
- Fig. 20:** *Athena Medici (Ingres Minerva)*, Paris, Musée du Louvre, Inv. No. MA 3070
- Fig. 21a-b:** *Athena-Medici Reconstructions: Sogeannte’ Athena Medici Reconstruction* Germany, Akademisches Kunstmuseum Bonn (left); *Athena Medici*, Denmark, Statens Museum for Kunst, Inv. No. KAS1505 (right)

Fig. 22: *Statue of Pallas II (Pacifera)*, Seville, Casa de Pilatos, Inv. No. 839

Fig. 23: *Statue of Pallas I*, Seville, Casa de Pilatos, Inv. No. 840

Fig. 24: *Statuette Torso of Athena*, Antikensammlung Berlin, Staatliche Museen, Inv. No. SK 1760

Fig. 25: *Statue of Athena from Delos (Delian Athena)*, Athens, National Archaeological Museum, Inv. No 1622

Fig. 26: *Statuette of Athena from Elis*, Athens, National Archaeological Museum, Inv. No 3000

Fig. 27: *Torso of Athena Medici*, De Ganay Collection, Paris, Inv. No. unknown

Fig. 28: *Statuette Torso of Athena*, Athens, National Archaeological Museum, Inv. No. 3466

Fig. 29: *Statuette of Athena*, Rome, Kircherianum Museum, Inv. No. 6252

Fig. 30: Votive Relief Fragment, Athens, Acropolis Museum, Inv. No. 2426

Fig. 31: Ambelokipi Votive Relief (unknown provenance, date, material, and Inv. No.)

Fig. 32: Athenian Bronze Coin, 2nd century AD, Plate 18, figs. 257a

Fig. 33: Athenian Bronze Coins, 3rd century AD, Plate 20, figs. 317-319, 321-322, 331

Fig. 34: Athenian Bronze Coins, 3rd century AD, Plate 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

Figs. 35, 36: Reconstruction technique by G. Kiagias

Figs. 37, 38: Reconstruction of helmeted head

Figs. 39-43: Proportions of the Athena Medici Face founded on B.1

Fig. 44: Timeline of 5th century events

Fig. 45: Map of Greece 5th century

Fig. 46: Azimuth Angle between Plataea and Marathon (10^0)

TABLES

Table 1.1 Proportions of the Athena Medici Right Leg.....	55
Table 1.2 Proportions of the Athena Medici Body	55
Table 1.3 Proportions of the Athena Medici Face	63

PREFACE

The colossal marble statue of the Athena Medici in the Louvre is generally regarded as a Roman copy (1st century AD) of a classical Greek original (5th century BC), attributed to Pheidias (tentatively identified with Athena Parthenos, Promachos, Lemnia, Areia) or, alternatively, to a student of his (Kolotis, Alcamenes, Agorakritos). Two more colossal marble statues of the Medici type have been identified (Sevilla I, II) as well as a large number of colossal copies (18+) that preserve only certain acrolithic body parts (heads, forearms and hands, feet, right leg), which were separately made of marble and bear traces of joints for attachment to a wooden core (wedge-shaped channels, dowel sockets, contact surfaces, red paint). The Athena Medici type is also attested in small statuettes, as well as on several reliefs and coins. The extant corpus of copies suggests that the original must have been a famous masterpiece in antiquity, possibly a colossal acrolith made by a renowned sculptor and/or perhaps connected with an important historical event.

In this thesis, I first thoroughly study all the copies of the Athena Medici type, catalogued and classified into distinct categories (Classes A-G), each entry labelled with an accession number, accompanied by relevant archaeological and historical information, and provided with full technical, stylistic, and iconographic description. Subsequently, I comparatively examine technical details (type, shape, size/dimensions, and placement of wedge-shaped channels, dowel sockets, drill holes, contact surfaces, color traces) and construction techniques of all colossal acrolithic copies. Then, I proceed to an in-depth analysis of the iconography, pose, and style of the Athena Medici based on a comparative study of all surviving copies. Finally, after assessing the attributions and dates proposed by other scholars, I attempt to date and identify the prototype of the Athena Medici type on the basis of five key parameters and in correlation with contextual and historical evidence, which may allow an understanding of the prototype in its original historical and cultural context.

INTRODUCTION

The practice of visually and scientifically examining statues, comparing their copies, cross-referencing them with ancient literary sources, and identifying them with an original prototype allows us to experience sculpture in an alternative manner, as we contextualize them in their historical and cultural setting, understand their significance, and unfold their influential quality throughout antiquity. Recognizing numerous copies of an unknown prototype presents scholars with intriguing possibilities and great challenges. When faced with such circumstances, scholars must transcend boundaries and follow an interdisciplinary approach by applying methodologies of different disciplines, such as archaeology, art history, classical philology, and science in an attempt to identify the elusive original prototype.

The Athena Medici is a free-standing, colossal sculpture of Athena in full armor, standing frontally in reverse contrapposto, wearing a multi-layered attire (chiton, peplos, himation, aegis), most probably holding a shield with her left arm and a spear with her right hand. The characteristics that distinguish the Athena Medici from other iconographic types of Athena, is the combination of a slight turn of her head to the right and the reverse contrapposto. The original prototype of the Athena Medici has been associated with various Classical sculptures of the 5th century BC that have been attributed to Pheidias, his workshop, or his students. Lange's attribution of the Athena Medici original to Pheidias¹ was widely accepted and further supported by Furtwängler,² Amelung,³ Schrader,⁴ Pelekidis,⁵ and Theofanidis,⁶ each of whom attempted to connect the Athena Medici to a particular Pheidian masterpiece by comparing diagnostic stylistic elements shared by Pheidian sculptures (facial features and proportions, fold typology, placement, and treatment). Thus, the Athena Medici has been directly associated with original works of Pheidias, such as the Athena Parthenos,⁷ Athena Promachos,⁸ Athena Lemnia,⁹ Athena Areia,¹⁰ and Athena of the East Pediment of the Parthenon.¹¹ These theories, though varied as to the identification of the particular original masterpiece, agreed nevertheless on the attribution of the Athena Medici prototype to the master hand of Pheidias.

¹ Lange 1881, 197

² Furtwängler 1896, 19

³ Amelung 1908, 196

⁴ Schrader 1924, 76-77

⁵ Pelekidis 1927, 122

⁶ Theofanidis 1930-1931, 171

⁷ Langlotz 1972/1974; Richter 1950, 106; Berger 1965, 86; Harrison 1996, 57

⁸ Furtwängler 1893, 50; Furtwängler 1906, 330

⁹ Amelung 1908

¹⁰ Despinis 1975, 52; Thiersch 1938, 211-257; Höcker and Schneider 1993, 39-50, 51-57

¹¹ Furtwängler 1896, 21

Amelung¹² suggested a direct correlation between the Athena Medici and Athena Lemnia, which was also supported by Harrison¹³ and Neils;¹⁴ this theory, however, was repudiated by De Ridder,¹⁵ Noack,¹⁶ Sauer,¹⁷ and Schrader¹⁸ which forced Amelung to eventually abandon his theory. Furtwängler, on the other hand, suggested that the Athena Medici was similar to the Athena of the East Pediment of the Parthenon;¹⁹ he later abandoned his theory and proposed that the prototype of the Athena Medici was Athena Promachos.²⁰ This theory was supported by some scholars, such as Sybel,²¹ Lange,²² Hadaczek,²³ Schrader,²⁴ and Lippold.²⁵ One of the arguments for this identification was that the Athena Medici type must have been an important statue directly connected to the city of Athens, since it appeared on Athenian coins of the Roman Imperial period. According to the prevailing view at the time, however, there seems to have been only two formal versions of Athena depicted on Athenian coins, namely the Promachos and the Parthenos; therefore, unless there existed a third, unknown type of Athena on Athenian coins, by elimination the Athena Medici type must have been a version of the Athena Promachos (a rather circular argument).²⁶ The odd direction of the Athena Medici head to the right was explained away by assuming that Athena Promachos was positioned in front of the Parthenon and, therefore, her head was directed to the Propylaea.²⁷ The discovery of the base for the Athena Promachos, however, behind the Old Temple of Athena and in frontal alignment with the Propylaea negated this assertion.²⁸ Another argument to connect the two sculptures was based on their shared ‘warlike’ character, which, however, overlooked the more complex iconography of the Athena Medici type that conveys a dual character, that of a ‘warlike’ dedication and of a cult statue. Furthermore, the Athena Medici copies always stand in reverse contrapposto, they are stylistically different with more advanced fold treatment than the Severe-style

¹² Amelung 1908, 200-208

¹³ Harrison 1988, 101-107

¹⁴ Neils 1992, 185, no. 59

¹⁵ De Ridder 1909

¹⁶ Noack 1909, 632

¹⁷ Sauer 1910, 620

¹⁸ Schrader 1911, 38

¹⁹ Furtwängler 1896, 21

²⁰ Furtwängler 1906, 330

²¹ Sybel 1880, 103

²² Lange 1881, 197

²³ Hadaczek 1913, 23

²⁴ Schrader 1911, 80

²⁵ Lippold 1950, 155

²⁶ Langlotz 1947, 69-70

²⁷ Lange 1881, 197; Furtwängler 1895

²⁸ Raubitschek and Stevens 1946, 114

Promachos, and the vast majority of its colossal copies are acroliths; the cumulative effect of these diagnostic traits refutes the proposed identification with the bronze Athena Promachos. Thiersch, followed by Lippold, argued for the identification of the Athena Medici with the acrolithic statue of Athena Areia at Plataia on the basis of sculptor, style, and technique.²⁹ However, there is no surviving iconography of Athena Areia outside of brief descriptions in ancient literary sources (Plutarch *Ar.* 20; Pausanias IX.4.1-2). According to Davidson,³⁰ the parameters of scale and tentative date of Athena Areia, as described by Pausanias, do not match those of the Athena Medici type, while the location of Athena Areia outside of Athens would not make it suitable or appropriate to be depicted on Athenian coins.

Furtwängler³¹ and other scholars have tethered Athena Medici to the Athena of the East Pediment of the Parthenon based on the Acropolis Votive Relief (F.1, fig. 30), where Athena (similar to the Medici type) is shown standing next to an olive tree, alluding perhaps to the natural setting of the Athenian Acropolis and the quarrel scene between Athena and Poseidon in the East Pediment of the Parthenon. The narrative association with the Parthenon would satisfy the requirement of suitability of the proposed original to be rendered on Athenian coins and would also point to Pheidias or his workshop. Reliefs, however, have low validity and credibility for reconstructing and identifying a prototype carved in the round due to their reduced scale and inherent difficulties in transferring a three-dimensional sculpture to a two-dimensional plane, which often compels the sculptors to enliven the relief by arbitrarily applying extra details or providing a narrative context or natural setting.

Some scholars also agreed with a 5th century dating for the lost original of the Athena Medici type on stylistic grounds, but attributed it to sculptors' other than Pheidias. Frickenhaus³² argued that the stylistic and iconographic elements of the Athena Medici are Pheidian, but not necessarily made by Pheidias himself, and identified the Athena Medici with the chryselephantine statue of Athena on the acropolis of Elis, believed to have been made by Pheidias according to Pausanias (VI.26.3) or, possibly, by Kolotes from Elis, a student of Pheidias (a view supported by Frickenhaus, Despinis,³³ and Karanastassis³⁴). Frickenhaus argued for a late date for the Athena Medici in the last third of the 5th century BC, when Kolotes was active, which means, however, that the Athena Medici would have to

²⁹ Thiersch 1938, 211; Lippold 1950, 142

³⁰ Davidson 2009, 465

³¹ Furtwängler 1896, 21

³² Frickenhaus 1913, 354; Lippold 1950, 189, fn. 5

³³ Despinis 1975, 25-26

³⁴ Karanastassis 1987, 339-340

postdate the Athena Parthenos by Pheidias.³⁵ In addition to the problematic, late dating of the Athena Medici, the lack of any direct connection of the sculptor (of non-Athenian descent) or the location of the statue of Athena at Elis with the city of Athens does not justify the large number of copies found in Athens and the iconography of the Athena Medici type on Athenian coins.³⁶ Furthermore, the fact that the vast majority of the Athena Medici colossal copies were made in the acrolithic technique reduces the probability for a chryselephantine statue as prototype for the Athena Medici. Finally, none of the numerous Athena Medici copies preserves a characteristic detail of the decoration of the statue of Athena at Elis, as described by Pausanias (VI.26.3), namely the image of a rooster on her helmet, a bird being always very ready to fight to symbolize the ‘warlike’ nature of the deity (which, however, could be construed as an argument from silence).

Some scholars suggested that the prototype of the Athena Medici was likely made by a student of Pheidias: Svoronos argued for Alcamenes,³⁷ whereas Hermann opted for Agorakritos,³⁸ a view also supported by Noack,³⁹ Lechat,⁴⁰ Bulle,⁴¹ and Langlotz.⁴² Winter⁴³ and Schrader,⁴⁴ on the other hand, attributed the original sculpture to the school of Pheidias *contra* Schreiber,⁴⁵ Puchstein,⁴⁶ and Michaelis⁴⁷ who challenged the attribution of the lost original to either Pheidias or his school. Ridgway, on the other hand, characterizes the plethoric fold treatment of the Athena Medici as mannerism that could have developed in the Roman Imperial era, being very skeptical as to whether the Athena Medici was a Greek type or a Roman invention based on a composite style, and thus contesting the belief in a lost original.⁴⁸

In conclusion, it appears that most scholars strive to identify a particular prototype, often working by elimination, and then tether it to a very elastic and arbitrary set of select parameters that satisfy only part of the evidence. As a result, many of the proposed theories involve circular argumentation, arbitrary conclusions, and even manipulation of the evidence

³⁵ Despinis 1975, 26

³⁶ Becatti 1951, pl. 86, no. 266; Kroll 1993, pl. 18 18, figs. 257a; pl. 20, figs. 317-319, 321-322, 331; pl. 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

³⁷ Svoronos 1912, 323

³⁸ Hermann 1899, 170

³⁹ Noack 1909, 637

⁴⁰ Lechat 1900, 390

⁴¹ Bulle 1922, 683

⁴² Langlotz 1960, 172

⁴³ Winter 1927, 118

⁴⁴ Schrader 1911, 39

⁴⁵ Schreiber 1883, 635

⁴⁶ Puchstein 1890, 90

⁴⁷ Michaelis 1871, 86-87

⁴⁸ Ridgway 1981, 169-171

in an attempt to adapt iconographic and stylistic details to the proposed prototype. I propose to work reversely, that is, firstly to study and classify the extant corpus of the Athena Medici copies, then formulate a standard set of identification parameters that comprise size, construction technique, style, iconography, chronology, function/character of the statue, historical and topological context, and, finally, engage an interdisciplinary endeavor to identify an original prototype that would satisfy *all* the preset parameters, while taking into consideration relevant contextual and historical evidence towards a deeper understanding of the prototype in its original historical and cultural context. My education and studio training in the fine arts has privileged me with first-hand experience in working with marble, wood and other sculpting materials and tools, which allows me to appreciate the actions and reactions of material, as well as understand issues of design and construction. Furthermore, my education and training in both theoretical and field archaeology has taught me that the environmental, cultural, and historical contexts are just as significant as the physical presence of the object. Given the absence of direct evidence that would categorically associate the Athena Medici type with a particular prototype, it is the cumulative effect of strong circumstantial evidence produced from a holistic approach that may finally identify the elusive original.

CHAPTER I: CATALOGUE OF COPIES

The Louvre torso (D.1, fig. 20) was a sculpture that provoked archaeologists and art historians to question its prototype, leading them to identify a new type of Athena both stylistically and iconographically. As scholars could not connect this new type with certainty to a specific lost original preserved in the ancient literary texts, the Louvre torso and, by extension, the type it represented was named Athena ‘Medici’ after its collection. The discovery and extensive study of the Thessaloniki fragments (bust, hand, leg) (B.1, figs. 11-13) established important iconographic elements and technical details of construction that could be attributed back to the lost original. The comparative study with similar replicas confirmed that the head of the deity was directed to the right, and proposed that the prototype may have been acrolithic in technique, colossal in scale, and, possibly, an original of the Classical period.

The copies of the Athena Medici type do not all have the same credibility for the reconstruction and identification of the original, as they differ significantly in material, scale, chronology, technique, and rendering. The catalogue of copies does not begin with the name piece, the Louvre torso, as one might have expected, but instead with the colossal acrolithic copies, as they form the majority of the extant copies, thus standing probably closer to the original prototype. It is the correlation of these acrolithic pieces with the Louvre torso and the other full-bodied copies that will allow us to see the Athena Medici type in its entirety.

In the following catalogue, the Athena Medici copies are classified into seven different categories (Class A-G). Class A comprises colossal acrolithic heads or busts of Athena made of marble, whose scale facilitated a more precise and faithful rendering of the character, stylistic features, and technical details of the original. On account of their quality and quantity, these acrolithic heads serve as a fixed base of reference for the study and reconstruction of the original. The copies of Class B preserve sets of colossal acrolithic parts, including marble busts and limbs, such as hands, feet, or an entire right leg of the statue (as in the case of B1). Their scale, form, and technical elements befit methods of wooden construction, thus directly associating them with acrolithic statuary. Class C includes colossal acrolithic fragments of the entire right leg that resemble stylistically and technically those of the previous class. Class D comprises non-acrolithic colossal statues of Athena Medici that reveal important details of style, iconography, and proportions. These copies were constructed from a single marble block with certain members (head or arms) separately made and attached, thus allowing us to see the Athena Medici type in its entirety. Class E includes

small-scale statues or statuettes of the Athena Medici type. These sculptures are of reduced size and were often constructed from memory; therefore, they are much less dependable, being less faithful to the original, as they convey only a general impression of the prototype and cannot possibly reproduce the original detail, proportions, rhythm, and aesthetics of their colossal prototype. Class F comprises of representations of the Athena Medici type on votive reliefs. These copies are much less dependable due to restrictions of size and perspective, as they transfer the image of a three-dimensional colossal sculpture to a small-scale two-dimensional representation; they are also much more liberal in their approach, as they add more iconographical details (attributes, trees, animals) to frame the central image or distort the statue with variations to make it more 'alive.' Lastly, Class G contains representations of the Athena Medici type on 2nd and 3rd century AD Imperial Athenian coins. The coins may not be reliable for studying the Athena Medici as a type, due to lack of detail and liberal inclusion of narrative context influenced by votive reliefs, but they are pivotal for establishing a potential historical and topological association of the original sculpture with the city of Athens, since the Athena Medici type is depicted on the reverse of Athenian coins.

The great number of replicas of the Athena Medici type (28+) discovered by excavation or identified in private collections suggests that the prototype must have been an important and well-known Greek original, since it was copied extensively and in many different media in late antiquity.⁴⁹

⁴⁹ For a discussion on Roman copies of Greek originals, cf. Ridgway 1984; Katakis 2019

CLASS A: COLOSSAL HEADS OF ACROLITHIC STATUES

A.1: *Head of Athena Carpegna, Rome, Museo Nazionale Romano, Inv. No. 55051, Parian marble, 1st BC – 2nd century AD*⁵⁰

The Head of Athena Carpegna (fig. 1) is a female bust of colossal size made of Parian marble (maximum preserved height: 44cm). The bust is composed of a partially preserved helmeted head and the neck. The sculpture was discovered in the Villa Carpegna on the Via Aurelia, and was originally in the private Carpegna collection of Attilio Simonetti in 1717, until it was acquired by the National Museum in Rome in 1910.⁵¹

The current state of preservation of the bust is incomplete: the large, separately made, upper part of the helmeted head is missing and various facial features have suffered fractures or breakage. The loss of these parts and features, however, has revealed traces of the original construction process. On the anterior, the eyes and nose are the dominant features. The eyes are hollowed, once inlaid with semi-precious stones. The nose suffered a clean break at the tip and was once restored, as attested by a barely visible, now filled, repair dowel hole. The earlobes of both ears are chipped off. Repairs in plaster concealed breakage in the areas of nose and eyebrows, restoring these features as close to their original state as possible. On both the left and the right temple of the face there is a series of horizontally aligned drill holes for the attachment of separately made hair strands. The barely surviving rim of the helmet's brow-band has substantial thickness to host another series of vertically drilled holes, most likely for the attachment of centrally parted hair strands. Above the rim of the brow-band, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards. This top contact surface preserves a wedge-shaped channel (27cm long, 6cm deep) cut diagonally through its center with a dowel socket (8cm deep, 3cm in diameter) drilled at midpoint in the channel for the attachment of the missing helmeted part of the head. The wedge-shaped channel is wider and deeper at its entrance (lower end), and becomes progressively narrower and shallower towards its upper end. The channel's side walls were cut at an angle so that the bottom of the channel is wider (4cm) than its rim (3cm) (dovetail profile). The area around the channel was smoothed, possibly erasing the original stippling to roughen the contact surface for the adjoining piece. On the posterior, below the slanted contact surface emerges the neck-guard of the helmet with Athena's thick, wavy hair strands escaping from underneath. The hair strands on the right side of her neck are broken

⁵⁰Amelung 1908, 169-211, figs. 58-61; Pelekidis 1927, 129; Paribeni 1953, 58, no.101; Helbig 1969, no. 2263; Despini 1975, 27, pl. 16.1; Giuliano 1979, 220- 222, no. 138; Linfert 1982, 76, no. 6; Canciani 1984, 1074-1109, no. 60; Helbig 1891, no. 1867; Lundgreen 1997, 23, no 11, pl. 8.3-4, 9.1

⁵¹Davidson 2009, 475, no. 11; Fortes 2003, 75-80

off, revealing a hidden dowel socket for their attachment. Though lacking the standard conical base, the rounded underside of the Carpegna Head was roughened with a point chisel and equipped with two dowel sockets, one rectangular and one circular in cross-section, for fastening the bust into a wooden core. The colossal size of the bust and the technical elements of its construction associate the Carpegna Head with an acrolithic statue.

Stylistically and iconographically, the Head of Athena Carpegna conforms to the standards of the Athena Medici type replicas: the face has an oval configuration with rounded cheeks and a heavy chin, while the head turns slightly to the right, making her glance appear off-center. The eyebrows are rendered as sharp, arched ridges that agree in shape and length with the structure of the hollowed eyes, which are outlined by thick upper and lower eyelids. The lips are bow-shaped and slightly parted, creating a soft crease at the corners of the mouth. It is not possible to ascertain whether the ears were pierced like the other Medici type replicas, as the earlobes of both ears are chipped off. The surface of Athena's neck forms a low relief of three faint lines in low relief known as "Venus Rings," a symbol of status, wealth, and youthful health. Finally, Athena was wearing an Attic helmet, to infer from the shape of the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

A.2: Head of "Athena Parthenos," London, The British Museum, Inv. No. 1805,0703.55, Parian marble, 1st century AD⁵²

The Head of "Athena Parthenos" (fig. 2) is a colossal female bust, composed of a helmeted head and neck, and made of Parian marble (maximum preserved height: 65cm). The sculpture was discovered in Hadrian's Villa. It was initially owned by Marchese Massimi in Rome in the 18th century and, subsequently, was hosted in three different collections (Gavin Hamilton, Charles Townley, Chambers Jenkins) with its old inventory number (no.1572) in 1787-1789.⁵³ In 1805 the sculpture was acquired by the British Museum acquisition in 1805 from the last collector, Chambers (I.D. Jenkins), whose sketches of the sculpture provide a visual account for the head's condition before and after its purchase and restoration.⁵⁴

The present state of preservation of the bust is incomplete. The 18th century restoration of the helmeted head, influenced from a silver coin of Athena, has been removed, while the restorations applied to the tip of the nose, right ear, neck-guard, and chest of the

⁵²Amelung 1908, 177, figs. 65-67; Chamoux 1944-1945, 216-217, no. 9; Paribeni 1953, no. 5, no. 101; Linfert 1982, 76, no. 7; Lundgreen 1997, 23, no. 10; Häger-Weigel 1997, 221, no. 19, pl. 46-47

⁵³Smith A.H. 1904, 27, no. 1572

⁵⁴Pryce 1928; Davidson 2009, 475, no. 10

bust were retained. The top contact surface of the helmeted head was cleaned, reworked with cotton wool swabs moistened with distilled water, smoothed, and the original dowel sockets in the center of the contact surface were filled with different colored material. These restorations removed crucial information from the slanted contact surface, leaving only faint traces of original tool marks, and thus impair full understanding of technical details of construction. The areas with visible dowel holes are the head, brow-band of the helmet, neck-guard, and the base of the bust. Above the barely preserved brow-band of the helmet, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards and bears a series of three aligned dowel sockets for the attachment of the missing helmeted part of the head. The underside of the thick rim of the helmet's brow-band bears a series of oblong holes, drilled vertically, which correspond to two larger drill holes on either temple of the face; this system of attachment holes probably served to fasten the separately made hair strands emerging from under the helmet in the area of the temples. On the posterior, the wavy hair strands escaping from under the neck-guard are cut at the base of the neck and bear traces of at least two dowel sockets, suggesting that the rest of her hair was separately made and fastened in the back. Only the left earlobe is pierced with a suspension hole for a metallic earring. The eyes are hollowed, once inlaid with semi-precious stones. The underside of the base bears traces of a dowel socket for fastening the bust into a wooden core.

Stylistically and iconographically, the Head of Athena conforms to the diagnostic standards of the Athena Medici type. The face has an oval configuration with full cheeks, a rounded chin, and slightly parted, bowed lips. The hollowed eyes are outlined with thick upper and lower eyelids, and the eyebrows are sharply defined through two arched lines that parallel the eyes. The surface of the neck bears two faint horizontal lines that represent the "Venus Rings." The head turns slightly to the right, as one can deduce from the off-axis placement of the hair on the rear and the deviation of the vertical nasal axis from the central axis of the neck. Athena wears an Attic helmet, as identified by the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

A.3: *Head of Athena Medici*, Rome, Musei Vaticani, Magazzini, Inv. No. 4389, Italic white marble, 1st century AD⁵⁵

The Head of Athena Medici (fig. 3) is a colossal female bust composed of a helmeted head and neck, and made of Italic white marble (maximum preserved height: 35cm). The provenance of the sculpture is unknown. It has featured in the Sculture del Magazzino del Museo Vaticano since 1937 and is currently located in the Vatican Magazine Museum in Rome.⁵⁶

The present state of preservation of the Head of Athena Medici is incomplete with heavy damage on the nose and upper lip, fractures and dents on the helmet and breakages on the vertical rim of the helmet's neck-guard. The clean breakage of the nose revealed a dowel socket and traces of ancient repair. Both the left and right earlobes are pierced with suspension holes for metallic earrings. On the lateral surfaces of the helmet, above the visor, there is a series of three circular drill holes on the right side and one square-shaped dowel socket on the left side. Some of these holes may have served as dowel sockets for the attachment of the missing hinged cheek-guards (*παραγναθίδες*) that protected the face during combat. A series of sparse drill holes on the hair strands that emerge from the right side of the helmet may have hosted additional supports for the separately made cheek-guard. On the crown of the helmet, the position of the missing central crest is defined by four aligned holes, with a second parallel row of two (repair?) dowel sockets preserved to the right. The underside of the bust is rounded, lacking the standard conical shape, and was roughened with a point chisel to create a contact surface for inserting the bust into a wooden core.

Stylistically and iconographically, the Head of Athena Medici presents all the diagnostic elements of the Athena Medici type. The facial structure has the standard oval shape with a heavy rounded chin, rounded cheeks, but more pronounced cheekbones (like the Head of Athena from Ephesos). The eyebrows are sculpted as sharp arches that parallel the eyes, which are delineated with thick upper and lower eyelids. Thick, wavy hair strands emerge from the sides of the helmet, with less definition as they are pulled back, and from underneath the neck-guard. The anterior of the neck has more pronounced muscle definition as cast shadows emphasize two faint horizontal lines that represent the "Venus Rings." The head turns slightly to the right, as one can deduce from the off-axis placement of the hair and neck-guard, and the deviation of the vertical nasal axis from the jugular notch at the base of

⁵⁵ Amelung 1925, 137-38, figs. 3.1-3.3; Chamoux 1944-1945, no. 11; Kaschnitz-Weiberg 1937, 27, no. 43, pl. 14; Linfert 1982, 76, no. 11, Lundgreen 1997, 25, no. 16, pl. 11.1-11.2; Wickert 1925, 137-138

⁵⁶ Davidson 2009, 478, no. 16

the neck. The helmet belongs to a later Attic variant equipped with a rimmed visor instead of the standard brow-band with a projecting central pointed tip: the lateral surfaces of the helmet curve and converge at a central sharp edge (arris) that forms an overfold above the forehead of Athena, creating a cast-shadow.

A.4: *Head of Athena*, New York, The Metropolitan Museum, Inv. No. 2007.293, marble, 2nd century AD⁵⁷

The Head of Athena in New York (fig. 4) is a colossal helmeted female head made of marble (maximum preserved height: 20cm). The provenance of the sculpture is unknown. The archives of the Metropolitan Museum preserve records of the private collections and collectors that hosted this sculpture: Paul Hartwig (1859-1919) possessed the Head of Athena in his private collection in Rome; by 1922 it appears in the private collection of Hamilton Easter Field in New York; in 1954 it was sold to Robert Laurent who included it in his private collection in Bloomington, Indiana; the Head of Athena found its way back to New York where it was passed down from Otto J. Brendel to his daughter, Cornelia Foss; in 2007 it was purchased by the Rogers Fund and, subsequently, it was acquired by the Metropolitan Museum in New York.⁵⁸

The current state of preservation of the head is incomplete and fragmentary: forehead, eyebrows, nose, and ears are heavily damaged. The eyes are hollowed, once inlaid with semi-precious stones. The surviving left earlobe is pierced with a suspension hole for a metallic earring. The adjoining upper and rear parts of the helmeted head are missing, thus exposing two bordering contact surfaces on the surviving part of the head. The top contact surface was cut at an angle, thus forming a slanted, backward-sloping, circular plane with a wedge-shaped channel cut vertically through its center for the attachment of the missing helmeted upper part of the head. The wedge-shaped channel is wider and deeper at its entrance (lower end), while progressively becoming narrower and shallower towards its upper end. The channel has a dovetail profile, with its side walls cut at an angle to make its bottom wider than the rim. The posterior of the head was cut to create another, rear contact surface to accommodate the attachment of the helmet's neck-guard. The rear contact surface, which borders the top one at a wide angle, is equipped with another identical wedge-shaped

⁵⁷Amelung 1908, 177; Amelung 1925, 137-138, pl. 9-10; Pelekidis 1927, 130-31; Aurenhammer 1985, p. 214, no. 2; Chamoux 1944-1945, 217, no. 12; Hanfmann 1954, no. 148, pl. 39; Despini 1975, 42, no. 3; Harrison 1988, 104, no. 20; Karanastassis 1987, 339, no. 63a; Lundgreen 1997, 24, no. 14, pl. 9.4; Picón 2008, 8; Zanker 2019, 54, no. 11

⁵⁸Metropolitan Museum 2008, no. 2007.293: *refer to museum catalogue link*; Davidson 2009, 477, no. 14

channel, cut through its vertical axis but reversely, namely with its wide entrance opening on the upper side. Thus, the rear channel is a direct continuation of the top channel as their entrances connect at a 120-degree angle, forming a reverse L-shape. Both contact surfaces are stippled with a point chisel. In addition, a small portion of the neck is visible between the mandible and the bottom of the neck-guard in profile view. The remaining part of the neck-guard that frames the neck, left, and right, has been chipped off.

Stylistically and iconographically, the Head of Athena in New York obeys the formulated standards of the Athena Medici type with a curved oval-shaped face, a rounded chin, and a slight turn of the head to the right, as one can deduce from the off-center axis of the head in rear view. The hollowed eyes are outlined by thick upper and lower eyelids. The lips are bowed and slightly parted, creating a light crease at the corners of the mouth. Most of the face is finely polished to enhance the youthfulness of the expression and to differentiate facial skin from the painted hair and helmet. Athena was adorned with earrings and was wearing an Attic helmet, to infer from the shape of the rimmed neck-guard in profile view and the brow-band with a projecting central pointed tip on the nasal axis.

A.5: *The Head of Athena, Selçuk, Ephesos Archaeological Museum, Inv. No. 109/38/81, Plaster Cast, 2nd century AD*⁵⁹

The Head of Athena from Ephesos (fig. 5) is a colossal helmeted female head made of marble (maximum preserved height: 53cm). The sculpture was found in 1981 embedded in the wall of a Byzantine building (N IV/C). The head is currently in the private collection of Luigi Cassoti in Italy, while a plaster cast of the original is kept in the Selçuk Museum.⁶⁰

The current state of preservation of the head is heavily damaged. The frontal, upper half of the face (forehead, eyebrows, left eye, eyelids, nose) is broken off, while the surface of the lips and chin is chipped. The head bears a (repair?) dowel socket on the right temple and pierced earlobes for the suspension of metallic earrings. In terms of construction, the Head of Athena from Ephesos shares many technical elements with the Head of Athena Carpegna. Above the barely preserved brow-band of the helmet, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards. This top contact surface preserves a wedge-shaped channel (21cm long, 8cm deep) cut diagonally through its center from edge to edge for the attachment of the missing helmeted part of the

⁵⁹Vetters 1982, 76, pl. 17; Aurenhammer 1985, 212-215, pl. XXV, 1-3; Karanastassis 1987, 339, no. 63; Lundgreen 1997, 23-24, no.12, pl. 10.1-10.3

⁶⁰Despinis 1975, fn. 5; Langlotz 1960, 164; Davidson 2009, 476, no. 12

head. The wedge-shaped channel is wider and deeper at its entrance (lower end), and becomes progressively narrower and shallower towards its upper end. The channel's side walls were cut at an angle so that the bottom of the channel is wider than its rim (dovetail profile). Libertini noticed traces of red pigment on the contact surface of the head (possibly minium or μίλτος); this indicates that the wedged key once inserted into the channel to fasten the adjoining parts of the head was actually made of wood and painted with minium to ensure waterproofing, minimize expansion or contraction of the "living" material, and protect against infestation and decay.

Stylistically and iconographically, the Head of Athena from Ephesos conforms to the diagnostic standards of the Athena Medici type. The surviving features of the head provide enough information to compare and contrast the fragmented sculpture with other replicas of the Athena Medici type. The Head of Athena from Ephesos resembles the Head of Athena in New York with slight variations: the facial structure of the former is oval but narrower in width; as a result of this variation, the head has more prominent mandible and cheekbones, as opposed to the fuller face of the latter. The Head of Athena from Ephesos has a rounded chin, bowed lips that create a light crease at the corners of the mouth, thick lower and (most likely) upper eyelids delineating the hollowed eyes (once inlaid). The neck is preserved enough to reveal the detail of on one visible "Venus Ring" in the form of a single horizontal line just below the chin. The deity was wearing an Attic helmet, as indicated by its only preserved part, the rimmed neck-guard. Athena's head is geared to the right, as one can deduce from the fact that the neck, hair strands escaping from underneath the neck-guard, and the channel on the top contact surface of the head are all aligned slightly off center in rear view.

A.6: *Head of Pnyx Athena*, Athens, National Archaeological Museum, Inv. No. 3718, Pentelic marble, 2nd century AD ⁶¹

The Pnyx Athena (fig. 6) is a female bust of colossal size, composed of a helmeted head and neck, and made of Pentelic marble (maximum preserved height: 75cm). The sculpture was found near the hill of Pnyx in Athens and is currently located in the National Archaeological Museum of Athens, Greece. The bust is dated to the 2nd century AD, being

⁶¹ Becatti 1951, pl. 63.182; Karouzou 1968, 65, no.3718; Linfert 1982, 76, no. 12; Canciani 1984, 1074-1109, no. 144c; Karanastassis 1987, 413, no. BII 2, pl. 43; Theofanidis 1930-1931, 171-176, pl. 1-3; Lundgreen 1997, 22-23, no. 9

probably a Roman copy of the Antonine period, to infer from the point chisel marks on the unfinished surfaces of the head and the ivory-like fine polishing of the face.⁶²

The bust survives intact, except a small chip on the lower eyelid of the right eye. The sculpture was never completed, as indicated by certain coarse surfaces that remain half-worked: the posterior right side of the helmet, including the rear end of the central crest, the neck-guard, the hair strands escaping from underneath the neck-guard and from the sides of the helmet are all coarse in texture with dense chisel marks at an unfinished stage. This is further supported by the presence of two knobs on the brow-band of the helmet, evenly spaced and aligned with Athena's eyes; these knobs are fixed points of measurement applied by the sculptor (*campione*), who would have removed them, sanded down and polished that area upon completion of the sculpture. The helmet is crowned with a central crest (*λοφίον*) of considerable dimensions (3cm high, 4cm wide) that rises at a distance of 8cm from the upper edge of the brow-band (*στεφάνη*), arches gently following the hemispherical contour of the helmet (*επίκρανον*) and gradually tapers down as it reaches the rimmed neck-guard (*επανχένιον*) of the helmet. The underside of the bust forms a conical base that was roughened with a point chisel to create a contact surface for fastening the bust into a wooden core.

The detailed rendering of this colossal sculpture and the meticulous effort of the sculptor to faithfully copy features, take measurements, and retain the proportions of the original suggest that the Pnyx Athena may be a direct copy of the lost original, which would make this replica a conclusive image of the Athena Medici type. The head turns slightly to the right, affecting the off-axis placement of the hair, neck-guard, and anatomical definition of her neck. The deity has a full face with an oval contour and heavy rounded chin which circles down to the front of the neck. The upper part of the face is characterized by the sharply defined treatment of the eyebrow ridge: the double arches of the helmet's brow-band frame the eyes and meet at a sharp point right on the nasal axis, thus connecting to the bone structure of the nose. The eyes are delineated with thick upper and lower eyelids, and are filled, which suggests that they would have been painted in. In profile view, a visible pause in the nose-bridge breaks the linear outline from the forehead to the nose, emphasizing the narrowness of the bone structure. The end of the straight nose leads the spectator's eyes down to the bowed lips that create a slight crease in the corners of the mouth as they touch the edge of the cheeks. The surface of the neck preserves two faint horizontal lines that represent the

⁶² Kaltsas 2002, 111, no. 200; Davidson 2009, 474, no. 09

“Venus Rings.” The texture of the finely polished surfaces of the face and neck contrasts highly with the treatment of the helmet, thus further accentuating the deity’s fair skin. The deity wears an Attic helmet, as identified by the particular type of crest, the elongated rimmed neck-guard (9cm long), and the brow-band with a projecting central pointed tip on the nasal axis.

A.7: *Head of Athena*, Oberlin, Allen Memorial Art Museum, Inv. No. 1939.139, white Anatolian marble, mid-2nd century AD⁶³

The Head of Athena, known as the Oberlin Head (fig. 7), is a female bust composed of a helmeted head and neck, and made of white Anatolian marble (maximum preserved height: 29cm). The provenance of the sculpture remains unknown, but it is believed to have come from Thessaloniki, Greece. The bust was kept in the private collection of Edwards Capps Sr. (1866-1950) in Oberlin, Ohio, who gifted it to the Allen Memorial Art Museum in 1939.⁶⁴

The current state of preservation of the bust is incomplete and heavily damaged: the upper part of the helmeted head is missing, the neck and face (right side, both eyebrows, nose, lips, chin) have suffered extensive breakage, while certain surfaces (neck-guard of the helmet with hair strands escaping from underneath) were left partially unfinished. Above the brow-band of the helmet, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards for the attachment of the missing helmeted part of the head. The brow-band itself bears a horizontal series of evenly spaced attachment holes, drilled parallel to the brow-band, probably for fastening a separate component of the helmet (pediment or visor?). In profile view, the left side of the brow-band above the left ear preserves traces of a dowel socket, now filled, possibly for the attachment of a hinged cheek-guard. The eyelids are oxidized from the attached metallic eyelashes, while the eyes are filled with the iris, however, carved out to be inlaid with semi-precious stones.

Stylistically and iconographically, the Head of Athena follows most of the standard elements of the Athena Medici type. The face has an oval shape with heavy rounded chin, the neck bears two faint horizontal lines that represent the “Venus Rings,” and the head turns slightly to the right. The goddess wears an Attic helmet, as identified by the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

⁶³ Capps 1952, 77, figs. 1-8; Spencer 1967, 188; Despini 1975, 46, no. 51, 52; Linfert 1982, 76, no. 14; Karanastassis 1987, 415, BII 6, pl. 46; Neils 1992, 185, no. 59; Ridgway 1992, 141; Lundgreen 1997, 24, no. 13;

⁶⁴ Allen Memorial Art Museum 1939, no. 1939.139: *refer to museum web-link*; Davidson 2009, 477, no. 13

A.8: *Leptis Magna Head*, Khoms, Leptis Magna Museum, Inv. No. unknown, Pentelic marble, 2nd century AD⁶⁵

The Leptis Magna Head (fig. 8) is a colossal female bust, composed of a helmeted head and neck, and made of Pentelic marble. The sculpture was discovered in 1988 in the northwestern sector of the Roman settlement Leptis Magna, after which it was named, and is currently kept in the Leptis Magna Museum, Libya.⁶⁶

The present state of preservation of the bust is intact but damaged: the nose is broken off, the right eye and the lips suffered fractures and chippings, the right side of the face is worn (cheek and chin), the neck bears a dent, and parts of the helmet are broken off or fractured (crest, brow-band, neck-guard). As a result, these damages affect the clarity of facial features. The eyes are hollowed, once inlaid with semi-precious stones. Both earlobes are pierced with suspension holes for metallic earrings. Originally, the face must have been finely polished to contrast with the texture of other surfaces of the sculpture and thus to accentuate the fair skin of the goddess.

Stylistically and iconographically, the Head of Athena follows the diagnostic traits of the Athena Medici type. The face has an oval shape with heavy rounded chin, rounded cheeks, and bowed lips. The hollowed eyes, once inlaid, are outlined with thick upper and lower eyelids, and the eyebrows are sharply defined through two arched lines that parallel the eyes. The neck bears two faint horizontal lines that represent the “Venus Rings,” and the head turns slightly to the right. The goddess wears an Attic helmet, as identified by the central crest, the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

A.9: *Head of Athena*, Germany, Akademisches Kunstmuseum, Bonn, Inv. No. 1801b, plaster cast

The Head of Athena (fig. 9) is a colossal female bust composed of a helmeted head and neck, replicated in a plaster cast.⁶⁷ The provenance and location of the original sculpture is unknown, but its physical image is preserved in the form of two plaster casts located in the

⁶⁵ Musso 1992, 115-139; Lundgreen 1997, 29

⁶⁶ Bachielli, 1996, 115-138; Davidson 2009, 479, no. 17

⁶⁷ Langlotz, 1960, 164, pl. 46-48

University of Saarbrücken, Germany (Inv. No. 066)⁶⁸ and in Academic Art Museum of Bonn, Germany (Inv. No. 1801b).⁶⁹

The evidence embedded in the plaster cast suggests that the original sculpture was severely damaged. The helmet was held together by a total of three repair clamps, a hairline fracture is visible in the right profile stretching from the edge of the lips to the top of the neck-guard, and the nose was completely restored, slightly altering the nasal axis. The edges of neck-guard that framed the neck of the statue were slightly fractured on both sides. Directly above the brow-band there is a horizontal series of seven, evenly spaced, drill holes for fastening the helmet's pediment. On the crown of the helmet there is a barely visible ridge that rises at a distance of 8cm above the upper rim of the brow-band, running along the central axis of the helmet; this may be the remnant of the central crest, as it is flanked on either side by two dowel holes in horizontal alignment that accommodated, perhaps, lateral decorative elements of the helmet. On either side of the helmet, there is a square dowel socket aligned with the ear below for the attachment of the missing hinged cheek-guards. The underside of the base is flat with a circular rim to be fitted into a central core.

Stylistically and iconographically, the Head of Athena conforms to the standards of the Athena Medici type replicas. The head turns slightly to the right, making her glance appear off-center. The face has an oval configuration with rounded cheeks and a heavy chin, being framed by centrally parted, wavy hair strands emerging from under the brow-band. Similarly, long wavy hair strands escape from under the neck-guard and cover the neck. The eyes are filled, with the iris incised and the pupils pierced, while their shape is outlined by thick upper and lower eyelids. The eyebrows are rendered as sharp, arched ridges that parallel the shape and length of the eyes. The lips are bow-shaped and slightly parted, creating a soft crease at the corners of the mouth. The surface of the neck preserves two faint horizontal lines that represent the "Venus Rings." The goddess wears an Attic helmet, as can be deduced from the central crest, the rimmed neck-guard, and the brow-band with a projecting central pointed tip on the nasal axis.

A.10: *Head of Athena, Germany, Akademisches Kunstmuseum, Bonn, Inv. No. 1677, plaster cast*

The Head of Athena (fig. 10) is a colossal female bust composed of a helmeted head and neck, replicated in a plaster cast.⁷⁰ The provenance and location of the original sculpture

⁶⁸ Braun 1998

⁶⁹ Himmelmann 1981, 134, no. 1801b

is unknown, but its physical image is preserved in the form of a plaster cast displayed in the Academic Art Museum of Bonn, Germany (Inv. No. 1677).⁷¹

The evidence embedded in the plaster cast bust suggests that the original sculpture was severely damaged. The helmet was held together with a single repair clamp on the rear left surface. The base of the helmet bears a visible fracture, stretching from ear to ear, that separates it from the neck-guard. The left edge of the neck-guard was fractured and remained unrepaired. The central crest left a raised ridge on the central axis of the helmet, which was broken off and poorly reattached. The broken strap of the brow-band with a central pointed tip was mistakenly reattached with two drill holes below the centrally parted hair strands, thus separating it from the helmet itself. Directly above the brow-band there is a horizontal series of evenly spaced drill holes for fastening the helmet's pediment. On either side of the helmet, there is a square dowel socket aligned with the ear below for the attachment of the missing hinged cheek-guards. The underside of the base is flat with a circular rim to be fitted into a central core.⁷²

Stylistically and iconographically, the Head of Athena conforms to the standards of the Athena Medici type. The head turns slightly to the right, making her glance appear off-center. The face is broader with full cheeks and a heavy, rounded chin, being framed by centrally parted, wavy hair strands emerging from under the brow-band. Similarly, long wavy hair strands escape from under the neck-guard and cover the neck. The eyebrows are rendered as sharp, arched ridges that agree in shape and length with the structure of the hollowed eyes. The lips are bow-shaped and slightly parted, creating a soft crease at the corners of the mouth. The surface of the neck displays "Venus Rings" in the form of two faint horizontal lines. The goddess wears an Attic helmet, to infer from the central crest, the rimmed neck-guard, and the brow-band with a projecting central pointed tip on the nasal axis.

⁷⁰ Langlotz, 1960, 164, pl. 50

⁷¹ Himmelmann 1981, 134, no. 1801b

⁷² Himmelmann 1981, 123, no. 1677

CLASS B: COLOSSAL HEADS FOUND WITH ACROLITHIC LIMBS (HANDS/FEET)

B.1: Head of Athena, Right Leg, and Right Hand, Thessaloniki, Archaeological Museum Inv. No. 877, white coarse-grained marble, 2nd century AD⁷³

The Head of Athena (fig. 11) is a colossal female bust composed of a helmeted head, neck, and upper chest, made of white coarse marble (maximum preserved height: 75cm). The bust was found with other marble fragments of the same acrolithic statue (a right hand and a right leg) imbedded in the walls of Byzantine buildings of the late 4th or early 5th century AD in the northeast corner of the ancient agora of Thessaloniki. The sculpture is dated to the 2nd century AD, most probably in the era of Hadrian, on the basis of technique, style, and the very fine polishing of the luminous skin.⁷⁴

The acrolithic fragments of this sculpture preserve important technical details and traces of joining methods employed for acrolithic statues, while simultaneously providing evidence for stylistic comparison and examination of the iconography of the Athena Medici type. The current state of preservation of the bust is incomplete with damages: the nose is fractured, the upper lip is chipped off, the helmet suffered fractures, cracks, and dents, and certain parts of the head (hair strands) and of the helmet (central crest, cheek-guards, pediment) that were separately made and attached are missing.

On the front side of the helmet, directly above the brow-band and running parallel to it, there is a horizontal series of eleven small drill holes (0.7cm in diameter, 2cm deep) for fastening the pediment of the helmet. These attachment holes are evenly spaced at a distance of 2.5cm between each other and placed symmetrically, as the central hole is aligned with the nasal axis and the rest of the holes are ordained in groups of five on either side of the central hole. On the crown of the helmet, the central crest rises (maximum preserved height of 3cm) at a distance of 8cm above the upper rim of the brow-band, running along the central axis of the helmet, progressively narrowing (maximum width of 4cm), and ending at the joint of the neck-guard on the rear side of the helmet. The tail of the crest bears a small relief knob, probably a fixed point of measurement (“*campione*”) applied by the sculptor that was not erased upon completion of the sculpture. The crown of the helmet bears also a series of three dowel sockets, including a central one (4.5cm by 1cm) cut into the top surface of the crest at a distance of 15cm above the upper rim of the brow-band to fasten the separately made, tall,

⁷³ Chamoux 1944-1945, 206-239, no. 4; Pelekidis 1927, 121-144, pl. 1, figs. 1-7; Karanastassis 1987, 413-414, pl. 44; Despinis 1975, 11-16, pl. 1.8.1; Despinis 1997, 99-101, no. 72, figs. 158-165; Lundgreen 1997, 21, no. 6;

⁷⁴ Davidson 2009, 472, no. 06

upper part of the central crest. The central dowel socket is flanked on either side by two dowel holes that accommodated, perhaps, lateral decorative elements of the helmet. The left dowel socket (2.5cm by 2cm) and the right dowel socket (2.5cm by 2.5cm, 4.2cm in depth) are cut vertically into the crown of the helmet at a distance of 4.5cm and 6cm from the crest, respectively. On the lateral sides of the helmet, above either temple, there is a dowel socket (2cm in length, 1.5cm in width, 4cm in depth) cut obliquely in a downward direction for the attachment of the hinged cheek-guards. Frontally, a peripheral area of the face, including a narrow strip of the forehead just below the brow-band, expanding onto the temples, cheeks, and neck, and reaching just below the rounded edge of the rimmed neck-guard was stippled with a point chisel and drilled with unevenly disbursed, minute holes to create a rough, slightly raised contact surface for the attachment of separate hair-strands and cheek-guards. Likewise, the wavy hair strands that escape from under the neck-guard were cut abruptly short on the back of the neck, forming a bottom contact surface with traces of drill holes for the attachment of a separate extension of tied hair. The eyes are filled and preserve traces of brown pigment in the iris and on the outline of the eyelids, indicating that they were once painted. Both earlobes are pierced with a suspension hole for metallic earrings. The surfaces of the armor and the skin contrast drastically as the helmet had tool marks from the file used to even out the marble plane. The surfaces of the skin (face and neck) were extremely well polished, thus appearing luminous in striking contrast with the surfaces of the armor (helmet). The underside of the bust forms a conical base that was roughened with a point chisel to create a contact surface for fastening the bust into a wooden core.

Stylistically and iconographically, the bust conforms to the standards of the Athena Medici type. The head turns to the right, and the face has an oval shape with heavy cheeks and a rounded chin. Centrally parted wavy hair strands that emerged from under the brow-band of the helmet border the forehead, framing the face frontally and flanking it at the temples with two masses of hair strands. The sharp, arched eyebrows parallel the shape and length of the eyes, which are filled (once painted) and outlined by thick upper and lower eyelids. In profile view, a visible nose bridge creates a pause between the forehead and the straight nose, ending above the slightly parted, bowed lips. The front neck is rendered with “Venus Rings” in the form of three horizontal lines, while on the back the was covered by long, wavy hair strands that escape from under the neck-guard. The goddess was wearing an

Attic helmet, to infer from the central crest, the brow-band with a projecting central pointed tip on the nasal axis, and the early, elongated variant of rimmed neck-guard.⁷⁵

The colossal right leg (fig. 12) was separately made of a single piece of white coarse marble, rendering the entire leg from the pelvic bone to the metatarsal of the right foot (maximum preserved length: 1.75m; maximum width: 40cm) in relaxed position with bent knee, which agrees with the diagnostic, reverse contrapposto of the Athena Medici type. The leg corresponds in size, material, style, and workmanship with the other acrolithic fragments it was found with (bust and hand). The leg survived intact, revealing important technical details of joining methods employed for acrolithic statues. The colossal piece of sculpture is backed with a flat rear side and two roughly worked lateral sides. The rear side was smoothed out and flattened to create a contact surface, which bears three wedge-shaped channels and a dowel socket for fastening the marble piece onto a wooden core.⁷⁶ All three channels have the same form: they are wedge-shaped, being wider and deeper at their entrance, while becoming progressively narrower and shallower towards their other end, and have a dovetail profile, as their side walls were cut at an angle so that the bottom of the channel is wider than its rim. All three channels follow the same direction from the exterior to the inner core, with their entrance opening on the right edge of the rear side. The top channel was cut horizontally, whereas the other two channels were cut slightly diagonally, diverging from each other, to ensure that the marble piece would be ‘locked’ in place onto the wooden core upon inserting wooden wedged keys into the channels. The rear contact surface bears also a rectangular dowel socket (9cm in length, 6cm in width, 6.2-6.7cm in depth) at mid-height, centered between the top and middle channels; this large dowel socket was cut obliquely in a downward direction to hook the marble piece onto the wooden core, thus, securing it in place by using its own weight. The location of the dowel socket on the rear contact surface was precisely marked with two parallel, red guidelines. Traces of a similar, thick, red-pigmented colour were detected on the rear and lateral contact surfaces of the marble piece as well as

⁷⁵ These neck-guards were made separately and attached to the bronze helmet, see Loeschcke 1891, 5

⁷⁶ Channel dimensions on the rear side (from top to bottom), according to Despinis and Pelekidis: (top channel) length: 20cm; width of base (at the bottom entrance): 3.8cm; width of rim (at the bottom entrance): 3.5cm; depth of the bottom entrance: 2.7cm; width of the base (at the top end): 3.1cm; width of the rim (at the top end): 2.3cm; depth at the top end: 2.2cm; (middle channel) length: 23cm; width of base (at the bottom entrance): 3.8cm; width of rim (at the bottom entrance): 3cm; width of the base (at the top end): 2.8cm; width of the rim (at the top end): 2.4cm; depth at the top end: 2.3cm; (bottom channel) length: 24.5cm; width of base (at the bottom entrance): 4.7cm; width of rim (at the bottom entrance): 4.2cm; depth of the bottom entrance: 2.7cm, width of the base (at the top end): 2.8cm; width of the rim (at the top end): 2.5cm; depth at the top end: 2.2cm. Channel dimensions on the left lateral side, according to Despinis and Pelekidis: length: 14cm; width of base (at the bottom entrance): 3.1cm; width of rim (at the bottom entrance): 2.9cm; depth of the bottom entrance: 2.6cm; width of the base (at the top end): 2.4cm; width of the rim (at the top end): 2.2cm; depth at the top end: 2.2cm.

inside the wedge-shaped channels and on their rims. These traces are probably remains of minium ('red lead'), which was usually applied on wooden surfaces to ensure water resistance, control expansion and contraction of the 'living material,' and protect it from decay and insects. The presence of minium on these contact surfaces, therefore, suggests that the wedged keys, the adjoining parts of the marble piece, and the inner core upon which it was attached were all made of wood. Both lateral sides were roughened with a point chisel to create contact surfaces without anathyrosis, which suggests that the adjoining pieces were made of wood and merely glued on the lateral contact surfaces of the marble piece. The left lateral contact surface bears a single wedge-shaped channel cut horizontally on its upper part. This channel would serve to fasten a separate wooden piece carved with vertical folds of the peplos overfold (απόπτυγμα),⁷⁷ which was attached on a flattened, oblong contact surface on the upper left thigh of the leg. The leg is abruptly cut at the metatarsal of the right foot where it forms a smooth contact surface; the absence of a dowel socket suggests that the missing foot was not fastened, but simply glued to the marble leg. On the front, the right leg is covered by thin ridges and elegant U-folds of the chiton, a motion caused by the physical pulling of the projected knee, while thin, vertical folds frame the leg on the inner left side.

The colossal upper limb (fig. 13) was separately made of a single piece of white coarse marble, rendering the right hand in closed grasp and part of the forearm (maximum preserved length: 26cm, maximum preserved width: 15cm; diameter of contact surface: 11.5cm). The hand corresponds in size, material, style, and workmanship with the other acrolithic fragments it was found with (bust and leg). In fact, the length of the acrolithic hand matches exactly the distance from the edge of the mandible to the tip of the forehead of the bust, which was the ratio known as the Vitruvian Canon⁷⁸ that sculptors applied to create accurate and balanced proportion measurements. The right hand is damaged: all the fingers are either fractured or completely broken off, while only the middle finger, ring finger, and the lower portion of the thumb partially survive. The hand faces downwards in a closed plane as the fingers curl inwards; on the upper edge of the broken thumb remains the tip of the middle finger, confirming that the two were attached. The light falling through the curled hand falls diagonally, allowing the spectator to visualize that the open space most likely hosted a cylindrical object (the staff of a spear) held at an angle.

⁷⁷ As indicated by the folds that fall vertically over the upper left thigh of the relaxed leg on the Athena Medici torso in the Louvre.

⁷⁸ Vitruvius, 1914, 1.2

B.2: Head of “Athena Promachos,” Musei Vaticani, Chiaramonti, Inv. No. 1434; Right Foot of “Athena Promachos,” Musei Vaticani, Magazzini, Inv. No. 4714; Hand of “Athena Promachos,” Musei Vaticani (now lost), marble, Rome, 2nd century AD⁷⁹

The Head of “Athena Promachos” (fig. 14) is a colossal female bust composed of a helmeted head, neck, and upper chest, and made of coarse white marble (height of restored bust: 1.05m). The bust was uncovered by archaeologist Robert Fagan (1761-1816) in ancient Laurentum (modern-day Torre Paterno), along with a right foot and a hand that were identified as belonging to the same acrolithic statue by Amelung on the basis of size, material, style, and workmanship.⁸⁰ The sculpture is dated to the 2nd century AD, being probably a Roman copy made in the reign of Hadrian. Currently, the bust and right foot are located in the Museo Chiaramonti of the Vatican Museum in Italy (the hand was recorded as lost during transportation in the storage areas of the museum).⁸¹

The original state of preservation of the bust was incomplete at the time of acquisition by the Vatican. During the process of extensive restoration on the helmet, face, and drapery, several observations were recorded about visible traces and technical details of construction. Above the rim of the brow-band, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards. This top contact surface was reported to have preserved a wedge-shaped channel cut diagonally through its center for the attachment of the missing helmeted part of the head, similar to that of the Athena heads of A.1, A.4, and A.5. The wedge-shaped channel was described as wider and deeper at its entrance (lower end), becoming progressively narrower and shallower towards its upper end. The channel’s side walls were cut at an angle so that the bottom of the channel is wider than its rim (dovetail profile). No measurements were recorded at the time and during the restoration this channel was filled with additive material. The eyelids were found oxidized with green patina from the added copper eyelashes. Inside the hollowed eyes were found remains from inlaid material (minute ivory fragments and chips of semi-precious stone). Both earlobes are pierced with suspension holes for metallic earrings. The underside of the bust has a conical shape and was roughened with a point chisel to create a contact surface for fitting it into a wooden core.

⁷⁹ Amelung 1903, 445-447, no. 197, pl. 46; Amelung 1908, 173; Amelung 1925, 137-138; Pelekidis 1927, 130; Kaschnitz-Weinberg 1937, 161, no. 347, pl. 67; Andraea 1994-1995, no. A197; Chamoux 1944-1945, 206-239, no. 7; Despina 1975, 23, 28; Linfert 1982, 76, no. 9; Lundgreen 1997, 21-22, no. 7; Neudecker 1988, no. 69.5;

⁸⁰ Amelung 1925, 138

⁸¹ Davidson 2009, 473, no. 07

The extensive restorations have obscured the original features of the sculpture, which appear heavier than the norm and more stylized in comparison to other replicas.⁸² Stylistically and iconographically, however, the bust conforms to the standards of the Athena Medici type. The head turns slightly to the right. The face has an oval shape with heavy, rounded chin, and was framed by centrally parted wavy hair strands that emerged from under the brow-band of the helmet, bordering the forehead frontally and flanking it at the temples with two masses of hair strands. The arched eyebrows correspond to the length and shape of the eyes, which are delineated by thick upper and lower eyelids. In profile view, a visible nose bridge creates a pause between the forehead and the straight nose, which is slightly broader than the norm. The slightly parted lips are bowed, but outlined in a stylized manner. The neck bears two faint horizontal lines on the front that represent the “Venus Rings,” while on the back it was covered by tied hair strands escaping from under the neck-guard. The goddess was wearing an Attic helmet, as one can deduce from the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

The colossal right foot (fig. 15), which was separately made, corresponds in size (27cm long), material, style, and workmanship with the other acrolithic fragments it was found with (bust and hand). The foot is intact with minor damages (missing the tip of the small toe and slight fractures on other toes). The rear contact surface of the metatarsal region was rounded, coarse, and equipped with a rectangular dowel hole, which indicates that the foot was glued and fastened into the base of a wooden core. The quality of anatomical details rendered in relief or carved in the round, such as toenails, skin wrinkles, and the thick-soled sandal, exemplifies the skilled craftsmanship executed in such grand scale.

B.3: *Head of Athena, Vienna, Antikensammlung, Kunsthistorisches Museum, Inv. No. I 168; Feet of Athena (left and right), Vienna, Antikensammlung, Kunsthistorisches Museum Inv. No. 67 and 75, marble, 2nd century AD*⁸³

The Head of Athena (fig. 16) is a colossal female bust composed of a helmeted head and neck, made of marble (maximum preserved height: 0.51cm; height of restored bust: 96.5cm). The sculpture was discovered together with two colossal feet in Hadrian’s Villa in

⁸² The Attic helmet is rendered in both high and low relief with full interpretation by the restorer: the center of the brow-band is adorned with two wings that span out with consecutive floral spirals wrapping around the entire band, while the top of the helmet is crowned by a simplified crest flanked by two winged horses; the hollowed eyes, once inlaid, were filled and painted; other restorations include the centrally parted, wavy hair strands that emerge from under the brow-band and frame the forehead and the temples, and the scaly aegis.

⁸³ Amelung 1908, 175, fig. 62, 64, pl. 5-6; Pelekidis 1927, 130; Chamoux 1944-1945, 206-239, no. 8; Despinis 1975, 23-24; Linfert 1982, 76, no. 8; Raeder 1983, no. III 97; Lundgreen 1997, 22, no. 8

Tivoli near Rome. It was part of the Michael Wutky Collection before its acquisition in the Kunsthistorisches Museum Vienna in 1803.⁸⁴

The original state of preservation of the sculpture was incomplete as the entire upper part of the helmeted head above the brow-band was missing. The bust underwent extensive restoration by Bartolomeo Cavaceppi in 1800 (upper part of the helmeted head, frontal hair, and drapery) in an attempt to revive the style of the original classical sculpture that was attributed to Pheidias. All traces of joints and technical details of construction (drill holes, dowel sockets, channels) were filled with added material during the restoration process, now lost. Above the rim of the brow-band, the upper part of the head was cut at an angle to create a slanted, circular contact surface that slopes backwards. This top contact surface was reported to have preserved at least one dowel for the attachment of the missing helmeted part of the head. A series of thirteen drill holes, spaced evenly and aligned in a horizontal line above the brow-band for fastening the helmet's pediment as well as a row of drill holes at the temples for the attachment of the separately made hair strands were recorded to preserve remains of bronze wiring in them. The eyes were hallowed, once inlaid with semi-precious stones, and the eyelids of the left eye were found oxidized from the added copper eyelashes. Both earlobes are pierced with suspension holes, with a copper earring still remaining in place in one of them.

Stylistically and iconographically, the bust conforms to the standards of the Athena Medici type. The head turns slightly to the right. The face has an oval shape with rounded cheeks, a heavy, rounded chin, and was framed by centrally parted wavy hair strands that emerged from under the brow-band of the helmet, bordering the forehead frontally and flanking it at the temples with two masses of hair strands. The eyes are outlined by thick upper and lower eyelids, and paralleled by arched eyebrows that correspond to their length and shape. In profile view, a visible nose bridge creates a pause between the forehead and the straight nose, ending above the slightly parted, bowed lips. The neck bears two faint horizontal lines on the front that represent the "Venus Rings," while on the back it was covered by long, wavy hair strands that escape from under the neck-guard. The goddess was wearing an Attic helmet,⁸⁵ as can be deduced from the rimmed neck-guard and the brow-band with a projecting central pointed tip on the nasal axis.

⁸⁴ Kunsthistorisches Museum Vienna, Collection of Antiquities 1803: *refer to museum web-link*; Montebello, 1983, 190; Davidson 2009, 474, no. 08

⁸⁵ Restored with a sphinx on the central crest of the helmet

The colossal feet of Athena (fig. 17), which were separately made, correspond in terms with size, material, style, and workmanship with the bust it was found with. The difference in their size (maximum preserved length of right foot: 30cm, and left foot: 16cm) can be explained by the contrapposto posture of the colossal statue: as the knee of the relaxed right leg was bent, the chiton would have been raised further up, thus exposing more foot surface, whereas the foot of the supporting left leg would have been hidden by the overfolding peplos. The right foot is intact with minor damages (missing small toe and slight fractures on other toes). The rear contact surface of the metatarsal region of both feet were rounded and coarse, but were reported lacking a dowel hole, which indicates that the feet were merely glued into the base of a wooden core.

CLASS C: COLOSSAL ACROLITHIC LIMBS (RIGHT LEG)

C.1: *Colossal Right Leg*, Shahhat, Cyrene Museum, Inv. No. 14.176, Parian Marble, 2nd century AD⁸⁶

The colossal right leg (fig. 18) is an acrolithic lower limb made of a single piece of Parian marble (maximum preserved height: 1.03m), rendering the leg from mid-thigh to the metatarsal of the right foot in relaxed position with bent knee, which agrees with the diagnostic, reverse contrapposto of the Athena Medici type. The fragment, whose provenience is unknown, is currently displayed in the Cyrene Museum.

The colossal piece of sculpture is backed with a rear side and two lateral sides, all of which are roughly worked with a point chisel to create contact surfaces for the attachment onto the wooden core and adjoining pieces. The rear contact surface bears three rectangular dowel sockets for fastening the marble piece onto a wooden core; the lack of dowel sockets or anathyrosis on the lateral contact surfaces suggests that the adjoining pieces were made of wood and glued onto the marble piece. The leg is abruptly cut at the metatarsal of the right foot where it forms a smooth contact surface; the absence of a dowel socket suggests that the missing foot was not fastened, but simply glued to the marble leg.

Frontally, the bent knee creates elaborate U-folds in the thin chiton that covers the entire right leg. The Cyrene fragment resembles the colossal right leg of Thessaloniki (B.1) and conforms to the standards of the Athena Medici type.

C.2: *Colossal Right Leg*, Ariccia, Palazzo Chigi, Inv. No. 19, marble, 1st century AD⁸⁷

The colossal right leg (fig. 19) is an acrolithic lower limb made of a single piece of marble (maximum preserved height: 1.52m), rendering the leg from the hip to the metatarsal of the right foot in relaxed position with bent knee, which agrees with the diagnostic, reverse contrapposto of the Athena Medici type. The fragment, whose provenience is unknown, was acquired by the Palazzo Chigi in 1994.

The colossal piece of sculpture is backed with a rear side and two lateral sides, all of which are roughly worked with a point chisel to create contact surfaces for the attachment onto the wooden core and adjoining pieces. The rear contact surface bears three rectangular dowel sockets for fastening the marble piece onto a wooden core; the lack of dowel sockets or anathyrosis on the lateral contact surfaces suggests that the adjoining pieces were made of

⁸⁶ Paribeni 1959, 59, no. 125, pl. 77; Despinis 1975, 24, pl.15; Linfert 1982, 76, no.5; Canciani 1984, 1074-1109, no. 144a; Lundgreen 1997, 21, no. 5; Davidson 2009, 472, no. 05

⁸⁷ Paribeni 1959, no. 125; Despinis 1975, 24 no. 56, 40-41 no. 2; Karanastassis 1987, 339, no. 63; Lundgreen 1997, 20-21, no. 4; Davidson 2009, 471, no. 04

wood and glued onto the marble piece. The leg is abruptly cut at the metatarsal of the right foot where it forms a smooth contact surface; the absence of a dowel socket suggests that the missing foot was not fastened, but simply glued to the marble leg.

Frontally, the bent knee creates elaborate U-folds in the thin chiton that covers the entire right leg. The Chigi fragment conforms to the standards of the Athena Medici type and resembles the Cyrene leg (C.1) and the colossal right leg of Thessaloniki (B.1).

CLASS D: NON-ACROLITHIC COLOSSAL STATUES OF ATHENA MEDICI

D.1: *Athena Medici* (Ingres Minerva), Paris, Musée du Louvre, Inv. No. MA 3070, Pentelic marble, 1st century AD⁸⁸

The *Athena Medici* (fig. 20) is a colossal female statue made of Pentelic marble (2.62m in height, 1.24m in width, 70cm in depth), dating to the 1st century AD. This Roman replica triggered the study of the ‘*Athena Medici* type’ and was recognized for its distinct style and configuration as a close copy of an unknown, lost prototype of Athena. The marble statue decorated the gardens of the Medici Villa as part of their private collection. French painter Jean-Auguste-Dominique Ingres, who was the director of the Académie de France in Rome between 1834-1840, acquired and transported the statue to France, where it was hosted by the École des Beaux-Arts in Paris before its acquisition by the Louvre in 1913 (hence, the sculpture is known also as *Ingres Minerva*).⁸⁹

The current state of preservation of the *Athena Medici* is incomplete, as the head and arms are missing, and various surfaces of the statue have suffered damages. On the front, the lower part of Athena’s aegis is broken off, including the lower half of the centrally positioned gorgoneion head, while, on the rear side, the broken pieces of the aegis over the right scapula are held together with two white clamps. The upper surface of the mantle thrown over the left shoulder is broken off, exposing a repair drill hole on the outer left edge of the damaged surface. There is a clean fracture break running from the top of the mantle to its bottom, with its two halves held together with three parallel clamps, fastened horizontally. The vertical, fluted folds of the peplos, which required deep tubular drilling, are chipped or worn down, and their edges on the hem of the peplos are fractured. The base of the sculpture suffered minor fractures on the feet, resulting in the loss of some phalanges. The shoulder socket of the missing right arm is hollowed, exposing a rounded, rough contact surface without any dowel sockets, which indicates that the arm was made separately and simply glued to the torso. The left side of the mantle, which is thrown over the left shoulder and drapes on the back, preserves a shallow, circular depression and a dowel socket cut obliquely beside it; these technical details indicate that the exposed portion of the missing left arm which

⁸⁸ Bernulli 1867, 20; Sybel 1880, 111; Lange 1881, 197; Brunn-Arndt-Bruckmann 1888, pl. 171; Furtwangler 1893, 46; Furtwangler 1896, 19; Hermann 1899, 155; Amelung 1908, 169; Frickenhaus 1913, 358; Pelekidis 1927, 128-129; Chamoux 1944-1945, 206-239, no. 1, pl. 21; Lippold 1950, 155, no. 14, fig. 56,3; Becatti 1951, 176-184; Paribeni 1953, no. 1; Langlotz 1960, 164-173; Ridgway 1981, 169; Linfert 1982, 76, no. 1; Canciani 1984, 1074-1109, no. 144; Ridgway 1984; Boardman 1985, fig. 200; Bieber 1977; Lundgreen 1997, 7-36, no. 1

⁸⁹ Davidson 2009, 469, no. 01

emerged under the mantle and through the short sleeve of the chiton, was attached with glue to that contact surface and fastened in place with a dowel.

The posture of Athena Medici is a frontal, reverse contrapposto, as her left leg bears all the weight (supporting leg), while the right one is bent at the knee with the foot turned outward to the right (relaxed leg). Consequently, the hips and shoulders are slightly off balance, as the left hip and shoulder are raised due to the hyperextension of the supporting left leg. The reverse contrapposto shifts the body's weight distribution to the left leg, making it more rigid, probably because the left arm and shoulder held a heavy shield, and that stance compensated for the analogous weight. The left arm most likely carried a spear, probably held obliquely, to infer from the angle of the right shoulder socket, which indicates that the right arm of the statue was not attached to the side of the torso but extended farther out and was lowered down.⁹⁰ The missing head of the Athena Medici must have been geared slightly to the right, as indicated by the off-axis position of her tied hair on her back, which falls slightly to the left, that is, diagonally opposite from the turn of the head.

Athena's wardrobe is multi-layered. The lightest fabric, a linen chiton (χιτών), forms the inner layer that covers the entire right leg (except for the front part of the foot), frames the right leg on the inner left side, and covers a small portion of the upper torso with short sleeves (χειρίδες) that emerge from under the heavy peplos. The fine texture of the chiton was attained with translucent rendering of multiple, closely grouped, thin ridges and characteristic U-folds, caused by the physical pulling of the bent, protruding knee. Over the thin chiton, the goddess wears a thick, woolen peplos (πέπλος), which forms a long overfold (απόπτυγμα) belted at the waist. The thick fabric of the peplos is rendered with long, vertical, fluted folds that terminate with typical S-folds at the hem of the peplos and its overfold, while V-folds are formed over the chest, as the belt pulls the fabric tightly at the waist. The aegis (αίγις) covers Athena's shoulders and chest with its rounded shape. A mantle is thrown over the left shoulder and the aegis, forming a fringe with typical S-folds on the side, and draping on the back with roughly rendered, thick V-folds. The goddess wears thick-soled sandals, and both her feet are partially exposed (the toes of the left foot and the front part of the right foot from the metatarsal down). The entire rear side of the sculpture is unfinished, with flat, stylized folds, treated summarily.

⁹⁰As also confirmed by the hand of the Thessaloniki copy (B.1)

A colossal plaster cast reconstruction of the Athena Medici (total height: 2.46m) was created by Walther Amelung and Giulio Emanuele Rizzo,⁹¹ who combined the Athena Medici torso from the Louvre and the restored Head of Athena from Vienna, including armor and weapons⁹² in an attempt to reproduce the Athena Medici in her original state based on a number of replicas from the 1st and 2nd century AD. The reconstruction embedded correctly many of the diagnostic elements of the Athena Medici type, but Amelung and Rizzo were too liberal in their approach, as they arbitrarily added more iconographical details (snake and owl) to frame the central image, thus creating a narrative composition that is only found on some coins and the votive relief from Ampelokipi (F.2, fig. 31). Furthermore, they reconstructed Athena holding both her spear and shield with the left hand, and a phiale with the other (a composition found only on the Ampelokipi relief), which is refuted by the acrolithic right hands from copies B.1 and B.3 (now lost) that form a closed grip holding a spear, as seen in the ‘Sogenannte’ Athena Medici Reconstruction (fig. 21a). The Amelung-Rizzo plaster cast was kept in the Glyptothek Museum in Munich, Germany, until it was acquired by the Statens Museum for Kunst in Denmark (fig. 21b).

D.2: Statue of Pallas II (Pacifera), Seville, Casa de Pilatos, Inv. No. 839, marble, 2nd century AD⁹³

The Statue of Pallas Pacifera (fig. 22) is a colossal female statue made of marble (maximum preserved height: 2.85m), dating to the 2nd century AD. The sculpture, whose provenience is unknown, was originally part of the Vatican collection. The statue of Pallas Pacifera was fully restored in 1566-1571 and, shortly afterwards, it was gifted (together with the restored statue of Pallas) by Pope Pius V to Afán de Ribera, duke of Alcalá and viceroy of Naples, to decorate his palace, the Casa de Pilatos, in Seville. In 1710, the statue suffered considerable damage from the fire that partially destroyed the palace, and was subsequently repaired, as attested by records of cleanings, repairs, and restorations that occurred in the 18th and 19th centuries. The majority of the extensive restorations of the 16th century⁹⁴ were

⁹¹ *Athena-Medici*, plaster cast, Denmark, Statens Museum for Kunst, Inv. No. KAS1505: refer to *University of Cambridge database link*

⁹² The reconstruction of the helmet merges all the variations of the Attic helmet worn by the colossal copies of Athena Medici. The triple-crested Attic helmet bears a central sphinx flanked by two winged horses and an olive wreath at the pediment above the brow-band

⁹³ Hübner 1862, no. 839; Hermann 1899, 155, pl. 2; Pelekidis 1927, 129; Chamoux 1944-1945, 206-239, no. 2; Langlotz 1960, 164-173, pls. 44-51; Langlotz 1972, 141-148, figs. 1-3; Linfert 1982, 76, no. 2; Lundgreen 1997, 20, no. 2

⁹⁴ The extensive restorations of the late 16th century followed a very liberal approach in applying arbitrary stylistic and iconographic interpretations that deviate from the diagnostic standards of the Athena Medici type,

removed in 1950 to bring the statue to its original form. The statue of Pallas is presently displayed in the Patio Grande of the Casa de Pilatos.⁹⁵

The current state of preservation of the sculpture, after the removal of most of the early restorations, is incomplete with damages: the helmet and the arms are missing; the head was shattered into three pieces, now held together with clamps; the nose is broken off (now restored) and the eyes were originally hollowed to be inlaid (now filled); the upper part of the head bears a series of drill holes, horizontally aligned and evenly spaced, running around the circumference of the head for the attachment of the restored helmet; numerous, evenly spaced drill holes placed around the edge of the scaled aegis may have accommodated small coiled snakes that were separately made and attached; at places, the marble surface suffered smoke and fire damage (stains), which required for the entire surface of the sculpture to be painted over in an effort to revive the original vibrancy of the marble.

The surviving core of the statue (head, upper torso, and lower body) is made out of a single piece of marble and resembles the Athena Medici in the Louvre in terms of composition, posture, style, and fold treatment (frontal, reverse contrapposto with a relaxed right leg, multilayered wardrobe consisting of a peplos with belted⁹⁶ overfold worn over a chiton with short sleeves, the aegis over the chest and shoulders, a mantle thrown over the left shoulder and draping on the back, and thick-soled sandals). The head turns slightly to the right, and conforms to the standards of the Athena Medici type in style and iconography. The face has an oval shape with heavy, rounded chin, and was framed by centrally parted wavy hair strands that emerged from under the brow-band of the helmet, bordering the forehead frontally and flanking it at the temples with two masses of hair strands. The arched eyebrows correspond to the length and shape of the eyes, which are delineated by thick upper and lower eyelids. The slightly parted lips are bowed, but outlined in a stylized manner. The neck bears “Venus Rings” in the form of faint horizontal lines. The goddess was wearing an Attic helmet, as one can deduce from the partially preserved rimmed neck-guard.

as attested in other replicas, including the armour (helmet, shield, and spiked club) which was styled with influences from a different era, thus modernizing Athena and removing her out of her original chronological and cultural context.

⁹⁵ Trunk 2003, 255-263; Davidson 2009, 470, no. 02

⁹⁶ The waist belt, however, is tied in a Herakleian knot, a rare occurrence among the Athena Medici replicas.

D.3: Statue of Pallas I, Seville, Casa de Pilatos, Inv. No. 840, marble, 2nd century AD⁹⁷

The Statue of Pallas (fig. 23) is a colossal female statue made of marble (maximum preserved height: 1.77m; height as restored: 3.15m), dating to the 2nd century AD. The sculpture, whose provenience is unknown (reported to have come from Italica, the ancient Roman city near Seville), was originally part of the Vatican collection. The statue of Pallas was fully restored in 1566-1571 and, shortly afterwards, it was gifted (together with the restored statue of Pallas Pacifera) by Pope Pius V to Afán de Ribera, duke of Alcalá and viceroy of Naples. The two statues of Pallas decorated the second courtyard or Patio Grande of the Casa de Pilatos, the palace of the Ribera family in Seville. After the plague of 1649, the Casa de Pilatos began to decline. In 1710 a large part of the palace was destroyed by fire, causing extensive damages to several antiquities of its collection, including the statues of Pallas and Pallas Pacifera, as attested by records of cleanings, repairs, and restorations that occurred in the 18th and 19th centuries. The statue of Pallas is presently displayed in the Patio Grande of the Casa de Pilatos.⁹⁸

The original state of preservation of the sculpture, prior to restoration, was incomplete with damages: the helmeted head and arms were missing, and, at places, the edges of the long, fluted folds of the peplos were worn, chipped or fractured. The surviving core of the statue (upper torso and lower body) is made out of a single piece of marble and resembles the Athena Medici in the Louvre in terms of composition, posture, style, and fold treatment (frontal, reverse contrapposto with a relaxed right leg, multilayered wardrobe consisting of a peplos with belted⁹⁹ overfold worn over a chiton with short sleeves, the aegis over the chest and shoulders, a mantle thrown over the left shoulder and draping on the back, and thick-soled sandals). The extensive restorations of the statue in the late 16th century, however, followed a very liberal approach in applying arbitrary stylistic and iconographic interpretations that deviate from the diagnostic standards of the Athena Medici type, as they are attested in other replicas: the entire statue is coated with white paint to conceal smoke and fire damages; the head is frontally fixed and capped with a Corinthian helmet; the facial features of Athena digress from the standard ‘Pheidian face,’ and the rendering of the neck fails to reproduce the faint essence of the “Venus Rings;” finally, the intricate edges of the aegis and the overly ornate shield are influenced from a later era.

⁹⁷ Pelekidis 1927, 129; Hübner 1862, no. 840; Hermann 1899, 155, pl. 3; Chamouz 1944-1945, 206-239, no. 3; Langlotz 1960, 164-173, pls. 44-51; Langlotz 1974, 141-148, figs. 4-5; Linfert 1982, 76, no. 3; Lundgreen 1997, 20, no. 3

⁹⁸ Trunk 2003, 255-263; Davidson 2009, 471, no. 03

⁹⁹ The waist belt, however, is thicker and wider than usual.

CLASS E: REPRESENTATIONS OF ATHENA MEDICI INSTATUES AND STATUETTES

E.1: *Statuette Torso of Athena*, Antikensammlung Berlin, Staatliche Museen, Inv. No. SK 1760, limestone, 1st century AD¹⁰⁰

The statuette of Athena (fig. 24) is made of a single piece of limestone (total preserved height: 24cm; 8cm in width). The statuette was found in the ancient city of Dorylaion (present-day Şarhöyük) in the region of Anatolia, southwest of modern Eskişehir. It was initially bought by Schede for his private collection in Constantinople, and was subsequently acquired by the Staatliche Museen in 1915.

The current state of preservation of the statuette is incomplete with serious damages: the head, forearms, and lower body are broken off, while the fringes, hem, and folds of the peplos and the mantle are heavily chipped and fractured. On the front right edge of the aegis there is a relief knob used by the sculptor as a fixed point for measurement (“campione”). The upper left shoulder, draped over with the mantle, bears a raised, square knob, presumably to suspend the shield (separately made and attached), which was carried by the left arm.

The statuette generally conforms to the standards of the Athena Medici type in terms of iconography, posture (frontal, reverse contrapposto with a relaxed right leg, as deduced from the placement of folds and the slightly raised left shoulder), turn of the head to the right (as indicated by the off-center position of her tied hair on her back, which falls slightly to the left, that is, diagonally opposite from the turn of the head), position of the right arm (right arm extended away from the torso and lowered down), multi-layered wardrobe (chiton, peplos with belted overfold, mantle, scaled aegis with gorgoneion and curled snakes), fold placement and treatment (V-folds, S-folds). Certain details, however, deviate from the Athena Medici standards, such as the anatomical rendering of the breasts bulging under the aegis, two long strands of coiled hair falling over her breasts on the aegis, and the alternate knot of the waist belt. This statuette is significant for its amalgamation of diagnostic elements of the Athena Medici type with rare iconographical details influenced from reliefs.

¹⁰⁰ Schröder 1920, 62, figs. 15-16; Schrader 1924, 79-80; Herman 1925, 40; Schröder 1925, 265, fig. 3; Paribeni 1953, 58; Marinatos 1969, 116, fig. 307; North Rhine-Westphalian Academy and Turk Tarih Kurumu Academy 2003

E.2: *Statue of Athena from Delos (Delian Athena), Athens, National Archaeological Museum, Inv. No 1622, Pentelic marble, 1st century AD*¹⁰¹

The statue of Athena (fig. 25) is made of a single piece of Pentelic (maximum preserved height: 1m). The statue was found on the island of Delos, and was acquired by the National Archaeological Museum of Athens in 1880.¹⁰²

The current state of preservation of the statue is incomplete with heavy damages in the front: the head, arms, lower body and base of Athena are broken off; the relaxed right leg is broken-off below the bent knee, while the left leg is fractured at the foot joint; the scaled aegis, the folds, hem, and fringe of the peplos and mantle are worn and chipped. The back of the sculpture is largely underworked, as hardly any folds are present, the belt is faint at the waist, the lower half of the fabric in the mantle is broken off, the high relief edge of the aegis is barely visible, and lastly a small portion of the tied hair is present on the upper portion of the aegis.

The statue generally conforms to the standards of the Athena Medici type in terms of iconography, posture (frontal, reverse contrapposto), multi-layered wardrobe (chiton, peplos with belted overfold, mantle, scaled aegis with gorgoneion), fold placement and treatment (U-folds, V-folds, S-folds).

E.3: *Statuette of Athena from Elis, Athens, National Archaeological Museum, Inv. No 3000, Pentelic marble, 2nd century AD*¹⁰³

The statuette of Athena (fig. 26) is made of a single piece of Pentelic marble (maximum preserved height: 73cm). The statuette was discovered in the village Kalyvia Amalias near the ancient site of Elis in 1880, and was acquired by the National Archaeological Museum of Athens in 1911.¹⁰⁴

The current state of preservation of the statuette is incomplete with serious damages: the head, the lower right arm, and toes of the right foot are broken off; the entire left arm, which was made separately and fastened with a dowel, is missing; the folds of the peplos on the lower body are worn and chipped. On the right shoulder, the aegis bears a relief knob

¹⁰¹ Sybel 1880, 109; Pelekidis 1927, 129; Chamoux 1944-1945, 206-239, no. 15; Karouzou 1968, 66, no. 1622; Mercadé 1969, 289-290, pl. 54d-e; Gernand 1975, 37-40, pls. 10-11; Linfert 1982, 76, no. 15; Karanastassis 1987, 413-414, pl. 43.3-43.5; Lundgreen 1997, 25, no. 18, pl. 12.1-12.2

¹⁰² Davidson 2009, 480, no. 19

¹⁰³ Schober 1911, 117, fig. 64-64; Frickenhaus 1913, 357; Pelekidis 1927, 131; Chamoux 1944-1945, 206-239, no. 39; Karouzou 1968, 66, no. 3000; Linfert 1982, 76, no. 16; Karanastassis 1987, 515-415, pl. 45; Lundgreen 1997, 25-26, no. 19, pl. 13.1-13.2

¹⁰⁴ Davidson 2009, 480, no. 20

used by the sculptor as a fixed point for measurement (“campione”), while a second knob that aligns horizontally with the former, is preserved on the folds of the mantle over the left shoulder. The aegis is unfinished, lacking characteristic details, such as the gorgoneion and scaled texture, which were probably applied in paint, as indicated by traces of various color pigments found on the aegis and the drapery. The rear side of the aegis preserves the relief tails of the lateral crests of the helmet. The statuette is well polished and detailed, but the fabric on the rear is calm, organized, and static, which contradicts the motion in the front.

The statue generally conforms to the standards of the Athena Medici type in terms of iconography, posture (frontal, reverse contrapposto), position of the right arm (right arm extended away from the torso and lowered down), multi-layered wardrobe (chiton, peplos with belted overfold, mantle, aegis), fold placement and treatment (U-folds, V-folds, S-folds).

E.4: *Torso of Athena Medici, De Ganay, Paris, Inv. No. unknown, white marble, 2nd century AD*¹⁰⁵

The statuette of Athena Medici (fig. 27) is made of a single piece of white marble (maximum preserved height: 23cm). The provenance of the sculpture is unknown. It is currently part of the De Ganay private collection in Paris.

The current state of preservation of the statuette is incomplete with heavy damages, as the head, arms, lower body, and shield are broken off, the surviving torso has suffered fractures, and the edges of folds are chipped or worn. The aegis is wrapped around the neck covering the chest and shoulders of the deity and bearing a central gorgoneion and four drill holes at its edge for the attachment of small, coiled snakes that were separately made and fastened. On the back side of the aegis rests Athena’s tied hair tail rendered in the form of a flat, conical hair mass, which falls slightly off-center to the left, that is, diagonally opposite from the turn of the head to the right. Although the torso is fractured at the upper thigh, the direction of the folds over the right thigh suggests that the right leg was bent at the knee and protruded outward. The lower part of the partially preserved shield bears two distinct tool marks.

The statuette generally conforms to the standards of the Athena Medici type in terms of iconography, posture (frontal, reverse contrapposto with a relaxed right leg), turn of the head to the right, position of the left arm carrying the shield, multi-layered wardrobe (chiton, peplos with belted overfold, mantle, scaled aegis with gorgoneion), fold placement and

¹⁰⁵ Langlotz 1960, 170, pl. 51 C-D; Despinis 1975, 46, fn. 51

treatment (U-folds, V-folds, S-folds). Only minor details deviate from the Athena Medici standards, such as the rendering of the tied hair tail on the back, which diverts from the usual long, wavy hair strands.

E.5: *Statuette Torso of Athena, Roman, 3rd century AD, Pentelic marble, Athens, National Archaeological Museum, Inv. No. 3466*¹⁰⁶

The statuette of Athena (fig. 28) is made of a single piece of Pentelic marble (maximum preserved height: 17cm). The statuette was discovered south of the Acropolis, near the Odeon of Herodes Atticus, and is currently displayed in the National Archaeological Museum of Athens.¹⁰⁷

The current state of preservation of the statuette is incomplete with heavy damages: the head, arms, and lower body are broken off; the torso has suffered dents, chips, and fractures; the drapery folds are underworked, bearing sharp chisel marks with a downward motion (similar to the those on the Lenormant Athena Parthenos),¹⁰⁸ while the whole rear side of the statuette, including the partially surviving shield on the left side, is unfinished; the plinth is fractured on the right side.

The statuette barely conforms to the Athena Medici type in terms of basic iconography and posture (frontal, reverse contrapposto with a relaxed right leg), position of the left arm carrying the shield, multi-layered wardrobe (chiton, peplos with belted overfold, mantle, aegis with gorgoneion). Many elements, however, deviate from the standards of the Athena Medici type, such as the skewed proportions of the figure, the crescent-shaped aegis wrapped around the neck, minimal cloth distinction between the chiton and the peplos, and, finally, the stylized and oversimplified rendering of folds.

E.6: *Statuette of Athena, Rome, Kircherianum Museum, Inv. No. 6252, white Italic marble, date unknown*¹⁰⁹

The statuette of Athena (fig. 29) is made of white Italic marble (maximum preserved height: 54cm). The provenance of the sculpture is unknown. The statuette was acquired by the Kircherianum Museum of Rome in 1931.

¹⁰⁶ Pelekidis 1927, 132-133, 183, figs. 8-9; Chamoux 1944-1945, 206-239, no. 17; Linfert 1982, 77, no. 22; Karanastassis 1987, 415, pl. 45; Lundgreen 1997, 26, no. 20, pl. 13.3-13.4; Kaltsas 2002, 124, no. 43, fig. 20

¹⁰⁷ Davidson 2009, 481, no. 21

¹⁰⁸ Lawrence 1928, 196 no. 2; Lippold 1950, 146 no. 6; Richter 1960, 218 fig. 601; Hurwit 1999, 25; Palagia 2006, 270

¹⁰⁹ Amelung 1908, 185; Pelekidis 1927, 131

The original state of the statuette was incomplete with damages, as the head and forearms, separately made and attached, were missing (now restored), and the edges of the folds and feet were slightly fractured (also restored). The aegis bears a central gorgoneion and five drill holes, evenly spaced around its edge, for the attachment of separately made snake heads.

The statuette was extensively restored, albeit with errors: the restored helmeted head was geared to the left (instead to the right), and the restored forearms holding the spear and shield were raised upward (instead of downward). The statuette conforms to the Athena Medici type in terms of iconography and posture (frontal, reverse contrapposto with a relaxed right leg), multi-layered wardrobe (peplos with belted overfold, mantle, aegis with gorgoneion), fold placement and treatment (U-folds, V-folds, S-folds).

CLASS F: REPRESENTATIONS OF ATHENA MEDICI TYPE ON RELIEFS

F.1: Votive Relief Fragment, 2nd century AD, Athens, Acropolis Museum, Inv. No. 2426¹¹⁰

The Acropolis votive relief (fig. 30) is a slab of Pentelic marble (maximum preserved height: 33cm; maximum preserved width: 18cm) that depicts Athena in the context of an olive tree and an owl. The relief is currently displayed in the Acropolis Museum of Athens.¹¹¹

The current state of preservation of the relief is fragmentary, as it has suffered fractures and other damages: the helmeted head, right forearm, and both feet of the goddess are broken off; the outer thigh of the relaxed right leg is fractured; the surface of the gorgoneion and the scaled aegis are worn; and the olive tree is partially preserved. Several small repair(?) holes were drilled on the surface of the right leg and the vertical peplos folds that frame it.

The figure of Athena on the relief generally conforms to the standards of the Athena Medici type in terms of iconography, posture (frontal, reverse contrapposto with a relaxed right leg), slight turn of the helmeted head to the right, position of the arms (right arm extended away from the torso and lowered down, probably holding a spear; left arm attached to the torso and bent at the elbow carrying the shield), multi-layered wardrobe (chiton, peplos with belted overfold, mantle, scaled aegis with gorgoneion), fold placement and treatment (U-folds, V-folds, S-folds), Attic helmet crowned with a triple crest and equipped with a neck guard. Compositionally, Athena is located on the (viewer's) right side of the relief abutting the thick outer border of the relief. On her right side stands an olive tree with an owl resting on the branches, rendered in low relief, to create a sense of depth and distance.

F.2: Ambelokipi Votive Relief (unknown provenance, date, material, and Inv. No.)¹¹²

The provenance, date, material, and size of the votive relief from Ambelokipi are unknown (fig. 31). The iconography of the relief, which was lost soon after its discovery, survives only in a drawing by Furtwängler. Wolters identified the figure of Athena on the relief as a variation of the Medici type, and Amelung based his reconstruction of the Louvre

¹¹⁰ Sybel 1880, 102-114; Walter 1923, 35, no. 49; Pelekidis 1927, 129; Chamoux 1944-1945, 206-239, no. 18, pl. 23; Langlots 1947, pl. 21; Linfert 1982, 77, no. 23; Karanastassis 1987, 415, no. BII 9, pl. 46; Lundgreen 1997, 27, no. 25

¹¹¹ Davidson 2009, 483, no. 26

¹¹² Wolters 1894, 448; Furtwängler 1896, 21; Amelung 1908, 169, fig.71 (body) fig.62 (head); Frickenhaus 1913, 358; Pelekidis 1927, 129; Linfert 1982, 77, no. 24; Lundgreen 1997, 27-28, no. 26, fig. 4

torso (D.1, fig. 21) on this relief. Frickenhaus refuted the presumed resemblance to the Athena Medici type.

The Ambelokipi drawing represents Athena standing between a rising serpent to her right and an owl to her left. The goddess poses in a frontal, reverse contrapposto with a relaxed right leg, head geared to her right, both arms open and extended away from the torso. The goddess holds a *phiale* (libation bowl) with her lowered right hand, while carrying a rounded shield with her left arm, bent at the elbow, and holding a spear with her left hand. Athena wears a single-crested Attic helmet, the aegis with a central gorgoneion over the peplos with overfold, belted at waist, which leaves no opening for the chiton to emerge over the bent right leg.

CLASS G: REPRESENTATIONS OF ATHENA MEDICI TYPE ON COINS

G.1: Athenian Bronze Coin, 2nd century AD¹¹³

This Athenian bronze coin of the 2nd century AD (fig. 32) depicts the helmeted head of Athena in right profile (obverse), and the figure of Athena wearing a peplos and standing in full armor (reverse). The fine details of the images are extremely worn and dull; nevertheless, the outline of Athena's silhouette provides enough evidence to associate her with the Athena Medici type. Athena stands in a frontal, reverse contrapposto with a relaxed right leg in high-relief to emphasize its forward projection, head geared to her right, both arms open and extended away from her body, holding a spear with the lowered right hand and carrying a rounded shield with her left arm. Athena is wearing a Corinthian helmet on the reverse (a minor deviation from the Athena Medici iconography), but a crested Attic helmet on the obverse. Athena's reduced image shares several similarities with the statuettes of E.4, E.5, E.6, and the relief F.2.

G.2: Athenian Bronze Coins, 3rd century AD¹¹⁴

This series of Athenian bronze coins of the 3rd century AD¹¹⁵ (figs. 33) depicts the helmeted head of Athena in right profile¹¹⁶ wearing a single-crested Attic helmet with a visor and neck-guard (obverse), and the figure of Athena wearing a peplos with belted overfold and the aegis, and standing in full armor (reverse), conforming to the Athena Medici type. Athena stands in a frontal, reverse contrapposto with a relaxed right leg in high-relief to emphasize its forward projection,¹¹⁷ head geared to her right shown in profile, both arms open and extended away from her body, holding a spear with the lowered right hand and carrying a rounded shield with her left arm. These coins resemble their 2nd-century predecessor (G.1) with only minor variations.¹¹⁸

¹¹³ Kroll 1993, 415, pl. 18, fig. 257a

¹¹⁴ Svoronos 1904, pl. 86, 6-12; Kroll 1993, 417, pl. 20, figs. 317-319, 321-322, 331

¹¹⁵ Pelekidis 1927, 131

¹¹⁶ Except the obverse of coin Kroll 1993, no. 322a that depicts Athena in left profile (obverse).

¹¹⁷ Clearly visible on the reverse of coins Kroll 1993, no. 308a, 318b, 319, 321, and 322a where the right leg is rendered in high relief and stands out as the relaxed limb.

¹¹⁸ Blumer and Gardener 1887, pl. Z, I; Lange 1881, 147; Svoronos 1904, 121-122, pl. 37, 38, 39

G.3: Athenian Bronze Coins, 3rd century AD¹¹⁹

This series of Athenian bronze coins of the 3rd century AD¹²⁰ (figs. 34) depict the helmeted head of Athena wearing a single-crested Attic helmet with a visor and neck-guard (obverse), and the figure of Athena wearing a peplos with belted overfold, and standing in a frontal, reverse contrapposto in high-relief to emphasize its forward projection, with her head geared to her right (reverse). Three of these coins (Kroll 1993, 341a, 343a, and 345a) combine the iconography of the votive reliefs F.1 and F.2., as Athena, framed by an olive tree on her right side, holds a phiale with her extended, lowered right hand, while carrying or holding a shield and a spear with her left arm. The other four coins (Kroll 1993, 334a, 336, 337, and 340a) parallel the iconography of Athena in the votive relief F.2, as the goddess, flanked by a rising serpent on her right and an owl on her left, carries her spear and shield with the left arm, while holding a phiale with her extended, lowered right hand.¹²¹

¹¹⁹ Kroll 1993, 417, pl. 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

¹²⁰ Pelekidis 1927, 131

¹²¹ Blumer and Gardener 1887, pl. AA, VI; Svoronos 1904, 120, no. 79 pl. I,34 and pl. 86

CHAPTER II: TECHNICAL ANALYSIS

The transition of a marble quarry block to a completed figural form is a multi-stage process that involves labor in retrieving material from marble quarries, constructive ingenuity in designing the iconography and scale of the desired object with the use of appropriate utensils,¹²² and associating the statue to its community through purpose and location of dedication.

Extracted quarry blocks are usually identified by the appearance, coloration, and rigidity of their materiality. Stones can be categorized into three main groups based on their density: igneous stone (i.e. granite), sedimentary stone (i.e. limestone), and metamorphic stone (i.e. marble). The Classical period favored the use of marble because of its durability, accessibility, vibrancy, and luminosity,¹²³ as well as its ability to successfully imitate the natural appearance of skin in an elegant manner.¹²⁴ The two primary marbles used by Greek sculptors from the 6th century BC to the 3rd century AD were Parian and Pentelic. Parian marble was extracted from the central valley of Agios Minas on the Cycladic island of Paros.¹²⁵ It is a fine-to-medium grained material, white coloration with no anomalies, and lustrous in appearance.¹²⁶ Pentelic marble was extracted from the south slope of Mt. Pentelikon of Athens.¹²⁷ It is a fine-grained material with inclusions of quartz, white micas, sulfides, and iron oxides that create a veined pattern on the surface of the marble;¹²⁸ when exposed to the atmosphere, the iron oxides chemically react, resulting in a discoloration towards a golden-brown hue.¹²⁹

Pentelic marble was utilized at a moderate scale in sculpture until the end of the 6th century BC, mainly for funerary statues and stelai (grave markers), dedicatory statues, and architectural sculpture (metopes, friezes, pediments). After the Battle of Marathon in 490 BC, the use of Pentelic marble increased drastically, since a great number of sculptures were produced as dedicatory monuments or cult images, conveying political, social, and religious symbolisms.¹³⁰ Colossal statues were often composite, made either in the chryselephantine technique (gold and ivory pieces attached on a wooden core) or in the acrolithic technique (head and extremities made of stone attached to a wooden core). Both techniques required the

¹²² Adam 1966, 3-79

¹²³ Boardman 1985, 10

¹²⁴ Boardman 1985, 11

¹²⁵ Grossman 2003, 74

¹²⁶ Grossman 2003, 74

¹²⁷ Grossman 2003, 75

¹²⁸ Kearey 2009, 385

¹²⁹ Gardener 2003, 20

¹³⁰ Boardman 1985, 11; Neils and Rogers 2021, 285

combination and interaction of different materials (marble, metal, semi-precious stones, ivory, and wood), and the combination of subtractive processes (stone or mold carving) and additive processes (molding of precious metals or glass, inlaying ivory and semi-precious stone, wood coloring, gilding, or sheathing). The acrolithic technique, however, was more economical in terms of ratio of scale to material.

Colossal or large-scale copies replicate more accurately the size, rendering, sculptural details, proportions, and construction technique of the original prototype, unlike statuettes, reliefs, and coins that reproduce the prototype summarily, often from memory, in reduced scale, and often altered with arbitrary adaptations.¹³¹ The vast majority of the colossal copies of the Athena Medici type (15 out of 18, or 83%) involve marble heads, hands, arms, feet, and the entire right leg, made separately to be attached and assembled (Classes A-C), all of which generally match in scale, style, iconography, material, and technique. These colossal fragments preserve technical details of joining methods suitable for woodworking rather than marble assembly, which indicates that they were separately made for colossal acrolithic statues.

The comparative study of the technical elements of the best preserved and most studied copy (B.1) with similar details traced on other colossal copies confirms that these marble pieces were intended for acrolithic construction on the basis of the following observations.¹³²

- a.) The rough contact surfaces, stippled with a point chisel, on the lateral sides of the marble right leg of B.1 and the absence of anathyrosis or dowel sockets on them indicate that the adjoining pieces were not marble, but made of wood and merely glued on the lateral contact surfaces of the marble piece. Similar stippled contact surfaces are present on the lateral sides of the two other colossal right legs (C.1, C.2.), on the slanted top surfaces of colossal heads for the attachment of the helmet, separately made of gilded wood (A.1, A.2, A.3, A.4, B.2, B.3), and on the conical bases of colossal busts that would be inserted and glued into a wooden core (A.1, A.3, A.6, B.1, B.2).¹³³
- b.) The three channels cut into the contact surface of the rear side of the marble right leg of B.1 (as well as a fourth one cut into the contact surface of the lateral left side) are wedge-shaped, being wider and deeper at their entrance, while becoming progressively narrower and shallower towards their other end, and have a dovetail profile, as their side walls were

¹³¹ Boardman 1985, 15-16

¹³² Despinis 1975, 11-16, 19-22; 2012, 20-21

¹³³ Adam 1996, 80-82

cut at an angle so that the bottom of the channel is wider than its rim. This type of wedge-shaped channel is typical of a joining method employed in woodworking¹³⁴ that involves inserting a wooden double-dovetail wedged key (‘κλειδί’ or ‘σφηνοειδής πελεκίνος’) ¹³⁵ into the corresponding channels of two adjoining wooden pieces to fasten and lock them in place. The presence of wedge-shaped channels on the contact surfaces of the marble right leg of B.1 entails that their double-dovetail wedged keys as well as their adjoining pieces were made of wood, otherwise it would have been pointless to employ such a complex system of joints suitable for woodworking to fasten together marble pieces. Therefore, the one half of the wooden double-dovetail wedged key would slide into each of the channels cut into the marble contact surfaces, while the other half would slide into a corresponding channel of the same form, size, profile, and direction, that was carved into the contact surface of the adjoining wooden piece. Similar channels are present on the rear contact surfaces of the two other colossal right legs (C.1, C.2.) and on the slanted top contact surfaces of colossal heads for the attachment of the helmet, separately made of gilded wood (A.1, A.4, A.5, B.2, B.3).

- c.) The three wedge-shaped channels cut into the contact surface of the rear side of the marble right leg of B.1 follow the same direction from the exterior to the inner core, with their entrance opening on the right edge of the rear side. Only the top channel, however, was cut horizontally, whereas the other two channels were cut slightly diagonally, diverging from each other, to ensure that the marble piece would be ‘locked’ in place onto the wooden core upon inserting the wooden wedged keys into the channels. The angled arrangement of joints is standard practice in woodworking to secure the joints and prevent accidental dismantling of the assembled structure. Similarly, several colossal heads (A.1, A.4, A.5) preserve wedge-shaped channels cut diagonally through the center of their slanted top contact surface, which entails that the missing helmet and the wedged keys that secured it in place must have been made of wood. This conclusion finds further support in the slanted form of the top contact surface on several colossal heads which

¹³⁴ Despinis (1975, 11-16, 19-22; 2012, 20-21) parallels this type of joints with a woodworking technique involving sliding keys, straight-sided or wedge-shaped (‘περαστά τρέσα’ or ‘κλειδιά’) that are inserted in channels with slanted side walls (‘ποταμοί’). He also finds similarities with another related woodworking joining method, the so-called ‘φύλιαση’ (bonding) of wooden pieces with channels (‘γκνισιές’) and keys (‘πήχεις’), the difference being that ‘γκνισιές’ have vertical, not slanted side walls

¹³⁵ Despinis (1975, 12, 19-20; 2012, 20-21) calls the double-dovetail wedged keys ‘σφηνοειδείς πελεκίνους’ deriving the term from Attic building inscriptions and, especially, from Heron of Alexandria, who describes the straight-sided channel and key, using the term ‘σωλήν πελεκνοειδής’ or ‘πελεκίνος’ or ‘θήλυς πελεκίνος’ for the former, and ‘άρρην πελεκίνος’ for the latter (Heron, *Belopoeica* 5, 10; *Pneumatica* B.36; *On the Dioptra* E; *Automata* X.1)

slopes backwards (A.1, A.2, A.4, A.5, A.7, B.2, B.3, D.2, D.3), an angled joint typical of woodworking construction fitting to accommodate an adjoining helmet piece of lighter weight and density, unlike a heavy, marble attachment that would require a horizontal contact surface to negate the risk of sliding backwards pulled by its own weight.

- d.) The contact surface on the rear side of the marble right leg of B.1 preserves a large dowel socket that was cut obliquely in a downward direction to hook the marble piece onto the wooden core behind it, thus, securing it in place by using its own weight. The location of the dowel socket on the rear contact surface was precisely marked with two parallel, red guidelines, drawn with a ruler.¹³⁶ Traces of a similar, thick, red-pigmented colour were detected on the rear and lateral contact surfaces of the marble right leg B.1, especially inside and around the rim of their wedge-shaped channels, as well as on the slanted top contact surface of the colossal head (A.5). These traces are probably remains of ‘μίλτος’ (minium or ‘red lead’),¹³⁷ which was usually applied on wooden surfaces to ensure water resistance, control expansion and contraction of wood –which is ‘living and breathing’ organic material– and protect it against decay by natural aging, humidity, and infestation.¹³⁸ Therefore, the presence of miltos on these marble contact surfaces and inside their channels entails that the wedged keys, the missing upper part of the helmeted head (A.5), the adjoining parts of the marble right leg (B.1) and the inner core upon which it was attached were all made of wood, once coated in miltos. The constant rubbing of the wooden wedged keys against the walls and rim of the marble-cut channels, or the friction between the adjoining marble and wooden contact surfaces would cause the dried pigment that was applied on the wooden surfaces to flake off on the stippled grooves of the marble fragments.¹³⁹

¹³⁶ The ruler –called στάθμη or λινέη–would be dipped in miltos to draw straight level lines on stone surfaces (Orlandos 1958, 140)

¹³⁷ Photos-Jones, 1997, 359-360; Lytle, 2013, 520-550

¹³⁸ Miltos, a red iron oxide-based mineral, highly characterized by its vibrant colour and rich lead content, was extensively utilized in ship maintenance, architecture, and carpentry in antiquity (Orlandos 1955, 47; 1958, 140-141, 143-144; Despini 1975, 21-22, 42). This red pigment, a natural material, was ideal for staining wood, and when applied in extra amount, it sealed wood for protection against decay by natural aging, humidity, and infestation. According to Despini (1975, 21-22, 42), the earliest example of this type of joint (dovetail channel with sliding wooden key, coated in miltos) is the wooden banister that was fastened between the marble columns of the peristyle of the Aphaia Athena temple at Aegina (600-590 BC), and the stone ‘eyes’ attached on the wooden prows of warships that preserving miltos on their rear side

¹³⁹ Although wood is breathing organic material, it can only absorb water; paint can stain a wooden surface, but when applied in greater quantity, paint rests and dries on top of the surface of the wood. If the wedged keys and the adjoining pieces were all made of marble, paint applied on them (like the guidelines drawn on the rear contact surface of the right marble leg B.1) would not have transferred from one marble face to the other, as marble is a porous material that absorbs pigment applied in liquid form

e.) The wedged keys that were inserted in the wedge-shaped channels cut into the marble contact surfaces of colossal copies (A.1, A.4, A.5, B.1, B.2, B.3, C.1, C.2) were unlikely to have been made of marble, as (i) they would have been prone to fracture even at the slightest movement of the adjoining pieces due to the lack of elasticity of the material; (ii) they would have caused noticeable damage on the side walls and rim of the channels as a result of the force applied by the friction between two adjoining pieces made of the same rigid material, since for marble to interlock with marble, the dimensions of the wedged key would need to match exactly to those of its channel to avoid unintentional movement; (iii) no fragments or remains of marble wedged keys were preserved inside the channels or have been found in association with any acrolithic construction. Wood, contrastingly, is elastic, which makes it ideal for the construction of wedged keys, but, being ‘living’ organic material, it also naturally contracts and expands, which poses a serious hazard of fracturing the walls of their channels, thus compromising the stability of the acrolithic construction. Combining, joining, and assembling two different materials, therefore, required careful consideration of their qualities. Ancient sculptors took precautions by employing certain techniques to mitigate potential hazards. The wooden wedged keys were reduced in size by a few millimeters to provide leeway for the expansion of the material inside their channels without fracturing them, while the slanted walls of the channels would lock them in place.¹⁴⁰ Furthermore, the wedged keys were made from highly rigid and durable, aged wood (i.e. kernes), different from the wood utilized for the inner core and adjoining pieces,¹⁴¹ carefully selected for its condition and age, cut, dried and treated; all these wooden parts were carved and assembled in such a way so that the direction of their ‘veins’ would mutually negate their expansion, and were further coated in miltos to ensure water resistance, control humidity, and minimize expansion. Finally, the acrolithic statues were always hosted in enclosed, indoor spaces with controlled environmental conditions that secured the durability of organic materials.

From the technical observations above, we can deduce that the bare body members of Athena (head and neck, forearms and hands, feet), the protruding right leg covered by the chiton, and possibly the short sleeves of the chiton, visible under the peplos and mantle, were separately made of marble, whereas many adjoining pieces, including clothing of heavier

¹⁴⁰ The wooden wedged keys would swell both laterally against the side walls of their channels and lengthways, mainly toward their wide base at the entrance of their channels; therefore, they were made narrower to prevent them from fracturing the edges of the channels, and shorter so that they would not protrude from their entrance, which could cause micro-movement of the adjoining marble and wooden pieces and, potentially, accidental dismantling of the structure

¹⁴¹ Stevens 1955, 265

texture (peplos and mantle)¹⁴² and armor (shield, spear, helmet, aegis),¹⁴³ the inner core (‘κάναβος’) upon which the adjoining external pieces of the statue were attached, and the wedged keys were made of wood. The exposed wooden surfaces, for practical and aesthetic reasons, were most likely gilded or sheathed with very thin sheets of copper or gold, hammered in place, glued and fastened with small nails, or alternatively, painted, a much less expensive method involving the preparation of the wooden surfaces with a coat of a glue-like substance known as ‘lefkoforos’,¹⁴⁴ which was subsequently overpainted with colour. Gilding, sheathing, or painting the wooden pieces would mask joints and imperfections of the material, protect the wood, and enrich the appearance of the statue, creating the illusion of a chryselephantine statue with the juxtaposition of white body members and golden clothing.¹⁴⁵

A drawing reconstruction by Despinis (figs. 35, 36),¹⁴⁶ which is based on all these technical details and their combined interpretation, vividly illustrates the process of acrolithic construction of the Athena Medici copy from Thessaloniki (B.1). The layering of construction involved a composite, tripartite, wooden core or ‘kanavos’, and various adjoining wooden and marble external pieces that would be fastened on the sides of the wooden core and/or attached to one another by means of sliding wedged keys, dowels, and/or glue, dressing the inner core all around in three successive levels of construction from the bottom up.¹⁴⁷

The comparative study of the facial proportions on the best-preserved colossal heads (Table 1.3) in combination with the proportional analogy and correspondence in dimensions

¹⁴² The use of adjoining pieces made of different material for clothing of different texture (marble for the chiton, wood for the peplos and chimation) is observed on the marble right leg of B.1, where a flattened, oblong contact surface on the upper left thigh of the leg would accommodate a separate wooden piece carved with vertical folds of the peplos overfold; this wooden piece was fastened in place by means of a wooden wedged key inserted in the wedge-shaped channel cut horizontally on the upper part of the left lateral contact surface of the leg. The precise position of this wooden piece agrees with the folds that fall vertically over the upper left thigh of the relaxed leg on the Athena Medici torso in the Louvre (D.1)

¹⁴³ Some colossal heads were entirely made of marble with the decoration of the helmet completed with metallic attachments, such as animal protomes and crests (as attested by drill holes and dowel sockets) and/or painted gypsum or stucco (A.4, A.7, A.9, A.10, A.11, A.12, B.1). Many colossal heads, however, had the upper part of the helmeted head separately made of gilded, sheathed, or painted wood and attached (A.1, A.2, A.3, A.5, A.6, A.8, B.2, B.3, D.2, D.3), as attested by the slanted top contact surface of the head, the use of wedge-shaped channels with sliding wooden wedged keys and/or dowels for fastening, the angled or diagonal arrangement of the channels, and the use of minium – all of which are standard features of joining in woodworking (Despinis 1975, 34-38). This discrepancy can be explained away either as an attempt of the copyists to be faithful to the original prototype following the technique of construction to the letter, or, as an alternative, less expensive and laborious method of rendering the rich decoration of the helmet carved on wood

¹⁴⁴ A type of glue composed of minium from Sinope, ochre, and white clay that also waterproofed and protected the wood (Blumner 1887, 315, fn. 1; Orlandos 1958, 35, fn. 4; Lullies 1962, 41)

¹⁴⁵ Stevens 1957, 356; Leipen 1971, 19

¹⁴⁶ Despinis 1975, figs. 1, 2, 6, 7; 2012, 20-21

¹⁴⁷ In sequence: (i) from the bottom of the peplos and feet to the edge of the overfold; (ii) from the edge of overfold to the waist belt; (iii) and lastly, from the belt to the top of the helmeted head

between the torsos and acrolithic body members (Table 1.1, 1.2)¹⁴⁸ reveals a remarkable standardization in scale and proportions of the colossal copies of the Athena Medici.¹⁴⁹ Such standardization allows us to estimate the total height of the acrolithic prototype to ca. 3.40m (without including the pedestal of the statue or the height of the lowered spear).¹⁵⁰

Table 1.1 Proportions of the Athena Medici Right Leg

Athena Medici Copies	B.1	C.1	C.2
Length	1.75	1.03	1.52
Width	40	--	--

Table 1.2 Proportions of the Athena Medici Body

Athena Medici Copies	B.1	D.1	D.2	D.3
Length from plinth to belt	1.75	1.77	1.75	1.75
Maximum height	1.75	2.62	2.85	1.77

¹⁴⁸ The distance from the upper surface of the plinth up to the waist belt ranges from 1.75m (B.1, D.3) to 1.77 (D.1); the feet of B.2 and B.3 are identical in size (Amelung 1908, 138), just like the right legs of C.1 and C.2 (Paribeni 1959, no. 125); the latter have the same proportions (from ankle to knee) with the right leg of B.1.

¹⁴⁹ Minor deviations of a few millimeters can be explained by the varying degree of precision of the ancient copyists or of our own measurements

¹⁵⁰ Furtwangler (1896, 22, fn. 1) estimates the total height to 3.40m, whereas Pelekidis (1929, 137) decreases it to 3m. If we add the height of the head of B.1 (0.5m - measuring from the top of the helmet, without estimating the missing crests, to the beginning of the shoulder) to the height of D.1 (2.45m – measuring from the beginning of the shoulder to the upper surface of the plinth), we arrive at 2.95m (which matches with the height of D.3, the only copy that preserves the body and head united), to which we would have to add another 0.4m to compensate for the missing decorated crests of the helmet, thus arriving at a total height of 3.4m (without including the pedestal of the statue or the height of the lowered spear)

CHAPTER III: ICONOGRAPHIC AND STYLISTIC ANALYSIS

I. POSTURE

The Athena Medici stands fully armored in reverse contrapposto. Her posture is a balanced syncretism of peaceful and polemic, conveyed through the juxtaposition of inertness and motion on several interacting planes (right vs left side, arms vs legs, head vs body), which may reflect a dual character of the original prototype (cult statue and dedicatory/victory statue). According to the visual analysis of composition (Classes B-E), Athena's head is directed to the right, while the rest of her body remains frontal. Her legs are stationary, while her weapon-bearing arms are distanced from her torso. The uneven weight distribution of Athena, caused by her reverse contrapposto, produces an antithesis between her left and right side. Her left side is inert, carrying her body weight and shield in a static manner, as the raised left shoulder, hip, and hyper-extended left leg compensate for the weight of the shield lifted by her left arm; contrastingly, her right side is in motion with a range of subtle movements, including the right turn of the head, her free right leg, bent at the knee, projecting outward, the raised heel of the sandaled right foot touching the ground on its toes, and the spear-bearing right hand lowered forward (B.1, D.1-D.3).

II. ATTIRE

Athena has a multi-layered attire of assorted fabrics that differ in length, thickness, texture, and placement on the body (Classes B-D). The folds are carefully rendered to realistically represent the correct fluidity of the textiles. The reverse contrapposto pulls the thicker outer garment, a heavy woolen peplos, wide enough to reveal an inner layer of clothing, a linen ionic chiton (χιτών).¹⁵¹ The lighter fabric of the chiton covers the entire right leg as well as a small portion of the upper arms with short sleeves (χειρίδες) emerging from under the peplos. The fine texture of the chiton is rendered as translucent material by means of a combination of thick U-folds, resulting from the physical pulling of the bent, protruding right knee, and closely grouped, wavy thin lines, which is diagnostic of a transitional style in the mid-5th century BC.¹⁵² Over the thin chiton, the goddess wears a thick, woolen doric peplos (πέπλος), which forms a long overfold (απόπτυγμα) belted at the waist. The tightened belt produces the distinct V-folds over the chest and irregular S-folds on the side fringe,¹⁵³ which are frantic due to the motion of her right arm. The thick peplos covering the left

¹⁵¹ Lundgreen 1997, 8

¹⁵² Studniczka 1888, 287

¹⁵³ Lundgreen 1997, 9-10

supporting leg is rendered with long, vertical, fluted folds that terminate with typical S-folds at the hem, while folding over the left foot, a motif that also appears on the Athena Parthenos.¹⁵⁴ The monotony of the long, vertical folds is disrupted by thin furrows carved randomly on the rounded ridge of vertical folds, thus creating an interplay of light and shadow, and by small, tubular ridges that appear sporadically on the concave space between two vertical folds; both mannerisms appear also on the Athena Lemnia, yet less frequently.¹⁵⁵ The assorted attire includes a woolen mantle (μῆτιον), thrown over the left shoulder, which forms a fringe with typical S-folds on the side, and drapes on the back with roughly rendered, thick V-folds. The folds on the posterior of the colossal copies are completely inert and lack detail, appearing almost unfinished, which indicates that the original prototype, though sculptured in the round and placed indoors being an acrolith, was intended to be viewed only frontally (single-view point or ‘einansichtig’). The antithesis between the calm, inert left side of Athena and her active right side, caused by the reverse contrapposto and uneven weight distribution, is paralleled and further accentuated by an analogous juxtaposition of fabrics and textures (‘live’ linen chiton vs heavy woolen peplos) and fold types (dynamic U-folds and frantic S-folds vs calm long, vertical fluted folds).

The combination of the linen chiton and the woolen peplos that appears on the Athena Medici was particularly fashionable in Athens in the mid-5th century BC,¹⁵⁶ when the doric peplos was re-introduced in Athenian art and fashion.¹⁵⁷ The combined, lavish use of S-folds, V-folds, U-folds, and vertical fluted folds enlivened with furrows and ridges is characteristic of the third quarter of the 5th century BC. However, the rendering of the light, wrinkled texture of the chiton by merging two different fold treatments, the archaizing style of dense, wavy, thin lines and the high classical style of real folds, is diagnostic of a transitional style from the former to the latter, datable to ca. 450-440 BC.¹⁵⁸ According to fold typology and treatment, therefore, the original prototype of the Athena Medici must be dated to ca. 450-440 BC, and most probably closer to the higher date.

¹⁵⁴ Furtwängler 1895, 10-13; Boardman 1985, 93-94

¹⁵⁵ Furtwängler 1893, 4-36, pl. 1; Hartswick 1983, 335-346

¹⁵⁶ Furtwängler 1895, 24; Stewart 1990, 77

¹⁵⁷ Furtwängler 1895, 21-26

¹⁵⁸ Studniczka 1888, 287. The Athena Medici stands very close to the Athena Lemnia (ca. 451-447 BC) and the metopes (i.e. South 29) of the Parthenon (446-440 BC), which depict the same transitional style, but earlier than the Mattei Amazon by Pheidias (440-430 BC), which displays a combination of folds and ridges (rather than folds and lines). The next stage of development is represented by the pediments of the Parthenon (i.e. ‘Aphrodite’ of the East Pediment) (438-433/2 BC), which replaced the thin lines or ridges with realistic folds that have a life of their own, wrapping around the body, accentuating body contours, and producing an effect of transparency (eventually to develop into the so-called ‘wet style’ in the late 5th century BC) (Boardman 1985, 93-94)

III. HELMET

Athena's armor comprises a helmet, an aegis, a shield, and a spear, of which the helmet, aegis and the shield are preserved in Athena Medici copies. Visual examination of the extant copies confirms that the deity wore an Attic helmet, well known from actual finds and descriptions in ancient literary sources. The Attic helmet (περικεφαλαία or κράνος) can be identified by a number of diagnostic features, some of which have chronological significance as well: helmet (επίκρανον), crest(s) (λοφίον), neck-guard (επαυχένιον), cheek-guards (παραγναθίδες), brow-band (στεφάνη), visor, and pediment. Some colossal copies preserve the whole helmet (A.3, A.6, A.8, A.9, A.10, B.1), crowned with a single crest (A.6, A.8) or a triple crest (A.3, A.9, A.10, B.1).¹⁵⁹ Many colossal copies, however, are missing the top part of the helmeted head (A.1, A.2, A.4, A.5, A.7, B.2, B.3, D.2, D.3), preserving only a slanted top contact surface, cut at an angle above the lower edge of brow-band on the forehead and sloping backwards to the joint of the neck-guard, which forms an angled joint equipped with wedge-shaped channels and/or dowel sockets for the attachment of the separately made helmet, most likely of gilded or sheathed wood. The single-crested helmet has been reconstructed with a simple crest flanked by two winged horses (B.2),¹⁶⁰ or based on a sphinx (B.3),¹⁶¹ whereas the triple-crested helmet reconstructions are influenced by the Athena Parthenos (fig. 37).

The design of the neck-guard provides valuable chronological evidence for the original prototype, as the neck-guard on all colossal copies invariably represents the high classical type (longer rimmed neck-guard with rounded edges and outline, separately made and attached to the helmet), which differs from later versions of the Hellenistic period (short neck-guard fused with the helmet).¹⁶² The hinged cheek-guards have not survived, as they were made separately and attached, but their presence is well attested by dowel sockets or drilled holes for their attachment in raised position (A.3, A.7, A.9, A.10), or lowered on the face, as indicated by the stippled contact surface and presence of disbursed, small drill holes covering the corresponding area of the cheeks (B.1). The brow-band is invariably rendered

¹⁵⁹ Either version is represented in the reliefs F.2 (single-crested) and F.1 (triple-crested)

¹⁶⁰ The Pegasus (B.2) represents an unfolding of events that directly associate Athena to the mythological creature of wisdom. Pegasus was an offspring of Poseidon and Medusa, conceived in Athena's temple. To punish Medusa, Athena placed a curse on her appearance to prevent her from reproducing. When Perseus cut off Medusa's head, Pegasus and Chimera were born from her blood. The goddess Athena incorporated the apotropaic head of Medusa (gorgoneion) on her aegis over her chest, and tamed Pegasus teaching him to protect the mortals, before handing him over to Bellerophon to complete his deeds (Tarrant 1890, 28-30)

¹⁶¹ The sphinx (B.3) conveys a dual symbolism, that of a wise guardian, which reflects Athena's character as a deity (Athena Parthenos), but also of a formidable warlike goddess (Athena Areia), as the sphinx represents death by a monster, thus projecting the darker persona of the warlike deity (Lewis and Bolden 2002, 127-129)

¹⁶² Tarassuk and Blair 1982, 258

with the standard central pointed tip projecting on the forehead, a mere relic of the long nose-piece (επιρρίνιον) of the proto-Attic Chalkidean (early fifth century BC), whereas the visor, a late feature that emerged after the 4th century BC, appears only once (A.3). Several colossal copies (A.7, A.9, A.10, B.1, D.2) preserve a horizontal series of evenly spaced drill holes in the frontal area of the helmet above the brow-band, known as the pediment, intended for the attachment of an olive wreath (based on the iconography of Imperial Athenian coins),¹⁶³ or animal protomes (fig. 38), similar to Athena Parthenos.¹⁶⁴

IV. AEGIS

Similar to the helmet, the aegis (αίγις) was crafted to protect its wielder and create confusion to the opponent during combat.¹⁶⁵ In mythology, the aegis was associated with Zeus and Athena; forged by Hephaestus from the ‘goatskin’ of Amalthea¹⁶⁶ with golden tassels and a boss of the apotropaic gorgoneion head, for Zeus¹⁶⁷ as a shield in the battle of the Olympian gods against the Titans (Titanomachy), the aegis was offered by Zeus to his motherless daughter, Athena, a symbolic gesture of patronage and affection.¹⁶⁸ In classical art and literature, Athena is presented wearing the aegis as a breastplate (*cuirass*) made from the skin of defeated opponents, forged by Athena herself, which also birthed her with multiple epithets.¹⁶⁹

The Athena Medici copies preserve five variants of the aegis (Classes D-E), including a large, scaled aegis with a gorgoneion fixed in the center of the aegis (D.2, E.1, E.8) or mid-

¹⁶³ Amelung 1908, 176; Langlotz 1960, 167; the olive wreath was a symbol of peace, but also one of victory

¹⁶⁴ The building accounts of the Parthenon preserve records of stored objects called griffin protome, horse, lion, and dragon heads, which may refer to duplicate spare parts for the helmet of the Athena Parthenos (Michaelis 1871, 296, 297, 303, 313). Among the Athena Parthenos copies displaying animal protomes on her helmet, the closest representation to Athena Medici is the *Minerve au Collier*, Paris, Louvre, Inv. No. Ma 91 (Picard 1939, 391-392, fig. 163; Charbonneaux 1963, 18-19; Leipen 1971, 6, fig. 13, no. 19; Bieber 1977, 90-93, pl. 66, fig. 401-402; Canciani 1984, 1074-1109, 1085, no. 142C); the gold medallion of Ermitage displaying five animal heads of griffins alternating with five stag heads, (Frazer 2012, 316); and the Intaglio Red Jasper Ring of Aspasius, Vienna, with a row of heads of griffins and stags, and a row of the foreparts of horses in gallop (Furtwangler 1888, pl. 10, no. 10; Frazer 2012, 316)

¹⁶⁵ Orchard 2012, 96-104

¹⁶⁶ Amalthea was the goat that breastfed the infant Zeus, while hiding from Cronus in the Idaion Cave in Crete, where he was thrown by Cronus' wife Rhea to save him from his father, with the Cretans banging their shields to cover the sound of his crying. Amalthea was also personified as a nymph who nursed infant Zeus goat milk

¹⁶⁷ In the *Iliad* Zeus is called ‘αίγιοχος’ or ‘aegis-bearer.’ When the aegis was drummed, an earthquake would emerge from Mount Ida in the form of a roaring thunderstorm that would cape over the mountain slopes striking fear to deities and mortals alike. Thus, the divine properties of the aegis characterized the sky god, Zeus, by concentrating storm clouds while simultaneously protecting its possessor with an impenetrable surface (Orchard 2012, 88)

¹⁶⁸ Murray 1889, 283. The degradation of the slain enemy and heroic adornment with parts of their conquered rivals (weapons or clothing) was customary as a sign of dominance. The most primitive and fundamental act of dominance by heroes or gods was flaying the skin of an opponent and wearing it

¹⁶⁹ Powell 1998, 140

way at the edge of the aegis (E.2); a large, plain aegis with a central gorgoneion (D.3, E.6), or set mid-way at the edge of the aegis (E.3); and a small, plain, bib-shaped aegis with a central gorgoneion (E.6). All these versions incorporated serpents detached from the gorgonian head and weaved in the perimeter of the aegis. The scaled aegis is the most favored in sculpture and literature as an attribute of Athena's 'warlike' persona. Homer (*Il.* 2.446-49, 24.20-21) describes Athena's aegis with epithets that hint at a metallic object, such as golden, bright, or worth a hundred oxen.¹⁷⁰ It is possible, therefore, that the original acrolith of the Athena Medici had a scaled aegis made of gilded or sheathed wood, a soft material to carve the scaled texture of the aegis.

V. SHIELD AND SPEAR

The Athena Medici holds weapons that complete her armored figure and signify her 'warlike' persona. The chiton sleeves on the full-bodied colossal copies (D.1, D.2, D.3) indicate the placement and direction of Athena's arms: the right sleeve drapes relatively low, indicating that her right arm is lowered forward, whereas the left sleeve is pulled up from raising her left arm. From the sleeve lengths, one can deduce the weight of the weapons carried, the left arm carrying a heavy shield, as opposed to the right, most likely bearing a spear. Two small copies preserve part of a shield on the rear left side over the mantle (E.4, E.5), while one of the colossal copies displays on the very same spot (on the left side of the mantle and above the socket of the missing left arm) a contact surface and a dowel socket cut obliquely for the attachment of the shield, which was separately made of gilded or sheathed wood. All three copies depict the shield on the back of the deity, thus indicating that the left arm was open, turning to the left and thus displaying the interior of the shield, which agrees with the rather exaggerated gesture of a small copy (E.6) and the iconography of the relief copies and Imperial Athenian coins (Classes F-G). Athena's left arm was indeed distanced from her torso, but the shield may have faced inward to emphasize her defensive stance. The only surviving example of shield decoration (E.4) displays a plain shield with a central boss in the form of a gorgoneion.

The only surviving colossal acrolithic right hand (B.1) indicates that the right hand faces downwards in a closed grip as the fingers curl inwards,¹⁷¹ and that the open space between the curled fingers and the palm of the hand most likely lodged a cylindrical object

¹⁷⁰ Deacy and Villing 2009, 112; Orchard 2012, 89, fn. 7

¹⁷¹ On the upper edge of the broken thumb remains the tip of the middle finger, confirming that the two were attached (B.1)

(the staff of a spear) held at an angle. Therefore, the right arm of Athena was lowered forward and her right hand held a spear obliquely from a low point of the shaft, as if ready to raise it. This gesture of readiness, combined with the lifting of the shield by the left arm, conveys the polemic character and war-like persona of Athena, different from the calm posture of the Athena Parthenos who simply holds the lowered shield and spear resting on the ground, while raising her right arm to hold a winged Nike. The proposed reconstruction of the Athena Medici holding a phiale with her right hand (a common gesture for cult statues), while lifting the shield with her left arm and holding the spear in her right hand,¹⁷² which was based on the iconography of the relief copies and on Imperial Athenian coins of the 3rd century AD¹⁷³ is contradicted by the only surviving colossal acrolithic hand (B.1) that forms a closed grip, thus making it impossible to hold a phiale; furthermore, making a libation for victory would require the lowering or disarmament of weapons. Yet, unlike the Athena Parthenos, the Athena Medici maintains a defensive stance, which adds a particular twist to the standard calmness and peaceful nature of a cult statue.

VI. HEAD

All the copies of the Athena Medici invariably turn the head slightly to the right, which would be usual for a dedicatory statue, but surprisingly unique for a cult statue. The direction of the head of the Athena Medici can be established with a mathematical sequence that measures the rotation of the cranium based on the alignment of three axes, known as yaw, roll, and pitch.¹⁷⁴ The combined application of these parameters of measurement calculates the degrees of motion or stillness within the figure itself. The cranial rotation of the Athena Medici has a visible right-bound deviation from the central vertical axis that stretches from the pointed tip of the helmet's brow-band on the forehead to the nose and the jugular notch at the base of the neck. As the head turns to the right, the central vertical axis defined by the nose and the chin moves off-center in relation to the jugular notch on the neck (A.3, B.1). The turn of Athena's head to the right is accentuated by the neck muscles in tension (A.3), and further complemented by the off-axis position of her tied hair on her back, which falls slightly to the left, that is, diagonally opposite from the turn of the head (A.5, D.1, E.1, E.4).

¹⁷² Furtwangler 1896, 21; Amelung 1908; Eckstein-Wolf 1957, 39-75; Simon 1953; Kroll, 1982, 65-76, 75

¹⁷³ Kroll 1993, Athenian Bronze Coins, 3rd century AD, Plate 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

¹⁷⁴ Yaw (up and down motion), roll (front and back motion), and pitch (side to side motion) (Silva 2007, 14-1 – 14-4)

VII. HAIR

The Athena Medici copies (Classes A-E) obey a uniform, standard hair-style in terms of strand type, shape, thickness, texture, and arrangement, tailored to frame the face and act as a comfortable base for her helmet to rest. Athena's hair is formed of a mass of thick, wavy strands that are centrally parted in the front and tied low in the back. The frontal hair presents two distinct variants, either centrally parted hair strands that begin on either side of the pointed tip of the helmet's brow-band and extend to the ears (A.9, A.10, B.1, B.2, B.3, D.2, E.6), or more compact, bushy masses of wavy hair strands emerging under the helmet at the temples and resting above the ears (A.1, A.2, A.3, A.6, A.7, A.8).

Athena's hair on the back escapes from underneath the neck-guard in the form of long wavy hair strands that are usually knotted at a lower point on the back, as attested by the hair knot that falls slightly to the left, diagonally opposite from the turn of the head (D.1, E.1, E.4), or, where the hair knot is missing, by the narrowing of the hair mass on the back at the fracture point (A.2, A.5, A.6, A.7, A.9, A.10). Some copies display a different variant, with the wavy hair strands falling free on the back without a knot (A.1, A.3, A.8), or with the hair rendered not in the form of wavy coils, but as a smooth mass (E.4).

VIII. FACIAL FEATURES

The faces of the Athena Medici colossal heads conform invariably to specific features, structure, and proportions, which distinguish their type from other face types and variants: an oval facial structure, centrally parted wavy hair, a small forehead, sharp arched eyebrows that parallel the length and shape of the eyes, which are outlined by pronounced upper and lower eyelids, eyes hollowed and inlaid, or filled and painted, a straight nose with a break between the eyes, plush cheeks, bowed parted lips, rounded chin, "Venus Rings" on the neck in the form of two or three horizontal lines, and pierced earlobes (figs. 39-43).¹⁷⁵ The most studied and characteristic face of the Athena Medici type is the colossal head of Thessaloniki (B.1), to which other colossal heads (A.1, A.2, A.6, B.2, B.3) have been compared and contrasted, confirming that the dimensions and proportions of the face, both frontally and in profile, are nearly identical, with only minimal divergence of a few millimeters.¹⁷⁶

¹⁷⁵ Lundgreen 1997, 9

¹⁷⁶ Eiring and Mejer 2004, 77. Such minimal deviations can be explained by the varying degree of precision of the ancient copyists or of our own measurements

Table 1.3 Proportions of the Athena Medici Face¹⁷⁷

Athena Medici Copies	A.1	A.2	A.6	B.1	B.2	B.3
distance between the tip of the brow-band to the tip of the nose	0.146	0.14	0.142	0.14	0.149	0.145
distance between the tip of the brow-band to center of the parted lips	0.17	0.17	0.165	0.17	0.17	0.17
distance between the tip of the brow-band to edge of the chin	0.25	0.235	0.25	0.25	0.25	0.25
distance between the inner corners of the eyes	0.047	0.05	0.045	0.05	0.049	0.05
distance between the outer corners of the eyes	0.149	0.15	0.152	0.15	0.152	0.15
distance between the left and right ears	0.23	0.237	0.225	0.225	0.23	0.25
width of the mouth	0.061	0.067	0.065	0.062	0.067	0.062
diameter of the neck	0.19	0.197	0.196	0.195	0.198	0.195

Mathematical algorithms that later solidified into ‘canons’ established divisions of the human face and body in order to determine the ideal placement of features and proportions in search of the perfect face and body in terms of harmony and aesthetics. Facial configuration, both frontal and profile, involve vertical proportions that divide the face into a three-section profile, and overlapping horizontal proportions that follow the ‘rule of thirds,’ meaning that the face is divided into three main sections: from the top of the hairline to the eyebrows, from the eyebrows to the nose, and from the nose to the chin. Within these divisions are formed subdivisions again measured in thirds in order to determine the correct placement of features such as the eyes, nostrils, and lips. The grid created by the vertical and horizontal lines forms a collection of geometric shapes whose length (separated into two unequal segments) and the width equal a numerical constant measuring to $\Phi = 1.168$, known as the ‘divine proportion’ or the Golden Ratio.¹⁷⁸ This mathematical sequence was applied to architecture and art (especially on the rendering of the human body), as it is thought to reflect the fine balance of symmetry and asymmetry in nature.

The Athena Medici type embodies a balanced antithesis in posture (motion and inertness) and character (polemic and peaceful), conveyed and accentuated by a plethora of calculated symmetries and asymmetries in form and structure, artistic conventions,

¹⁷⁷ Amelung 1908, 169-211; Theophanidis 1930-1931, 171-176; Eiring and Mejer 2004, 75-77

¹⁷⁸ The Golden Ratio is known as: the “divine proportion,” Fibonacci ratio, Phi Canon (Meisner 2018)

materials,¹⁷⁹ techniques,¹⁸⁰ fabrics and textures,¹⁸¹ polychromy,¹⁸² and dramatic interplay of light and shadow gathering in the deep folds, cavities and ridges of the goddess' garments, a holistic approach that creates an impressive, rich, and aesthetically pleasing artwork without depriving the statue of its intended purpose (cult and/or dedicatory), character, and esoteric power.

¹⁷⁹ Marble for the head and extremities, gilded or sheathed wood for clothing and armor, metallic attachments of gold, silver, and bronze for jewelry and armor, copper for eyelids, ivory and precious stones for the inlaid eyes

¹⁸⁰ Acrolithic, woodworking, marble sculpting, metal casting, inlay, ivory carving, gilding, sheathing, cold hammering, painting

¹⁸¹ A wardrobe of woolen peplos and mantle, linen chiton, scaled aegis

¹⁸² Polychromy on hair, clothing, armor

CHAPTER IV: DATING, IDENTIFICATION, AND HISTORICAL CONTEXT

The classification and examination of the extant corpus of the Athena Medici copies demonstrated that the copies, especially the colossal sculptures of Classes A-D, display striking similarities in their standardized features and proportions, which confirms that they must refer to an original prototype. The comparative technical, iconographic, and stylistic analysis of the surviving replicas enables us to formulate a standard set of parameters for the identification of the original prototype. These parameters address size, construction technique, style, iconography, chronology, function, topological context and historical significance. Accordingly, from the interdisciplinary analysis above we deduce that the original prototype of the Athena Medici:

- 1) must have been a famous sculpture in antiquity, to judge from its numerous copies (28+) in various media (Chapter I)
- 2) must have been directly connected with the city of Athens either by location and/or historical context (and possibly by sculptor), as its image appeared on Imperial Athenian coins (Chapter I)
- 3) was an acrolithic sculpture of colossal size (3.40m), as suggested by the vast majority of colossal acrolithic copies (15 out of 18, or 83%), and their standardized dimensions and proportions; the acrolithic prototype must have been displayed indoors, like all acroliths, apparently set against a wall, as indicated by the invariably roughly finished posterior side of all the copies (Chapter II)
- 4) should be dated on stylistic criteria (attire, fold typology, type of helmet) to the mid-5th century BC, and specifically to the early part of the decade 450-440 BC (Chapter III)
- 5) must have been a statue of dual character and function, intended to serve both as cult statue and dedicatory monument (Chapter III)

Given the absence of direct evidence that would categorically associate the Athena Medici type with a particular prototype, it is the cumulative effect of strong circumstantial evidence that may finally identify the elusive original prototype, which should satisfy *all* the preset parameters.

The prototype of the Athena Medici was, without doubt, a significant, if not famous sculpture in antiquity, to deduce from the large number of replicas, the reproduction of its iconography in various media, the consistent and accurate rendering on the colossal copies of

its standardized features and proportions, which created a ‘type.’ Minor variations do exist, but they appear on copies of reduced size, which by definition are less faithful to the original, as they conveyed summarily a general impression of the prototype without reproducing the original in detail. The adoption of the Athena Medici iconography on the reverse of Imperial Athenian coins of the 2nd/3rd century AD (Class G) is a key parameter for the identification of the original prototype, as it establishes a potential historical and topological association of the original with the city of Athens. The imagery on coins facilitates political propaganda, promotes state image, preserves historical memory, and disseminates cultural values very effectively, as coins travel fast and are exchanged from hand to hand. Of the three statues of Athena represented on Athenian coins, namely the Athena Promachos, the Athena Parthenos, and a hitherto unknown type, which appears to be the Athena Medici, the former two were colossal statues commissioned by the state and paid from the spoils of the Persian Wars (490-479 BC). The bronze Athena Promachos (465-456 BC) was set up on the Acropolis of Athens as a victory monument, while the chryselephantine Athena Parthenos (438-432 BC) was made to serve as a cult statue in the Parthenon. In view of this emerging pattern, it is logical to assume, as a working hypothesis, that the third Athena (Medici) may have also been associated with the Persian Wars. Consequently, from the long catalogue of sculptures that were made from the war tithes and/or dedicated as victory monuments for the Persian Wars in the 5th century BC, five of which were commissioned to Pheidias,¹⁸³ by process of elimination, only one candidate readily satisfies four of the five parameters set above (significance, scale/technique, chronology, dual character of cult statue/victory monument) to be identified as the potential prototype of the Athena Medici, and that would be the acrolithic Athena Areia¹⁸⁴ made by Pheidias for the temple of Athena at Plataea, according to Pausanias, *Description of Greece* 9.4.1:

“The Plataeans have also a sanctuary of Athena surnamed Areia (warlike); it was built from the spoils given to them by the Athenians as their share from the battle of Marathon.

The Plataeans too had Pheidias for the maker of their image of Athena. It was a wooden image gilded, face, hands and feet are of Pentelic

¹⁸³ In chronological order: Marathon monument of 13 bronze statues in Delphi (469-460?), bronze Athena Promachos in Athens (465-456), acrolithic Athena Areia at Plataea (ca. 450 BC), chryselephantine Athena Parthenos in Athens (438-432 BC), chryselephantine Zeus of Olympia (ca. 430 BC)

¹⁸⁴ An identification proposed by Thiersch (1938, 211) and Lippold (1950, 142); Davidson (2009, 465) argued against it, claiming that the parameters of scale and tentative date of Athena Areia, as described by Pausanias, do not match those of the Athena Medici type, while the location of Athena Areia outside of Athens would not make it suitable or appropriate to be depicted on Athenian coins.

marble; in size it is but little smaller than the bronze Athena on the Acropolis.

In the temple are paintings: one by Polygnotus represents Odysseus after he has killed the wooers; the other painted by Onasias is the former expedition of the Argives, under Adrastus against Thebes. These paintings are on the walls of the foretemple; at the feet of the image is a portrait of Arimnestus, who commanded the Plataeans at the battle against Mardonius, and yet before that at Marathon.¹⁸⁵

For our working hypothesis to stand, we must first examine whether the precise dates of the Athena Areia and the Athena Medici agree. Despite the wide range of proposed attributions and tentative identifications, there is a consensus among scholars for dating the Athena Medici type sometime in the 5th century BC (Introduction).¹⁸⁶ This rough date can be narrowed down to the margin of a decade, ca. 450-440 BC, and most probably closer to the higher date (450 BC) on the basis of fold typology, attire, and type of helmet of the Athena Medici.¹⁸⁷ As discussed in Chapter III, the combination of the linen chiton and the woolen peplos that appears on the Athena Medici was particularly fashionable in Athens in the mid-5th century BC,¹⁸⁸ when the doric peplos was re-introduced in Athenian art and fashion. The combined, lavish use of S-folds, V-folds, U-folds, and vertical fluted folds enlivened with furrows and ridges is characteristic of the third quarter of the 5th century BC.¹⁸⁹ More specifically, the rendering of the light, wrinkled texture of the chiton by merging two different fold treatments, namely the archaizing style of dense, wavy, thin lines conveying the thinness of the material through wrinkles (exemplified by the Youth of Motya, 480-470 BC)¹⁹⁰ and the high classical style of real folds for the chiton that produce an effect of transparency (illustrated in the female figures of the East Pediment of the Parthenon, 438-433/2 BC),¹⁹¹ is diagnostic of a transitional style from the former to the latter, datable to ca.

¹⁸⁵ LCL: Pausanias Description of Greece IV, translation W.H.S. Jones, 1955

¹⁸⁶ Sybel 1880, 103; Lange 1881, 197; 1890, 197; Furtwangler 1893, 50; 1896, 19, 21; Hermann 1899, 170; Noack 1909, 637; Lechat 1900, 390; Furtwangler 1906, 330; Amelung 1908, 196; Schrader 1911, 39, 80; Svoronos 1912, 323; Frickenhaus 1913, 354; Hadaczek 1913, 23; Bulle 1922, 683; Schrader 1924, 76-77; Pelekidis 1927, 122; Winter 1927, 118; Theofanidis 1930-1931, 171; Thiersch 1938, 211-257; Lippold 1950, 155, 189; Richter 1950, 106; Langlotz 1960, 172; Berger 1965, 86; Langlotz 1972/1974; Despinis 1975, 26, 52; Harrison 1988, 101-107; Neils 1992, 185; Höcker and Schneider 1993, 39-50, 51-57; Harrison 1996, 57; Strocka 2004, 215-217

¹⁸⁷ Strocka (2004, 215-217) proposes a slightly higher date (460 BC)

¹⁸⁸ Furtwangler 1895, 24; Stewart 1990, 77

¹⁸⁹ Boardman 1985, 93-94; Stewart 1990, 77

¹⁹⁰ Strocka 2004, 215-217; Bode 1993, 103; Denti 1997, 126

¹⁹¹ Boardman 1985, 98-102; Stewart 1990, 152-154

450-440 BC.¹⁹² Within this chronological bracket (fig. 44), the Athena Medici stands very close to the Athena Lemnia (ca. 451-447 BC) and the South metope 29 of the Parthenon (446-440 BC), which depict the same transitional style, but earlier than the Mattei Amazon (440-430 BC), which displays a combination of folds and ridges (rather than folds and lines).¹⁹³ Furthermore, the Athena Medici and the Athena Lemnia display the same pattern of thin furrows carved on the rounded ridge of vertical folds, and small tubular ridges on the concave space between two vertical folds, thus creating an interplay of light and shadow to break up the monotony of the long, vertical folds. The design of the neck-guard also provides valuable chronological evidence for the original prototype, as the neck-guard on all colossal copies of the Athena Medici invariably represents the high classical type of Attic helmet (longer rimmed neck-guard with rounded edges and outline, separately made and attached to the helmet), which emerged in the mid-5th century BC, having developed from the proto-Attic helmet with a long nose-piece (a version of the Chalcidean helmet), and differs significantly from later versions of the 4th century BC and the Hellenistic period (short neck-guard fused with the helmet).¹⁹⁴

On the other hand, the precise date of the statue of Athena Areia is debated; without solid archaeological evidence, as her temple and sanctuary at Plataea have not been located yet, we can only turn to the ancient literary sources in search for a historical context in order to narrow down the date for the statue that was made by Pheidias sometime in the 5th century BC. According to Pausanias, *Description of Greece* 9.4.1, the temple of Athena Areia was *built* from the tithe of the battle of Marathon (490 BC), whereas Plutarch, *Aristeides* 20.3 attests that it was *rebuilt* from the tithe (80 talents) of the battle of Plataea (479 BC):

“Thus reconciled, they chose out eighty talents of the booty for the Plataeans, with which they rebuilt the sanctuary of Athena, and set up the shrine, and adorned the temple with frescoes, which continue in perfect condition to the present day.”¹⁹⁵

In either case, whether the funds came from the battle of Marathon or the battle of Plataea (or both), the sanctuary and temple could not have been built during the Persian Wars (490-479 BC) or re-built immediately after 479 BC. The construction of the temple was most likely delayed for a decade due to the oath taken by the Greeks before the battle of Plataea

¹⁹² Studniczka 1888, 287

¹⁹³ Studniczka 1888, 287; Boardman 1985, 93-94

¹⁹⁴ Tarassuk and Blair 1982, 258; for the typology of ancient Greek helmets, cf. Hixenbaugh 2019

¹⁹⁵ LCL Plutarch's Lives II: Aristides, translation by B. Perrin, 1959

for destroyed temples to remain in ruins as monuments to remember the Persian barbarism.¹⁹⁶ If building activities for the temple of Athena Areia commenced by 470/469 BC, when the oath was abandoned, then we can safely assume that the temple and the wall paintings in the prodomos, painted by Polygnotus and Onasias, were completed by 460 BC; this would agree with the career of Polygnotus, who by 458 BC was already working in the Stoa Poikile in Athens. Consequently, the acrolithic cult statue of Athena Areia must have been made by Pheidias between 460 BC (when the temple of Athena Areia was completed) and 448/7 BC (when he commenced working in the building project on the Athenian Acropolis), most probably later rather than earlier within this time frame, closer to the lower date, if we consider the career of Pheidias. The great sculptor was commissioned five state sculpture projects that were connected with the Persian Wars (victory monuments and/or funded from the spoils of the Persian wars), including the Marathon monument of 13 bronze statues at Delphi (469-460) and four colossal statues, namely the bronze Athena Promachos on the Acropolis at Athens (465-456), the acrolithic Athena Areia at Plataea (ca. 460-448/7 BC), the chryselephantine Athena Parthenos in the Parthenon at Athens (438-432 BC), and the chryselephantine Zeus in the temple of Zeus at Olympia (ca. 430 BC). Born during the Persian Wars (ca. 488 BC), Pheidias, son of Charmides, was still a young rising sculptor in Athens in the 460s, who had not gained yet panhellenic recognition to be commissioned by another Greek city. By 450 BC, however, he was already widely known as a sculptor for the Marathon monument and the Athena Promachos, both victory monuments for the Persian Wars. His reputation, his association with projects of Persian War monuments, and his Athenian origin may have prompted the Plataeans, a loyal ally of Athens, to commission Pheidias for the statue of Athena Areia, yet another project connected with the Persian Wars (cult statue and victory monument). The construction of a colossal acrolithic statue like Athena Areia would probably require two or three years of work (by comparison with the longer time needed for the completion of the larger, more complex, and more costly Athena Promachos and Athena Parthenos – 9 and 6 years, respectively). Considering the career of Pheidias, the only available time frame for taking up commissioned work for the Athena Areia at Plataea, whose sanctuary and temple had been completed by ca. 460 BC, would be in the late 450s, after completing the Athena Promachos in 456 BC (*terminus post quem*), most likely while working on the Athena Lemnia (451-447 BC), which shares many similarities with the Athena Medici in terms of typology and right turn of the head, and

¹⁹⁶ Boardman 1985, 90

certainly before taking up work on the Athenian Acropolis in 448/7 BC (*terminus ante quem*). It appears, therefore, that the Athena Medici and the Athena Areia, dated independently from each other on stylistic criteria (the former) and historical contextual evidence (the latter), were produced in the very same period (ca. 450 BC), which would allow the possibility for them to be one and the same statue.

If the Athena Medici *is* indeed the Athena Areia, however, the location of the Athena Areia outside of Athens would make the image of the cult statue of a foreign city unsuitable or inappropriate to be depicted on Athenian coins.¹⁹⁷ If so, how would the Athena Medici satisfy the parameter of direct topological and/or historical connection with the city of Athens? The answer lies in the ancient testimonia and an iconographical detail in the Athena Medici. Typically of checkerboard foreign policy, Plataea was a loyal ally to Athens for fear of Thebes, their foes and neighbours in Boeotia. Plataea was the only city-state that sent help to Athens with a force of 1000 men under the leadership of general Arimnestos, who fought alongside the 10,000 Athenian hoplites in the battle of Marathon (490 BC). A decade later, it was the same Plataean general, Arimnestos, who, according to Plutarch, *Aristides* 11.6-8, convinced Aristides and the Athenians to remain and fight at Plataea (479 BC) by interpreting differently a Delphic oracle that prophesized victory only if the Athenians fought in the plain of the sanctuary of Demeter and Kore, and showing the Athenians that there was another sanctuary of Demeter and Kore at Plataea.

“that the oracle might leave no rift in the hope of victory, the Plataeans voted, on motion of Arimnestus, to remove the boundaries of Plataea on the side toward Attica, and to give this territory to the Athenians, that so they might contend in defence of Hellas on their own soil, in accordance with the oracle.¹⁹⁸

At the time of the battle of Plataea, therefore, the land of Plataea became formally Athenian territory. To commemorate victory, as prophesized by the Delphic oracle, a temple dedicated to Athena Areia was built in Plataea. Consequently, the Athena Medici/Areia identification satisfies in essence the parameter of direct topological and historical connection with the city of Athens. This dual connection with Athens may also explain why the decoration of the temple of Athena Areia served Athenian political propaganda, as it conveyed messages against the Thebans who had medized, by means of allusions to the fate of traitors (Polygnotus’ painting of Odysseus after killing the suitors, and Onasias’ painting

¹⁹⁷ Davidson 2009, 465

¹⁹⁸ Plutarch, *Aristides* 11.8

of the Seven against Thebes) and by appropriating the name of Ares, patron god of Thebes, as an epithet for Athena ('Areia'), patron goddess of Athens. Later on, a sanctuary for the joint cult of Athena Areia and Ares was established in the Attic demos of Acharnai, where a stele was placed in the 4th century BC, engraved with the 5th-century-BC Ephebic Oath and the 'Oath of Plataea'¹⁹⁹ to strengthen the direct religious, cultural, political, and historical links between Athens and Plataea. The historical and political connections of Athens and Plataea were further echoed in the relief decoration of the pedestal of the statue of Athena Areia that included the figure of the Plataean general Arimnestos, who played a key role in both battles of Marathon and Plataea, thus linking these two glorious victories and the protagonist role of the two allied cities of Athens and Plataea.

A subtle but significant detail: all the copies of the Athena Medici invariably turn the head slightly to the right, which would be quite usual for a dedicatory statue (i.e. Athena Lemnia), but conspicuously unique for a cult statue. No explanation has ever been offered for this remarkable deviation from standard practice. I believe that this slight right turn of the head of the Athena Medici/Areia was intentional and deeply symbolic, as the angle of the turn matches exactly the difference in the azimuth angle between Plataea and Marathon (10°) (fig. 45). Therefore, being placed against the west wall of her temple at Plataea, the goddess stands where the final battle of the Persian Wars took place (479 BC), and turns her head slightly to the right, gazing with respect in the direction of Marathon, where it all began with the first glorious Athenian victory against the Persians (490 BC). This would be an ingenious, subtle gesture of historical and topological reference, and deep political symbolism that glorified Athens without offending the Plataean hosts of the statue. The right turn of the head locks in the identification of the Athena Medici (fig. 46), which henceforth should be called with her own Greek epithet, Athena Areia.

¹⁹⁹ Kellogg 2013, 263-235

BIBLIOGRAPHY

- Adam, S. 1966. The Technique of Greek Sculpture in the Archaic and Classical Periods. *The British School at Athens. Supplementary Volumes 3*, 5-215
- Ajootian, A. 1996. "Praxiteles," in *Personal styles in Greek sculpture* (YCS 30), O. Palagia and J.J. Pollitt, eds., Cambridge: Cambridge University Press
- Allen Memorial Art Museum Collection 1939 (website), no. 1939.139:
<https://allenartcollection.oberlin.edu/objects/8669/head-of-athena?ctx=ad468f4e5537980712920f11411de17ccbac7e0d&idx=15#>
- Amelung, W. 1903. *Die Sculpturen des Vaticanischen Museums, Vol I and II*. Berlin: G. Reimer
- Amelung W. 1908. "Athena des Phidias." *ÖJh* 11, Berlin: G. Reimer, 169-211
- Amelung W. 1925. "Zum Kopftypus der Athena Medici." *Mitteilungen des Deutschen Archaeologischen Instituts, Roemische Abteilung* 40, 137-138
- Anderson, C.A. 1995. *Athena's Epithets*. Stuttgart and Leipzig: Teubner
- Andrae, B., M. Stadler, and K. Anger, 1994-1995. *Bildkatalog der Skulpturen des Vatikanischen Museums I: Museo Chiaramonti, vols. 3*. Berlin; New York: W. De Gruyter
- Aurenhammer, M. 1985. "Athena Medici in Ephesos." *Festschrift Hermann Vetters*, 212-215, pl. XXV, 1-3. Wein: Adolf Holzhausens
- Bachielli, L. 1996. *Scritti di antichità in memoria di Sandro Stucci: La Cirenaica, la Grecia et l'Oriente Mediterraneo*. Rome: L'Erma di Bretschneider
- Becatti, G. 1951. *Problemi Fidiaci*. Milano/Firenze: Electa editrice
- Berger, E. 1965. "Phidias." *LAW*, 2287-2289
- Berger, E. 1967. "Eine Athena aus dem späten 5. Jahrhundert v. Chr." *AntK* 10, 82-88
- Bernoulli. 1867. *Über die Minerven-Statuen*. Buchdruckerei von C. Schultze
- Bieber, M. 1977. *Ancient Copies: Contributions to the History of Greek and Roman Art*. New York: New York University Press
- Blümner, H. 1887. *Technologie und Terminologie der Gewerbe und Künste bei Griechen und Römern, Vol. IV*. Leipzig Berlin Teubner
- Boardman, J. 1964. *Greek Art*. London: Thames and Hudson Ltd
- Boardman, J. 1985. *Greek Sculpture: The Classical Period*. London: Thames and Hudson Ltd, London

- Bode, N. 1993. "Die Statue von Mozia: Hamilkar als Heros." *AntK* 36, 103-110
- Braun, K. and C. Reinsberg. 1998. *Katalog der Antikensammlung des Instituts für Klassische Archäologie der Universität des Saarlandes*: Bibliopolis, Möhnesee
- Brunn, H. and F. Bruckmann. 1888. *Denkmäler griechischer und römischer Sculptur in historischer Anordnung*. München: F. Bruckmann
- Bulle, H. 1922. *Der schöne Mensch im Altertum. Eine Geschichte des Körperideals bei Ägyptern, Orientalen, Griechen*. München, G. Hirth
- Canciani, F. 1984. "Athena/Minerva." *LIMC* II, 1074-1109
- Capps Jr., E. 1952. "A Marble Head of Athena from Salonika." *Allen Memorial Art Museum Bulletin* 10, 76-89
- Chamoux, F. 1944-1945. "Le type de la Minerve Ingres." *Bulletin de Correspondance Hellénique*, 68-69, 206-239
- Charbonneaux, J. 1963. "La sculpture grecque et romaine au Musée du Louvre." *Paris, éd. des musées nationaux* (Collection of Visitor Guides), 25-26
- Clarac, C. 1850. *Musée de sculpture antique et modern, vol. 5*. Paris: Planches
- Clarac, C. 1853. Musée du Louvre (Paris). *Département des antiquités grecques, étrusques et romaines*. Paris: Planches, le Louvre et les Tuileries, III
- Collignon, M. 1892. *Histoire de la sculpture grecque: Les origines; les primitifs, l'archaïsme avancé, l'époque des grands maîtres du cinquième siècle, Tome premier*. Paris: Firmin-Didot
- Davidson, C.C. 2009. *Pheidias. The Sculptural & Ancient Sources*, Volume I. Bulletin of the Institute of Classical Studies. London: Oxford University Press
- Darvill, T. 2002. *The Concise Oxford Dictionary of Archaeology*. Oxford University Press; 2nd edition
- Deacy, S.V. 2009. "What Was the Colour of Athena's Aegis?" *The Journal of Hellenic Studies* 129, 111-129
- Dean, N.S. 1921. "Archaeological News." *AJA* 25, 955-1044
- Demargne, P. 1984. "Athena." *LIMC* II, 977-978
- Denti, M. 1997. "Typologie et iconographie de la statue masculine de Mozia." *RA*, 107- 128
- De Ridder, A. 1909. Bulletin Archéologique. *Revue Des Études Grecques*, 22: Trimestrielle de l'Association pour l'Encouragement des Études Grecques (98/99)
- Despinis, G. 1975. "Ακρόλιθα." *ArchDelt Demosieumata* 21. Athens: Ministry of Culture

- Despinis, G., Stefanidou-Tiveriou, and Voutiras. 1997. *Catalogue of Sculptures in the Archaeological Museum of Thessaloniki*. Thessaloniki: National Bank Cultural Foundation
- Despinis, G. 2012. “Ακρόλιθα αγάλματα των ρωμαϊκών χρόνων,” in Stefanidou-Tiveriou *Κλασική παράδοση και νεωτερικά στοιχεία στην πλαστική της ρωμαϊκής Ελλάδας*. Thessaloniki: University Studio Press
- Eckstein-Wolf. 1957. “Zur Darstellung spendener Gotter,” *MdI* 5, 39-75
- Eiring, J. and J. Mejer. 2004. *Proceedings of the Danish Institute at Athens IV: Use and Abuse of Athena in Roman Imperial Portraiture: The Case of Julia Domna*. George Geroulas, Press Line
- Floren, J. 1977. *Studien zur Typologie des Gorgoneion*. Münster: Aschendorffsche Verlagsbuchhandlung
- Fogg Museum, Harvard Art Museums. 1954. *Ancient art in American private collections. A loan exhibition at the Fogg Art Museum of Harvard University, December 28, 1954-February 15, 1955*. Cambridge, Mass: Fogg Museum, Harvard Art Museums
- Frazer, J. 2012. *Pausanias's Description of Greece*. Cambridge University Press
- Frederiksen, R. and R.R.R. Smith. 2011. *The Cast Gallery of the Ashmolean Museum: Catalogue of plaster casts of Greek and Roman sculpture*. Oxford: Ashmolean Museum
- Frickenhaus, A. 1913. “Phidias und Kolotes.” *Jdl* 28, 341-369, 357-358
- Friederichs-Wolters. 1998. *Gipsabgüsse*, Nos, 161-166
- Fortes, J. 2003. *Iluminismo e ilustración: le antichità e i loro protagonisti in Spagna e in Italia nel XVIII secolo*. Roma: L'erma di Bretschneider
- Furtwängler, A. 1888. “Über die Gemmen mit Künstlerinschriften.” *Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts* 3, 105-109, pl. 10, no. 10
- Furtwängler, A. 1893. *Meisterwerke der griechischen Plastik: Kunstgeschichtliche Untersuchungen*. Leipzig, Berlin: Giesecke und Devrient
- Furtwängler, A. and E. Sellers. 1895. *Masterpieces of Greek sculpture: a series of essays on the history of art*. London: W. Heinemann
- Furtwängler, A. 1896. *Intermezzi: kunstgeschichtliche Studien*. Leipzig, Berlin: Giesecke und Devrient
- Furtwängler, A. 1906. *Aegina. Das Heiligtum der Aphaia*. München: Verlag der K.B. Akademie der Wissenschaften

- Gardner, E. 2009. *A Handbook of Greek Sculpture, Part I*. Wildside Press LLC, 15-42
- Gernand, M. 1975. "Hellenistische Peplosfiguren nach klassische Vorbildern." *AM* 90, 37-40
- Giuliano, A. 1979. *Museo Nazionale Romano. Le sculture, I/I*. Rome: De Luca
- Grossman, J. 2003. *Looking at Greek and Roman Sculpture in Stone: A Guide to Terms, Styles, and Techniques*. Getty Publications (Yale Series)
- Hadaczek, C. 1913. "L'Athèna Promachos." *Revue des Études Grecques* XXVIII 26 (116), 20-25
- Häger-Weigel, E. 1997. "Akrolith-Statuen des 5. und 4." *JHS. v. Chr.* Berlin: Verlag Köster, 221
- Hanfmann, G. 1954. *Ancient Art in American Private Collections*. Loan Exhibition at the Fogg Art Museum: Cambridge, Mass
- Hannah, P. 2004. "The cosmetic use of red ochre (Miltos)." *Bar International Series*, 100-105
- Harrison, E.B. 1988. "Lemnia and Lemnos: Sidelights on a Pheidian Athena," in *Kanon: Festschrift Ernst Berger. AntK* 15 Basel: Vereinigung der Freunde antiker Kunst, 101-107
- Harrison, E.B. 1996. *Pheidias. Personal Styles in Greek Sculpture*, edited by O. Palagia and J.J. Pollitt. Yale Classical Studies. Volume 30. Cambridge: Cambridge University Press
- Hartswick, K. 1983. "The Athena Lemnia Reconsidered." *AJA* 87, 335-346
- Helbig, W. 1963. *Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom*. Vol. I. 4th edition. Tübingen: E. Wasmuth
- Helbig, W. 1969. *Führer durch die öffentlichen Sammlungen klassischer Altertümer in Rom*, Vol. III. Tübingen: E. Wasmuth, 50-57
- Hemingway, S. 2002. "Posthumous Copies of Ancient Greek Sculpture: Roman Taste and Techniques." *Sculpture Review* 60 (2), 26-33
- Hermann, P. 1899. "Neues zum Torso Medici." *ÖJh* II, 155-173
- Héron de Villefosse, A. 1913. "Le Torse Médicis au Musée du Louvre," in *Comptes rendus des séances de l'Académie des Inscriptions et Belles-Lettres* 57, 409-411
- Himmelmann, N. 1981. U. Sinn (Hrsg.), *Verzeichnis der Abgußsammlung des Akademischen Kunstmuseums der Universität Bonn*. Bestand von 1820-1980
- Höcker, C. and L. Schneider 1993. *Phidias*. Hamburg: Rowohlt

- Holtzmann, B. 2003. *L'Acropole d'Athènes: monuments, cultes et histoire du sanctuaire d'Athènes Polias*. Paris
- Holtzmann, B. 2010. "Le Nouveau Musée de L'Acropole D'Athènes." *Revue Archéologique* 2, 321-323
- Hübner, E. 1862. *Die antiken Bildwerke in Madrid*. Berlin: G. Reimer
- Hurwit, J. 1999. *The Athenian Acropolis: history, mythology, and archaeology from the Neolithic era to the present*. Cambridge: Cambridge University Press
- Imhoof-Blümer, F. and P. Gardener. 1887. "Numismatic Commentary on Pausanias." *JHS* 8, 6-63
- Jeppesen, K. 1963. "Bild und Mythos an dem Parthenon. Zur Ergänzung und Deutung der Kultbildaus schmückung, des Frieses, der Metopen und der Giebel." *Acta Archaeologica* 34, 1-96
- Jones, W.H.S. 1954. *Pausanias: Description of Greece Translation*. London: W. Heinemann
- Jucker, H. 1961. *Das Bildnis im Blätterkelch: Geschichte und Bedeutung einer römischen Porträtform*, Bibliotheca Helvetica Romana 3, Ölten: Urs Graf-Verlag
- Kaltsas, N. 2002. *Sculpture in the National Archaeological Museum*. Athens: Getty Publications
- Karanastassis, P. 1987. "Untersuchungen zur kaiserzeitlichen Plastik in Griechenland. II: Kopien, Varianten und Umbildungen nach Athena-Typen des 5." *Jhs. v. Chr. AM* 102, 323-428
- Karouzou, S. 1968. *National Archaeological Museum: Collection of Sculpture*. Athens: Department of Antiquities and Restoration
- Kaschnitz-Weinberg, G. 1937. *Sculpture del Magazzino del Museo Vaticano*. Monumenti Vaticani di Archeologia e d'Arte, Vol, IV: Città del Vaticano
- Katakis, S. 2019. "Copies of Greek Statuary from Greece in the Roman Imperial Period," in *Olga Palagia, Handbook of Greek Sculpture: De Gruyter Reference*. Walter de Gruyter, 620-648
- Keary, P. 2009. *The Encyclopedia of the Solid Earth Sciences*. John Wiley & Sons
- Kellogg, L.D. 2013. "The Place of Publication of the Epehebic Oath and the Oath of Plataia." *Hesperia: The Journal of the American School of Classical Studies at Athens*, 82 (2), 263-274
- Kieseritzky, G. 1883. "Athena Parthenos der Ermitage," *Mittheil d. arch. Inst. In Athen*, 8, 291-315

- Knight, P. 1830. *Nummi Veteres Civitatum, Regum, Gentium, et Provinciarum, Londini in Museo Ricardi Payne Knight Asservati, ab ipso Ordine Geographico Descripti*. Gulielmus Nicol, London.
- Kroll, J. 1982. "The Ancient Image of Athena Polias," in *Studies in Athenian Architecture, Sculpture and Topography presented to Homer A. Thompson (Hesperia Suppl. 20)*, Princeton, 65-76
- Kroll, J. 1993. *The Athenian Agora: The Greek Coins*. Volume XXVI, The American School of Classical Studies at Athens: Princeton, New Jersey Kunsthistorisches Museum Vienna, Collection of Antiquities 1803
- Landwehr, C. 1985. "Die antiken Gipsabgüsse aus Baiae." *Archäologische Forschungen* 14. Berlin: Mann, 12-25
- Lange, K. 1880. "Die Athena Parthenos." *AM* 5, 370-379
- Lange, K. 1881. "Die Athena Parthenos." *AM* 6, 56-94
- Lange, K. 1881. "Die Athena Parthenos." *Archäologische Zeitung* 39, 197-206
- Langlotz, E. 1947. *Phidiasprobleme*. Frankfurt am Rhein: V. Klostermann
- Langlotz, E. 1960. "Die Repliken des Athena Medici in Sevilla." *Madridrer Mitteilungen* 1, 164-173.
- Langlotz, E. 1972/1974. "Die Minerva Pacifera Medinaceli in Sevilla." *AEA* 45/47, 141-148
- Lapatin, K. 2001. *Chryselephantine Statuary in the Ancient Mediterranean World*. London: Oxford University Press
- Lawrence, A. 1928. *Classical Sculpture*. London: Jonathan Cape
- Le Chat, H. 1900. "Bulletin Archéologique." *Revue Des Études Grecques* 8 (32), 390
- Leipen, N. 1971. *Athena Parthenos. A Reconstruction*. Toronto: Royal Ontario Museum
- Leoni, E. 1970. *La Sabina nella Storia di Roma*. Rome: Tip. della Pace
- Lewis, P. and R. Bolden. 2002. *The Pocket Guide to Saint Paul: Coins Encountered by the Apostle on His Travels*. Kent Town: Wakefield Press
- Libertini, G. 1925. "Athena d'Efeso." *RM* 40, VIII, 125-135
- Linfert, A. 1982. "Athenen des Phidias." *AM* 97, 57-77
- Lippold, G. 1950. *Die Griechische Plastik*. Volume III. *Handbuch der Archäologie*, München: C.H. Beck

- Loeschke, G. 1891. "Kopf Der Athena Parthenos des Pheidias." *Festschrift zum fünfzigjährigen Jubiläum des Vereins von Alterthumsfreunden im Rheinlande*: Bonn, 1-22
- Lullies, R. 1962. "Vergoldete Terrakotta-Appliken aus Tarente." *RömMitt-EH* VII, Heidelberg: Kerle, 41
- Lundgreen, B. 1997a. "The Athena Medici Reconsidered." *AR* 24, 7-36
- Lundgreen, B. 1997b. "A Methodological Enquiry: The Great Bronze Athena by Pheidias." *JHS* 117, 190-97
- Lytle, E. 2013. "Farmers into Sailors: Ship Maintenance, Greek Agriculture, and the Athenian Monopoly on Kean Ruddle (IG II² 1128)." *Greek, Roman, and Byzantine Studies* 53, 520-550
- Marcadé, J. 1968. *Au Musée de Délos: étude sur la sculpture hellénistique en ronde bosse découverte dans l'île*. Paris: E. de Boccard
- Marinatos, S. 1969. *Excavations at Thera* II, 116, Abb. 307, (Vgl. zu Meerschaum als Material (Aryballos in Bonn))
- Meisner, G. 2018. *The Golden Ratio: The Divine Beauty of Mathematics*. New York: Race Point Publishing
- Metropolitan Museum of Art Bulletin. 2008. "Recent Acquisitions, A Selection: 2007-2008." V.66, no. 2, Marble Head of the Athena Medici Type no. 2007.293: [file:///Users/maggidis/Downloads/Recent Acquisitions A Selection 2007 2008 The Metropolitan Museum of Art Bulletin v 66 no 2 Fall 2008%20\(2\).pdf](file:///Users/maggidis/Downloads/Recent%20Acquisitions%20A%20Selection%202007%202008%20The%20Metropolitan%20Museum%20of%20Art%20Bulletin%20v%2066%20no%202%20Fall%202008%20(2).pdf)
- Michaelis, A. 1871. *Der Parthenon*. Verlag von Breitkopf und Härtel: Oxford University
- Montebello, P. 1983. *The Metropolitan Museum of Art Guide*. Metropolitan Museum of Art, New York
- Musso, L. 1992. "Nuovi ritrovamenti di scultura a Leptis Magna: Athena tipo Medici." *StudiMisc*, 29, 115-139
- Murray, A.S. 1889. "The Aegis of Athene." Vol. 3, *The Classical Review*, Cambridge University Press, 283-284
- National Archaeological Museum Website. 2002. Getty Publications (Yale Series), no. NAM Γ 234 <<https://www.namuseum.gr/en/vr-points/kolossiki-kefali-athinas-ston-typo-velletri-apo-ton-eso-kerameiko-stin-athina-los-ai-p-ch/>>
- Neils, J. 1992. "Catalogue of the Exhibition, 185," in *J. Neils, Goddess and Polis. The Panathenaic Festival in Ancient Athens*. Princeton: Princeton University Press
- Neils, J. and D. Rogers. 2021. *The Cambridge Companion to Ancient Athens*. Cambridge University Press

- Neudecker, R. 1988. *Die Skulpturenausstattung römischer Villen in Italien*. Mainz am Rhein: P. von Zabern
- Noack, F. 1909. "Athena des Phidias." *Berliner Philologische Wochenschrift* vol. 29, Leipzig: O.R. Reisland, 632, 637
- North Rhine-Westphalian Academy and Turk Tarih Kurumu Academy 2003. *Epigraphica Anatolica: Zeitschrift für Epigraphik und historische Geographie Anatoliens*. Bonn: R. Habelt
- Orchard, A. 2012. "The Aegis and the Armour of Achilleus." *Melbourne Historical Journal* Vol. 40 amphora issue 2, 88-105
- Orlandos, A.K. 1955. *Τα υλικά δομής των αρχαίων Ελλήνων και οι τρόποι εφαρμογής αυτών κατά τους συγγραφείς, τας επιγραφάς και τα μνημεία*. Vol. I. Athens: Athens Archaeological Society
- Orlandos, A.K. 1958. *Τα υλικά δομής των αρχαίων Ελλήνων και οι τρόποι εφαρμογής αυτών κατά τους συγγραφείς, τας επιγραφάς και τα μνημεία*. Vol. II. Athens: Athens Archaeological Society
- Palagia O. and J.J. Pollitt (eds.) 1999. *Personal Styles in Greek Sculpture: Volume 30 of Yale Classical Studies*. Cambridge University Press
- Palagia, O. 2006. *Greek Sculpture: Function, Materials, and Techniques in the Archaic and Classical Periods*. Cambridge: Cambridge University Press
- Palagia, O. (ed.) 2019. *Handbook of Greek Sculpture*. Berlin: De Gruyter
- Paribeni, E. 1953. *Museo Nazionale Romano, Sculture Greche del V Secolo*. Rome: Libreria dello Stato,
- Paribeni, E. 1959. *Catalogo delle Sculture di Cyrene*. Rome: "L'Erma" di Bretschneider
- Pasquier, A. and M. Jean-Luc. 2007. *100 masterpieces of Greek sculpture at the Louvre: Louvre Museum, Department of Greek, Etruscan and Roman Antiquities, Paris*. Somogy éditions d'art: Musée du Louvre éditions
- Pelekidis, S. 1927. "Ο τύπος της Αθηνάς των Μεδίκων." *ArchDelt* 9, 121-144
- Photos-Jones, E., et al. 1997. 'Kean Miltos: The Well-Known Iron Oxides of Antiquity.' *The Annual of the British School at Athens* 92, 359-368
- Photos-Jones, E. 2018. "Greco-Roman mineral (litho)therapeutics and their relationship to their microbiome: The case of the red pigment miltos." *Journal of Archaeological Science: Reports* 22, 179-192
- Picard, M. 1939. "Manuel d'archéologie grecque: La sculpture," in *Revue des Études Grecques* vol. 54. Paris: A. Piccard, 336-338

- Picón, A. and E.J. Milleker. 2008. "Recent Acquisitions: A Selection 2007-2008." *Bulletin of the Metropolitan Museum of Art* 66 (2), 8
- Poole, S. 1873. *A Catalogue of Greek Coins: Italy*. The British Museum, London
- Powell, B. 1998. *Classical Myth*. Upper Saddle River, N.J: Prentice Hall
- Puchstein, O. 1890. "Die Parthenonsculpturen." *Jahrbuch des Kaiserlich Deutschen Archäologischen Instituts* 5, 6-117
- Pryce, F.N. and A.H. Smith. 1808. *Sculpture/Catalogue of Greek Sculpture in the British Museum Sculpture 1892-1928*. BMP, London (I-III) Synopsis of the Contents of the British Museum, II.17
- Raeder, J. 1983. *Die statuarische Ausstattungen der Villa Hadriana bei Tivoli*. Frankfurt am Main/Bern: P. Lang.
- Raubitschek A.E and G. Stevens. 1946. "The Pedestal of Athena Promachos." The Twenty-Eighth Report of the American Excavations in the Athenian Agora: *Hesperia The American School of Classical Studies at Athens* 15 (2), 107-114
- Renfrew, C. and, Springer, P. 1968. "Aegean Marble: A Petrological Study." *The Annual of the British School at Athens* 63, 45-66
- Ridgway, B.S. 1981. *Fifth Century Styles in Greek Sculpture*. Princeton: Princeton University Press
- Ridgway, B.S. 1984. *Roman Copies of Greek Sculpture: The Problem of the Originals (Jerome Lectures)*. University of Michigan Press
- Ridgway, B.S. 1992. "Images of Athena on the Akropolis." In J. Neils (ed.), *Goddess and Polis: The Panathenaic Festival in Ancient Athens*. Princeton: Princeton University Press
- Rieder, E. and R. Fried. 2021. *Essential Psychiatry for the Aesthetic Practitioner*. New Jersey: John Wiley & Sons
- Richter, M.A. Gisela. 1950. *The Sculpture and Sculptors of the Greeks*. New Haven and London: Yale University Press
- Rolley, C. 1994. *La sculpture grecque*. Volume 1: *Des origines au milieu du Ve siècle*. Paris: Picard
- Rutter, N.K and A. Burnett, A. 2001. *Historia Numorum: Italy*. London: British Museum Press
- Sauer, B. 1910. "Die Athena Lemnia des Pheidias." *Neue Jahrbücher* XXV, 618, 620
- Schrader, H. 1911. "Über Phidias." *ÖJh* 14, 35-88

- Schrader, H. 1924. *Phidias*. Frankfurt am Main: Frankfurter Verlags-Anstalt
- Schreiber, Theodor. 1883. *Die Athena Parthenos des Phidias und ihre Nachbildungen; ein Beitrag zur Kunstgeschichte*, Leipzig, S. Hirzel, 635
- Schober, A. 1911. "Athenastatue aus Elis." *ÖJh* 14, Beiblatt, 64-65
- Schröder, B. 1919-1920. *Berliner Museen: Berichte aus den Preuß. Kunstsammlungen*. Berlin: Berliner Museen
- Schröder, B. 1925. "Lebende Antiken." *Kunstwanderer* Jahrgang 7, Aprilheft 265, 40-42
- Shear, J.P. 1933. "The Coins of Athens." *Hesperia: The Journal of the American School of Classical Studies at Athens*, 2 (2), 231-278
- Silva, C. 2007. *Vibration Monitoring, Testing, and Instrumentation*. Boca Raton: CRC Press
- Simon, E. 1953. *Opfernde Götter*. Berlin: Mann
- Smith, A.H. 1904. *A Catalogue of Sculpture in the Dept. of Greek and Roman Antiquities, British Museum*, Vol. III, London: British Museum Press
- Spencer, J.R. 1967. *Catalogue of European and American Paintings and Sculpture in the Allen Memorial Art Museum, Oberlin College*, Oberlin: Oberlin College
- Stephanidou-Tiveriou, T., P. Karanastase, and D. Damaskos. 2012. *Classical tradition and modern elements in the sculpture of Roman Greece. Proceedings of the International Conference in Thessaloniki, 7-9 May 2009*. Thessaloniki: University Studio Press
- Stevens, G. 1955, "Remarks upon the colossal chryselephantine statue of Athena in the Parthenon." *Hesperia* 24, 263-267
- Stevens, G. 1957. "How the Parthenon was Made." *Hesperia* 26, Princeton, NJ: American School of Classical Studies at Athens, 350-361
- Stewart, A.F. 1990, *Greek Sculpture, An Exploration*. New Haven Conn. & London: Yale University Press
- Strocka, V.M. 1972. "Beobachtungen an den Attikareliefs des severischen Quadrifrons von Lepcis Magna." *Antiquites Africaines* 6, 147-172
- Strocka, V. M. 2004. *Phidias in Künstlerlexikon der Antike*, Vol. 2, edited by Vollkommer, D. and R. München: K.G. Saur
- Studniczka, F. 1884. "Zur Eule der Parthenos." *Archäologische Zeitung* 42, 161-166
- Studniczka, F. 1888. "Die archaische Artemisstatue aus Pompeii." *R.M.* III, 277-302

- Svoronos, I. N. 1904. “Θησαυροί Βυζαντινών Χρυσών Νομισμάτων εκ των Ανασκαφών του εν Αθήναις Ασκληπείου.” *Journal International D’Archéologie Numismatique*, vol. 7, 143-160
- Svoronos, I. N. 1912. “Φως επί του Παρθενώνος.” *Journal International D’Archéologie Numismatique*, vol. 14, 323
- Sybel, L. 1880. “Athena-Relief und Torso zu Athen.” *AM* 5, 102-114
- Tarassuk L. and C. Blair. 1982. *The Complete Encyclopaedia of Arms and Weapons: the most comprehensive reference work ever published on Arms and Armor*. New York: Simon and Schuster
- Tarrant, R.J. 1890. *Harvard Studies in Classical Philology, Volume 90*. Harvard University Press
- Theophanidis, V.D. 1930-1931. “Η Αθηνά της Πνυκός.” *ArchDelt*, 13, 171-176
- Thiersch, H. 1938. “Die Athena Areia des Phidias und der torso Medici in Paris.” *Nachrichten von der Gesellschaft der Wissenschaften zu Göttingen*, New series II 10, 211
- Traversari, Gustavo. 1968. *Aspetti formali della scultura neoclassica a Roma dal I al III sec. d. C.* Roma: L'erma di Bretschneider 54
- Trunk, Markus. 2003. *Early Restorations of Ancient Sculptures in the Casa de Pilatos, Seville from the History of Restoration of Ancient Stone Sculptures: Papers Delivered at a Symposium Organized by the Departments of Antiquities and Antiquities Conservation of the J. Paul Getty Museum and Held at the Museum, 25–27 October, 2001*. Getty Publications
- University of Cambridge. 2021. *Museum of Classical Archaeology Database “Amelung’s Athena.”* < <https://museum.classics.cam.ac.uk/collections/casts/amelungs-athena>>
- Vetters, H. 1982. “Ephesos.” Vorläufiger Grabungsbericht 1981. *AnzWien* 76, 62-102
- Vitruvius. 1914. “I On Symmetry: In Temples and in the Human Body,” in *Ten Books on Architecture, Book III*. Translated by Morris Hicky Morgan. Harvard University Press
- Walter, O. 1923. *Beschreibung der Reliefs im kleinen Akropolismuseum in Athen*, 35, Vienna: Hölzel.
- Welles, C.B. 1948. “Archaeological Digest.” *AJA* 52 (3), 382–406
- West, C.W. 2009. *Greek Public Monuments of the Persian Wars*. UMI Research Press
- Winter, F. 1927. *Einleitung (Gercke-Norden) in die Altertumswissenschaft*. Leipzig und Berlin: B.G. Teubner
- Wickert, L. 1925. “Nota epigraphical,” *RM* XL, 213-214

Wolters, P. 1894. "Deux bas-reliefs attiques disparus." *BCH* 18, 438-490

Zanker, P., Hemingway, S., Lightfoot, C. and Mertens, J. 2019. *Roman Art: A Guide through the Metropolitan Museum of Art's Collection*. New York: Scala Publishers

Zarkadas, A. 2019. "Reexamining a Missing Find: The Head of Athena from Ephesus.," in *Hans Rupprecht Goette - Iphigeneia Leventi (eds.), ΑΡΙΣΤΕΙΑ. Excellence Studies in Honour of Olga Palagia. Internationale Archæologie. Studia Honoraria* 38, 179-188

ILLUSTRATION SOURCES

Fig. 1: Head of Athena Carpegna, Rome, Museo Nazionale Romano, Inv. No. 55051

- [https://commons.wikimedia.org/wiki/File:Athena di tipo carpegna, da villa carpegna sull%27aurelia a copia romana di orig. greco classico.JPG](https://commons.wikimedia.org/wiki/File:Athena_di_tipo_carpegna,_da_villa_carpegna_sull%27aurelia_a_copia_romana_di_orig._greco_classico.JPG)
- <https://arachne.dainst.org/entity/560165?fl=20&q=athena%20medici&resultIndex=45>
- <https://www.flickr.com/photos/gypsi54/37028146471>

Fig. 2: *Head of Athena Parthenos*, London, The British Museum, Inv. No. 1805,0703.55

- https://www.britishmuseum.org/collection/object/G_1805-0703-55

Fig. 3: *Head of Athena Medici*, Rome, Musei Vaticani, Magazzini, Inv. No. 4389

- Sculture del Magazzino del Museo Vaticano 1937 – M4473-06.jpg
<https://www.meretsegerbooks.com/pages/books/M4473/kaschnitz-weinberg-guido/sculture-del-magazzino-del-museo-vaticano-testo-e-tavole-complete>

Fig. 4: *Head of Athena*, New York, The Metropolitan Museum, Inv. No. 2007.293

- <https://www.metmuseum.org/art/collection/search/258077>

Fig. 5: *The Head of Athena*, Selçuk, Ephesos Archaeological Museum, Inv. No. 109/38/81

- Zarkadas, A. (2019). Reexamining a Missing Find: The Head of Athena from Ephesus
[https://www.academia.edu/39743502/Reexamining a Missing Find The Head of Athena from Ephesus %CE%95%CF%80%CE%B1%CE%BD%CE%B5%CE%BE%CE%B5%CF%84%CE%AC%CE%B6%CE%BF%CE%BD%CF%84%CE%B1%CF%82_%CE%AD%CE%BD%CE%B1_%CE%B5%CF%8D%CF%81%CE%B7%CE%BC%CE%B1_%CF%80%CE%BF%CF%85_%CE%B1%CE%B3%CE%BD%CE%BF%CE%B5%CE%AF%CF%84%CE%B1%CE%B9_%CE%97_%CE%BA%CE%B5%CF%86%CE%B1%CE%BB%CE%AE_%CF%84%CE%B7%CF%82_%CE%91%CE%B8%CE%B7%CE%BD%CE%AC%CF%82_%CE%B1%CF%80%CF%8C_%CF%84%CE%B7%CE%BD_%CE%88%CF%86%CE%B5%CF%83%CE%BF](https://www.academia.edu/39743502/Reexamining_a_Missing_Find_The_Head_of_Athena_from_Ephesus_%CE%95%CF%80%CE%B1%CE%BD%CE%B5%CE%BE%CE%B5%CF%84%CE%AC%CE%B6%CE%BF%CE%BD%CF%84%CE%B1%CF%82_%CE%AD%CE%BD%CE%B1_%CE%B5%CF%8D%CF%81%CE%B7%CE%BC%CE%B1_%CF%80%CE%BF%CF%85_%CE%B1%CE%B3%CE%BD%CE%BF%CE%B5%CE%AF%CF%84%CE%B1%CE%B9_%CE%97_%CE%BA%CE%B5%CF%86%CE%B1%CE%BB%CE%AE_%CF%84%CE%B7%CF%82_%CE%91%CE%B8%CE%B7%CE%BD%CE%AC%CF%82_%CE%B1%CF%80%CF%8C_%CF%84%CE%B7%CE%BD_%CE%88%CF%86%CE%B5%CF%83%CE%BF) in Hans Rupprecht Goette Iphigeneia Leventi eds
<https://arachne.dainst.org/entity/560174?fl=20&q=athena%20medici&resultIndex=47>

Fig. 6: *Head of Pnyx Athena*, Athens, National Archaeological Museum, Inv. No. 3718

- <http://www.my-favourite-planet.de/english/europe/greece/attica/athens/acropolis/acropolis-photos-01-013.html>
- https://commons.wikimedia.org/wiki/File:Athena_of_the_Pnyx_02.jpg
- <https://arachne.dainst.org/entity/255383?offset=50&fl=20&q=athena%20medici&resultIndex=80>
- <https://twitter.com/tzoumio/status/1063325665875894272>
- Eiring, and Mejer 2004, 76

Fig. 7: *Head of Athena*, Oberlin, Allen Memorial Art Museum, Inv. No. 1939.139

- <https://allenartcollection.oberlin.edu/objects/8669/head-of-athena?ctx=ad468f4e5537980712920f1411de17ccbac7e0d&idx=15#>

Fig. 8: *Leptis Magna Head*, Khoms, Leptis Magna Museum, Inv. No. unknown

- <https://www.livius.org/pictures/libya/lepcis-magna/lepcis-magna-schola/lepcis-magna-schola-head-of-athena/>

Fig. 9: *Head of Athena*, Germany, Academic Art Museum, Bonn, Inv. No. 1801a

- <https://arachne.dainst.org/entity/1218870?fl=20&q=athena%20medici&resultIndex=9>

Fig. 10: *Head of Athena*, Germany, Academic Art Museum, Bonn, Inv. No. 1677

- <https://arachne.dainst.org/entity/1218214?fl=20&q=athena%20medici&resultIndex=19>

Fig. 11: *Head of Athena*, Thessaloniki, Archaeological Museum Inv. No. 877

- <https://www.amth.gr/en/exhibitions/exhibit-of-the-month/1902>
- https://www.latsis-foundation.org/content/elib/book_11/thessaloniki_en.pdf
- <https://www.flickr.com/photos/bwv1013/9296750688/>

Fig. 12: *Thessaloniki Fragments: Leg*, Thessaloniki, Archaeological Museum Inv. No. 877

- <https://www.amth.gr/en/exhibitions/exhibit-of-the-month/1902>

Fig. 13: *Thessaloniki Fragments: Hand*, Thessaloniki, Archaeological Museum Inv. No. 877

- <https://www.amth.gr/en/exhibitions/exhibit-of-the-month/1902>

Fig. 14: *Head of "Athena Promachos,"* Rome, Musei Vaticani, Chiaramonti, Inv. No. 1434

- <http://ancientrome.ru/art/artworken/img.htm?id=1718>
- <https://www.worldhistory.org/image/1189/athena-bust-vatican-museums/>

Fig. 15: *Colossal Foot of "Athena Promachos,"* Rome, Musei Vaticani, Magazzini, Inv. No. 4714, marble, 2nd century AD

- <https://www.museums.cam.ac.uk/blog/2017/07/26/front-of-house-qa-alina-kozlovski/>
- Lundgreen, B. 1997a, pl. 6

Fig. 16: *Head of Athena*, Vienna-Antikensammlung, Kunsthistorisches Museum, Inv. No. I 168

- <https://www.khm.at/en/objectdb/detail/50821/?offset=5&lv=list>
- <https://arachne.dainst.org/entity/560175?offset=50&fl=20&q=athena%20medici&resultIndex=57>

Fig. 17: *Colossal Feet of Athena* (left and right), Vienna, Antikensammlung, Kunsthistorisches Museum Inv. No. 67 and 75

- Amelung 1908, 177

Fig. 18: *The Colossal Right Leg*, Shahhat, Cyrene Museum, Inv. No. 14.176

- Lundgreen, B. 1997a, pl. 3

Fig. 19: *The Colossal Right Leg*, Ariccia, Palazzo Chigi, Inv. No. 19

- Lundgreen, B. 1997a, pl. 4

Fig. 20: *Athena Medici* (Ingres Minerva), Paris, Musée du Louvre, Inv. No. MA 3070

- <https://collections.louvre.fr/ark:/53355/cl010276847>
- <https://arachne.dainst.org/entity/560141?fl=20&q=athena%20medici&resultIndex=36>

Fig. 21a-b: *Athena-Medici Reconstructions: Sogeannte' Athena Medici Reconstruction* Germany, Akademisches Kunstmuseum Bonn (left); *Athena Medici*, Denmark, Statens Museum for Kunst, Inv. No. KAS1505 (right)

- (left) Berger 1967, 24, fig. 10
- (right) Amelung 1908, 189

Fig. 22: *Statue of Pallas II* (Pacifera), Seville, Casa de Pilatos, Inv. No. 839

- <http://docshare02.docshare.tips/files/20131/201310636.pdf>
- <https://fi.pinterest.com/pin/658510776744647115/>
- Lundgreen, B. 1997a, pl. 2

Fig. 23: *Statue of Pallas I*, Seville, Casa de Pilatos, Inv. No. 840

- <https://www.dreamstime.com/editorial-image-pallas-athena-roman-sculpture-palace-house-pilate-sevilla-spain-detail-shield-goddess-found-courtyard-casa-de-image64710350>
- <https://rosinka173.ru/en/kakaya-boginya-rodilas-iz-golovy-otca-afina-pallada---doch-zevsa.html>
- <http://docshare02.docshare.tips/files/20131/201310636.pdf>
- Lundgreen, B. 1997a, pl. 3

Fig. 24: *Statuette Torso of Athena*, Antikensammlung Berlin, Staatliche Museen, Inv. No. SK 1760

- <https://arachne.dainst.org/entity/1121424?fl=20&q=Berlin%20Staatliche%20Museen%20Statuette%201760&resultIndex=1>

Fig. 25: *Statue of Athena from Delos* (Delian Athena), Athens, National Archaeological Museum, Inv. No 1622

- Kaltsas 2002, 110
https://books.google.gr/books?id=s4glewvbsakC&pg=PA375&dq=Nikolaos+Kaltsas,+%E2%80%9CSculpture+in+the+National+Archaeological+Museum,+Athens%E2%80%9D+pp.+111&hl=en&sa=X&ved=2ahUKewiA6rXstrDzAhXG_rsIHXTHAWEQ6AF6BAgCEAI#v=onepage&q=Nikolaos%20Kaltsas%2C%20%E2%80%9CSculpture%20in%20the%20National%20Archaeological%20Museum%2C%20Athens%E2%80%9D%20pp.%20111&f=false
- Lundgreen, B. 1997a, pl. 12

Fig. 26: *Statuette of Athena from Elis*, Athens, National Archaeological Museum, Inv. No 3000

- Kaltsas 2002, 110
https://books.google.gr/books?id=s4glewvbsakC&pg=PA375&dq=Nikolaos+Kaltsas,+%E2%80%9CSculpture+in+the+National+Archaeological+Museum,+Athens%E2%80%9D+pp.+111&hl=en&sa=X&ved=2ahUKewiA6rXstrDzAhXG_rsIHXTHAWEQ6AF6BAgCEAI#v=onepage&q=Nikolaos%20Kaltsas%2C%20%E2%80%9CSculpture%20in%20the%20National%20Archaeological%20Museum%2C%20Athens%E2%80%9D%20pp.%20111&f=false
- Lundgreen, B. 1997a, pl. 13

Fig. 27: *Torso of Athena Medici*, De Ganay, Paris,

- Lundgreen, B. 1997a, pl. 15

Fig. 28: *Statuette Torso of Athena*, Athens, National Archaeological Museum, Inv. No. 3466

- <https://arachne.dainst.org/entity/1185556?fl=20&q=Athena%20statuette%203466&resultIndex=1>

Fig. 29: *Statuette of Athena*, Rome, Kircherianum Museum, Inv. No. 6252

- <https://arachne.dainst.org/entity/560145?fl=20&q=athena%20medici&resultIndex=38>
- Lundgreen, B. 1997a, pl. 14

Fig. 30: Votive Relief Fragment, Athens, Acropolis Museum, Inv. No. 2426

- <https://arachne.dainst.org/entity/1061222>

Fig. 31: Ambelokipi Votive Relief

- Amelung 1908, 188

Fig. 32: Athenian Bronze Coin, 2nd century AD, Plate 18, figs. 257a

- https://www.ascsa.edu.gr/uploads/media/oa_ebooks/oa_agora/Agora_XXVI.pdf

Fig. 33: Athenian Bronze Coins, 3rd century AD, Plate 20, figs. 317-319, 321-322, 331

- https://www.ascsa.edu.gr/uploads/media/oa_ebooks/oa_agora/Agora_XXVI.pdf

Fig. 34: Athenian Bronze Coins, 3rd century AD, Plate 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

- https://www.ascsa.edu.gr/uploads/media/oa_ebooks/oa_agora/Agora_XXVI.pdf

Figs. 35-36: Reconstruction technique by G. Kiagias

- Despina, G. 1975, figs. 1, 2, 6, 7
- <https://www.amth.gr/en/exhibitions/exhibit-of-the-month/1902>

Figs. 37-38: Reconstruction of helmeted head

- Despina, G. 1975, figs. 1, 2, 6, 7

Fig. 39-43: Proportions of the Athena Medici Face founded on B.1

- Eiring, J. and Mejer, J. 2004, 77

Fig. 44: Timeline of 5th century events

- Made on *Powerpoint* by Chrysanthe Maggidis

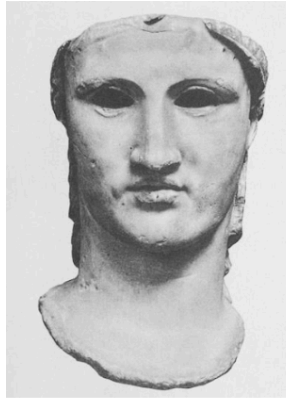
Fig. 45: Map of Greece 5th century BC

- Google maps screen shot and additions on *Powerpoint* made by Chrysanthe Maggidis

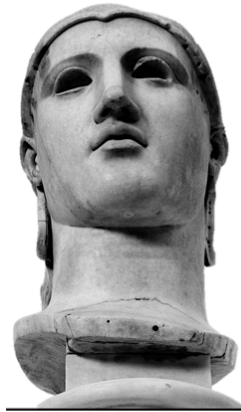
Fig. 46: Azimuth Angle between Plataea and Marathon (10^0)

- Google maps screen shot and additions on *Powerpoint* made by Chrysanthe Maggidis
- Head: <http://ancientrome.ru/art/artworken/img.htm?id=1718>

FIGURES



A.1: *Head of Athena Carpegna*, Rome, Museo Nazionale Romano, Inv. No. 55051, Parian marble, 1st BC – 2nd century AD (fig. 1)



A.2: *Head of "Athena Parthenos,"* London, The British Museum, Inv. No. 1805,0703.55, Parian marble, 1st century AD (fig. 2)



A.3: *Head of Athena Medici*, Rome, Musei Vaticani, Magazzini, Inv. No. 4389, Italic white marble, 1st century AD (fig. 3)



A.4: *Head of Athena*, New York, The Metropolitan Museum, Inv. No. 2007.293, marble, 2nd century AD (fig. 4)



A.5: *The Head of Athena*, Selçuk, Ephesos Archaeological Museum, Inv. No. 109/38/81, Plaster Cast, 2nd century AD (fig. 5)



A.6: *Head of Pnyx Athena*, Athens, National Archaeological Museum, Inv. No. 3718, Pentelic marble, 2nd century AD (fig. 6)



A.7: *Head of Athena*, Oberlin, Allen Memorial Art Museum, Inv. No. 1939.139, white Anatolian marble, mid-2nd century AD (fig. 7)



A.8: *Leptis Magna Head*, Khoms, Leptis Magna Museum, Inv. No. unknown, Pentelic marble, 2nd century AD (fig. 8)



A.9: *Head of Athena*, Germany, Akademisches Kunstmuseum, Bonn, Inv. No. 1801b, plaster cast (fig. 9)



A.10: *Head of Athena*, Germany, Akademisches Kunstmuseum, Bonn, Inv. No. 1677, plaster cast (fig. 10)



B.1: *Head of Athena*, Thessaloniki, Archaeological Museum Inv. No. 877, white coarse-grained marble, 2nd century AD (fig. 11)



B.1: *Thessaloniki Statue Fragments: Leg*, Thessaloniki, Archaeological Museum Inv. No. 877, white coarse-grained marble, 2nd century AD (fig. 12)



B.1: *Thessaloniki Statue Fragments: Hand*, Thessaloniki, Archaeological Museum Inv. No. 877, white coarse-grained marble, 2nd century AD (fig. 13)



B.2: *Head of "Athena Promachos,"* Rome, Musei Vaticani, Chiaramonti, Inv. No. 1434, marble, Rome, 2nd century AD (fig. 14)



B.2: *Colossal Foot of "Athena Promachos,"* Rome, Musei Vaticani, Magazzini, Inv. No. 4714, marble, 2nd century AD (fig. 15)



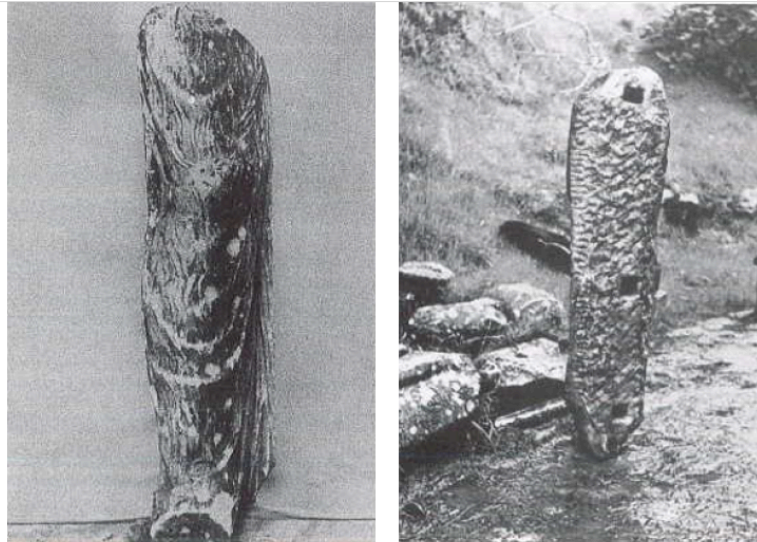
B.3: *Head of Athena*, Vienna, Antikensammlung, Kunsthistorisches Museum, Inv. No. I 168, marble, 2nd century AD (fig. 16)



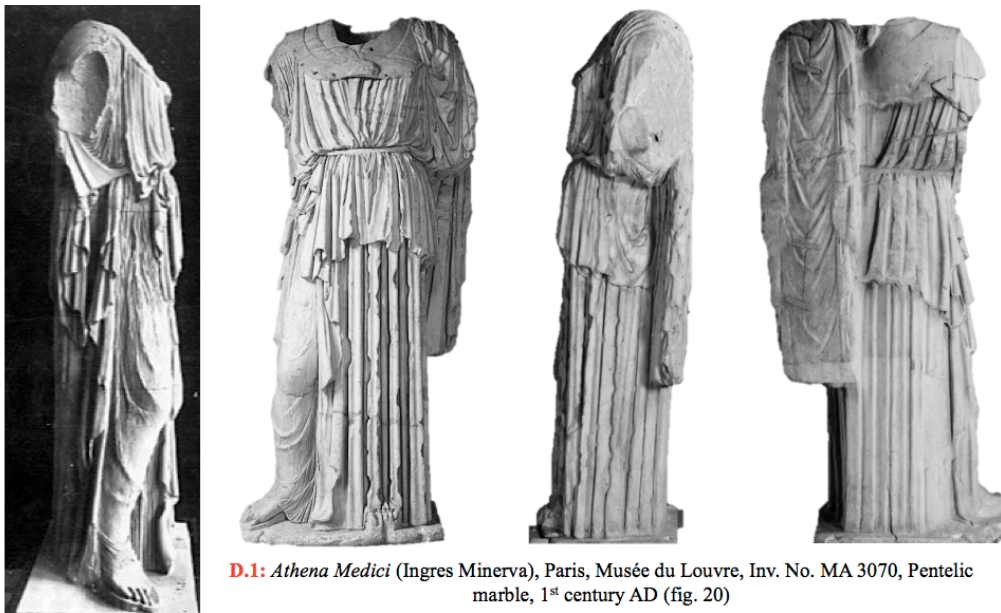
B.3: *Colossal Feet of Athena* (left and right), Vienna, Antikensammlung, Kunsthistorisches Museum Inv. No. 67 and 75, marble, 2nd century AD (fig. 17)



C.1: *Colossal Right Leg*, Shahhat, Cyrene Museum, Inv. No. 14.176, Parian Marble, 2nd century AD (fig. 18)



C.2: *The Colossal Right Leg*, Ariccia, Palazzo Chigi, Inv. No. 19, marble, 1st century AD (fig. 19)



D.1: *Athena Medici* (Ingres Minerva), Paris, Musée du Louvre, Inv. No. MA 3070, Pentelic marble, 1st century AD (fig. 20)



'Sogeanante'
Athena Medici
Reconstruction
(fig. 21a)

Germany,
Akademisches
Kunstmuseum
Bonn

plaster



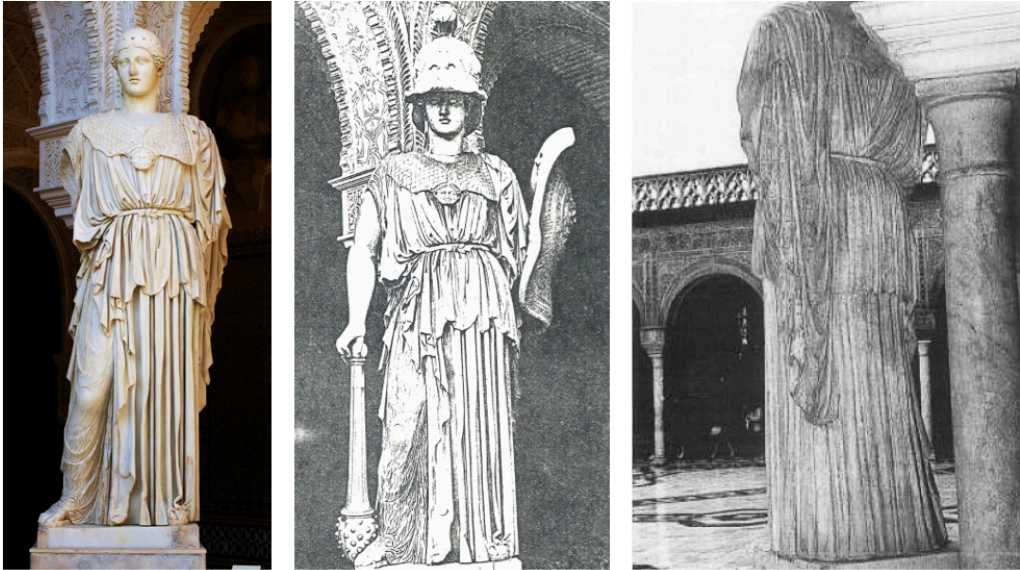
Athena-Medici
Reconstruction
(Amelung-Rizzo)
(fig. 21b)

Denmark, Statens
Museum for Kunst

Inv. No. KAS1505

plaster





D.2: *Statue of Pallas II (Pacifera)*, Seville, Casa de Pilatos, Inv. No. 839, marble, 2nd century AD (fig. 22)



D.3: *Statue of Pallas I*, Seville, Casa de Pilatos, Inv. No. 840, marble, 2nd century AD (fig. 23)



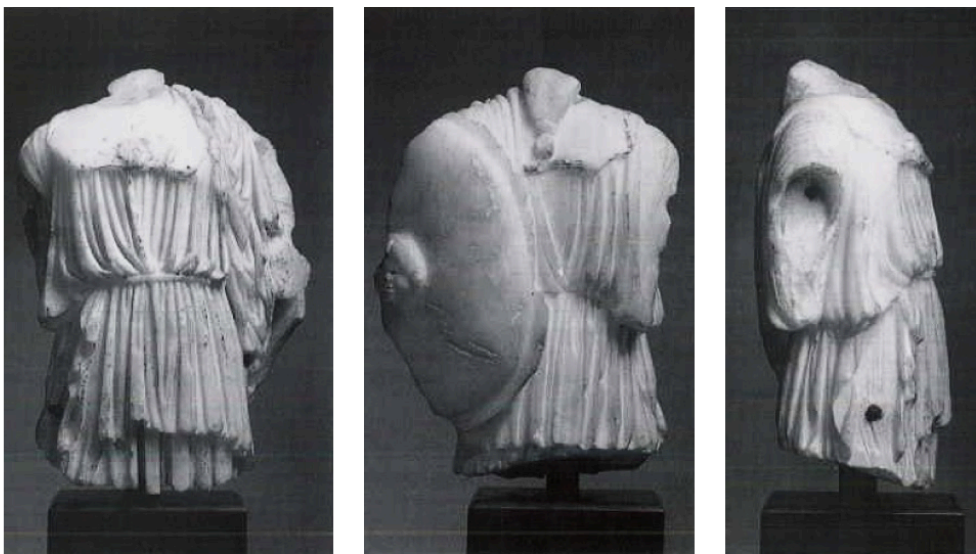
E.1: *Statuette Torso of Athena*, Antikensammlung Berlin, Staatliche Museen, Inv. No. SK 1760, limestone, 1st century AD (fig. 24)



E.2: *Statue of Athena from Delos* (Delian Athena), Athens, National Archaeological Museum, Inv. No 1622, Pentelic marble, 1st century AD (fig. 25)



E.3: *Statuette of Athena from Elis*, Athens, National Archaeological Museum, Inv. No 3000, Pentelic marble, 2nd century AD (fig. 26)



E.4: *Torso of Athena Medici*, De Ganay, Paris, Inv. No. unknown, white marble, 2nd century AD (fig. 27)



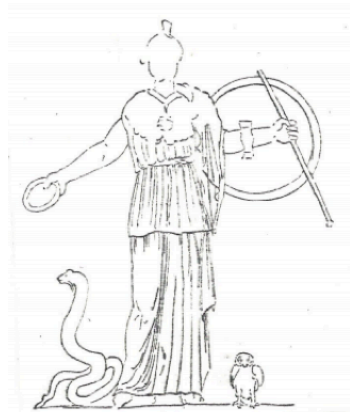
E.5: *Statuette Torso of Athena*, Roman, 3rd century AD, Pentelic marble, Athens, National Archaeological Museum, Inv. No. 3466 (fig. 28)



E.6: *Statuette of Athena*, Rome, Kircherianum Museum, Inv. No. 6252, white Italic marble, date unknown (fig. 29)



F.1: *Votive Relief Fragment*, Athens, Acropolis Museum, Inv. No. 2426, 2nd century AD (fig. 30)



F.2: Ambelokipi Votive Relief
(unknown provenance, date, material, and Inv. No.)
(fig. 31)



257a



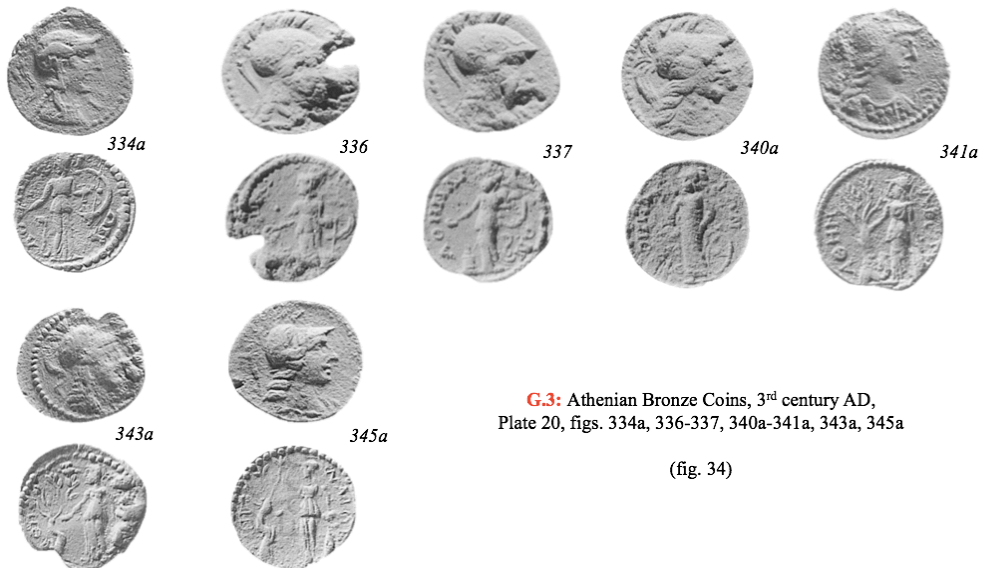
G.1: Athenian Bronze Coin, 2nd century AD,
Plate 18, fig. 257a

(fig. 32)



G.2: Athenian Bronze Coins, 3rd century AD,
Plate 20, figs. 317-319, 321-322, 331

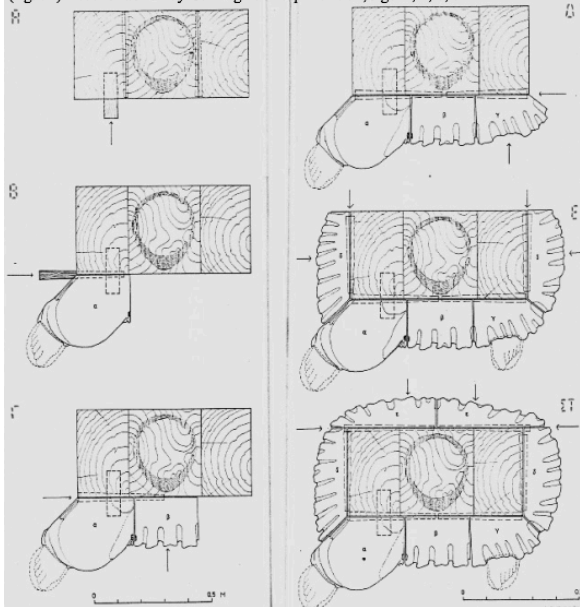
(fig. 33)



G.3: Athenian Bronze Coins, 3rd century AD,
Plate 20, figs. 334a, 336-337, 340a-341a, 343a, 345a

(fig. 34)

(fig. 35) Reconstruction by G. Kiagias: Despintis 1975, figs. 1, 2, 6, 7



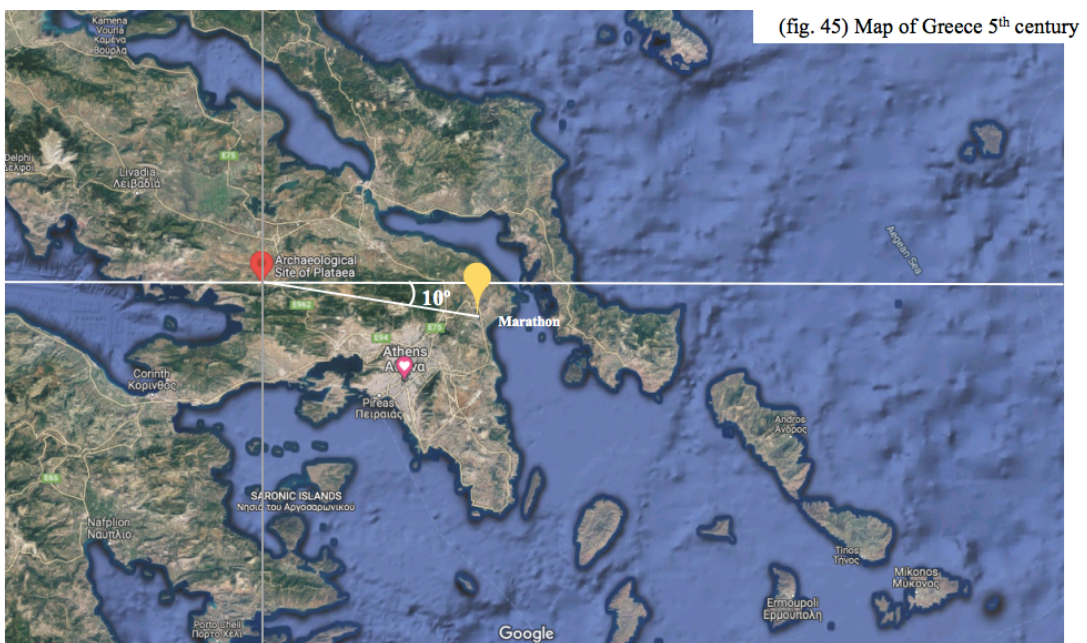
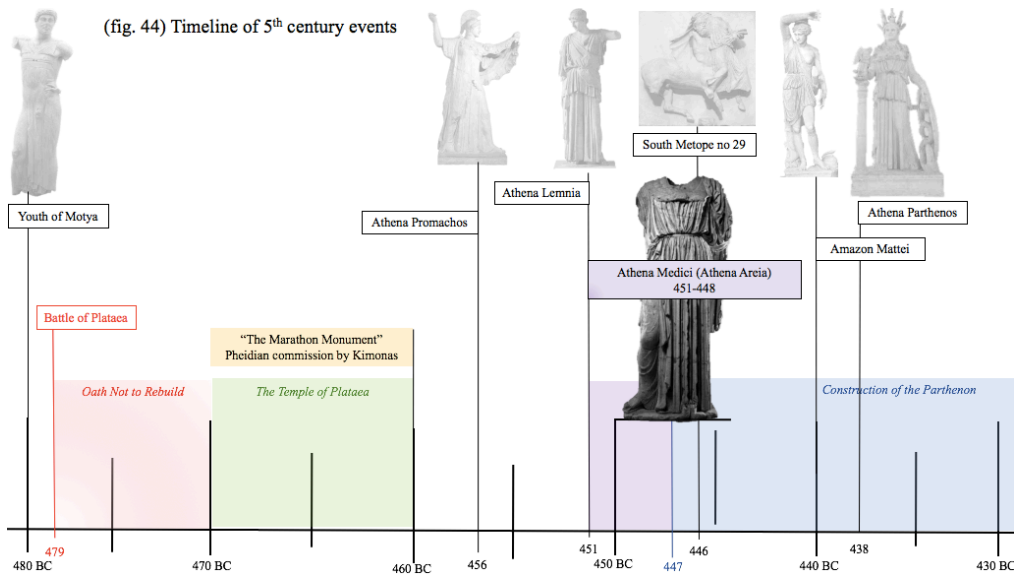
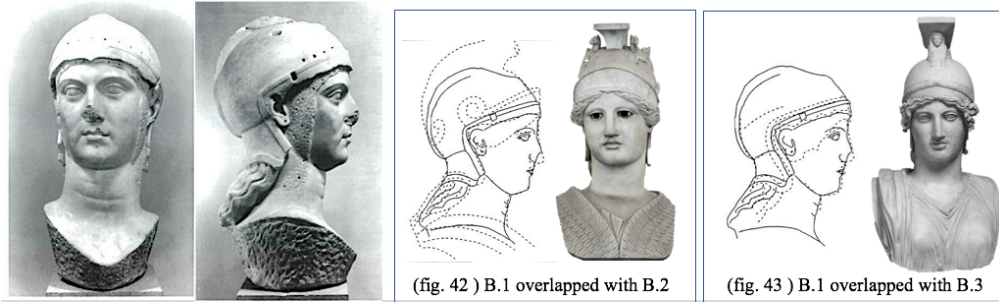
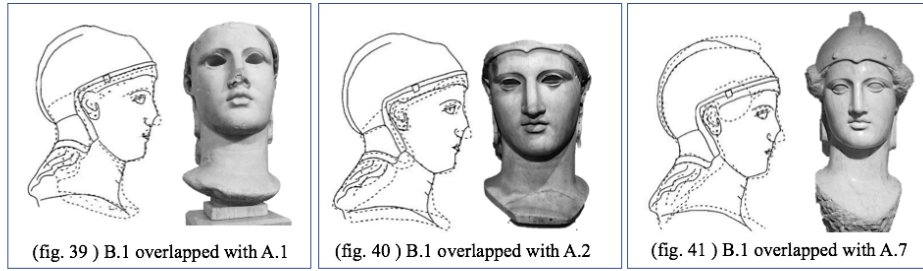
(fig. 36) Reconstruction by G. Kiagias: Despintis 1975, figs. 1, 2, 6, 7

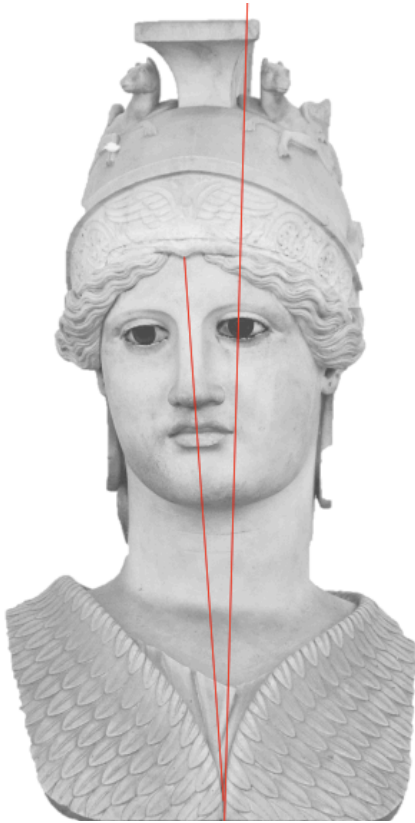


(fig. 37) Reconstruction of helmeted head



(fig. 38) Reconstruction of helmeted head





(fig. 46) Azimuth Angle between Plataea and Marathon (10°)

