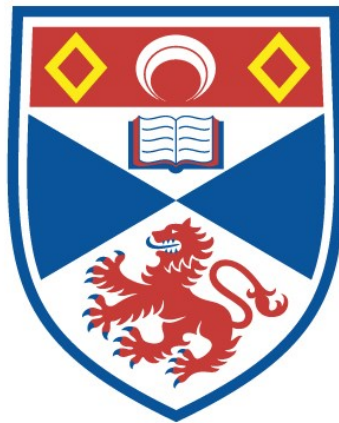


Achieving the unachievable: the male athletic body in Hellenistic and Roman art

Caitlan Smith

A thesis submitted for the degree of MPhil
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Abstract

To date, the ancient athlete has been the focus of philosophical, political, and art historical debate. Scholarship has largely neglected the investigation of the ancient athlete for what he was – an athlete. Thus, this thesis seeks to understand what it meant to be an ancient athlete by illustrating how athletic sculpture can provide insight into the bodies of ancient athletes themselves. It is argued that athletic sculpture set the body ideals that athletes wanted to achieve, and that those bodies were achievable, and examines how they were achieved. This argument is illustrated using three case studies: the Terme Boxer, the Ephesian and Croatian Apoxyomenoi, and the Farnese Hercules as examples of athletic body types. Anatomical analysis of each of these case studies are used to demonstrate how each of these figures anatomically displays a specific athletic body type (i.e. boxer, wrestler, etc.). This examination addresses how these body types would have been achieved in the ancient world, based on analysis of what is currently known about ancient athletic training practices and utilizing modern sports science to fill in the gaps in the ancient record on the athletic regimen.

The idealism of ancient sculpture is not ignored, but rather this thesis acknowledges that artists intentionally manipulated sculptural forms to be more aesthetically pleasing, but evidences that important anatomical details of the athletic body were still observed. These anatomical details reflect a direct reference from real athletic bodies that were achievable through the ancient athletic regimen. The objective approach to anatomically viewing sculpture deployed in this dissertation and has not been done to this extent in art historical literature to date. This approach provides the opportunity to expand the current understanding of ancient athletic regimen and the practicalities of the ancient athletic body.

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Chapter One: Introduction

Ancient athletics has been the focus of philosophical, art historical, and political scholarly debate. However, scholarship to date has neglected the investigation of the ancient athlete for what he was—an athlete. Notably exceptions include the monographs by Poliakoff on ancient combat sports and Miller on *Ancient Greek Athletics*.¹ This thesis will examine the ancient athlete through the medium of sculpture to discover how anatomically correct athletic art was, how the statues served as a reference to the athlete body ideals, and how athletes would then go about achieving that body ideal. I will argue that the physiques displayed in athletic statuary were (relatively) anatomically correct and achievable. I am not arguing that idealization did not exist, in fact, I point out in my anatomical analyses where artists have taken liberties with the human form, which is usually for some visual aesthetic purpose. Furthermore, I argue that the idealization attached to athletic statuary amplified the desire in actual athletes to *want* to achieve the bodies displayed in art. Athletic statues stood as a visual representation of what a victorious athlete looks like, therefore, psychologically the athlete would then want to adopt that same bodily image.

This thesis is innovative in its approach by using modern sports science in tandem with the ancient evidence. This methodology was inspired by the work of Leftwich, who conducted more in-depth anatomical analysis on sculpture, particularly that of the Doryphoros, than has previously been seen in scholarship.² However, this dissertation takes this approach of using anatomical analysis one step further by utilizing modern sports science knowledge in physiological, kinesiology, and dietic to expand the understanding of the ancient athlete. This is done so to fill in the gaps in the ancient record and gain a greater understanding of what it meant to be an athlete in ancient times.

Three case studies have been chosen to conduct this preliminary study on the anatomical accuracy and achievability of the athletic body displayed in art. The three case studies to be discussed have been selected because they are intact, original Hellenistic and Roman Imperial statues that provide a more authentic reflection of

¹ Poliakoff 1987; Miller 2004.

² Leftwich 1995.

athletic art than the marble replications that also exist. As such, the case studies to be examined include the Terme Boxer, the Ephesian and Croatian Apoxyomenos, and the Farnese Hercules. Each of these statues presents something different about the athletic body. It will be shown that the Terme Boxer demonstrated the brutal ‘realism’ of ancient boxing, purposely done so by the sculptor to create a narrative around the sculpture and possibly to draw sympathy from the viewer. The anatomical analysis reveals that certain parts of the anatomy were manipulated to create a more aesthetically pleasing figure. The Apoxyomenoi will demonstrate that one athletic body ‘type’ was not rigidly conformed to under the umbrella type of *apoxyomenos* and that it was acceptable to employ a range of body types. Lastly, the Farnese Hercules, particularly when taken into the context of its surroundings within the Baths of Caracalla, exhibited the viewer’s (and presumably athletic) desire to imitate the muscular male bodies in sculpture, even that which was supposedly impossible to attain. Each case study is separated into its own chapter that provides a brief introduction to the statue(s), scholarship to-date, a detailed anatomical analysis, and discussion on what the anatomical details reveal about the athlete represented in the sculpture.

It is in Chapter Five on the achievability of athletic bodies that the whole of this dissertation comes together. Firstly, athletic types will be reviewed for what is known about its ancient practice including the equipment used, techniques, training regimen, etc. Secondly, I will use this knowledge in conjunction with the modern understanding of physiology and kinesiology in sports medicine. To do so, I will examine what muscles are needed and used to perform the techniques and exercises known. Lastly, I will reflect back onto the case studies and present the evidence on how achievable these bodies are.

This thesis uses proper anatomical names for the parts of the body to be described. Where convenient, colloquial names are used (e.g. collarbone for clavicle). However, for the readers’ benefit, an anatomical diagram can be found in the figures list for referencing (Figs. 1-5).

Chapter Two: Terme Boxer

The Terme Boxer or Boxer at Rest (Figs. 6-15) was discovered in 1885 on the Quirinal Hill of Rome near the ancient Baths of Constantine. The sculpture's existence as a fully intact, original Hellenistic bronze 'masterpiece' has not escaped mention in any book on Hellenistic art or ancient athletics. For all the sculpture's potential impact and validity on Hellenistic art and ancient athletics, however, he has remained, for the majority, merely a mention. To my knowledge, there have only been two in-depth analyses of the Boxer to date: Himmelmann's 1989 *Herrscher und Athlet. Die Bronzen vom Quirinal* and Zanker's article 'Der Boxer' published in 2005.³ The Hellenistic sculpture is therefore overdue for a re-examination and it is part of the aim of this chapter to do so.

Outside the works of Himmelmann and Zanker, the Boxer has not had much treatment beyond a brief paragraph that goes over the highlights of his composition or states the author's opinion on the categorization, dating, and narrative of the piece. Pollitt classifies the Boxer under Hellenistic Rococo, which he defines as a "scholar's junk bin, into which works which are otherwise difficult to classify and date have been tossed out of desperation."⁴ The Hellenistic Rococo, in Pollitt's book, contains the playful (e.g. Aphrodite with slipper and Pan⁵), the erotic (e.g. Hermaphrodite⁶), and the realistic – the subcategory the Boxer is placed under along with the Old Fisherman⁷ and Old Market Woman⁸. Ridgway also briefly mentions the Boxer in passing when speaking about the problem of date classification for Hellenistic sculpture.⁹ A trademark of the Hellenistic period was the sculptor's choice in using a conglomeration of styles to reference the past or the rise of Neoclassicism and Neo-Attic style.¹⁰ This makes the dating of Hellenistic sculpture difficult and an open debate amongst scholars.¹¹ Other

³ See Himmelmann 1989 and Zanker 2005.

⁴ Pollitt (1986), 127.

⁵ In the National Archeological Museum in Athens.

⁶ In the National Museum of the Terme, Rome.

⁷ At the Louvre, Paris. Dated to c. 200-150 BCE.

⁸ In the Metropolitan Museum, New York, c. late second or early first century BCE. Pollitt (1989), 141-7.

⁹ Ridgway (1990), 336.

¹⁰ Pollitt (1989), 164-72.

¹¹ Pollitt dates the *Boxer* to the second or early first century BCE, (1989) 145; Himmelmann to the early first century (1989), 164-5; Miller mid-second century BCE (2004), 53; Poliakoff first century BCE (1987a), 74; Hyde argues it is from the end of the fourth or beginning of the third century BCE (1921), 147 to name a few examples.

scholars have tried to attribute the statue to certain sculptors, specifically Apollonius, because of the inscribed Alpha on the Boxer's foot.¹² This has since been proven false after the restoration; for what was believed to be an inscription did not actually exist. Others have tried to identify the Boxer as a votive statue or part of mythological group (e.g. Amykos and the Dioskouroi).¹³ Take for example, Stewart's description of the Boxer worth quoting in its entirety:

Equally powerful but quite different in both style and mood is the bronze boxer in the Terme Museum. Here the anatomy is frankly Pergamene, while the head, despite the broken nose and bloodied ears, is actually quite formalized, with the beard and hair often arranged in symmetrical, ornamental curls. The ugly, blocklike pose and abruptly turned head with its pained, grumpy expression intensify one's feeling of a narrative in the making. This is probably not, as often assumed, a victor statue: the mood is completely wrong, and rather suggests a mythological subject. Amykos, the insolent and haughty barbarian foe of the Argonauts beaten in boxing by Polydeukes, comes to mind, but nothing can be proved.¹⁴

Stewart's description is an example of the subjective treatment of the Boxer in scholarship throughout the twentieth and twenty-first century. The subjective description of the pose, mentioning the brutality depicted, referencing the stylistic influences seen in the piece, and suggesting the identification of the figure, or, sometimes the sculptor is frequently condensed to a single paragraph within the discourse. In ancient athletic scholarship, the treatment of the Boxer is not much different. Authors such as Miller and Poliakoff use the Boxer to highlight key aspects of ancient athletic culture, namely the Boxer's gloves and the brutality of boxing as a sport.¹⁵

¹² Williams, 1945.

¹³ *Ibid.* Williams uses the A marker to state that the Boxer can be identified as Amykos and belongs in an assemblage with the *Hellenistic Ruler* (who the Boxer was discovered with) that Williams identifies as one of the Dioskouroi. However, her argument has been disproved on many levels, including the fact that the bronze ratios are completely different between the two sculptures and, thus, they were not created by the same workshop. Himmelmann (1989), 176-7.

¹⁴ Stewart (1990), 225 n. 814.

¹⁵ Miller (2004), 52; Poliakoff (1987a), 73-74.

It is pertinent to give a survey of the two in-depth analyses that have been done by Himmelmann and Zanker. Himmelmann oversaw the preparation of the Boxer and Hellenistic Ruler (both found in the Quirinal) for exhibition at the Akademisches Kunstmuseum in Bonn, Switzerland in 1989. His book served as the accompanying catalog for the exhibition and in addition to covering his analysis of the two works, it also included essays on 'Ideal Nudity,' 'Alexander the Great,' 'Hellenistic Ruler and 'Civil Honorary Statues', and 'Supplements to the Ruler and Boxer' by additional authors. Himmelmann's analysis can roughly be broken down into two parts. First, Himmelmann stated the 'apparent realism' and obvious recalling of Herakles from the Lysippan tradition, making a more probable case that the statue is of a historical pugilist from the near or distant past and was meant to be a victory monument (utilizing Heraklean iconography to enhance the 'heroic victory' of the athlete').¹⁶ Himmelmann then goes through some possibilities of the identity of the Boxer from previous theories of other scholars.¹⁷ However, none of the possible identities have a strong argument or basis to be attached to the Boxer, but the more compelling examples include two athletes also linked to a glass paste (Fig. 16) that bears a nearly identical representation of the Terme Boxer, including the same position and hairstyle. Where the glass paste differs, however, is there is a dove to the figure's left. Himmelmann has theorized this could refer to Sostratos of Sikyon (Olympic winner in 364, 360, and 356 BCE) as Sikyon's coat of arms was a dove. Or the Aeginetan Taurosthene (Olympic victor in 444 BCE) who was said to have sent a dove to his father to send him news of his victory. However, these athletes were a pankratiast and wrestler respectively, not boxers.¹⁸ Nevertheless, the similarities between the Boxer and the glass paste leave more questions than answers.

Second, Himmelmann tried to identify the identity of the Boxer as an attempt to date the sculpture. Though, it was common for victory statues to be erected of athletes long after their victory and sometimes even after their death (a fact that Himmelmann acknowledged) make this form of dating futile.¹⁹ Himmelmann made other attempts at dating via comparison with other athletic art and literary testimony. In addition, he

¹⁶ Himmelmann (1989), 151-2.

¹⁷ Contrary to others' opinions such as Stewart quoted above.

¹⁸ Himmelmann (1989), 152.

¹⁹ *Ibid.*152-3.

worked off of previous scholars from the early twentieth -century such as Bull who claimed the Boxer dated to the later Hellenistic period due to ‘ruthless realism’ and ‘mockery’ of Greek athletics in the piece, and secondly, Amelung, who argued for a dating in the fifth to fourth centuries BCE because of the stylization of the hair and body shapes. Archeological accounts contest this, preferring to date the sculpture to 60 BCE based on the letterforms of the Alphas engraved on the sculpture.²⁰ However, the above theories have failed to present a convincing argument for the following reasons. Firstly, during the Hellenistic age, artists are known to have emulated or appropriated styles from previous centuries, coining the Neo-Classical trend during this period. As such, hair styles and body forms were mimicked purposely to recall earlier styles. Secondly, as has been previously noted, the Alpha located on each of the Boxer’s feet are not part of an artist signature and a strong case has been made that they are instead ancient place marks to situate the statue in its location in the Baths of Constantine.²¹ Therefore, it is plausible that the Alpha could have been etched at a later time after the sculpture’s completion, especially if this piece was a war prize seized by the Romans in one of their many conquests.²² Himmelmann seemed more inclined to agree to the date of the first half of the first -century BCE based on the ‘harder realism’ the anatomy conforms to compared to earlier Hellenistic works such as the Dying Gaul (the example that Himmelmann used). In other words, Himmelman saw the Boxer’s realism as more naturalistic than other, earlier Hellenistic art works. Lastly, the ‘boxy’ or blockish composition of the Boxer recalls Classical compositions that Himmelmann argued was popular during the first -century BCE.

The above points bring into question the validity of Himmelmann’s conclusions. It is impossible to attach the Boxer to a single personage, particularly a famous individual, which modern scholars have been prone to do.²³ At the same time, Himmelmann noted the Heraklean qualities in the piece signify the work as a victory statue (to emphasis a ‘heroic victory’).²⁴ Hyde claimed the opposite, suggesting that the

²⁰ All paraphrased and quoted Himmelmann (1989), 158-9.

²¹ Supra n. 14.

²² This theory will be discussed in section three of this chapter.

²³ Most popular is the theory that the *Boxer* is the barbarian king, Amykos. Stewart (1990), 225; Williams (1945), Himmelmann (1989), 152-3. Other argued famous identities include: Kleitomachos of Thebas, Hyde (1930), 147; Theagenes of Thasos, Himmelman (1989), 152.

²⁴ Himmelmann (1989), 151-2.

Heraklean qualities made this work not a portrait but an adaption of a Herakles type.²⁵ I take a middle ground between these two scholars. In this chapter I will argue the Heraklean qualities displayed in the Boxer are purposefully executed to enhance the athletic nature (i.e. to re-emphasize this is an athletic statue) and narrative of the piece. The Heraklean qualities in the Boxer stem from the Lysippan tradition and these characteristics are only seen in the face – the only area that has wounds. The figure does not have the body of Herakles (especially Lysippus' Herakles) but only the face of him. Thus, I will argue that this is done to draw out more sympathy from the viewer, a ploy popularized by Lysippus, most notable in his Heraklean figures (such as the Farnese Herakles and Herakles Epitrapezios).

Above all, I appreciate Himmelman's attention, if brief, to the anatomical detail of the sculpture. No other scholar, to my knowledge, besides Himmelman mentions the 'harmonious' patterns that are reflected in the muscles of the pugilist. I would suggest that no one since Himmelman has given the Boxer adequate attention to notice this detail. Thus, this chapter serves to examine the Terme Boxer with a new perspective since Himmelman's publication over thirty years ago.

Zanker's examination of the Boxer is chiefly the result of his attempts to date the work. He noted that other scholars have dated the piece to the first-century BCE because they want to link the brutality to Roman athletics and maintain the 'illusion' of Olympianism in Greek athletics.²⁶ Zanker, however, argued that the piece is a Hellenistic work as the Hellenistic 'character' is 'unmistakable.'²⁷ Without specifically supplying a date to the Boxer, he argued that the Boxer is a Hellenistic piece based on the style and 'general cultural situation' referring to the wider sculptural subject diversity or what he terms a "new kind of anthropological interest ... about characteristics, perspective-related situations."²⁸ In other words, the Boxer was a part of the wider context or interest in anxiety, emotion, turmoil, and other pathē (e.g. the 'unhappy sleep' of Ariadne, the anxiety of Marsyas before he is about to be flayed alive,

²⁵ Hyde (1930), 147.

²⁶ See Zanker (2005), 35 for bibliography. See Gardner (1930), 99-116 for Olympianism and Young (1985) for counter-argument.

²⁷ Zanker (2005), 35.

²⁸ *Ibid.* 45. "Wir haben es mit einer neuen Art von anthropologischem Interesse zu tun; es geht nicht mehr um exemplarisches Auftreten, sondern um charakteristische, augenblicksbezogene Situationen, ..."

etc.).²⁹ He also could not deny the stylistic similarities and influences from Lysippus (ca. 370-300 BCE).³⁰ Zanker, however, underplayed Lysippus' influence as "unproductive for stylistic references for a narrow sense."³¹ As, according to Zanker, Lysippus' works such as the Colossal Herakles from Tarent and Herakles Epitrapezios were not widely distributed during Lysippus' lifetime but were, nevertheless, influential in the stylization of Herakles during the Hellenistic period and beyond. This indicates to me that Zanker dated the piece in the early Hellenistic period.³²

For the majority, I agree with Zanker's analysis but differ with his conclusions on two points. Firstly, I question Zanker's acceptance of the Boxer's realism at face value. Like many authors, he ticks 'realism' as a characteristic of the Hellenistic period without further evidence.³³ But how is this sculpture 'realistic'? How does the Boxer's anatomy display this so called 'realism' or is it play on pseudo-realism?³⁴ It is easy to qualify this piece as 'realistic' when compared to the idealized, youthful, and stoic statues that came before it the Classical period, but are there really no 'idealistic' qualities to this piece? Does *kalokagathia* not exist within this pugilist because he is an ugly, beaten up, and a mature athlete? These are questions this chapter aims to address.

Secondly, I do not agree with the way that Zanker downplayed the importance of Lysippus within this work, especially in relation to the stylistic characteristics of Herakles; nor do I agree with his statements that Lysippus' influence was not circulated enough to inform the iconography of the Boxer. Several Heraklean sculptures from around the Hellenic world have almost identical facial features to the Boxer, so much so that it cannot be a coincidence. I would argue that the sculptor of the Boxer used this particular style of the Heraklean head type that was circulating throughout Magna Graecia and Asia Minor during late fourth-century to early first-century BCE. However, I suggest that the Boxer can be confidently dated in the third to second-century BCE as

²⁹ *Ibid.*, 46.

³⁰ *Ibid.*, 42.

³¹ *Ibid.* "Leider handelt es sich dabei jedoch in beiden Fällen um sehr schlecht überlieferte Werke, deren ikonographische Schemata im Laufe des Hellenismus überaus beliebt waren und das Bild des Herakles für die späteren Jahrhunderte entscheidend geprägt haben."

³² *Ibid.*

³³ See above.

³⁴ I borrow the term 'pseudo-realism' from Wolf-Hartmut Friedrich in his examination of wounding in the Illiad. Friedrich uses the term to mean when the author provides just enough plausible narrative to make the reader believe the situation to be a realistic depiction, but in fact, upon closer examination, it does not hold true to a natural occurrence. Freidrich (2012), 34-41.

the gloves the Boxer wears and his body type support this dating, which will be discussed further in this chapter.

This case study of the Boxer falls into a larger discussion of questioning how does athletic art of the Hellenistic and early Roman period depict 'real' or 'naturalistic' athletes? If athletic art does indeed depict naturalistic athletes how does that inform us, as a modern viewer, of ancient athletic practice and regimen? These issues are, of course, not as simple as this, but are a part of complex system of iconographic sources, new art narratives (and as it pertains to this sculpture, narratives that are introduced by Lysippus and Alexander the Great) and changing art styles brought about during the Hellenistic period. I will argue in this chapter that the Boxer is a clear example of this time period's style in a multitude of facets, including anatomy and athletic type (i.e. a 'professional' athlete), artistic representations of Herakles during the Hellenistic age after Lysippus' and Alexander's influence, and interest in engaging in dynamic art compositional techniques, such as displays of pathos in sculpture figures, sculpting in the round, provoking an unexpected reaction from the viewer, etc.³⁵ I will demonstrate that the sculptor of the Boxer must have had an understanding of athletic regimen or, at the very least, knowledge of the stereotypes in athletic literature (e.g. the 'fleshiness' of athletes and the targeting of specific muscle groups as it pertains to key sports of professional athletes). Overall, the Boxer is a much more complex piece than has been previously understood or dealt with in scholarship to date (Himmelmann is the only one who came close to touching on these issues).

In this chapter I will address this thematically. The argument will be structured through the physical body of the Boxer, highlighting three key themes of the piece: brutality, anatomical precision, and Heraklean iconography. Firstly, this chapter argues that the brutality serves to enhance the 'realism' of the athlete and provides a narrative to the piece. Next, I will systematically go through the anatomy of the figure to examine if the musculature is anatomically correct and where the sculptor has taken liberties with the human form to suit the sculptor's own agendas. Lastly, I will compare the Boxer with other Heraklean imagery that I believe directly informed the iconography of the seated figure. I will argue that this was done purposefully by the sculptor to suit his own narrative for the statue. This section serves to give the reader a strong basis of

³⁵ Pollitt (1989), 1-13.

understanding of the sculpture and all its physical and iconographic parts before moving onto to more complex discussions in the chapters that follow (see Chapter Five).

1. Violence

To say that victory in ancient boxing depended on brutality alone would be a great exaggeration, for the sport required a high degree of skill and strategy in addition to courage and fortitude. But trauma has always simply been a given, an essential part of the sport, and the Greeks quite accurately viewed boxing as the most physically punishing and damaging of all athletic contests.³⁶

As Poliakoff stated in the quote above, boxing was so much more than hitting your opponent until he was black and blue and red all over, but that did not mean the violence was understated either. As noted in the introduction to this chapter, one of the elements highlighted about the Boxer is the representation of the brutality of ancient sport and boxing in general. The only wounds on the Boxer are located on his face. To summarize the wounds the Boxer bears are as follows: under the right eye there is swelling of the zygoma caused by a haematoma of the eye (or black-eye), emphasized by the difference in bronze alloy.³⁷ The bridge of the nose is also swollen. It is more noticeable from certain angles, but his nose is broken as the nasal bone splinters to the right (Fig. 11). It is hard to tell if this is a recent injury or a pre-existing one, where the swelling has become permanent. The frontalis muscle on the forehead draws upward, raising the brows in the Boxer's curious expression. This, in combination with the swollen/broken nose, shortens the forehead and makes the face smaller. The eyes are sunken into the head, but this can be exaggerated from the swelling of wounds around the orbicularis oculi. Interestingly, the lips do not seem to be swollen like the rest of the face, even though it is obvious from the multiple lacerations on the forehead, cheeks, nose and ears that most of the blows were received to the face.³⁸

³⁶ Poliakoff (1987a), 68.

³⁷ For clarification, when I refer to directions I am talking about the sculpture's directional orientation. In other words, when I say left or right, I mean the sculpture's left or right. Alloy difference: Himmelmann (1989), 176-7.

³⁸ I count only the cuts that are freshly bleeding (highlighted by copper inlays): four on the forehead, two on the nose, one of the left cheek, one on the right, one fresh cut to the left ear, and two longer cuts and two smaller (but bleeding) cuts to the right ear. There are other "cuts" and indentations in the face but I question if those were intentional by the sculptor or from wear from the sculpture's old age.

Zanker, in his examination, believed the sculptor's intention for the piece was to address "the hardness and danger of fighting."³⁹ Indeed, without these wounds what would the pugilist be? Would he be as interesting or compelling? At the very least, the viewer would not feel as sympathetic towards him.⁴⁰ These wounds supply a narrative to the piece and their absence would make him less interesting. What exactly the narrative involves is still a debate amongst scholars. The basis of what can be confirmed by the evidence is that the Boxer has just finished a match (evident by his freshly bleeding wounds), but has he won or lost his match? In my opinion, there is not enough evidence to tell if the Boxer is victorious or not, such a conclusion falls merely to one's opinion and perhaps that was the sculptor's intention, if the sculpture was not part of an assemblage.⁴¹ However, the wounds supply the viewer with information about the fight that has just taken place. Most telling are the multi-directional lacerations on the face. These cuts, more than anything else, describe the narrative that had just played out for the protagonist. The longitudinal lacerations across the cheek and brow indicate cross-jabs to face, while the more latitudinal lines imply (to me) upper cut swings. These cuts are no doubt due to the gloves the Boxer and his opponent were wearing. Poliakoff stated "The most revealing information about ancient boxing is what the boxer wears on his fists, for that readily indicates the level of injury tolerated (or expected)."⁴² These gloves or *himantes* (singular, *himas*) are the heavier or 'hard' (*oxys*) type developed in the fourth-century BCE; different from the 'softer' *himantes* comprised of leather thongs of ox-hide that were wound around the hand and wrist (compare Fig. 56).⁴³ The hard *himantes* were designed to be more like traditional 'gloves' lined with fleece (the fleece can be seen sticking out of the end on the glove on the forearm, Fig. 57) with holes cut out for the fingers that the athlete could slip his hand into then wrap leather

³⁹ Zanker (2005), 39. "in der sie dem Betrachter vorgehalten werden, daß es dem Bildhauer ganz wesentlich darauf ankam, die Härte und Gefährlichkeit der Kämpfe zu thematisieren."

⁴⁰ Aristotle, *Rhetoric* 1361b; Dio Chrysostom 28.8.

⁴¹ For more on the debate if the *Boxer* was part of an assemblage see Section Three of this chapter.

⁴² Poliakoff (1987a), 68.

⁴³ *Ibid.*, 71-73; Miller (2004), 52. The soft *himantes* were worn in various ways: the knuckles could be covered or not and some depictions have shown the *himantes* being wound to the top of the forearm, not just stopping past the wrist. The earliest depiction of hard *himantes* were first seen in a Panathenic amphora of 336/5 BCE (at the British Museum, London, inv. No. B 607). More developed representations appear in later sculptor: Marble Boxer from Sorrento, ca. first-century CE (Naples, Museo Nazionale, inv. No. 119917), bronze forearm of a statue from Herculaneum in Naples (see Juethner (1896) p. 79, fig. 64), on a fist from the arena at Verona found in 1887 (Juethner (1896), p. 78), to name a few. Hyde (1921), 238.

thongs around to keep the glove in place.⁴⁴ A distinctive feature of these new gloves is a thick and heavy pad of leather over the knuckles – easily recognizable on the Boxer (Fig. 14). This feature should not be confused with metal – a characteristic of later Roman *caestus* that were designed to have metal sewn into the gloves. This added padding increased the protection of the knuckles and the damage dealt to one's opponent – evident by the Boxer's beaten and bloody face.⁴⁵

Early twentieth-century scholars, like Gardiner, were led to believe pugilists were only allowed to deliver blows to the face because all artistic representation depicted boxers striking the face.⁴⁶ Even Zanker, writing in the twenty-first century (2005), believed punches were delivered to the head making it less dangerous to the body but not any less fatal.⁴⁷ One literary testimony from Pausanias of a pyx match between Kreugas of Epidamnos and Damoxenos of Syracuse would contradict this claim. It was customary to end fights by nightfall either by ending the match in a draw (Syll.³ 1073), bringing out a *klimax* (a stick or ladder that confined the area the boxers could move about in and dissuade stalling techniques such as elusive foot work), or by either altering the rules to conclude the match faster.⁴⁸ In Kreugas and Damoxenos' case, because evening was approaching each fighter agreed to deliver one blow to his opponent.

Now Kreugas aimed his punch at Damoxenos' head. Then Damoxenos told Kreugas to lift his arms, and when Kreugas had done so, Damoxenos struck him under the ribs with his fingers straight out. The combination of his sharp fingernails and the force of his blow drove his hand into Kreugas's guts. He grabbed Kreugas's intestines and tore them out, and Kreugas died on the spot. The Argives expelled Damoxenos on the grounds that he has broken his agreement by giving his opponent several blows instead of the agreed-upon single blow. They gave the victory to the dead Kreugas and erected a statue of him in Argos.⁴⁹

⁴⁴ Hyde (1921), 238; Poliakoff (1987a), 73; Miller (2004), 52.

⁴⁵ Miller (2004), 52. See Chapter 5.1.2 for further discussion on boxing gloves.

⁴⁶ Gardiner (1910), 421. See figures 15 and 16 Excluding representations of illegal blows to the groin, etc. There is a fragment of red-figure kylix by Onesimos (at the Metropolitan Museum of Art, I. 2002.21), ca. 500-490 BCE that shows bloody hand prints on the abdomen of two fighters, however, these fighters have been identified as pankratiasts, not pugilists.

⁴⁷ Zanker (2005), 38.

⁴⁸ Poliakoff (1987a), 80, 173 n. 12; Poliakoff (1987b), 516.

⁴⁹ Pausanias 8.40.4-5; A38, trans. Miller

Damoxenos was not disqualified because he struck his opponent in the thorax rather than the head, but on the basis that he struck his opponent multiple times, one blow for each finger, rather than the agreed single blow indicating clearly that there was a prevalence for striking in areas other than the face.

A preference for strikes to the head is arguably due to the very nature of the sport itself. Unlike modern boxing, ancient boxing had no weight limit (it was only divided by age groups between boys and men) and no (relative) time limit, though, as just seen, there was a cutoff point and stalling techniques were not tolerated. The goal was to beat your opponent into submission either by knocking them out or until one contestant conceded. The fastest, and possibly easiest way to do this, was to deliver head strikes to daze and, hopefully, incapacitate one's opponent.

Pausanias' passage also showed the extent of violence ancient boxing could entail. Interestingly, it is only in literary testimony that the audience gets this level of violence.⁵⁰ To my knowledge, there are no artistic depictions in antiquity that show this form of brutality. Is this an exaggeration by literary authors or part of some form of literary tradition? Was this a limitation of artistic ability or, possibly, a lack of interest in the subject of depicting athletic death or violence of this scale? Despite these prevailing questions, Zanker had it right when he stated that the sculptor's intent was to highlight the dangers of fighting, namely to one's physical body.⁵¹ For example, Melancomas of Caira⁵², who despite his career in boxing was able to maintain his beauty – a rare achievement unlike another athlete who became so deformed by his boxing career he was unrecognizable and lost a portion of his estate because he could not be identified.⁵³ The Boxer falls in between of these two extremes, parts of his face are permanently swollen from constant abuse. All forms of beauty, both youthful (as he is a mature athlete past his youthful prime) and unblemished, have forever fallen out of his grasp. In realization of this, does the viewer now feel more sympathetic towards the pyx fighter? (See below.)

⁵⁰ Pausanias 6.4.3, 8.40.1,4-5; Philostratos, *Pictures in a Gallery* 1.24, 2.6; Lucian, *Anacharsis* 1-8, 38; Plutarch, *Moralia* 347C; Antiphon, *Second Tertralogy* 2.1-8, Sophokles, *Elektra* 681-756; Artemidoros, *Interpretation of Dreams* 5.13; Lucian, *Peregrinus* 19; Galen, *On Exercise with the Small Ball*.

⁵¹ Zanker (2005), 38.

⁵² Dio Chrysostom 28.5-8. I justify using Dio, who wrote ca. 100 CE, to speak about a Hellenistic example because this mindset that boxing deformed the body was consistent from the fourth century to the Roman period with Philostratus (*Gymnasticus* 32-33) and Galen (*Exhortation for Medicine* 9-14).

⁵³ Stated in Poliakoff (1987a), 87.

Returning to the investigation into the narrative the Boxer represents, cauliflower ears (Figs. 10, 12) are a trademark of athletes in ancient sculpture, particularly in heavy weight or combat sports (i.e. boxing, wrestling, and pankration). Cauliflower ears are hematomas in the ear formed from repeated blows to the cartilage resulting in blood clotting that restricts the flow of blood and nutrients in the ear. There are noticeable cuts on both ears of the Boxer, two long lacerations with two smaller spotted wounds on the right and one long cut on the left that are depicted bleeding (highlighted by copper inlays to represent freshly spilled blood seeping from the wounds and dripping down onto other parts of the body). Dr. Levine proposed an interesting argument that these cuts are made from surgical incisions to drain the blood blockage in the ears. Levine supported his argument on his findings that the cuts on the Boxer's face are different from the ones on his ears. He stated, the ones on the ears are clean, straight, and uniformly horizontal versus the ones masking the face are jagged and multi-directional.⁵⁴ Upon closer examination, I observe no real difference in the way the wounds on the face and ears are executed by the sculptor. Each laceration seems to be a quick gash to the flesh. I would, however, agree that the wounds on the ears are uniform in comparison to the cuts to the face that vary in direction and width. It can thus be argued, there is some plausibility to Levine's claim. Further, Levine noted that in Hippocrates' *On Wounds in the Head* 13, for lesions (ἔλκη) on the head it is prescribed for an incision as treatment. However, the passage in question is ambiguous and related more to wounds and lesions delivered to the temple by a weapon.⁵⁵

⁵⁴ Levine (2013).

⁵⁵ Τάμνειν δὲ χορὴ τῶν ἐλκῶν τῶν ἐν κεφαλῇ γενομένων, καὶ ἐν τῷ μετώπῳ, ὅπου ἂν τὸ μὲν ὀστέον ψιλὸν ἢ τῆς σαρκός, καὶ δοκῇ τι σίνος ἔχειν ὑπὸ τοῦ βέλεος, τὰ δὲ ἔλκεα μὴ ἰκανὰ τὸ μέγεθος τοῦ μήκους καὶ τῆς εὐρύτητος ἐς τὴν σκέψιν τοῦ ὀστέου, εἴ τι πέπονθεν ὑπὸ τοῦ βέλεος κακὸν καὶ ὁποῖόν τι πέπονθε, καὶ ὅποσον μὲν ἢ σὰρξ πέπλασται καὶ τὸ ὀστέον ἔχει τι σίνος, καὶ δ' αὐτε εἰ ἀσινές τε ἐστὶ τὸ ὀστέον ὑπὸ τοῦ βέλεος καὶ μηδὲν πέπονθε κακόν, καὶ ἐς τὴν ἴησιν, ὁποῖός τινος δεῖται τό τε ἔλκος ἢ τε σὰρξ καὶ ἡ πάθη τοῦ ὀστέου· τὰ δὲ τοιαῦτα τῶν ἐλκῶν τομῆς δεῖται. καὶ ὅταν μὲν τὸ ὀστέον ψιλῶθῃ τῆς σαρκός, ὑπόκοιλα δὲ ἢ ἐς πλάγιον ἐπὶ πολὺ ἐπανατάμνειν τὸ κοῖλον, ὅπου μὴ εὐχερὲς τῷ φαρμάκῳ ἀφικέσθαι, ὁποῖῳ ἂν τινι χορῇ· καὶ τὰ κυκλωτερέα τῶν ἐλκῶν καὶ ὑπόκοιλα ἐπὶ πολὺ καὶ τὰ τοιαῦτα ἐπανατάμνων τὸν κύκλον διχῇ κατὰ μήκος, ὡς πέφυκεν ὠνθρωπος, μακρὸν ποιεῖν τὸ ἔλκος.

One should incise wounds occurring in the head and forehead where the bone is laid bare and seems to be in some way injured by the weapon, while the wounds are not long and broad enough for inspection of the bone, to see whether it has suffered any harm from the weapon, the nature of the injury and extent of the contusion of the flesh and any lesion of the bone, or, on the other hand, whether the bone is uninjured by the weapon, and has suffered no harm; also, as regards treatment to see what the wound requires, both as regards the flesh and the bone lesion. These are the kinds of wounds that require incision. When the skull is laid bare and there is considerable undermining on one side, open out by incision the hollow part where it is not easy for the suitable remedy to penetrate. In the case of circular wounds which are undermined to a

Nevertheless, the passage can imply treatment for lesions (in general) was to incise the wounds, just as in modern medicine hematomas are still, sometimes, treated with incisions and drainage.⁵⁶

Dr. Levine's proposal is new and striking, as previously it has been assumed that all the injuries the Boxer sustained were delivered by his opponent, not a physician.⁵⁷ It is difficult to confirm or deny such a claim as the lacerations to ears could easily be cuts delivered by the opponent when the Boxer moved his head to either side avoiding the blow (as seen in pottery scenes, see Fig. 67). This theory adds another possibility into the narrative of the Boxer – if he is turning his head to the right to provide access for a physician or *paidotribe* to tend to his swollen ears. Unfortunately, it cannot be determined who or what the Boxer is looking over his shoulder at – or if there was even an intended subject for the Boxer's gaze.

The wounds on the Boxer represent a real dimension to the piece supplying a believable narrative that informs the viewer of the fight the Boxer just experienced – with blows and uppercuts to the face overlying old, existing wounds implying the span of the (successful?) athlete's career.⁵⁸ Arguably, the brutality implied by these wounds is necessary to create this work.

2. *Anatomy*

The anatomy of the head has already been discussed; therefore, I will systematically go through the rest of the figure to analysis his anatomical parts for naturalistic qualities using modern medical science and understanding of the human body.

2.1 *Head*

With the drastic turning of the head, it would be expected that the sternocleidomastoid to be more prominent on the left as the neck stretches in an upward

considerable extent, open these out also by a double incision up and down as regards the patient¹ so as to make the wound a long one. (Translation: Withington, Loeb 149.)

⁵⁶ Schuller, et al. (1989); Mudry and Pirsig (2009); Roy and Smith (2010); Greywoode, et al. (2010).

⁵⁷ This is my assumption because, to my knowledge, no previous scholar has made mention of this before.

⁵⁸ Successful in the sense that for the Boxer to have continued his long career to be a mature athlete in his field he would have had to be successful in previous matches. As to be a professional athlete was a costly process with the prize money or awards used to sustained a continued livelihood in athletes. For more on professional athletes see Young (1985), Miller (2004), 207-215.

and awkward angle. Instead the artist has clearly chosen to depict a subtler throat line. The laryngeal prominence or ‘Adam’s apple’ is slightly prominent, more so when viewed from the right side of the figure, which feeds into the suprasternal notch (also known as the jugular notch). The external jugular vein can be seen on the left side of the neck. The clavicle (or collarbone) is unmistakable as it feeds into the sternum.

2.2 Thorax

The pectoral muscles are stretched tight over the breast bone evident by the indentation along the breast bone. The position the Boxer is seated in, as he leans forward placing his forearms to the meaty portion of the thigh, encloses the chest and bunches the pectoral muscles down to the abdominals. I would argue that the Boxer was composed into his seated position purposefully to create visually striking or eye-catching area by invoking visual triangles from various angles. From this front (anterior) view, the top point of the triangle starts at the head following down the upper arms (emphasized by the cephalic vein in the arm to define and outline the musculature of the pectorals) to the forearm where the triangle ends with the joining of the two hands. This visual triangle frames the chest highlighting key components of the pugilists, i.e. the thorax, arms, and gloves.

His rectus abdominis, while flat and compact, does not have a development of the separated sinews. In other words, there is no pronounced ‘six-pack.’ There is separation between the rectus abdominis and external oblique; obvious in the indentation of flesh along the abdominal wall that is enclosed by the linea semilunaris pushed up against the medial limits of the external oblique. This creates a nice visual line starting from the top of the pectoralis major, curving downward into linea semilunaris tenion.

Noticeably, there is a single fold of skin (rather than fat) above the navel. This fold happens along a tendinous intersection between third and fourth abdominal muscles.⁵⁹ This is due, again, to the way the Boxer is seated: he bows his back to lean forward, slumping his shoulders downward adding extra weight onto his chest and enclosing the thorax. Given the flatness of the abdominal region and the leanness, especially of the lower abdominal, it can be argued that the Boxer is depicted drawing

⁵⁹ The rectus abdominal muscles are pairs of long, flat muscles that extend over the length of the abdomen, usually divided into four pairs of ‘abs’ that is divided by narrow bands of tendon.

an inward breath. Taking a breath in from his opened mouth shrinks the lower abdomen, sucking in the abdominal (or ‘core’) muscles to add to the extra fold of flesh, and emphasizes the ribcage. Thus, giving the pinch silhouette that accentuates a ‘heavy’ chest and ‘leaner’ abdomen. This is emphasized by the negative space formed by another visual triangle when seen from the profile. The tip of the triangle begins at the base of the neck, down the curvature of the spine to the gluteus maximus, across the thigh then up the arm, returning to the deltoid and neck.

One of the most developed areas on the figure is the external abdominal oblique muscle that is described as “the largest and outermost of the three [muscles] controlling the major part of the abdominal wall.”⁶⁰ The oblique stands out most prominently as excess flesh bulging from the sides of the figure. This fleshy muscle is exaggerated because the Boxer is seated; the excess weight of the form expanding outward in muscles such as these. This bulging mound should not be confused with fat as the exercises undertaken to develop the surrounding muscles (serratus anterior muscle and latissimus dorsi muscle) would also develop the oblique muscles; given the level of their prominence it can easily be articulated that the fleshy masses should be seen as muscle rather than fat.⁶¹ Moving slightly upward, the serratus anterior muscle are muscles that cover the rib cage (specifically the first to eighth rib or ‘true ribs’) and whose function serve to pull the scapula (shoulder blade) and rest of the shoulder forward in actions that require the shoulder to be thrust forward, such as throwing a punch.

2.3 Back

Adjacent to the serratus anterior is the latissimus dorsi, spanning from under the portion of the arm to the broad span of the back. The latissimi dorsi account for the majority of the mass of the back and adds the massive bulk of the figure. Overhead lighting onto the form highlights undulating mounds of flesh superior to the latissimi dorsi, the mounds are quite uniformly projected as a mirror image of each other across the spine. These fleshy masses could be explained as developed inferior muscles, such

⁶⁰ Backhouse and Hutchings (1986), 223.

⁶¹ I will discuss further in Section Two what training regimens and ancient equipment would and could have been used to develop this musculature and particularly these muscles as a way to answer the question what is real about the Boxer and if the Boxer’s body is achievable.

as the serratus posterior inferior that lay beneath the latissimus dorsi muscle. However, upon closer examination I do not believe this is the case for the serratus posterior inferior warps around the body laterally versus the mounds move down in the body in a longitudinal direction. They could also be definitions of the teres minor and major, but I am skeptical because of how far they extend down the body. I would not, however, discredit the brawny forms as being un-anatomically correct because the human body develops in many different ways. Therefore, these mounds are perfectly reasonable, nevertheless, I am not convinced by their mirror-image state. Nevertheless, this feature and the subtle throat line could be argued as signs of individualistic traits based on the model used for the sculpture or the sculptor's own personal stylistic choices. Thus, these features add some plausibility for the argument that the Boxer is a portrait or victor statue. Further, the viewer finds the last visual triangle, this time inverted, when viewing the statue from the posterior. The eye can follow across the broad shoulders and the trapezius muscles, down the scapula, latissimus dorsi, and teres minor and major to the base of the spine.

2.4 Arms

The deltoids of the arms are pronounced; outlined by the cephalic vein that separates the deltoid and pectoralis major muscle in the deltopectoral groove. However, the cephalic vein in anatomy continues down the upper arm into the forearm, but on the Boxer, it gradually fades into the inner elbow (or antecubital fossa). The biceps, while developed, are not as bulgy as the triceps because the Boxer is not flexing his arms. The muscle rests quietly while the meatier triceps protrudes outward creating a visual curve to the upper arm (best seen from behind, Fig. 8). It is difficult to tell because it is hard to view the underside of the arm, but the basilic vein is also visibly feeding down into the inner elbow where, possibly, the median cubital vein is depicted as tiny lines protruding from the elbow pit. The forearms cannot be analyzed because they are covered by the *himantes*. Though, it is noticeable how the digits of his left hand are flexed in a slight movement, the little finger flicking up at the end. The left hand also hovers over the

right as if the Boxer was about to raise the hand up.⁶² The kinetic gesture adds tension and movement to the piece.

2.5 Legs

The gluteus maximus on the posterior view is broad like the rest of the body and manages to sit flat on an uneven surface.⁶³ Caution must be taken when examining the legs because patches were added, particularly to the right leg, in the nineteenth-century during restoration of the piece (Fig. 17).⁶⁴ Nevertheless, the muscles of the quadriceps femoris group (i.e. the rectus femoris, vastus lateralis, vastus medialis, and vastus intermedius) that make up the anterior portion of the thigh are developed and observed protruding from the thigh, more so on the right leg than the left. The greater trochanter, a bone that is part of the femur, and gluteus minimus are more prominent on the right than the left leg. The difference between the right and left leg is most likely due to the way the Boxer is seated that has been discussed above. As with the arms, a single major vein is represented separating muscle groups. Here the great saphenous vein, a superficial and longest running vein in the body, divides the Sartorius muscle and adductor magnus as it mediates from the anterior to medial portion of the leg. The vein is represented continuing down the length of the leg outlining the pronounced gastrocnemius muscle of the calf down to the medial malleolus, or the bony protrusion of the ankle.

2.6 Discussion

All the muscle groups just described (serratus anterior muscle, latissimus dorsi, teres minor and major, trapezius, and infraspinatus; in addition to the pectoralis major that masks over portions of the serratus anterior and external oblique) are pivotal to a boxer as they ‘key dynamic muscles’ utilized in arm extension.⁶⁵ In other words, they

⁶² If this were so, however, I would expect to see more flexion in the left arm as the Boxer engages his upper arm muscles to lift the forearm up into motion. The tension, therefore, is an artistic element rather than anatomical.

⁶³ If examined closely it will be noticed the base he sits on leans slightly to the left. While this is not the original base but a nineteenth-century addition it is believed to have been depicted similarly to what the original may have looked like based on other seated Heraklean figures, Himmelmann (1989), 152. For more on Heraklean influence see the next sub-section; for the *Boxer*'s seated position as clues to his original context see Section Three of this chapter.

⁶⁴ Himmelmann (1989), 178-180.

⁶⁵ Link and Chou (2011), 25.

are the muscles used to throw a punch. The obliques are also used to twist the body. This is in addition to the essential muscles in the arms and legs that contribute to the static and kinetic movements of hand strikes. This is illustrated by the deltoid, triceps, and ancomenus that are a part of the dynamic muscles of arm extension and the gluteus medius and maximus and quadriceps, gastronmenius, and soteus of the leg that are active in the kinetic chain to drive the body forward to deliver a blow.⁶⁶

It has been shown that the surface anatomy of the Boxer conforms to nature with the bulkiest and most extraneous muscles depicted on the body being those that are vital to a pugilist and that would have been developed for a specialized athlete in the sport. Therefore, it can be stated that the sculptor observed surface anatomy closely, while also manipulating the anatomy of the form to exaggerate the musculature. For example, to flex the back, take an inward breath, and engage the core abdominal muscles proves to be an awkward position that is hard to maintain. This position, however, enlarges the form even more, expanding the mass of body with the inhalation of air and the flexion of muscles. Thus, the composition is visually deceiving, falsely depicting the figure as relaxed when the tension of musculature begs to differ.

Even though all the wounds on the figure are on his face the rest of his body demonstrates the damage he could and did deliver to his opponent. Beyond the blatantly obvious sports equipment (i.e. his boxing gloves) that identifies the figure as a boxer, the developed musculature displayed in this specific visual composition also re-emphasizes the subject matter. In other words, every part of the statue is meticulously constructed to emphasize and sometimes exaggerate that the figure is a pugilist but in a convincingly naturalistic way. When viewed from this perspective the figure can be seen as a naturalistic depiction of the violence in ancient boxing, showing the long- and short-term damage down to pugilists and the powerful body capable of delivering such violence.

3. Heraklean Iconography

In this section, the Heraklean qualities, particularly from the Lysippan tradition, which are displayed in the Boxer will be examined. Firstly, however, the obvious must be stated: this figure is not Herakles, nor is it trying to be Herakles. What will be argued

⁶⁶ *Ibid.* See Chapter 5.1.5 for full discussion.

is that the sculptor specifically used Lysippan-Heraklean like qualities to engage in Hellenistic artistic techniques to enhance and inform the narrative the sculptor was trying to achieve. While the blatant Hellenistic characteristics signify that this sculpture is indeed a Hellenistic work it will be shown why the sculptor may have chosen to select certain Hellenistic, and namely Lysippan, qualities over other techniques to conform to a specific athletic narrative the sculptor wanted to depict. Emphasis is placed on the Lysippan school as Lysippus' work defined Hellenistic art and it is his techniques that are displayed in the Boxer, such as emotional expression, composition of the body to elicit viewer interaction, and theatrical mentality (or that is "designed to startle, surprise, and emotionally engage"⁶⁷ the viewer).⁶⁸

Lysippus of Sikyon had a long career stretching from as early as 370/60 BCE to as late as ca. 305 BCE.⁶⁹ Lysippus was both a late Classical sculptor, a contemporary of Praxiteles and Skopas, and a Hellenistic artist; as well as being the court sculptor for Alexander the Great. Lysippus is known as being the harbinger of the Hellenistic artistic style. Pliny quoted Lysippos as having said: "that by them [earlier sculptors] men were represented as they really were, but by him they were represented as they appeared."⁷⁰ In other words, Lysippos brought forth a new *symmetria* and naturalism to his works. However, as Pollitt stated: he "developed his own canon, but his canon took into account one's ordinary optical experience of objects in space. He did not simply want his statues to be tall, he wanted them to *seem* tall, and he modified proportions to achieve this effect."⁷¹

Another stylistic quality of Lysippus is that he made the viewer adapt to the statue's space by creating compositions that were meant to encourage the viewer to see the statue in full 360 degrees. For example, one of Lysippus' most famous works, the Farnese Herakles or Weary Herakles (Fig. 48), holds the Apples of Hesperides behind his back, inviting the viewer to walk round the sculpture to see the full context and narrative the statue is trying to convey. The narrative being: Herakles has just finished his eleventh labor of retrieving the Apples of Hesperides and is weary from his trials,

⁶⁷ Pollitt (1986), 48.

⁶⁸ *Ibid.* 47-9.

⁶⁹ *Ibid.*, 47 with bibliography.

⁷⁰ Pliny, *Natural History* 34.65. Trans. Pollitt 1986, 47.

⁷¹ Pollitt 1989, 47. With this Lysippus usually had smaller heads on his works conforming to 1:8 head ratio rather than the typical canon of 1:7 heads.

arguably not only from temporarily holding up the world in Atlas' place, but from the hardships he has endured up to that point. While rippling with musculature that usually connotes strength, Herakles can barely stand from his exhaustion; his great muscles cannot support him, and he leans on his club for stability. This sculpture is also a prime example of other stylistic innovations coined by Lysippus. For example, Lysippus evoked an emotional response from sculptural works with a conveyed sense of pathos from his figures that are more contemplative and emotional. Examining the head of the Farnese Herakles, the pathos is clear with the down turned head, downcast eyes, and wrinkled brow create a contemplative and indeed, a weary expression.⁷² Further, there is a continuing sense of theatricality, in the ironic contrast between the massive musculature (strength) and weariness of the figure. This is meant to surprise and invert the viewer's expectations when viewing a representation of the 'mighty Herakles' (see Chapter Four).⁷³

The sculptor of the Boxer utilized many of the qualities just stated to his own end. An argument can be made that like Lysippus, the sculptor wanted the Boxer to seem big, so he manipulated the already endowed musculature even more by having the figure draw an inward breath and arch and tense his back to enlarge and expand the muscles of the form. The Boxer should be considered a sculpture that could and should be viewed in the round. The visual triangles from various angles encourage multiple points of view the statue can be studied from. Further, his forward projection of placing his arms onto his thighs and having his hands clasped in front of him brings the figure into the viewer's space, while at the same time maintaining a 'boxy' composition.

In addition, there is a case to be made for the theatricality of the figure, in that, if this pugilist is victorious why is he depicted in such a beaten-up state? Traditionally, from the Classical period victorious athletes were shown in a glorious and idealistic light. A prime example is the Classical bronze Charioteer of Delphi from ca. 478-474 BCE now housed in the Archeological Museum in Delphi (Fig. 18). The youthful victor, noticeable from the diadem he wears, would have been accompanied by a full team of life-sized horses (now lost but for fragments) as he was making his victory lap. However, the figure is not represented exhausted from his labors but maintains a rigid

⁷² *Ibid.* 49-53.

⁷³ *Ibid.* 49-51.

self-control and stoic expression to emphasize his ideal, victorious status. Even in other, later victorious athletic artworks, such as the Getty Bronze⁷⁴ dated to ca. 300-100 BCE retains a stoic expression (Fig. 19). The victorious youth crowns himself with an olive wreath but his facial features are expressionless – the brow is smooth, eyes stare straight forward into the distance, and the small lips of the figure are at rest.⁷⁵ Therefore, if the Boxer is representing a victorious athlete it can be said the sculpture is exhibiting the Hellenistic/Lysippan trait of theatrical mentality by reserving the viewer's expectations of what a victorious athlete is usually represented as. Instead, the viewer finds a more 'naturalistic' representation of a boxer coming out of a bout.⁷⁶ If the Boxer is not a victorious athlete it begs the question why a bronze of a losing athlete would be commissioned?

The Boxer shares similar facial structure with many Heraklean head types particularly in the hairstyles and emotional expression or pathos. Take for example, the Head of Herakles from Pergamon (ca. first half of the second-century BCE, Fig. 20) has the same stylization of hair type where the hair is sculpted in chunks of curled locks and the beard fans out from a part down the middle of the face. Both bear cauliflower ears and have overhanging brows that shadow the eyes and shrink them back into the skull but are also pinched together creating a more contemplative expression. The Head of Herakles has fuller lips and more defined zygomata or cheekbones, though, the lack of definition in the Boxer may be due to facial swelling. However, it can be argued that the Boxer has stronger 'realism' in the definitions and attention of detail in the flesh, such

⁷⁴ Getty Museum, 77.AB.30.

⁷⁵ However, in this instance it is unclear if the youth has just finished a sport competition, is crowning himself at a later time, or, more likely, just an ideal representation of victory. Similarly, another work by Lysippos (or recreation after a Lysippan type/original) the *Crotian Apoxyomenos* (ca. second or first century BCE) in the Museum of Apoxyomenos Mali Lošinj, Croatia has a very blank expression. However, I would argue this is due to the contemplative narrative as the athlete stares down at the task of strigiling oil from his body.

⁷⁶ An exception to this victorious athlete ideal is the *Bronze Head of a Boxer* from Olympia (ca. 330-320 BCE, Fig. 21) now housed in the National Archeological Museum in Athens (inv. no. X 6439). There is a weariness to this figure as his brows pinch slightly together, the forehead projects forward shadowing the eyes, and age is defined in the lines around his eyes. The nose is remarkably straight, though, there is a small indentation in the left side – that could be from wear rather than artistic purpose – but the tip is bulbous, possibly from permanent swelling. Unlike our mature *Boxer*, who is both physically beaten and weary from not only the recent match, but, arguably, from the trials of being a professional athlete, the *Bronze Head* does not have recent wounds but displays a pensive representation of his life as a victorious (discernable from the diadem he wears), mature athlete. The *Bronze Head* seems to be an exception to the rule during his ascribed period (from the remaining material evidence) and serves as a predecessor to the *Boxer* in terms of naturalistic depictions of weary but victorious athletic statuary.

as in prominence in the superciliary arch above the eyebrow due to the raising and pinching together of the brows of the Boxer's curious expression. Whereas, the Head of Herakles has very little definition at all in the brows. His complexion is smoother and less rugged (albeit woundless) than the Boxer's.

Revisiting the passage from Stewart quoted in the introduction of this chapter, he noted how the Boxer's "anatomy is frankly Pergamene."⁷⁷ Stewart most likely was referring to puffy or even 'fleshy-like' quality of the Boxer and works from Pergamon. With the Head of Herakles, the cheeks have a healthy amount of flesh to them, his lips are full, and nose broad. Also, in the famous Altar of Zeus at Pergamon (construction beginning ca. 180 BCE), the seated Herakles figure from the East frieze (Fig. 22) is not unlike the Boxer. The serratus anterior is defined, the oblique bulges outward creating a sharp crease to enhance the iliac groove (or the v-shaped section of the exaggerated inguinal ligament), the back is bowed as Herakles looks up towards his father and due to this position, the fold of flesh is prevalent along the tendinous intersection in more prominent abdominal muscles, and the intersecting muscles of the gluteus and leg tendons are all clearly defined in chiseled musculature. The figure on the far right's backside is also reminiscent of the mirror-image undulating folds of flesh of the Boxer. However, the way the muscles are executed by the sculptors is different than the style of the Boxer. While the muscles are bulgy, they are extenuated by deeply chiseled grooves – appreciated best in the figure of Zeus (second figure from the left), whereas, the Boxer's musculature, while prominent is subtler in execution.

Other Heraklean heads that follow these same facial characteristics (e.g. hairstyle, curious expression, etc.), but are marble copies from the Early Imperial period include the Dresden-Copenhagen Head of Herakles (ca. 1-150 CE, Fig. 23), Marble Head of Herakles at the Metropolitan Museum of Art (ca. first-century CE, Fig. 24), and Head of Herakles at the Metropolitan Museum of Art (ca. first or second-century CE, Fig. 25) that Richter attributed as a copy of Lysippan original of the Herakles Farnese type.⁷⁸ Most compelling is the Roman marble copy of the head of the bronze colossal Herakles from Tarentum (Fig. 26) when compared to the Terme Boxer.⁷⁹ Unlike the

⁷⁷ Stewart (1990), 225 n. 814.

⁷⁸ Dresden-Copenhagen housed at Museum of Fine Arts, Boston, acc. Num. 97.287; *Marble Head of Herakles*, acc. Num. 27.122.18; *Head of Herakles*, acc. Num. 18.145.14, Richter (1921), 13.

⁷⁹ Housed at the Museo Nazionale Archeologico di Taranto.

other Heraklean heads shown, this head's brow is distinctly furrowed, the brows tightly pinched together, and deep grooves of the nasolabial sulcus are easily noticeable; these lines of the face not only add to the pathos of the figure but connote age and maturity in the piece. The history of the original Colossal Herakles of Tarentum is very telling: while it is unknown when Lysippus created the grand sculpture, it was taken to Rome in 209 BCE by Fabius Maximus and set up on the Capitoline as war booty.⁸⁰ Thus, this marble replica could easily have been recreated anytime afterward in fair amount of accurate detail during the sculpture's time on the Capitoline. The similar stylistic qualities from the upturned head, weary pathos, facial anatomy, and hairstyle in the Head from Tarentum highlights the strong connection to Lysippan style seen in the Boxer's own facial construction.

4. Conclusion

The Boxer's similarities to Herakles stop at the head. As noted in the opening of this section, this sculpture is not Herakles, nor it is trying to be Herakles. For one, the Boxer does not have the body of Herakles, especially that of the Lysippan Farnese Herakles type - the Boxer is not overflowing with musculature. While there are other examples of seated Herakles types, such as the Herakles Epitrapezios (Fig. 27), Youthful Seated Herakles (Fig. 28), Herakles Seated on a Rock (Fig. 29), and the seated Herakles from the Altar of Zeus at Pergamon (Fig. 22).⁸¹ All these figures, while they have musculature in their own right are not executed in the same fashion nor to the same degree as the musculature of the Boxer. The Boxer's muscle tone is suited specifically to a pugilist with the most prominent muscles being those that are vital in boxing (i.e serratus anterior muscle, latissimus dorsi, teres minor and major, trapezius, infraspinatus, and pectoralis major, Fig. 66). This is most likely due to that fact that Herakles is not known for being a boxer (though he is the mythological founder of the

⁸⁰ Then later moved to Constantinople and destroyed during the Frankish sack of the city in 1204 CE. Pollitt (1989), 49. This information is also mirrored on the Museum of Taranto's website.

⁸¹ *Herakles Epitrapezios* is a Roman copy of an original fourth century BCE, Archaeological Museum, Naples; the *Youthful Seated Herakles* Himmelmann dates to the 'later Hellenistic period' (1986), 164; and the *Herakles Seat on a Rock* is marble statue from the first or second century CE of an original late fourth or early third century BCE, The Metropolitan Museum of Art, New York, acc. Num. 11.55, Richter (1954), 95-96.

Olympic games) but rather a wrestler, which utilizes different muscles groups than boxing.

Therefore, I would argue the sculptor of the Boxer employed Lysippan-Heraklean characteristics for a multitude of facets. Firstly, the sculptor utilized Lysippan techniques that were no doubt popular throughout the Hellenic world; due in some part to Lysippus being the court sculptor to Alexander and the forerunner of the Hellenistic style. Thus, why scholarship to-date has so readily identified the Terme Boxer as Hellenistic, because of the obvious styles that are so easily identifiable as Lysippan and, therefore, Hellenistic. This, however, is not to say that the sculptor blatantly copied Lysippan models – the Boxer does have his own identity. The sculptor has used these pre-existing techniques to his own end to add dynamic elements to the work such as emotional pathos and theatrical mentality. Furthermore, having the multiple view points and visual triangles created a solidly composed piece and draws attention to key areas that emphasize that *is* this a boxer. Second, the sculptor most likely wanted to create an emotionally charged work and to draw sympathy from the viewer. Thus, why he used the same facial construction of other Heraklean (but particularly the Farnese Herakles) types to play on already popularized sculptures that did this same thing. But this figure is a boxer, not a wrestler, nor a Herakles. Thus, the body of the Boxer does not conform to the typical musculature of Herakles. The aim was to showcase the brutal nature of a professional boxer from the beaten face, the hard gloves, and rippling musculature to deliver damaging blows. Every nick, scratch, bruise, and tendon emphasizes the brutal, but albeit, realistic depiction of a Hellenistic boxer.

Chapter Three: *Apoxyomenoi*

The *Apoxyomenos* ('scraper', or sometimes 'cleaning self') type refers to figures that scrap themselves with a *strigil*, a curved tool used to remove oil and dirt from the body. Pliny in his *Natural History* stated that Polykleitos (active ca. fifth-century BCE) and his pupil or follower, Daidalos (active ca. fourth-century BCE⁸²), both Sikyonians, created an *apoxyomenos*.⁸³ Lysippos was credited with creating an *apoxyomenos* in his own *symmetria* style.⁸⁴ Later, Lysippos' son, Daippos (active ca. fourth to third-century BCE⁸⁵) created a variation of this type, a *perixyomenos* (scraping self-all-over).⁸⁶ Scholars have debated about the remaining *apoxyomenoi* that have survived on whether the figure is scraping himself (as the Vatican Apoxyomenos clearly does, Figs. 44-45) or cleaning his *strigil* (Boston Apoxyomenos, Fig. 46⁸⁷). The athlete scraping himself is seen in numerous depictions on vase painting.⁸⁸ The athlete cleaning his *strigil* is found on *intagli* and represented in statuettes, but the most commonly referred to the image is of a relief (ca. first-century CE) depicting statues of various athletes on either side of Hercules separated by columns (Fig. 30). One athlete, to the left of Hercules, cleans a *strigil* off to his left side. While this action is not dissimilar to many of the sculptures that will be discussed, the pose is notably different in the position as he holds the *strigil* to the side of the body as opposed to in front of the figure. However, this will be expanded upon in more detail in the discussions below.

The two main case studies for this chapter are the two life-sized bronzes, the Ephesian Apoxyomenos in the Kunsthistorisches Museum, Wien (Figs. 33-36) and the Croatian Apoxyomenos in Zagreb, Croatia (Figs. 37-39). The reason for the selection of

⁸² Pausanias, *Per.* 6.2.8 credited Daidalos, son of Patrokles from Sikyon, with the statues of Timon who won the chariot race in the 95th Olympic (400 BCE).

⁸³ Pliny, *NH* 34.55, 76; Plato (*Protag.* 311c) stated that Polykleitos was from Argos but later moved to Sikyon. It should be noted that Pausanias also credited Daidalos with the creation of other athletic victory statues (*supra* n. 83).

⁸⁴ *Ibid.*, 34.62.

⁸⁵ Pausanias *Per.* 6.16.5 credited Daippos as the sculptor of the victory statues for Nicander [Nikandros] of Elis who won the *dioulos* twice at Olympia (304 and 300 BCE) and Callon, son of Harmidos of Elis, victor of the boy's boxing match in 304 BCE (6.12.6).

⁸⁶ Pliny *NH* 34.87. Antignotus, according to Pliny (34.86), also created a *perixyomenos*.

⁸⁷ The statuette's right arm, now stolen, once held a marble *strigil* (Fig. 24), part of its blade still remains in between the fingers on the left hand. Saladino 2006, 35.

⁸⁸ For example: red-figure bell krater by the Kleophon Painter, 430-420 BCE, Ashmolean Museum, Oxford, inv. no. 1922.8; red-figure oenochoe by the Achilles Painter, 450-440 BCE, Antikenmuseum Basel und Sammlung Ludwig, inv. no. BA 485; red-figure pelike by the Painter of Louvre, ca 410 BCE, Kunsthistorisches Museum, Vienna, inv. no. IV.769.

these two sculptures is because they are both intact (though heavily restored in some parts) ancient bronze sculptures that will provide more reliable source material on the depictions of the athletic body from antiquity. However, these statues will not be viewed in isolation; other *apoxyomenoi* will be briefly examined to give context to the two main *apoxyomenoi* sculptures.

The scholarship to date on the *apoxyomenos* is extensive. Thus, only key works will only be touched upon here. Other scholars throughout the twentieth and twenty-first centuries have debated the dating of pieces, possible sculptors or the school the sculptures best represent (usually between Polykleitos and Lysippos), and whether the pieces are originals or Roman replicas. Mavigilia argued in 1914 that the Ephesian Apoxyomenos was the best representative of Lysippos' style over the Delphi Agias and Vatican Apoxyomenos.⁸⁹ Morgan followed Mavigilia; he maintained that the Ephesian athlete was best representative of Lysippos' style based on the similarities between the Ephesian and Agias examples, particularly in the stylization of the hair and stance of the figures, along with the sculptures' reflection of Lysippan characteristics as outlined by Pliny (see below).⁹⁰

Lattimore disputed against the Ephesian's attribution to the Polykleitan School based on his belief in the dating of the sculpture to be in the third-century BCE.⁹¹ The premise for his dating was the individuality of the figure, the treatment of the hair, and the positions of the arms. He stated that the fifth-century BCE sculptors did not cross or extend arms in front of the torso, but fourth-century BCE sculptors did to exploit its "three-dimensional possibilities".⁹² Stewart relied upon more technical aspects in the construction of the piece to further the claims of Lattimore. The composition of the bronze, according to Stewart, was not what would be expected of a Roman workshop.⁹³ The dowels used to secure the statue to its base were not common in the early to mid-fourth-century BCE.⁹⁴ Moreover, the presumed setting of the statue "was accorded a particularly prominent position in the gymnasium, in its own *aedicula* away from the

⁸⁹ Quoted in Morgan 1949, 231.

⁹⁰ Smith 1991, 51 also agrees with this argument.

⁹¹ Lattimore 1972, 13-14.

⁹² Morgan 1949, 233; Lattimore 1972, 15.

⁹³ "the copper content is too high [89%] and the lead content too low [4.87%], 65-80% and 10-25% respectively being about the preferred amounts in Roman work." Stewart 1978b, 477.

⁹⁴ *Ibid.* based on Benndorf 1898, 186-87.

other athletic bronzes in the open hall—a not inappropriate setting for a Greek original in a gymnasium full of Roman dedications” (Fig. 32).⁹⁵

More recent scholarship from the twenty-first century are from exhibition catalogues that provide useful updates on the current studies conducted on the *apoxyomenos* figures, particularly the catalogue: the *Apoxyomenos: The Athlete from Croatia* edited by Michelucci and *Power and Pathos: Bronze Sculpture of the Hellenistic World* curated by Daehner and Lapatin. The edited catalogue by Michelucci centered on the Croatian Apoxyomenos, but discusses other *apoxyomenoi* figures, such as the Ephesian, Uffizi, and Boston statues. The catalog contained introductions by the heads of the organizations involved in the recovery and restoration of the Croatian Apoxyomenos. Three essays by Cambi, Saldino and Michelucci and two large sections that provided details on the recovery process and diagnostics of the Croatian sculpture.

The essays by Cambi and Saladino are of particular interest for this investigation. Cambi focused on the Croatian athlete, he argued that the athlete is most likely a wrestler based on his observations that the musculature of the legs is slim, but the “upper part of the body is extremely robust”, and the back had “notable musculature”.⁹⁶ Cambi furthered his argument on the lack of characteristics of boxers such as cauliflower ears (permanent swelling or deformity of the ear after injury) or swelling of other portions of the face. The sculpture also lacked any other tools, argued Cambi, such as a discus or javelin that would identify the athletic type. Therefore, through a process of elimination, Cambi concluded that the Croatian Apoxyomenos must have been a wrestler.⁹⁷ Later on in the same paper, however, Cambi, when comparing the Croatian and Ephesian Apoxyomenos, was inconsistent with his descriptions of the musculature. Cambi fell into the typical art historical trope of using adjectives to describe artworks which, while unavoidable in most cases, nevertheless allows for subjective readings of the material. For example, a quote from Cambi when he compared the Croatian and Ephesian Apoxyomenos: “The musculature of the shoulder and the arms is much more *vigorous* in the one from Vienna [Ephesian]. The same holds true for the thighs and calves. The thighs of the Viennese version are *stronger* and more *robust*, while the calves are longer and slimmer.”⁹⁸

⁹⁵ *Ibid.*, 478.

⁹⁶ Cambi 2006, 24.

⁹⁷ *Ibid.* 24-25.

⁹⁸ *Ibid.* Emphasis mine.

Cambi's use of adjectives 'vigorous' and 'robust' are subjective and support his argument that the two statues were not based on the same model. This, however, calls into question: since Cambi believed the Croatian athlete was a wrestler, usually the biggest (muscularly and in overall body mass) of all the ancient athletes, what does that make the Ephesian athlete? Another, larger wrestler? Cambi did not address this question.⁹⁹ Overall, Cambi joined previous commentators in trying to associate it with an artist or artistic school relying on the hairstyle for identification; he argued that the Croatian athlete is a Hellenistic copy of the second or first-century BCE based more heavily on Polykleitan iconography than Lysippan.¹⁰⁰ I will disagree with many of Cambi's arguments and conclusions in my discussion below.

Saladino discussed the Croatian Apoxyomenos in relation to other *apoxyomenos* types, particularly to the Ephesian Apoxyomenos. He worked his way through the known variations and made a point to distinguish that the Ephesian, while similar in overall pose to the Boston Apoxyomenos, had a key distinction. Experiments led by Karniš showed that the *strigil* the Ephesian once held was scraping along the top of his hand, not cleaning the tool as the Boston athlete does.¹⁰¹ Saladino engaged in the discussion of the dating of the 'original' archetype to the *apoxyomenos* that he argued dated to the early to mid-fourth-century BCE. The type was spread during the first-century BCE by the distribution of disposal molds that, Saladino claimed, were used for the Croatian and Fort Worth Apoxyomenos head and continued to have popularity in the Roman Imperial, as evidenced by the basalt torso at Castel Gandolfo (Fig. 42).¹⁰² He concluded with the resounding statement: "Among the numerous copies that have come down to us, that of Lošinj [Croatia] stands out for its completeness and quality, offering us the most faithful image of the archetype. I think it is likely that the latter originated in a city of Asia Minor, but we do not have decisive proof in this respect."¹⁰³ Pinpointing origins of a sculpture

⁹⁹ Most scholars agree that the Ephesian athlete is a boxer, primarily based on his cauliflower ear. Lattimore 1972, 15.

¹⁰⁰ His argument is based on the precision used in correcting casting defects "an ability," Cambi claimed, "of which Roman craftsmen could not boast. Gaps of this nature, and large or small patches of similar forms, are found in Hellenistic bronze statues of governors and boxers (both from Quirinal) and in several others." Cambi 2006, 27-29.

¹⁰¹ Saladino 2006, 38.

¹⁰² *Ibid.* 48. Saladino was unwilling to date the Ephesian Apoxyomenos.

¹⁰³ *Ibid.*

type is beyond the scope of this dissertation, however, the comprehensive research conducted by Saladino will be used to further the discussion of athletic body ideals here.

As opposed to the *Apoxyomenos* catalogue that solely focused on the *apoxyomenos* types in the *Power and Pathos* catalog, the *apoxyomenoi* statues are only a few sculptures within a larger exhibition of Hellenistic bronzes.¹⁰⁴ The catalog contained eleven essays by various authors and a catalog of the exhibition sculptures separated into six different categories: “Formulas of Power: the Image of the Ruler”, “Flesh and Bronze: Bodies Ideal and Extreme”, “The New Realism of the Divine”, “When Pathos Becomes Form: Likeness and Expression”, “*Apoxyomenos* and Art of Replication”, and “Editions of the Past: Retrospective Styles”. The *apoxyomenoi* are only discussed at any length in one essay: ‘Repeated Images: Beauty with Economy’ by Mattusch. Mattusch presented the Vatican *Apoxyomenos* as “a series of problems, none of them resolved, all stemming from reliance upon the literary testimonia and upon stylistic features.”¹⁰⁵ Thus, while introducing the issues faced when dealing with the *apoxyomenoi*, she briefly summarized the debate on the stylization (Polykleitan versus Lysippan) leaving more questions than answers.

This chapter will proceed by conducting an in-depth anatomical analysis of the Ephesian and Croatian *Apoxyomenos* individually before comparing the two sculptures together. Afterwards, other *apoxyomenoi* will be examined briefly and then compared with the findings of the Ephesian and Croatian statues before concluding with an overall discussion of the findings.

1. Ephesian *Apoxyomenos*

The Ephesian *Apoxyomenos* (Figs. 33-36) was found in 234 fragments along with a marble dedicatory base underneath burnt roofing in the ruins of the Harbor Baths in Ephesos in 1896 during the second year of the Austrian excavation of the site.¹⁰⁶ The life-size bronze figure is now housed in the Kunsthistorisches Museum, Wien. Vast parts of the complex’s architecture, where the statue was found had been destroyed by an earthquake and fire (ca. late third-century CE), but the statue fragments of various size

¹⁰⁴ Daehner *et al* 2015.

¹⁰⁵ Mattusch 2015, 123.

¹⁰⁶ Part of the inscription (*IEph* 1128) remains mentioning gymnasiarch L. Cladius Frugianus and is dated to the late first-century CE. Daehner *et al* 2015, 272.

were preserved with the statue's base.¹⁰⁷ While the preservation and restoration of the statue is commendable it makes the analysis of the figure more difficult. This is because firstly, the figure had to be reassembled from the fragments, including some that were deformed from the collapse of the roofing structure onto the sculpture, and secondly the, missing pieces were then reconstructed in the nineteenth-century. Wilhelm Sturm undertook this restoration based on the Apoxyomenos in the Galleria degli Uffizi in Florence (Fig. 43), the arms were reconstructed during the Renaissance to hold a vase. In 1896, a smaller-than-life-size Apoxyomenos was found at Frascati, Italia, this example showed that the athlete was not scraping the back of his hand but cleaning the *strigil* using the thumb of his left hand (now housed in the Museum of Fine Arts, Boston, Fig. 46). However, it was too late in the restoration process to change the pose of the Ephesian statue. Two further interventions were carried out on the statue: in 1951 the position of the right arm was corrected, and in 1977 a synthetic resin was added as a new filling material to stabilize the structural integrity of the piece.¹⁰⁸ Therefore, some caution must be taken when considering the artistic construction of the work as many hands across several centuries have remodeled this piece. Fortunately, there are photographs from the nineteenth-century that show the sculpture after it was re-assembled but before it was filled with mortar (Fig. 31) allowing for a reference to judge the anatomy of the Ephesian athlete before its 'restoration'.

1.1 Head

The facial features of the figure are heavily defined. The supraorbital notch is sharp along the eyebrow and with the wide protruding nose this makes the eye socket appear sunken in. The sculpture would have had inlaid glass eyes to add to the realism of the piece. However, the lower lid of the eye is thick and pronounced with a distinctive outline, while the upper lid is thinner and, also, has an outline. The face is small, with the nose taking up more than a third and most substantial portion of the face. The face is not equally divided into three portions, instead, the lower portion is shortened and adds more emphasis to the mouth. The chin has a cleft and is small. The cheekbones are subtle, done possibly to emphasize the figure's youthfulness. The hairstyle is typical of *apoxyomenos*

¹⁰⁷ Plattner *et al* 2017.

¹⁰⁸ *Ibid.*

figures, rendered in haphazard way where it appears as if the hair is matted with sweat and dust after exercising. The front of the figure's locks looks to be pushed up and out of the way of his face, held together in a wet mass.

1.2 Neck and Shoulders

The sternomastoid muscle group of the neck are well rendered in that it is anatomically identifiable. Pronounced along the shoulders are the trapezii muscles. These muscles extend over the shoulder and protrude along the upper portion of the back. The deltoids, where the shoulder meets the arm, are also pronounced, particularly on the figure's right side, as the arm is slightly lifted holding the (now lost) *strigil*. This would account for the extra bulge in the right deltoid as the arm is slightly raised versus the left deltoid that sits at rest as the arm remains closer to the athlete's side. However, it is worthy of note that the right deltoid is part of the sculpture that was reconstructed later by Sturm.

1.3 Arms

The upper arms possess more musculature than the lower arms (at least for the left arm, considering that the upper portion of the right arm was completely reconstructed). There are subtle undulations along the arms that mark out different muscular groups. For instance, on the left, the biceps is clearly defined by what could be the cephalic vein, as well as the capri radialis muscle group of the lower arm below the elbow. The fingers are well poised with emphasis on the knuckles and joints of the fingers that are highlighted under lighting. The right hand maintained all of its fingers, whereas only the ring finger and thumb on the left hand were able to be reassembled from the fragments. Sturm reconstructed the remaining three fingers of the hand. Interestingly, the wrists are not slender but continue with the same thickness of the arm; this seems to shorten the length of the palms on both hands, making them also appear smaller in proportion to the figure's body size.

1.4 Thorax

The thorax is difficult to analyze because only the pectorals and groin survived. What is presented to the viewer is a full 'eight-pack' of abdominal muscles, whereas this muscular group does not seem to be the focus of the figure. Furthermore, the serratus

anterior is not prominent as is usually seen on most athletic figures. But, then, the serratus anterior was added by Sturm. The athlete does have the typical iliac crest. However, when comparing the post-assembled (Fig. 31) and the post-reconstructed statue (Fig. 33), the iliac crest seems to have a deeper groove in it today than would have existed in the original work as a result of the reconstruction.

1.5 Legs

The legs suffered heavy damage from a pillar landing on them after the statue had fallen off its base.¹⁰⁹ The left leg fared better than the right. The front portion of the left leg was able to be completely reassembled, and portions of the upper thigh on the right had to be reconstructed. The knees are subtly rendered without great anatomical detail, which is unusual for depictions of the male body from this period. Like the wrists, there is a small curvature from the leg into the ankle and foot where it remains thick. Just like the hands, the feet are rendered in realistic detail with special attention on the joints of the toes. Noticeably, the malleoli (the bony projections) of the ankle stand out projecting on the lateral and medial sides of the ankle.

1.6 Back

As noted, the trapezii are clearly defined on this athlete along with his other back muscles. The muscles are rendered to give a very sharply defined spine dividing the figure along his middle. The buttocks are amply proportioned as is typical with *all* athletic figures. To my knowledge, no athletic figure lacks a firm and muscular behind. Whether this is due to aesthetic taste, an iconographic marker for an athlete (such as cauliflower ears) or noted observation of real ancient athletes may be debated. The reality is most likely a combination of these elements.

1.7 Veins

The only distinct vein that can be discerned from the figure is on the left biceps. Running along the biceps brachii is the cephalic vein. The vein runs its full course from

¹⁰⁹ Ibid. Benndorf, the excavator, was the one who originally argued that the athlete was placed in the niche in the *palaestra* (1906, 186). Heberdey doubted this placement, instead argued that the fragments could have been brought to that location to be melted down. Most scholars have at least agreed that the fragmentary state of the sculpture is due to the collapse of the building. Saladino 2006, 35.

the top of the arm starting at the deltoid along the upper arm between the biceps brachii and brachialis muscles into the inner curve of the arm into the cubital fossa (or elbow pit) and down the length of the rest of the arm to the wrist (Fig. 34).

It is difficult to identify any other possible veins on the figure due to the heavily reconstructed state of the sculpture. Other superficial veins may have existed on the feet of the sculpture, especially on the right foot that was not as heavily damaged in comparison to the left. Superficial veins of the feet are common in sculptural representations.

1.8 Analysis

The defining features of this athlete are his prominent shoulders with muscularly developed thighs and buttocks. As the sculpture exists today, it would indicate more resistance training than core strength (see Chapter 5). These features in combination with the cauliflower ears would indicate a heavy or combat sports athlete, more specifically a boxer rather than a wrestler or *pankratiast*. This claim would explain why the statue lacks the thicker musculature features of a wrestler and *pankratiast*.¹¹⁰ Philostratus in his *Gymnasticus* described a boxer as such:

The boxer should have large hands and well-built forearms, and upper arms which are not lacking in vigor and strong shoulders and a high neck. Thick wrists give a heavier punch; those that are less thick are flexible and punch with ease. Let him also be supported by well-built hips, for the forward projection of the hands drags the body downward, unless it is supported by firm hips. [...] The boxer should have calves that are straight and well proportioned, while the thighs should be well distanced and separate from each other. [...] The best kind of stomach for a boxer is slim; for these athletes are light and have good breathing.¹¹¹

I argue that, based on the anatomical analysis above, the Ephesian athlete matches this description well. He has defined arms and thick wrists. His hips are emphasized by the slender iliac crest but could be considered firm and supportive from the developed

¹¹⁰ Lattimore 1972, 15 also supports this statement.

¹¹¹ Philostratus, *Gym.* 34. Trans. König 2014.

obliques. It can be assumed by “calves that are straight and well proportioned” Philostratus refers to the whole of the lower leg having a straight tibia and evenly distributed tibialis anterior muscle that runs over the bone, or possibly, the straight Achilles tendon that is part of the calf muscle group. With the gastrocnemius (or the large muscle that makes up the meatier portion of the calf) serving as the ‘well proportioned’ part of the calf. Lastly, the Ephesian athlete’s stomach is slim and lean of musculature. Therefore, it can be argued that the Ephesian apoxyomenos represents a boxer.

Modern scholars have generally agreed that the Ephesian Apoxyomenos is an early Imperial replica of a Greek *apoxyomenos* archetype.¹¹² What has been more heavily debated is whether this version of the *apoxyomenos* is from the Polykleitan or Lysippan school.¹¹³ There is an argument that during the construction process it was *made* to look more Polykleitan with features such as the deepening of the iliac crest and the subtlety of the musculature along the abdominals. This corresponds with the debates that were occurring around the sculpture in the early twentieth-century and even amongst scholars today.¹¹⁴ In comparison with other sculptures, such as the Croatian Apoxyomenos, the Polykleitan features do not seem as prominent (see below).

Earlier scholarship has tried to attribute the Ephesian athlete to specific artistic schools, workshops, or trends. For example, Lattimore argued that the athlete with ‘Lady from the Sea’, identified as Demeter and found near Knidos (Izmir Museum in Turkey¹¹⁵) and the Anzio Girl (Museo Nazionale delle Terme, Rome) share similar stylistic elements. The soft, detailed features of the face and neck “stand near the beginning of a trend toward serenity, very prominent in third-century sculpture”.¹¹⁶ Cambi noted that beyond the similar facial features there are not common artist traits between the sculptures.¹¹⁷ However, recent considerations by Plattner and others into the techniques used to create the bronze, suggest a date in the first to second-century CE.¹¹⁸

¹¹² The date of the ‘original’ archetype is highly debated, ranging from the fourth-century BCE to the end of the first century CE. Daehner (2015), Saladino (2006), and Arnold (1969) argued fourth-century BCE; Stewart (1978b) ca. late fourth-century BCE; Lattimore (1972) third-century BCE; Pochmarski (1999), Moser von Filseck (1990), Willer (1996) believed it was a classicizing and early Roman invention.

¹¹³ There are other arguments concerned with attributions to Daippos or Daidalos. Stewart 1978b; Lattimore 1972; Arnold 1969.

¹¹⁴ Plattner, *et al.* 2017.

¹¹⁵ no. 3544

¹¹⁶ Lattimore 1972, 16.

¹¹⁷ Cambi 2006, 26. While this observation is technically correct the lack of other similarities might be due to the divergence in subject matter – a heavily draped female versus a nude male athlete.

¹¹⁸ Plattner, *et al.* 2017.

Furthermore, *if* the Ephesian Apoxyomenos was created for the Harbor Baths where it was found, the construction on the bath did not begin until the time of Domitian (81-96 CE).¹¹⁹ From the anatomical analysis that has been presented here, the body composition and rendering of flesh is typical of the Hellenistic period with the subtle undulations of flesh (see chapter 2.2.3). It also correlates with literary testimony on the physiology of athletes such as Philostratus' description discussed above and the description of athletes as having a fleshiness and wasp-like bodies.¹²⁰ However, caution must be taken because the nineteenth-century restorations made drastic changes to the composition and physiological structure of the statue.

2. *Croatian Apoxyomenos*

The Croatian Apoxyomenos (Figs. 37-39) was found on the seabed off the coast of the small island of Vele Orjule, near Lošinj (Croatia) and was raised from the sea by an archaeological team in 1999. The life-size bronze, now housed in the Ministry of Culture of the Republic of Croatia (Zagreb), went through a series of conservations from 2000 to 2006 before it was publicly displayed in Zagreb in 2006. Found along with the statue was a bronze plinth decorated on three sides with a meander pattern. Overall, the figure is mainly intact apart from damage on the back of the right thigh and missing details including eye inserts, the little finger of the left hand, and (undoubtedly) a *strigil* the figure once held. The metal composition and production techniques of the sculpture have been analyzed. It has been confirmed through these investigations that the statue was created using the indirect lost-wax process and constructed in seven main parts (head, torso, legs, arms, and genitals).¹²¹ Karniš and Mille found that manufacturing techniques were typical of the Late Hellenistic period.¹²²

Interestingly, some organic material found (and dated using Carbon-14 analysis) inside the statue provides some story to the piece. The oldest material, a peach stone, was placed in the chronological arc from 110 BCE to 70 CE; a worked piece of wood was placed between 30 BCE to 130 CE; and a piece of semi-charred wood to 50 to 170 CE.

¹¹⁹ *Ibid.*

¹²⁰ Dio Chrysostom 8.9-12.

¹²¹ Karniš and Millie, 2017. The arms, legs, and genitals were joined to the torso using flow fusion welding, the head was soldered onto the neck, and the feet soldered to the plinth base.

¹²² Karniš and Mille 2015.

The peach stone was found with a rodent's nest within the left forearm of the sculpture. The nest contained various plants including barley, wheat, olive and figs possibly indicating the rodent's diet and nesting materials.¹²³ These findings pieced together the period of activity of the rodent, leading Karniš to conclude that the statue most likely was stored for a length of time after its creation and before its journey towards Croatia where the rodent had time to inhabit the piece (most likely having crept through the hole in the sole of the left leg and/or through the damaged area of the right thigh).¹²⁴ Saladino also noted other chronological clues for the statue's creation date in the techniques used to correct mistakes in the casting: the large patches with irregular shape and convex surfaces were analogous to those found on the Youth of Salamis and the Hypnos in the Shelby White and Leon Levy Collection, New York, both works are dated to ca. first-century BCE.¹²⁵ How the feet are attached to its plinth is similar to other bronze statues that have been dated to the first-century BCE.¹²⁶ Lastly, the techniques used to construct the plinth (which has a similar metal alloy composition to the athlete) were known since the end of the Hellenistic period, but became popular in the time of Augustus, and reached their zenith in between the reigns of Domitian and Hadrian.¹²⁷

2.1 Head

The head is roughly divided into three equal parts with the nose being the longest portion. The overall appearance of the face is youthful with smooth skin and puffiness or softness in the cheeks and forehead. The eyebrow is rendered as a sharp edge coming off the sharp planes of the nose. Similarly, the lids of the eye (palpebral sulcus) have a sharp edge. Perhaps if the eyes remained, they would have softened the harsh exterior of the

¹²³ Cambi 2006, 46; Karniš et al. 2004, 104-107.

¹²⁴ *Ibid.*

¹²⁵ Saladino 2006, 46-47; Mattusch 1996, 242-247.

¹²⁶ "in the sole of the left foot, that rested on the ground only with the tip, a large aperture of elongated shape has been cut out, as happens in the case of some bronze statues that have been dated to the first-century BCE. The sole of right foot, where the main weight of the Athlete rested, has a similar aperture, even if its dimensions are somewhat smaller, but when the statue was recovered from the sea a fragment of bronze plinth was still soldered to the front half of the foot. [Willer 1996, 365] As it was a soft solder (*Weichlötung*), one might consider it insufficient to ensure the stability of the statue, but a similar solution was adopted for the Washington Dionysus that was placed on a hexagonal bronze plinth. [Mattusch 1996, 230]" Saladino 2006, 47.

¹²⁷ *Ibid.*, 48. Saladino also tried to link the meander design on the plinth to Asia Minor and therefore the construction of the sculpture to an Asia Minor workshop, but even he admitted the weaknesses in that argument.

eye socket. The puffiness in the cheeks hides any indication of bone structure. The philtrum is shortened between the nose and upper lip. The lower lip is thicker than the upper; the copper inlays of the lips create a stark contrast against the bronze of the face, highlighting the lips. The chin is rounded and encapsulates the face in soft round shape. The hair, typical in *apoxyomenos* types, is short and curled in thick clumps about the scalp. The front of the hair seems to be slicked back as if the athlete just finished with his exercise and pushed his hair out of the way of his face. Lastly, the ears, it should be noted, are not cauliflowered (that is they are not permanently swollen).

2.2 Neck and Shoulders

The figure has a distinct sternohyoid that expands out into a clearly defined clavicle. From the frontal view, it is evident that the neck is shortened due to the figure's position of looking down at his task, heightening the trapezius muscles. The overall posture creates a thick-looking shoulder area. Caution should be exercised when describing the line where the head connects to the neck as a fold of skin. In all likelihood, this line is where the head was reattached to the body after restoration.

2.3 Arms

The deltoids of the arms are quite large giving the arms greater width from a profile view, while from a frontal or posterior angle they are quite slender. Key areas of the arm are all rendered accurately but lack subtler details such as in the joints of the fingers and elbow pit (cubital fossa). However, it is possible that these could have been slightly eroded over time as the sculpture lay on the seabed for almost two millennia. The protruding head of the ulna bone supports this understanding, as it can be easily seen on the right wrist shows some interest in depicting finer anatomical details.

2.4 Thorax

The thorax is the most intriguing aspect of this figure. The lumpy mess of the abdominals is challenging to understand. It looks as if the sculptor defined each individual intersection of the rectus abdominis as two separate segments. The abdominals are merged with the beginnings of the serratus anterior on the sides but are cut off sharply by the deeply grooved definition of the obliques. This deep groove mirrors the iliac crest

below it, creating an odd visual effect on the figure as it works against the opposing curves that define the pectorals. The extremely sharp angle of the left iliac crest into the groin is due to the construction of the sculpture as this was the point where the separate casts of the thorax and legs were welded together.¹²⁸ There is little curvature to the chest; instead the figure has a very rectangular and bulky formation. Lastly, it should be noted that the nipples are highlighted with a different copper alloy like the lips.

2.5 Legs

Similar to the arms, the legs are anatomically well rendered. The left leg seems fleshier and broader than the right due to the *contrapposto* stance that has the right leg taut and weight bearing and the left relaxed (seen easier from the posterior view). The most muscularly developed portion of the legs are the gastrocnemii (of the calf muscles). The knees are barely defined. Instead, they look like bulbous lumps that blend into the fleshier parts of the leg. There is some definition in the curvature of the ankles; the medial and lateral malleolus bulge outward creating this definition before narrowing back down into the foot. However, the extent that they expand outward, especially on the right leg, makes the ankles almost look swollen in comparison to the slenderness of the foot. Some bony tendons of the foot are also visible, more so on the right foot than the left.

2.6 Back

There is a large swell to the upper portion of the back because of the figure's slightly hunched posture. In comparison to the front, the back lacks muscular detail. Nevertheless, key muscular groups are still visible such as the trapezii, latissimus dorsi, obliques, and continuation of the iliac crest. The bony structures of the shoulder blades are visible and the dorsal surface of the sacrum above the buttocks. Interestingly, the groove that would indicate the spinal column does not follow the curvature of the figure. Instead, the groove goes straight down the back and stopping off-center to where the spine should end. The intergluteal cleft is deeper and wider than usually seen. The buttocks while firm with muscle are smaller than on other athletic sculptures.

¹²⁸ Karniš and Millie 2017.

2.7 Analysis

The Croatian Apoxyomenos is an overall well-proportioned figure. He has muscular definition in each of his parts but not so much so that it is dramatic or overdeveloped (e.g. such as those on a bodybuilder, see Farnese Hercules). This characteristic combined with his lack of cauliflower ears (which usually denotes heavy sports athletes) indicates that this is a pentathlete. Pentathletes were considered the ideal type of athlete precisely because of their well-proportioned figures. Philostratus described:

The athlete who intends to compete in the pentathlon should be heavy rather than light, and light rather than heavy. In addition he should be tall, compact and upright, not excessively muscled, but not underdeveloped either. His legs should be long rather than well proportioned and he should have supple and agile loins to help with the rocking motion required for the javelin and the discus, and to help with the long jump; [...] He should also have large hands and long fingers; for he will throw the discus much better [...] The athlete who will be best at the dolichos should have strong shoulders and a strong neck like the pentathlete.¹²⁹

Therefore, it is reasonable in this line of argument to suggest that the pentathlete should be balanced overall – not too big, not too small, not too lean, not too muscular. The Croatian athlete is muscular but not overly so, for instance, his abdominals while clearly visible are not heavily chiseled as they would be for a wrestler. The statue lacks definition in the posterior, but this could have been a sculptural choice depending on where the sculpture was meant to be placed with an emphasis on frontal viewing. The figure is compact and upright with his thorax in a rectangular formation in comparison to more triangular torsos usually seen on males. Lastly, the thick trapezii of the athlete would account for ‘strong shoulders’ and supporting a ‘strong neck’.

Cambi argued that the Croatian athlete was a wrestler (see above). The reason he discounted the idea that this athlete is a pentathlete is that the sculpture lacked any tools that marked pentathletes such as a discus or javelin. The pentathlon combined several events including the discus-throwing, long jump, javelin-throwing, *stadion*, and

¹²⁹ Philostratus, *Gym.* 31-32. Trans. König 2014.

wrestling. However, the body type presented in this *apoxyomenos* does not convincingly convey an athlete specialized in the arena of wrestling. Philostratus has a very long description of what the ideal wrestler should look like. For Cambi's argument many of Philostratus' descriptions would fit, including being tall and "well-proportioned in size".¹³⁰ The Croatian athlete is 1.925m high with little definition of veins in his arms and Philostratus took this as a sign of good health, a 'restricted' or flat stomach, and a slightly curved and evenly divided back.¹³¹ However, the Croatian athlete differs from Philostratus' ideal wrestler on two main points. Philostratus stated an ideal wrestler should have: "[w]ell-connected upper shoulders and elevated shoulder tops contribute bulk to the future wrestler and nobleness of appearance and strength and help him to wrestle better."¹³² And "[t]he hip should be fluid and flexible and supple, like an axle positioned between the limbs above and below; this is achieved by large size and, by Zeus, exceptional fleshiness in the hip".¹³³ Wide shoulders and fleshy hips would not seem so obvious when viewing this athlete alone, but when compared against other *apoxyomenoi* versions, such as the Ephesian or Basanite Apoxyomenos (see below) and other athletic sculpture, the Croatian athlete is found lacking. His shoulders are less broad than the Ephesian (Cambi even made a note of this¹³⁴) and he by no means has 'fleshy' hips. The obliques, while present, are not as accentuated from the sides of the body as compared to the Ephesian Apoxyomenos or even the Farnese Hercules, who was known for his wrestling talent. Therefore, I argue that while the Croatian athlete has attributes that would benefit towards wrestling, his description is better suited to be defined as a pentathlete, who also participates in wrestling, not solely a wrestler.

Key Polykleitan stylizations are present in the Croatian sculpture: the deep-set grooves that bisect parts of the body, a thick iliac crest, tubular formations of the arms, and contrapposto stance. These are characteristic of Polykleitos seen in his known masterpieces, such as the Doryphoros (Fig. 40). Arguably, the sculptor could have been recalling and emphasizing Polykleitus' ideal canon on proportions for the male body by choosing not only to imitate Polykleitan stylization but also choosing to represent a pentathlete, who was considered to be the ideal figure for an athlete.

¹³⁰ *Ibid.* 35.

¹³¹ *Ibid.*

¹³² *Ibid.*

¹³³ *Ibid.*

¹³⁴ Cambi 2006, 29.

The formation of the abdominal muscles is perplexing. It could be owed to the lost wax process that was used to create the sculpture. Karniš and Mille in their reexamination of the manufacturing techniques of the Croatian bronze found “visible traces of manual work on the wax from the inside, in the mold”¹³⁵ suggesting that the sculptor wanted the muscles to be shaped in this way. The muscle almost looks dehydrated, a common trait with marathon runners (and utilized by bodybuilders¹³⁶). This begs the question: was the sculptor intentionally creating the abdominals as a characterization of a runner/pentathlete? If so, was this based on observation of ancient pentathletes, in the manner of cauliflower ears, and translated into sculpture? Alternatively, was this formation of musculature deemed aesthetically pleasing? To the same extent, it should also be questioned why only the lips and nipples of the athlete are highlighted with a different copper alloy? Was it to eroticize the youthful athlete by highlighting key erotic zones? These questions are difficult to answer without knowing the reason why the work was commissioned and given that the work was first created, stored, then shipped to a different location (see above), it could have held multiple purposes over its lifetime.

3. *Comparison*

The silhouettes of the two statues are near identical and stand as firm examples of the *apoxyomenos* type. Despite this, there are distinct differences in the rendering of the bodies between the Ephesian and Croatian Apoxyomenoi. The Croatian athlete heavily recalls Polykleitan stylization – the deeply grooved muscular formations and distinct bi-sections of the body can be closely compared with other Polykleitan works, such as the Doryphoros. The Ephesian athlete does not fall so easily into the same artistic school. The rendering of his musculature is typical of ‘naturalistic’ bodies during the Hellenistic period, but he is not Lysippan either. According to Pliny, Lysippan figures had smaller heads and slender figures, as exhibited by the Vatican Apoxyomenos (see below).¹³⁷

I have argued that these *apoxyomenoi* represent two different types of athletes (boxer and pentathlete) in two different artistic styles but under the same umbrella

¹³⁵ Karniš and Mille 2017.

¹³⁶ See Chapter 4.1.8.

¹³⁷ Pliny, NH 34.62, 65. Smith 1991, 51.

apoxyomenos type. The purpose of the statues or why the statues were commissioned could account for the difference in the types of athletes. It would be interesting to know if these statues were made in the image of a specific victorious boxer and pentathlete or modeled on the likenesses of athletes from where the works (unknown) were produced. This is, of course, impossible to determine. The striking similarities between the faces of the Ephesian, Croatian, and Apoxyomenos head in Fort Worth (see below), despite having small variations in facial structure, lean towards the possibility that these are not distinct individuals.

Nevertheless, the differentiation between these two *apoxyomenoi* should not be overlooked. These sculptures demonstrate the acceptability of having the same type with different body structures indicating that there was no one set ideal and both body types were acceptable and presentable as athletes. Similarly, other body types are also seen in other replications of *apoxyomenos* types (see below). Thus, this gives a basis for establishing different body types athletes would have worked towards or did achieve (these types can be argued as having been drawn from live models) as these sculptures were placed within gymnasia and stood as idealistic representations of athletes, and therefore as models for young athletes to aspire to. Further discussion of how these bodies would have been achieved is discussed in chapter four on achievability.

4. Other apoxyomenoi

Briefly, it would be fruitful to discuss some of the other *apoxyomenoi* that have survived from antiquity to see how they compare with the two *apoxyomenoi* that have been discussed and to provide a more holistic context to the sculptural type. Key *apoxyomenoi* will first be given a brief introduction and anatomical overview before concluding with a discussion on all the *apoxyomenoi* figures.

4.1 Fort Worth Apoxyomenos

The life-sized bronze Apoxyomenos Head (Fig. 41) now housed in Fort Worth, Texas, at the Kimbell Art Museum, is known for its long provenance history reaching as far back as the early sixteenth-century. It is also remarkable for its thick-walled casting.¹³⁸ The head has been ascribed as an Ephesian Apoxyomenos type. However, when the Fort

¹³⁸ Darhner et al 2015, 276.

Worth head is viewed in profile alongside the Ephesian and Croatian Apoxyomenoi, it is clear that several similarities exist between all three heads. The silhouettes are nearly identical. Beginning from the top of the head at the hairline there is a slight indentation in the forehead before it protrudes back outward above the eyebrow (glabella), then follows along a straight nose. The Fort Worth nose is slightly more rounded at the tip (or apex) than the others.

Furthermore, the *ala nasi* (flaps of the nose) and *alar nasal sulcus* (indentations where the nose meets the cheeks) are more defined in the Fort Worth head and Ephesian Apoxyomenos (however, in slightly different ways) than with the Croatian athlete. All three heads have a short philtrum. While all have similar renderings of lips with the upper lip being thinner than the lower, both the Fort Worth Head and Croatian Apoxyomenos have distinctive outlines around the lips created from the slight indentation in the surface to allow room for additional copper overlays on the lips as seen with the Croatian athlete but lost on the Fort Worth head. Furthermore, the Fort Worth head and Ephesian Apoxyomenos have slightly downturned lips while the Croatian's are slightly upturned. The Fort Worth head's chin has a cleft, like the other two Apoxyomenoi, but it projects farther forward in a more rounded point than the other two.

All three heads viewed from the front share the same sharp eyebrow line and thick eyelids that would have held inlaid eyes. The significant difference between the heads is the detailing in the hair. This is due to the bronze casting process where the hair would have been individually detailed in wax even if the same mold was used between castings.¹³⁹ Lastly, the Fort Worth head does not have cauliflower ears.

4.2 Basanite Apoxyomenos

The basanite torso housed in Musei Vaticani¹⁴⁰ (Fig. 42) was discovered in the 1930s during renovation work in the park of the Villa Barberini in Castel Gandolfo, around the Imperial villa of Domitian.¹⁴¹ What remains of the life-sized statue is the torso and part of the right thigh. It has been argued that the black stone was chosen because it

¹³⁹ This is not to imply that the same mold was used to create all three Apoxyomenoi figures just discussed.

¹⁴⁰ Villa Pontificia, Antiquarium (inv. No. 36405)

¹⁴¹ Daehner et al 2015, no. 44.

resembles bronze and has the same illusionary effect of the glistening skin of athletes that is mimicked when bronze statues are polished to a semi-gloss.

The head would have been slightly tilted to the left judging by the bulging in the right sternocleidomastoid muscle and the arms close to the body in a similar position as the Ephesian Apoxyomenos. From the way the right pectoral stretches toward the armpit the right arm would have crossed over the body like the Ephesian statue. Also, like the Ephesian athlete, the basanite torso is elongated in the abdominals creating a more pronounced bend across the midsection adding to the narrative that the athlete is subtly leaning into his task. The obliques and iliac crest, more like the Croatian Apoxyomenos, are deeply grooved and stand out against the smoother undulations of the abdominals.

4.3 Uffizi Apoxyomenos

The marble Apoxyomenos has been housed in the Galleria degli Uffizi, Florence since the mid-sixteenth century (Fig. 43). The life-sized statue's forearms from below the elbows, and the penis, were restored during the Renaissance. While it is known today that the figure is an *apoxyomenos* type during reconstruction the athlete was instead remodeled to hold a vase as an oil-pourer, a common motif of athletes in the fifth-century BCE. This sculpture is the model that Wilhelm Strum used to reconstruct the Ephesian Apoxyomenos. Thus, several similarities in the stance, proportions, and style exist between the two sculptures. However, the Uffizi Apoxyomenos has more muscle definition in his arms. The clavicle is distinct and creates an elongated V-shape of the collarbone both separating the head and trapezii from the torso and helps in establishing the large deltoids of the shoulders. The arms are tubular, typical of Classical bodies like that of Polykleitos' works and the biceps are clearly defined. However, there is a subtle definition of the triceps on the outer portion of the arm giving the forearms a more refined shape (compare with the simpler definition of the arms of the Doryphoros). The muscles of the thorax are segmented: the pectorals have their own space; the abdominals are narrowly confined along the center of the torso with the serratus anterior just placed on the sides under the arms and above the defined obliques. There is no smooth transition between the muscle groups like on the Ephesian Apoxyomenos. The same can be said of the legs. The thighs are thick but lack any defining muscle groups per se and detail is given in the knees; both look different from one another as the right bears the weight of

the figure and the left is at rest in *contrapposto* stance. In comparison to the lower portion of the legs, the calf muscles, particularly the gastrocnemius are large and bulge outward defining the leg. Daehner stated that the statue, given its semicircular plinth, was probably placed in a niche; therefore, the sculptor neglected to render details on the backside.¹⁴² Overall, given the heavier definition of the arms, generic musculature of the thorax, and only subtle detailing of the muscles in the legs the Uffizi Apoxyomenos arguably is another boxer or *pankration*.

4.4 Vatican Apoxyomenos

Another marble Apoxyomenos housed in the Museo Pio-Clementino in Vatican City is credited as following a more Lysippan style (Figs. 44-45).¹⁴³ Lysippos' canon changed proportional representation: he made his heads smaller and elongated the body. The Vatican Apoxyomenos stands at 206cm (6 ft. 9 in.). If the head of the Vatican athlete is measured and compared with the length of the rest of his body, he stands eight-heads tall, whereas, the other full-figured *apoxyomenoi* discussed are ca. 193 cm (6 ft. 3 in.) and seven-heads tall.¹⁴⁴ The neck is noticeably longer, not only from the elongation of the body proportions but because of the change in stance. This *apoxyomenos* cleans himself with a *strigil* along his arm in a motion that would fling the dirt and oil onto the viewer standing before him, thus, fully engaging the viewer into the sculptural narrative, something of a Lysippan trademark.

In recent scholarship, however, the notion that the Vatican athlete is reflective of Lysippos' original *apoxyomenos* has changed. The main point of argumentation against the Vatican Apoxyomenos being a replica of a Lysippan original lies in the lack of other variations of this type (athlete scraping himself) versus the athlete cleaning his *strigil* that has been seen thus far. There is a plethora of the 'cleaning *strigil*' type (that Cambi has given the name '*Strigilsreiniger*'¹⁴⁵ to suit the action of the figure better than *apoxyomenos*) its popularity in antiquity evident in the numerous replicas in statuettes, gemstones, and vase imagery. Mattusch summarized it best:

¹⁴² Daehner et al 2015, 278.

¹⁴³ Pollitt 1986, 48; Smith 1991, 51.

¹⁴⁴ In art historical terminology, seven-heads is a standard of figural measurement. Seven-heads is usually considered the ideal proportion when creating a human figure either in sculpture or in drawing.

¹⁴⁵ Cambi 2006, 22.

These bronze and marble repeated images challenge the notion that the marble sculpture in the Vatican copies a great work by Lysippos. The popularity of this other type [like the Vatican Apoxyomenos] speaks to its identification as that statue. It is a remarkable coincidence that three bronze examples of any single statue have survived, let alone bronzes that may well represent a work by Lysippos, whose works and procedures literally ushered in the Hellenistic period.¹⁴⁶

Perhaps then the Vatican Apoxyomenos is a completely Roman *apoxyomenos* type? Influenced by Lysippan *symmetria* and stylization but adapted for Roman viewers used to sculptures at eye level placed on the ground with a low plinth as opposed to the Greek tradition of statues being on a higher pedestal.

The face is unlike the other *apoxyomenoi* figures that have been discussed. The overall shape of the face is rectangular unlike the pointed oval shape that is usually seen on *apoxyomenoi*. The nose is also rectangular, and the eyes sit close together. The upper and lower lips are full. The face is puffy with fat throughout it sits heavy on the brow line, renders the cheekbones nonexistent, and excess fat even accumulates under the chin. The left ear is possibly cauliflowered, but it is hard to distinguish because the majority of the ear is broken. Very distinct sternocleidomastoid muscles emerge from the throat. The Vatican athlete has minimal muscle definition on his anterior; instead there is subtle rippling in the flesh that indicates the breakdown of the body parts. The pectorals are present, but their distinction is hidden by the left arm crossing over the chest. The abdominal definition is hard to see at all because of the low relief, but they are distinguishable mainly along the plane of the umbilicus. The linea alba that runs vertically along the midsection of the abdomen is slightly visible and paralleled indentations on either side of the umbilicus mark off the abdominal muscle surface area. The serratus anterior cascades down smoothly into the obliques. The iliac crest is still pronounced as is typical of athletic figures. The arms have been repaired several times, so one must be cautious when examining them for anatomical integrity.

Perhaps unsurprisingly, the back is very detailed, even more so than the front. Arguably this is done to encourage the viewer to experience the sculpture in the round. The angle that the arms are positioned makes it impossible to examine all details from a

¹⁴⁶ Mattusch 2015, 123.

single angle. The viewer would need to move beyond a central viewing point to make eye contact with the piece or see the chest. The detailed rendering of the back muscles furthers the exploration of the sculpture. Aesthetically, the posterior muscles are composed in three downward sweeping curves on each side of the figure that stem off from the spinal column, starting with the deltoids, then the teres major and minor, and finally a large swoop that encompasses the latissimi dorsi and obliques before a new curvature is created by the iliac crest in the opposite direction. Where these two curvatures meet (between the latissimi dorsi, obliques, and gluteus medius) forms a diamond shape at the base of the spine that is known as the thoracolumbar fascia.

4.5 Boston Apoxyomenos

A marble statuette in the Museum of Fine Arts, Boston, used to hold a *strigil* that was stolen along with the right forearm (from the elbow down) (seen in a photograph of the figure before the right forearm was stolen, Fig. 47). A sliver of the *strigil* blade remains between the index finger and thumb of the left hand. The figure's position, and how he holds the *strigil* with his left thumb along the inside of the blade, shows that the athlete is in the middle of cleaning his athletic instrument.

The dip of the sternohyoid at the base of the neck is deep and pronounced where it fans off into the sternocleidomastoid muscle. Overall, the neck is very short, and there is almost no definition of a clavicle that usually separates the neck and shoulders from the chest. Instead, all three merge together. Oddly, the figure's left trapezius seems to be larger than the right and the position the athlete takes should not create any movement that would explain this phenomenon. The deltoids are in the typical triangular shape, clearly distinct from the muscles of the biceps. The slight curvature defines the triceps on the lateral side of the arms. The left forearm retains a bulk or thickness that visually works in the sense that does not seem anatomically incorrect. There are small details like the styloid process of the ulna (the bony projection of the wrist). The hands lack detail, but this may be due to damage. The abdominal muscles are in low relief and disappear in the lower abdominal region above the groin. His serratus anterior are hardly present beyond two small bumps under his right pectoral. The way that the frontal muscles of the thorax almost abruptly end at the sides of the figure presents a strong argument that this figure was not meant to be viewed in the round and has a very frontal heavy emphasis.

The obliques only stand out due to the high relief of the iliac crest. There is a slight rotation in the pelvis of the figure where his lower half faces slightly more to the right. The figure is also putting his weight on his right side in *contrapposto* stance. This rotation makes the iliac crest more V-shaped from a frontal view, but from a three-quarters view (Fig. 46) shows there is a distinctive V spreading out from the genitals before levelling off horizontally along the bottom side of the obliques. It should be noted that even from a frontal and three-quarters view, it is obvious to the viewer that the buttocks have an ample rounded shape. The thighs are thick, especially on the right leg that bears the figure's weight, whereas, the left leg has a distinct curvature that when viewed from the front almost looks warped given how far the knee angles inward and the ankle outward. When viewed from a three-quarters angle the leg position looks normal. Therefore, this would support my suggestion that the statuette was meant to be viewed from this angle. Interestingly, the tibia is very prominent on the left leg as it is strained from the weight on the leg resting solely on the hallux. The gastrocnemius is large and muscularly developed.

The statuette is dated to the second-century CE and continues the *apoxyomenos* type seen in the majority of *apoxyomenos* types discussed.¹⁴⁷ The Boston athlete looks stocky in that his neck blends in with his shoulders, his biceps bulge, he has clear pectoral and abdominal muscles, wide hips, thick thighs, defined calves, and thick ankles. It is easy to discredit this stockiness to the compact height of the statuette (71.5cm including plinth). But the figure stands seven heads tall. Philostratus described a pankratiast as an athlete that is similar in characteristic to wrestlers, but the perfect pankratiast “are those who have a more wrestler-like body type than the boxers, and a more boxer-like body type than those who wish to be wrestlers.”¹⁴⁸ In other words, a body that encapsulates both a wrestler and boxer's body, as the *pankration* is a sport that combines both wrestling and boxing-like moves, it allows kicks and is similar to modern martial arts. It is the thickness in the legs that signals a pankratiast over the other attributes of a boxer and wrestler with the short neck, broad shoulders, and muscular arms.

¹⁴⁷ Mattusch 2015, 123.

¹⁴⁸ Philostratus, *Gym.* 35. Trans. König 2014.

5. Conclusion

Beyond the few sculptures that have been discussed, the *apoxyomenos* type was replicated in numerous quantities speaking towards its popularity in antiquity. The various differentiations between the *apoxyomenoi* demonstrates the difference in artistic techniques, but, more importantly, I have argued here that it illustrates multiple athletic body types that were accepted (by their existence) under the *apoxyomenos* type. Therefore, there was no one *ideal* *apoxyomenos* type. Different athletic bodies could encapsulate it and considering the narrative of the piece—that is an athlete after his exercises cleaning himself or cleaning his *strigil*—performing a very common task for *all* athletes, it should be acceptable that an *apoxyomenos* would have different body types.

The vast numbers of the *apoxyomenos*, in post-modern terms, can be seen as a line of serialization. It was something that could be reproducible, not only in sculpture, but onto the athletic body itself. The various body types seen in *Apoxyomenoi* make it less of an ideal and more achievable. The viewer can then relate his own body to that of the *Apoxyomenos*. This form of replication between the statue and viewer will be further expanded upon the next chapter on the Farnese Hercules.

Chapter Four: Farnese Hercules

The Farnese or ‘Weary’ Hercules type is attributed to Lysippos.¹⁴⁹ This type depicts Hercules weary from his Twelve Labors leading against his club for support. The ironic nature of this type is that Hercules is depicted with overwhelming musculature that would connote strength, however, he is so tired from his labors that he cannot even stand. In the type attributed to Lysippos, Hercules is also seen with the Apples of Hesperides held behind his back; thus, representing the completion of his labors. Pausanias mentioned (11.9.8) a bronze Hercules created by Lysippos located in Sikyon but does not describe it in detail. Numerous renditions of the Weary Hercules type appear on coins, statuettes, reliefs, and life-size and over-life-size statues. Johnson, in his study of *Lysippos*, identified at least fifty marble and bronze statues of the Weary Hercules in its various forms.¹⁵⁰ Vermeule’s continued study of Weary Hercules type based on the existing fifty or so versions. He argued it is possible to trace the chronology of the “Lysippic Herakles” from fourth-century BCE, when Lysippos would have created the sculpture, to third-century CE when the Baths of Caracalla were estimated to be completed.¹⁵¹ Vermeule classified the Weary Hercules into four groups roughly based on chronology: ‘Copies closest to the original’, ‘The Hellenistic modifications’, ‘The group of Farnese Hercules’ (based on the version developed in the late Hellenistic and popular in the Severian Age), and ‘The Roman figures, including portraits’. Vermeule also included two sub-sections on ‘Small statues for architectural settings: a sub-group from southwest Asia Minor’ and ‘Mirror Reversals of the various types’.¹⁵²

The Farnese Hercules from the Archaeological Museum in Napoli, Italia is the major work that is the focus of this chapter’s case study (Fig. 48). The Farnese Hercules is an over-life size (3.17 m) marble sculpture and was located in the Baths of Caracalla between a set of columns in the *frigidarium*, before the entrance to the adjoining room (14W on Fig. 50) that lead to the west *palestrea* (12W on Fig. 50). The sculpture is signed on its strut by Glykon of Athens, who is relatively unknown.¹⁵³ The Farnese

¹⁴⁹ Vermule 1975, 323; Pollitt 1986, 50; Smith

¹⁵⁰ Johnson 1928, 197-200.

¹⁵¹ Vermule 1975, 324.

¹⁵² *Ibid.* 324-329.

¹⁵³ *Ibid.*, 323.

Hercules was classified in group two of Vermeule's study 'The Hellenistic modifications' and is famous for its colossal size. The literature has argued that the size of the Farnese Hercules was appropriate for its architectural setting within the Baths of Caracalla, and was mirrored by the so-called Latin Hercules, now located in the Reggia di Caserta, Italy (Fig. 49). Marvin and others have noted how the double image of Hercules reflects a 'pendant display' and mirrors the bilateral symmetrical design of the baths.¹⁵⁴ Marvin boldly concluded that "although they [the colossus sculptures in the baths] betray some differences in style and technique, they demonstrate a consistent taste and sensibility. Caracalla's architects knew what they wanted."¹⁵⁵

In this chapter, I will first look at the anatomical details of the Farnese Hercules, before exploring the influences and significance of its location within the Baths of Caracalla, including a comparison with the Latin Hercules and the mosaics from the baths. I will argue that the Farnese Hercules is a prime example of how a sculpture could have been seen as an ideal on which to base an ancient athlete's own physical appearance. Furthermore, I will examine the Farnese Hercules and its influence towards modern bodybuilding culture that emerged and expanded in the nineteenth-century, with a focus on Eugen Sandow, who is considered the 'father of modern bodybuilding'. I suggest that Sandow directly mimicked the Farnese Hercules and advanced the Hercules mimetic trend into modern times.

1. Anatomy

Frédéric Delavier, an author and illustrator in several publications on strength training anatomy, has sketched the anatomy of the Farnese Hercules (Figs. 1-3). Delavier's illustrations imply that the sculpture follows true anatomical precision. However, upon close examination between Delavier's sketch and the Hercules sculpture it is clear that Delavier has reduced some of the sculptor's muscular exaggerations in favor of more realistic body (builder) proportions. For example, the extenuation of the obliques in the Farnese Hercules are much more pronounced in comparison with Delavier's illustration. Jüthner and Stocking have both described the Farnese Hercules

¹⁵⁴ Marvin 1983, 351; Bartman 1988, 222; Newby 2005.

¹⁵⁵ Marvin 1983, 381.

type as “extremely hypertrophied.”¹⁵⁶ This hypertrophied appearance is evidenced through the extenuation of *every* superficial muscle meaning that the muscles that are easily seen from the surface are exaggerated (see below). This makes the Hercules Farnese both a clear choice to illustrate Delivier’s muscular anatomy book, and as an iconic figure for bodybuilder culture (see below).¹⁵⁷ Marvin further exaggerated the statue’s description when she subjectively attempted to view the sculpture through the eyes of the ancient viewer: “we are unable to intuit the interior supports of bone and muscle that hold up the figure, we begin to think that none exist, and the statue looks curiously weightless, hollow, balloon-like.”¹⁵⁸ In contrast to the subjective approach taken by Marvin and many others, this dissertation will deploy an objective examination of the anatomical detail that are present in the Farnese Hercules.

1.1 Head

The majority of the head is covered in curled hair and beard that also covers the front of the neck. Hercules has a furrow along his brow as his eyebrows are raised creating a deep glabella. The right supraorbital notch is swollen. The iris and pupil are chiseled out to define the eyes. The nose is wide, and the nasal bone is projected are forward creating a large nose. The left cheek compared with the right looks swollen. The upper lip is larger than the bottom and are slightly parted from each other. It is difficult to discern, but the left ear may be cauliflowered.

1.2 Shoulders

The trapezoids bulge creating a thick neck that is masked by Hercules’ beard. The deltoid is easier to distinguish on the right arm as the left merges into the triceps and biceps of the arm. The clavicle is situated low and the point where the clavicle, sternum, and sternohyoid meet is deep, indicating deeply defined sternohyoid and sternocleidomastoid (of the neck muscles).

¹⁵⁶ Stocking, forthcoming; Jüthner, 1909, 253.

¹⁵⁷ See section six of this chapter.

¹⁵⁸ Marvin 1983, 382.

1.3 Arms

The arms are chiseled with muscles to the extent that the right arm looks askew holding the Apples of Hesperides behind his back. The figure leans on the supportive strut under his arm, but flesh of the armpit does not bend to conform around the strut if the figure were to be putting his full weight onto it. Instead most of the figure's weight is still supported on his right leg. Therefore, the strut (as is its purpose) is more for sculptural support than figural narrative. From the backside, the marble of the body is not fully separated from the marble of the strut and the left arm just drapes over the strut.

1.4 Thorax

The pectorals are defined along with the abdominals. The most prominent muscles are the latissimus dorsi and obliques. The cascade of rhythmic bumps of the latissimus dorsi and the large bulge of the obliques along the sides of the figure make them stand out to the eye especially against the texture of the large muscular formations of the abdominals. The iliac curve is deeply set. The subtle curvature of the thorax to the right reinforces the visual construction of the statue. The curvature of the throat creates a triangular sculptural formation that follows along the legs straight across the base, up the strut to the top point of the head and then back down the body.

1.5 Legs and Feet

The legs are especially pronounced. The quadriceps (made up of the vastus lateralis, vastus medialis, vastus intermedius, and the rectus femoris) are large bearing the same width at the hips and obliques. The calf muscles are the same (made up of the gastrocnemius and soleus muscles that feed into the Achilles tendon), especially the gastrocnemii that bulge outward easily seen from the posterior angle. Hercules supports his weight on his right leg, the muscles are taut, the two heads of the gastrocnemius are easily distinguishable. The left leg shows the muscles at rest and there are even two folds of flesh at the back of the knee (Popliteal fossa), where the knee is bent in *contrapposto*.

The bones of the ankles protrude, particularly that of the right leg as it bears weight. The medial and lateral malleolus are clearly distinct from the Achilles tendon

(tendo calcaneus) making the ankles thick. The toes are stuck together. The three middle toes are grouped together, with the hallux and outermost toe angled inward toward the middle toes making the hallux and outermost toe elongated and creating a pointed look to the foot. Lastly, thick veins spider across the feet (see below).

1.6 Back

The posterior is interesting. It could be supposed that the sculptor would have wanted the Farnese to have relaxation in the back as the figure leans against his club, however, the masses look like sagging flesh and this ages the figure. Nevertheless, the majority of the muscle tension is in the shoulders, the bunching of trapezoids with the deltoids and deeper muscles of the triceps minor and major create a broad backside. The spine does not mirror the curve of the anterior but is more diagonal along the back, whereas in Delavier's illustration the spine runs along the back and then slightly curves naturally to right with the angle of the hip. The internal and external oblique and serratus anterior muscles round the iliac crest do bunch on the right side due to the contrapposto stance. The buttocks (glutei maximi) are pert with musculature, as is typical in athletic statuary.

1.7 Veins

Notable on the Farnese Hercules are the superficial veins located throughout the sculpture. It is common to see basilic vein (of the arm) or veiny networks in the feet or hands rendered on athletic statuary. However, the Farnese's vein detailing is taken a step further. Superficial veins are prominent in the pelvis, namely the superficial epigastric veins just above the groin and the superficial circumflex iliac vein on the figure's left oblique. There are also veins located on the inner left thigh. Nevertheless, there is a prominence of veins located in the arms, hands, ankles, and feet of the sculpture. The cephalic vein can be seen on both arms starting from the armpit and continuing down the length of the arms. Other venous forms are sporadically depicted throughout the arms. The hands are especially venous: the basilic and cephalic vein are both represented at the base of the hand and lead into the dorsal venous network then into the fingers. On the feet, subtle veins that derive from the great saphenous vein are rendered in a low relief along the ankle and into foot, whereas the dorsal venous arch

and dorsal digital veins that feed into the toes are rendered in a higher relief further down on the foot.

1.8 Vascularity

In his *Gymnasticus*, Philostratus mentioned veins during his description of a wrestler's body. Philostratus denounced large veins, stating they were unpleasant to look at, like varicose veins. Philostratus continued:

those who happen to have deep veins that swell only a little show signs, by these veins, of a delicate and distinctive *pneuma* in their hands; and veins of this type [...] in the case of young athletes they announce that the arm seems ready for action and promises much for wrestling.¹⁵⁹

Thus, Philostratus preferred veins that were only prominent when muscles are flexed and attributed these veins to showing a true sign of strength. This philosophy is concurrent with Philostratus' reminiscence of athletes of the Classical age versus athletes of his own period (ca. third-century CE).¹⁶⁰ Furthermore, it is also coincided with Philostratus' ideal description of wrestlers, who preferred a more idealistic rather than realistic body types:

The ideal wrestler should be tall rather than well-proportioned in size, but his body shape should be the same as that of the well-proportioned athlete [pentathlete], having neither a high neck nor a neck which is sunk into the shoulders. That latter body shape is suitable, to be sure, but it looks more like someone who is deformed than someone who has been trained, at any rate for those who perceive, also in the case of the statues of Heracles, how much more pleasant and godlike are noble bodies which do not have their hands sunk into the shoulders.¹⁶¹

¹⁵⁹ Philo. *Gym* 35. Trans. König 2014.

¹⁶⁰ Stocking 2015.

¹⁶¹ Philo. *Gym*. 35. Trans. König 2014.

Despite clearly acknowledging that a sunken neck is preferable for a wrestler, Philostratus favored more aesthetically pleasing bodies over practical ones, likening them to the godlike Hercules.¹⁶²

Notwithstanding Philostratus' preference, his comments recognized the presence of veins on athletic bodies. The ancients were aware of the presence and importance of veins, but not of their true anatomical function. It was believed that veins carried both blood and air (*pneuma*, literally translated as 'breath'). *Pneuma* was thought to be the substance of life rather than blood.¹⁶³ Metraux has argued that the inclusion of veins, in fourth-century BCE sculpture, was an attempt by artists to be included in the intellectual discussions of philosophy and medicine that were taking place in that time period.¹⁶⁴

The Farnese Hercules is an example of this culmination of the artistic recognition of anatomical details and their incorporation into their artwork by the Roman period.¹⁶⁵ The prominence of veins on Hercules is representative of vascularity in bodybuilders or the condition of having highly visible superficial veins, where the skin appears to be thinner and thus the veins are more visible. This condition is the result of extreme reductions in subcutaneous fat that bodybuilders invoke to allow for maximum muscle definition.¹⁶⁶ Ancients athletes with high muscular definition, such as wrestlers, could have also sported the same vascularity as seen on the Farnese. Therefore, Glykon (the sculptor) has chosen to add key anatomical details of athletes, likening Hercules to reality.

2. *Latin Hercules*

The Latin Hercules that is now located in Reggia di Caserta, Italia has been heavily restored since antiquity (Fig. 49). Both Moreno and Marvin asserted that the bulk of the torso, upper thighs, right arm and hand, and left shoulder could be considered ancient.¹⁶⁷ The Latin Hercules encapsulates the same Weary type as the

¹⁶² However, in *Herocius* 49.3 Philostratus noted that wrestling schools liked to have their wrestlers with sunken-in necks.

¹⁶³ Nutton 2013, 239-40.

¹⁶⁴ Metraux 1995, 17-31.

¹⁶⁵ By the second-century CE (when the Baths of Caracalla are estimated to have been constructed), dissections and further understanding into human anatomy were being progressed in Alexandria, Egypt. Nutton 2013, 120-3.

¹⁶⁶ This is also dependent on a number of different factors including genetics, diet, sodium levels, etc.

¹⁶⁷ Marvin 1983, 357; Moreno 1982, 380.

Farnese. Hercules stands, leaning on his club that is draped with a lion skin and sits atop a bull's head, with the Apples of Hesperides held behind his back. As it stands, reconstructed today, it is measured at 3m tall, just short of the Farnese, but still of a colossal size.

The Latin Hercules has notable differences in musculature from the Farnese. The pectorals of the Latin Hercules are pulled tauter across the sternum than in the Farnese Hercules; the pectorals of the Latin face a wider angle as indicated by the positions of its nipples, whereas the Farnese's nipples point straight forward. There is a greater development of the upper abdominals in the Latin. The stomach is sucked in from just above the umbilicus (which is more deeply chiseled than observed on the Farnese) to the top of the pubic line. This could indicate the sculpture was taking an inward breath (as seen with the Terme Boxer). From photographs, the length of the torso seems to account for the height difference between the two statues. On the Latin Hercules' right, the serratus anterior seems shorter and tucked higher into the armpit but the oblique is elongated further than on the Farnese. The obliques sit heavily atop the iliac crest. There is more distinction between the gluteus muscle group, perhaps because the right hip is brought forward, twisting the body. This twisting of the body creates a different silhouette than the Farnese. Lastly, it is worthy of note, that there is a lack of any veins in the parts that are considered ancient. There are superficial veins on the left leg, left arm, and feet, but these are considered to be reconstructions.

The side-by-side display of two similar, yet slightly differing statues is termed pendant display. This was a trend in Roman sculptural display, typically found in private spaces.¹⁶⁸ However, some public spaces, markedly Imperial bath complexes, had pendant displays. Such as the two Three Graces from the Trajan Baths at Cyrene and a pair of Satyr and Hermaphrodite groups from the West Baths at Cherchel.¹⁶⁹ Bartman stated: "Designer and patron seem to set one artistic style against another in an intentional aesthetic contrast. In this way, they heightened the viewer's awareness of the purely formal aspects of the sculptor's art."¹⁷⁰ This was intended to spur intellectual discussion with pendant display groups purposely placed within cooler rooms of the

¹⁶⁸ Bartman 1988, 222.

¹⁶⁹ *Ibid.*; Manderscheid 1981, 103 and 127.

¹⁷⁰ Bartman 1988, 222.

baths so that the viewer could pass leisurely.¹⁷¹ Bartman argued that the “mild or even cool temperatures [of the *frigidarium*] encouraged patrons to linger” by the Hercules pendant.¹⁷² This mirroring was further encouraged by the repeated Herculean imagery throughout the Baths of Caracalla. In fact, one of the capitals in *frigidarium* showed the Weary Hercules in relief.¹⁷³

3. *Mosaics*

Mosaics of athletes were on display in the *palaestrae* and the *frigidarium* that contained a plethora of athletic male bodies.¹⁷⁴ Two polychrome mosaics were discovered in 1824 in the *exedrae* (13W and 13E on Fig. 50) between the *palaestrae* and *frigidarium* (Fig. 51). They were moved to the Lateran Palace and more recently (in the 1960s) were transported to the Vatican. However, the mosaics were distorted during their reconstruction to fit their new home in the Lateran.¹⁷⁵ Two watercolors show their initial composition from the time of their discovery (Fig. 52).¹⁷⁶ The mosaics display various kinds of athletes in the nude and *gymnasiarchs* (or trainers, identifiable by their dress). Clear attempts were made to add individualistic features to each of the figures. For example, the athletes are depicted as having various hairstyles and body types, some athletes are bearded, and some are not, and some athletes are crowned or are crowning themselves with a victory wreath, etc. Newby argued that the individualism of the athletes was not done in order to identify particular athletes per se, but to create the “illusion of a series of real individual athletes.”¹⁷⁷ This is important because of their placement along the path between the *palaestrae* and *frigidarium*: they “set up a connection with the bathers who viewed them, implicitly comparing these [bathers’ bodies] to the victorious athletes the mosaics display[ed].”¹⁷⁸

¹⁷¹ *Ibid.*; Manderscheid 1981, 21; Marvin 1983, 350-3.

¹⁷² Bartman 1988, 222.

¹⁷³ Gensheimer 2018, Cat. 24, fig. 3.12.

¹⁷⁴ Delaine 1997, 68-84.

¹⁷⁵ Newby 2005, 67; Lehmann 1990, 639.

¹⁷⁶ The watercolor did add loincloths over the figures for modesty.

¹⁷⁷ Newby 2005, 68.

¹⁷⁸ *Ibid.*

4. *The Baths of Caracalla*

The Farnese Hercules and its counterpart, the Latin Hercules, are unique in their colossal size and in how they were undoubtedly commissioned to fit within the grandiose architecture of the Baths of Caracalla, which was unusual for bath complexes.¹⁷⁹ However, it is their strategic placement within the baths, and the surrounding aesthetic choices, which subscribed Hercules to the serialization and repetition of the athletic bodies throughout the baths.

Beyond the two Hercules statues, other athletic works come from the external precincts of the baths, but most are centrally located within the baths themselves. For example, a statue of Polykleitos' Doryphoros came from the north-west *exedra* and two herms of Apollo and Hermes respectively (gods associated with athletic games) were found around the perimeter between the library and stadium structures.¹⁸⁰ Within the *frigidarium*, there was a version of Myron's *Diskobolos* (attested through a thigh and hand holding a discus), another *Doryphoros*, a naked prepubescent ephebe (only surviving in its hips and thighs), a naked male statue indicated by a find of a male pelvis, and a Polykleitan Heracles type.¹⁸¹

The surrounding athletic imagery, Newby has argued, created a connection with the bather who could "see himself surrounded by images with which he could identify."¹⁸² Since the Hercules was not a single statue, but a pair, it reinforced this idea of replication through the effect of doubling. The two images referred to each other and lost "a sense of the hierarchical distinctions between 'original' and 'copy.'"¹⁸³ The constant referrals between statues and athletic body created an 'immanence of replication' where "the athlete's own body becomes one more in the series of reproducible bodies."¹⁸⁴

The strategic and purposeful placement of all these athletic images solidified this connection between athletic image and viewer. In the *palaestra*, the bather, like in the

¹⁷⁹ Manderscheid 1981, 27 found that most designers did not pay special attention to the scale of sculptures to the spaces around them.

¹⁸⁰ *Ibid.*, 70. All are now housed in the Museo Nazionale Romano.

¹⁸¹ *Diskobolos*: thigh in Museo Nazionale Romano and head with discus in the Museo Baracco, DeLaine 1997, 266, no. 8; *Doryphoros*: DeLaine 1997, 266, no. 9; ephebe: Museo Nazionale Romano 56745; naked male statue: Museo Nazionale Romano 56743; Polykleitan Heracles: Marvin 1997. Newby 2005, 70-71.

¹⁸² Newby 2005, 71; Stocking 2014, 58;

¹⁸³ Stocking 2014, 58.

¹⁸⁴ *Ibid.*

mosaic images beneath him, would be participating in some sort of physical exercise. After working up a sweat, he would then transition from the *palaestra* (12W and 12E on Fig. 50) into the *frigidarium*. For those who came in from the east *palaestra*, he would be confronted by the dual images of Hercules, who rest after their exertions just like the bathers.¹⁸⁵ The mosaic athletes of the *palaestra*, Newby noted, showed “a similar concentration on muscular, burly bodies.”¹⁸⁶ Importantly, Newby highlighted the significance of the placement of the statues between the columns rather than in niches along the walls where most other sculptures were placed. She suggested that this created a further connection with Hercules and the bathers by “placing the hero firmly within the human space of the baths.”¹⁸⁷ However, I suggest that there is still a separation between the mortal and the ideal as these images are not on eye level, but instead they were raised 2.5m above the floor. This means that the bather is literally looking up to the ideal body. “While the mosaics in the *palaestra* suggest that bathers could see themselves in these figures of athletic prowess, Heracles too acts as an athletic role model [athlete *par excellence*], the brawniest and burliest of them all.”¹⁸⁸

5. *Mimesis*

Stocking has convincingly argued that Philostratus’ *Gymnasticus* displayed a nostalgia for the Greek past and something that was worthy of emulating; even more so, something that *should* have been emulated, for the athletes in Philostratus’ time, in his opinion, were in decline.¹⁸⁹ The reason Philostratus thought his current athletic generation was in decline was because it had been weakened by the influence of medical *technê* and was not as close to nature (*phusis*) as the ‘old athletic training’.¹⁹⁰ Philostratus divided the generations of athletes into four groups or periods: the Greek mythic heroes (e.g. Peleus, Theseus and Herakles), historical Greek athletes (such as Milo, Hipposthenes, Pouludamas, Promachus, and Glaukos, son of Demulos), athletes in the age of ‘fathers’ (meaning athletes during the time of Philostratus’ generation’s

¹⁸⁵ Due to their colossal size, they could have been easily seen and understood from the opposite side of the *frigidarium* for those coming in from the west *palaestra*.

¹⁸⁶ Newby 2005, 73.

¹⁸⁷ *Ibid.* 74.

¹⁸⁸ *Ibid.*

¹⁸⁹ Stocking 2015, §1-3.

¹⁹⁰ *Ibid.* §11; Philostratus, *Gym.* 43

fathers), and present generation (ca. third-century CE). Stocking argued that not only did Philostratus see the mythic heroes as the earliest generation of athletic excellence and ‘held as a standard of comparison’, but so did Homeric epic and Hesiod in his *Works and Days*.¹⁹¹ In fact, historical Greek athletes such as Milo of Kroton and Pouludamas were known for their imitations of Herakles, such as wrestling lions and bulls.¹⁹² Thus, there is a long established history of imitating those that came before as the past held a superiority over the present.¹⁹³ In the words of Stocking when referencing Philostratus, “[i]f the Greek past serves as the pinnacle of physical perfection, then the emulation of the sculpture that is based on the Greek tradition would serve as the most immediate and effective way to embody the Greek past.”¹⁹⁴

Imitation, it can be argued, is the very foundation of ancient athletics. Democritus (ca. 460-370 BCE) even stated that imitation was the best way to learn (DK 68 B154) and, according to Hawhee this ethos was instilled at the very beginning of a child’s education in Greece.¹⁹⁵ In Plato’s *Protagoras*, the character Protagoras described how teachers provided children “with works of good poets to read as they [sat] in class, and are made to learn them off by heart: [there] they [met] with many admonitions, many descriptions and praises and eulogies of good men in times past, that the boy in envy may imitate [*mimetai*] them and yearn [*oregētai*] to become [them]” (326a).¹⁹⁶ Thus, marked the beginning, according to the Hawhee, where children were exposed to ‘good poets’ (presumably Homer, Hesiod, etc.) and in doing so “spark[ed] an interest in self-transformation” (*phusiopoiesis*), or more importantly, a *yearning* to become like the ‘good men’ of the past.¹⁹⁷ Most importantly, “people sen[t] their sons to a trainer, that having improved their bodies they may perform the orders of their minds, which are now in fit condition, and that they may not be forced by bodily faults to play the coward in wars and other duties” (326b-c).¹⁹⁸ Thus, Hawhee argued, “athletic training

¹⁹¹ *Ibid.* §9 For example, Nestor compares the Lapiths and Theseus to describe Achilles and Agamemnon (*Ili.* I 280-281), how older men win during the funeral games of Patroklos, and how Odysseus’ age plays to his advantage when he competes against the Phaeacian youths in the *Odyssey* (vii 230-233). Hesiod, like Philostratus, also divided the ages of men into four separate ages, gold, silver, bronze, and iron (plus a fifth category of ‘the age of heroes’).

¹⁹² Pausanias 6.5.5-9, 6.14.8.

¹⁹³ Stocking 2015, §3.

¹⁹⁴ Stocking 2014, 56.

¹⁹⁵ Hawhee 2004, 148.

¹⁹⁶ Translation: Lamb 1924, LCL165.

¹⁹⁷ Hawhee 2004, 97.

¹⁹⁸ Translation: Lamb 1924, LCL 165.

promise[d] to instil the values of strength and bravery” by giving boys the training to have a fit condition and be brave in battle.¹⁹⁹ Hawhee continued, noting how “early education cultivated a readiness for more training,” a *yearning* to be as the heroes they wanted to emulate.²⁰⁰

Reid took this a one step further. Not only did one have to yearn for excellence, but it must be a voluntary effort both in the *wanting* to do so and voluntary in taking action to do so. If one is forced to do it, it defeats the sole purpose of achieving *aretē* (excellence) or even bettering oneself. Reid pointed this out when discussing the difference of the muscular aesthetic of (aristocratic) athletes who make a ‘noble voluntary effort’ to achieve muscular development and the muscular aesthetic that is a by-product of manual labour done by slaves.²⁰¹ Another way to understand this concept is in a roundabout approach: having athletic musculature showed that the athlete has put in the hard work or toil (*ponos*) to achieve that type of muscularity. Therefore, he would have taken the voluntary effort to do so and most likely had the yearning to obtain the athletic body that imitated heroes and allowed the athlete—because of his hard work and suitable body—to win in athletic contests (*agones*) just like the heroes in mythology. The presence of the *philoponos* competition validates the toil set about in the gymnasium, giving it value at a time when other contests held beauty as the highest standard.²⁰²

While looking at the Farnese Hercules with this concept in mind, the viewer is confronted with a hero whose physically overwhelming musculature is representative of his toil he has just endured while performing his famous Twelve Labours. Athletes who viewed this figure should have wanted to emulate his physical form as demonstrative of their own toil (that it would take to acquire this level of musculature) and excellence (*aretē*). Given the mosaics that adorned the Baths of Caracalla depicting contemporary athletes, some athletes (if the mosaics can be taken at face value) did obtain profound degrees of musculature. Alongside the many athletic bodies that decorated the floors and walls throughout the Baths the viewer/athlete’s own body and those around him becomes another in the serialization. Baudrillard described this as “[t]he relation

¹⁹⁹ Hawhee 2004, 97-98.

²⁰⁰ *Ibid.*

²⁰¹ Reid 2012, 286. Reid adds the distinction of ‘noble’ as a reminder that this was an aristocratic pursuit who had the resources and time to achieve these goals.

²⁰² *Ibid.* 285-286.

between them [images in a series] is no longer that of an original to its counterfeit—neither analogy nor reflection—but equivalence, indifference. In a series, objects become undefined simulacra, one of the other.”²⁰³ This is best conceptualized as the ‘precession of simulacra’ a postmodern phenomenon where the image becomes so powerful that its original point of reference is no longer valid.²⁰⁴ Therefore, “[t]he body no longer precedes sculpture—it is sculpture that precedes the body; it is sculpture that engenders the body.”²⁰⁵ While Baudrillard’s theories can arguably be applied to the ancient world, he wrote them while concerned with the postmodern world. This same rhetoric of the mimetic body can also be seen in the modern world, notably in the career of Eugen Sandow, who directly emulated the Farnese Hercules. The next section will discuss how Sandow sparked the modern bodybuilder movement using Hercules as his body ideal.

6. Hercules as Bodybuilder

Eugen Sandow (born Friedrich Wilhelm Müller, 1867-1925) was born in the former Prussian town of Königsberg (now Kaliningrad, Russia) before leaving in 1885 to avoid military service. He trained in the local *Turnhalle* or gymnasium and eventually joined the circus and travelled throughout Europe with the troupe.²⁰⁶ In Brussels, he was taken under the wing of fellow strongman, Ludwig Durlacher, known by his stage name ‘Professor Attila’. In 1889, Durlacher encouraged Sandow to travel to London and take part in strongman competitions. It is there that Sandow found his fame and glory, launched his career as an athletic showman and went on to become the founder of modern bodybuilding.²⁰⁷

Sandow in his training manual, *Sandow on Physical Training*, described how his pursuit of physical culture had been spurred by an initial moment of inspiration for his pursuit of physical culture when visiting Rome with his father he recounts admiring “finely-sculptured figures of heathen deities and the chiseled beauty of some Herculean athlete or wrestler in the throes of a life or death struggle.”²⁰⁸ Upon seeing these

²⁰³ Baudrillard 1983, 97.

²⁰⁴ *Ibid.*, 2.

²⁰⁵ Stocking 2014, 59.

²⁰⁶ Chapman 1994, 6-7.

²⁰⁷ *Ibid.*

²⁰⁸ Sandow 1894, 24.

sculptures he reportedly asked his father if there were any modern athletes that had the same physical development as the statues. His father's reply was that athletics had declined greatly due to "sordid habits and fashionable indulgences".²⁰⁹ It was in that moment that Sandow described seeing his own body in comparison with the statues and "conceived the idea to train his body to the utmost pitch of perfection, and so approach, if he did not attain to, the ancient ideal of physical power and beauty."²¹⁰

Despite discrepancies between Sandow's own biographical account and historical research into his life, Stocking found that it is more important to recognize the 'ideological role' Greco-Roman statuary applied to the perception of the human form, even in the nineteenth-century.²¹¹

Just as Philostratus had argued that the body should be viewed on analogy with idealized symmetrical sculpture, so Sandow's comparison of his own body to sculpture is said to have inspired him to pioneer the practice of modern bodybuilding. For both Philostratus and Sandow, the simulacrum of the ancient physical ideal preceded and exerted influence upon the real human form.²¹²

Stocking's summarization of the comparability between Philostratus and Sandow is strengthened in the narrative that Sandow presented in *Sandow on Physical Training*. The parallels between his father's view that athletics was in a state of decline and Philostratus' own stance are blatantly obvious. The precession of simulacra comes full circle where the serialization of the body continued into the postmodern world when Sandow chose to emulate Greco-Roman statuary not only as inspiration and goal, but to pose in the same silhouettes of ancient statuary, most notably the Farnese Hercules (Fig. 53). "The logic of representation, in which there is a clear distinction between original and copy, is reversed in favor of the logic of simulation, in which original and copy blend together within a single visual image."²¹³ The propaganda behind this image showcased Sandow as *the* strongman, a physical embodiment of Hercules, not in marble but in flesh, which most thought to be an unattainable Greek ideal.

Unfortunately, Sandow's hubris was his downfall of his Greek ideal image. Later in his career he had a life-size cast made of his entire body to be displayed in the

²⁰⁹ *Ibid.*

²¹⁰ *Ibid.*, 25.

²¹¹ Stocking 2014, 60.

²¹² *Ibid.*

²¹³ *Ibid.*, 61.

British Museum (Fig. 54). However, the statue was highly criticized for departing from ‘impossible’ *symmetria* of Greek sculpture. When the statue was compared to Sandow’s measurements, it was discovered that the statue’s biceps and waist were larger than those of the man himself.²¹⁴ Stocking took this as a sign that it is impossible to imitate hyperreal²¹⁵ (or that is beyond reality) statuary, instead “that what persists is only the desire to imitate”.²¹⁶ I find Stocking’s statement profound in that I believe it is this desire to imitate what is considered most important of all (whether or not it is an impossibility will be examined further in the next chapter). For the Farnese Hercules continues to inspire into the twenty-first century. Take for example the bodybuilder entrepreneur and coach of Arnold Schwarzeneger, the most recognized bodybuilder in modern history, Joe Weider’s thoughts on the Farnese Hercules:

Seeing the Farnese Hercules was a revelation—a turning point in my life. It became the ideal I held in my head of what a bodybuilder should look like, and I don’t know of any other piece of art that personifies power so effectively. There’s just something magical in the Farnese that speaks to the sort of man—like me—who’s always wanted to be bigger and stronger. It’s kind of simple, really—what he has is what we want.²¹⁷

Again, it is the inspiration of the Farnese Hercules that drove men to be ‘bigger and stronger’. Weider’s statement echoes that of Sandow and Philostratus whose nostalgia becomes the driving forces to achieve the Greek ideal.

7. Conclusion

The anatomical analysis of the Farnese Hercules revealed key details, such as the inclusion of numerous veins throughout the figure, which added an extra dimension of reality to the overall hypertrophied athlete. The importance of the Farnese is gleaned when the sculpture is examined within its original context in the Baths of Caracalla. In addition to a plethora of athletic figures, Herculean imagery was abundant throughout the Baths namely due to Hercules being Caracalla’s patron god.²¹⁸ However, the

²¹⁴ Chapman 1994, 119-20; Todd 1965, 54.

²¹⁵ Baudrillard 1983, 2.

²¹⁶ Stocking 2014, 63.

²¹⁷ Todd 2005, 29.

²¹⁸ Marvin 1983, 380-2.

repetitive imagery, especially the dual images of the Weary Hercules, reinforced a sense of serialization of the athletic body. This allowed the viewer to become one more body in the procession of simulacra. Importantly, the athletic imagery served as something the viewer and athlete could not only relate to but also aspire to. The Farnese Hercules in particular was a sought-after body ideal and its influence stretched into modern times spurring the bodybuilder movement by inspiring men such as Eugen Sandow and Joe Wieder to want to emulate Hercules' image. This yearning to want to achieve the unachievable is important and the next chapter will explore how athletes would have gone about trying to achieve this seemingly impossible body type.

Chapter Five: Achievability

In this chapter, I will examine how an ancient athlete would have undertaken to achieve the musculature seen in athletic statuary. The leading monograph to-date on this topic is Poliakoff's *Combat Sports in the Ancient World: Competition, Violence and Culture* originally published in 1987. Poliakoff detailed the ancient practices of athletes in the ancient world including those in Egypt and East Asia in addition to those of Greece and Italy. The documentation of ancient sport practices will be combined with modern sports science. What will be discovered is that the muscles utilized in the fighting techniques directly relate to the developed musculature seen on the Terme Boxer, Ephesian and Croatian Apoxyomenos, and Farnese Hercules. Therefore, I will argue, such musculature was achievable.

The three cases studies in the previous three chapters showed that each athletic sculpture used key muscular anatomical detailing to illustrate different types of athletes. The Terme Boxer, while easily identifiable by his boxing gloves, can still be identified as a boxer by his anatomical rendering where there is an emphasis on the upper musculature, and is consistent with the description of a boxer by Philostratus. The Apoxyomenoi demonstrate that one athletic body 'type' was not rigidly adopted, and that it was acceptable to employ a range of body types. The slight differentiation between body types amongst the Apoxyomenoi sculptures also lends credibility to the argument that artists were basing their sculptures directly on human models. Furthermore, evidence has shown that molds were taken from statues and circulated amongst sculptors, but also that the varying degrees of musculature development between the sculptures illustrated a desire by artists to represent different athletic types.²¹⁹ The Farnese Hercules showed the intention to emulate, even that which was supposedly impossible to attain. The desire to do so is what was noteworthy.

Athletic statuary served as a standard on which to judge athletes. Stocking even argued that Philostratus overtly made the point that athletes should be judged against sculpture, and that judging an athlete should be the same as being an art critic.²²⁰ The plethora of beauty contests in the ancient world also attest to a constant evaluation or

²¹⁹ Marvin 1983, 351

²²⁰ Stocking 2014, 55; Philo Gym. 25

judgement of athletic bodies. For example, at the Panathenaic Games, the contest of *euandria*, or ‘fine manliness’, tested physical prowess and appearance.²²¹ While the full judging criteria are unknown, it is recorded that the winner received prizes and their *euandria* (manliness) “was celebrated with multiple garlands and ribbons tied to key parts of their prize-winning bodies”.²²² In Elis, to honour Athena, there was the *krisis kallous*, or ‘battle of the beautiful’. At Tanagra, in Boeotia, in dedication to Hermes Kriophoros (Hermes the Ram-Bearer), “the boy displaying the most beauty [*kallisteia*] was to carry a ram around the city in Hermes’ honour.”²²³ Inscriptions found in Hellenistic *gymnasia* suggest that there were other contests that highlighted male beauty and rewarded those who strove hard to achieve *kalon*. These contests included the *philoponia*, which rewarded those who worked and trained the hardest at the *gymnaseion* and the *euexia* which was similarly described as a body-building competition in which the winner was judged based on bodily tone, definition and symmetry.²²⁴ The *eutaxia* also rewarded those with ‘good discipline’ towards military drills.²²⁵ Therefore, if the athletic sculpture was what athletes wanted to embody, how would they have gone about achieving these body types? Or, rather, how achievable were the unachievable body types of Greco-Roman athletic statues? The rest of this chapter will seek to answer these questions.

This chapter will proceed to examine the ancient boxer and wrestler as the two main sports that have been identified in this dissertation. The two sports have been divided into sections that follow similar structures. Firstly, each sport’s history will be briefly introduced, its rules in Greek antiquity will be explained, and the equipment (if any) that was used. Secondly, I will survey the muscles utilized in the techniques and the training exercises seen in material culture (such as on vase paintings) and described in literature. Finally, I will reflect the conclusions back upon the achievability of the bodies of the Terme Boxer, Apoxyomenoi, and Farnese Hercules.

I will be using the illustrated guide to *The Anatomy of Martial Arts*, while extremely useful in showing the key muscle groups used in strikes and blocks. While the stances are slightly different than those employed in ancient sport, the muscle

²²¹ *IG II² 2311*

²²² Spivey 1996, 36-38.

²²³ *Ibid.*

²²⁴ *SEG 27.261:46-49.*

²²⁵ Spivey 1996, 36-38.

groups used in identical fighting moves are nevertheless the same. It takes numerous muscles to perform actions, however, for this discussion the sole focus will be on the primary dynamic and static muscles. Dynamic muscles are used to perform an action, such as moving a body part, and static muscles are those that are tensed or flexed during the movement. These muscles are usually the easiest to identify in surface anatomy and therefore easier to understand in comparison with the ancient athletic body represented in art.

Lastly, it should be emphasized that the way ancient athletes trained cannot simply be presumed to have been similar to modern training techniques. However, there is some flexibility in basic exercises and, from what has been described in literature and demonstrated on vase painting, this allows for some examination of ancient training practices. Therefore, while the illustrations adopted from Delavier's *Strength Training Anatomy* may seem too modern and not applicable to ancient sport, they are simply used here to illustrate the muscles that are activated during certain exercises.

1. Boxer

Boxing has a long history that can be traced as far back as ancient Mesopotamia, where a terracotta relief was discovered, now in the National Museum of Iraq, Baghdad, depicting men wrestling and boxing.²²⁶ According to Murray, the Minoans, by pictorial reference, seem to have been the first to employ the use of boxing gloves, as evidenced by the famous fresco from Thera (modern-day Santorini) at Akrotiri, from ca. 1600 BCE, referred to as the 'Boxing Boys' (Fig. 55). Two adolescent boys are shown boxing, each have a covering over their right hand. Damage to the fresco makes it hard to discern specifically what kind of coverings the gloves are, and whether they enclose the whole fist or allowed for open fingers.²²⁷

Ancient Greek boxing (*pyx*) was significantly different from modern boxing. There were no weight classes and no rounds (and therefore no breaks). The only rules were no clinching (grappling with each other), scratching, or biting.²²⁸ To win, a boxer

²²⁶ Murray 2010.

²²⁷ *Ibid.* Another relief on a drinking vase from Hagia Triada (ca. 1500 BCE) shows four scenes of combative and, possibly, ceremonial activities. It is in the third section representing several boxers that are equipped with coverings over the back of their hands and down to their wrists.

²²⁸ Sweet 1987, 71. These rules seemed to have been established by boxing inclusion in the Olympic games in the 23rd (688 BCE) Olympiad. Poliakoff 1987, 80.

either had to knock out his opponent or force him into submission, signaled to the opponent by raising a single finger. During competition, such as at the Olympic or other Panhellenic games, lots (*kleroi*) were drawn to determine the sequence order of opponents. If there was an odd number of competitors, some would advance with a ‘bye’ (*anephedros*), meaning the athlete would sit out on the first round of competition.²²⁹ Thus, competitors boast of winning competition without taking a ‘bye’ to further enhance their victorious status.²³⁰ Evident in the literature and artistic renderings of ancient Greek boxing, is the brutality of the sport, which is also emphasized by the first-century BCE inscription from the island of Thera, that begins: “A boxer’s victory is gained in blood”.²³¹ There are several vase paintings showing boxers’ noses spurting blood, statues of boxers (and other combat sport participants, it was not limited to boxers) having cauliflower ear(s), and, as previously discussed, the Terme Boxer’s face bears bleed cuts from his recent boxing match. There are later literary descriptions of the disfigurement of pugilists due to their sport. In a poem about the boxer Androleos: “My prize at Olympia was one ear—and at Plataean fest[ival]/One eyelid. From Delphi they bore me no longer drawing breath”²³². Death was not uncommon in the ancient games; Pausanias related a story of a boxing match between Kreugas from Epidamnos and Damoxenos of Syracuse. Kreugas’s corpse has announced the winner of the match as Damoxenos was considered to have cheated on their agreement to only deliver one blow to each other to determine the winner. Damoxenos had stuck his fingers straight out (each finger was considered a blow and therefore against their agreement), and with his sharp fingernails pierced Kreugas’ abdomen and ripped out his intestines.²³³

1.1 Boxing Gloves

The ability of Damoxenos to use his fingers in such a manner was because of the design and flexibility of the Greek boxing gloves or *himantes* (singular: *himas*). The first type of *himantes* used by the Greeks up until the fourth-century BCE were simply

²²⁹ Miller 2004, 49; Lucian, *Hermotimos* 40.

²³⁰ *IvO* 225; *IG XIV*.1102.

²³¹ Kaibel 1878, no. 942. Trans. Poliakoff 1987, 68. This inscription was in praise of a boxer from Thera.

²³² Lucilius, *Greek Anthology* 11.81. Trans: Poliakoff 1987, 87.

²³³ Pausanias 8.40.4-5.

called ‘thongs’ (ἰμάντες) (Fig. 56). They were made out of tanned, leather straps that would be wrapped around the wrists and hands, the thumb would be left free so that the hand could be made into a fist.²³⁴ This would be done to protect the knuckles and support the wrist when boxing. Visual representation in pottery shows that boxers had a choice of how to wear them. Some athletes wrapped them all the way up to the very fingertips, some simply wrapped them in a crisscross pattern around the hands and wrists, and others wrapped them up higher on the forearm. Furthermore, Murray stated that allowing the fingers to be free also enabled for the hand to be opened and used defensively to block on-coming punches (Fig. 61).²³⁵

Later, around the fourth-century BCE, heavier, more damaging gloves were developed and named ‘sharp or hard thongs’ (*oxys*) (Fig. 56).²³⁶ (The original *himantes* were later termed ‘soft thongs’ (μειλίχαι) to distinguish them from their later descendants.²³⁷ These gloves slid onto the arm and had holes cut out for the fingers. They were lined with sheepskin and covered in leather thongs. The most distinctive feature of these gloves was a heavy leather pad over the knuckles (Fig. 56).²³⁸ The Terme Boxer wears these iconic gloves (Fig. 57, 14). In 2018, two of these heavy leather pads were discovered at the excavation of a pre-Hadrianic cavalry barrack at the Vindolanda Roman fort in (Northumberland) in northern England (Fig. 58).²³⁹ An archeologist from the Vindolanda Charitable Trust (est. 1960) described the two gloves:

The larger of the two gloves is cut from a single piece of leather and was folded into a pouch configuration, the extending leather at each side were slotted into one another forming a complete oval shape creating an inner hole into which a hand could still easily be inserted. The glove was packed with natural material acting as a shock absorber [...] This larger glove has extreme wear on the contact edge and it had also undergone repair with a tear covered by a circular

²³⁴ Murray 2010; Miller 2004, 51 estimates the thongs were roughly four meters in length; Poliakoff 1987, 70.

²³⁵ Murray 2010.

²³⁶ Frost 1906, 214; Miller 2004, 52; Murray 2010; Pausanias 8.40.3. I believe this is a mistake and Pausanias was using as an adjective to describe soft *himantes*. In all likelihood, there were precursors to the ‘sharp thongs’ but I do not believe Pausanias is describing one in the reference that Murray references. Furthermore, Poliakoff stated that there is no other equipment than the light and sharp thongs and padded practice gloves

²³⁷ *Ibid.*

²³⁸ Poliakoff 1987, 73.

²³⁹ *Boxing Gloves* 2018.

patch. The slightly smaller glove was uncovered in near perfect condition with the same construction but filled with a tight coil of hard twisted leather.²⁴⁰

From this description, it is clear that each glove is from a separate pair. The Vindolanda archeologist theorized that the larger, older glove was kept for nostalgia purposes and was no longer useful after prolonged use, whereas the smaller glove signifies a ‘newer’ model and still retains the imprint of the wearer’s knuckles.²⁴¹

The damaging nature of ancient boxing gloves, both soft and hard, spurred the nickname *myrmex*, or ‘ant’, for the pain inflicted by the thongs was similar to that of an ant bite.²⁴² Given the brutal nature of the sport, ancient athletes did have padded practice gloves called *sphairai* (‘balls’ named most-likely due to their spherical-like shape²⁴³) or *episphairai* (‘over-spheres’) so as to avoid inflicting any unnecessary damage during practice (Fig. 59).²⁴⁴ Similarly, *amphotidai* (literally ‘something around or over the ears’²⁴⁵) were used by athletes during practice to protect their ears from damage.²⁴⁶ Famously, the Romans later amplified the violence by adding metal studs or spikes to the boxing gloves; these gloves were called *caestus* (Fig. 56).²⁴⁷

1.2 Other Boxing Equipment

Boxers also had other equipment to practice with such as a punching bag (*korykos*), which sometimes had its own special room (the *korykeion*) in a *gymnasion*. *Korykoi* could vary in weight, usually the lighter weight ones were reserved for the boxers and heavier for *pankratiasts*.²⁴⁸ Another technique boxers used, especially if a *korykos* was not available, was shadowboxing, which as the name implies, was when pugilists boxed with no opponent, practicing their punches against their own ‘shadow’.²⁴⁹ Philostratus also stated that the *halter*, a weight made out of stone or metal

²⁴⁰ *Ibid.* An official excavation report has yet to be released at the time of writing this dissertation.

²⁴¹ *Ibid.*

²⁴² Murray 2010; Poliakoff 1987, 73. Scanlon, also argued, that boxing thongs received this nickname because of their similar shape to an ant’s head. Scanlon 1982-3, 39.

²⁴³ This type also seemed to be a precursor to the later sharp thongs. Murray 2010.

²⁴⁴ *Sphairai*: Plato, *Laws* 830a-c; *episphairai*: Plutarch, *Moralia* 825e.

²⁴⁵ Miller 2012, 210.

²⁴⁶ Plutarch, *Moralia* 38B.

²⁴⁷ Miller 2004, 54; Poliakoff 1987, 75; Murray gave caution when referring to the *caestus*, as the Latin word was used to generally refer to boxing gloves versus the use of modern scholars to refer specifically to the metal inserted ones that the Romans developed. Murray 2010.

²⁴⁸ Philostratus, *Gym.* 57; Miller 2004, 54.

²⁴⁹ Plato, *Laws* 830a-c.

specifically designed for the *halma* (long-jump, see below), “should be used in all exercises, both light and heavy, except for the relaxing exercises.”²⁵⁰ Numerous *halteres* have been found, they are of an elongated oval or donut-like shape with a hole cut in the middle for fingers to slide into and grasp. They range from two to three kilograms in weight (Figs. 60-61).²⁵¹ Thus, boxers also practiced with weighted punches to build up strength.²⁵²

1.3 Boxing Techniques

Boxing, both ancient and modern, requires skillful footwork and strategy over one’s opponent. One of the more famous examples of this is the mythological fight between Polydeukes and Amykos. In Theokritos’ version of the story their battle began with the two vying for the superior position of having his back to the sun.²⁵³ This would have been an important position to obtain in the Panhellenic events, such as the Olympia games, which were held in the middle of summer. Boxing involved a lot of movement, there are descriptions of boxers weaving in and out of punches, feints, and even standing on their toes and shifting from one knee to the other.²⁵⁴ One description from the first-century CE makes this clear:

The boxer or pankratiast fighting for the victor’s crown pushes away the punches coming at him with both hands and bends his neck this way and that, guarding against being struck. Often he stands on tiptoe and draws himself up to his full height, then drawing himself back he forces his opponent to throw idle punches as if he were shadow boxing.²⁵⁵

From this description, it can be understood that boxing was reliant on two-handed fighting techniques for both offense and defense. Vase paintings show the different fighting techniques used by ancient pugilists. An *oinochoë* from the sixth-century BCE shows the boxer on the left advancing forward on his left leg; he has an open-palm for

²⁵⁰ Philostratus, *Gym.* 35. Trans. Miller 2012, no. 47.

²⁵¹ Miller 2012, 218.

²⁵² There is also evidence of a sport being development of a competition of boxing while having weights in their hands in the Iron Age civilization of the Hallsatt located in what is now Western Europe. For full discussion see Lazar 2011 and Zimmermann 2003. One can also see similar images of dumbbell-shaped gloves in Roman sarcophagi, see Poliakoff 1987, pp. 75 and fig. 76.

²⁵³ Theokritos 22.83-86.

²⁵⁴ Theokritos 22.102-03; Statius, *Thebais* 6.766-805; Quintilian 4.346-47; Dio Chrysostom 8.18.

²⁵⁵ Philo, *De Cherubim* 80-81. Trans. Poliakoff 1987, 85.

defense on his left guard arm that is held at shoulder height (Fig. 62). His right arm is drawn back to deliver a punch. His opponent also has his left arm up as a guard and his right arm is also drawn back to deliver a corresponding punch. His opponent has his weight on his retreating right leg as the foot sits flat on the ground. Thus, the viewer is presented with a fighting scene seconds before impact. The boxer on the left will advance forward and deliver his blow, which his opponent is ready to parry and respond with a follow-up punch that the left boxer is also ready to block with his open palm—a quick back and forth exchange.

On a Panathenaic *amphora* from the sixth-century BCE (Fig. 63), the boxer on the left is in the middle of striking his opponent with his left arm, while his opponent defends with his left arm and seems to retreat, he also has his right arm posed at waist-height for an uppercut strike. Another Panathenaic vase from the late sixth-century BCE illustrates moments after a ‘knock-out’ punch to the face that the boxer on the left has delivered to his opponent using his left arm (Fig. 64). His opponent is seen falling to the ground, his left arm already outstretched towards the ground in an attempt to cushion his fall. A Roman clay lamp from the second-century CE, depicts the boxer on the right with his right arm raised above his head to deliver a downward strike to his opponent who is already in the process of punching the boxer on the right in the face having slipped back his guard arm (Fig. 65). To judge from their footwork, the boxer on the left has already advanced the weight is on his left leg and his right is full extended indicating that he has already made his move. The boxer on the right is on his tip-toes, both heels are seen high above the base of the foot, illustrating that he is in the process of delivering a downward chop. These are only a few examples of the different techniques displayed in vase painting and reliefs.

It is interesting to note that many of the techniques shown correspond to the techniques of modern boxing, especially concerning footwork. Take for example this description from a boxing training manual of the orthodox stance and guard, meaning when a boxer leads with his left-hand (the reverse is called southpaw).

For maximum protection the boxer should have a sideways stance with hands held high in a relaxed style. Elbows are tucked into the side of the body with the head tilted slight downwards, whilst looking up through the eyebrows. The chin will gain cover from the left shoulder. Good vision between the guard is needed

at all times, allowing a clear view of the opponent. The body is balanced between the front and back legs and the boxer will need to possess the ability and mobility to enable him to shift his body weight from side to side and front to back for evasion and attack. Feet should be approximately shoulder-width apart allowing a solid base for movement and stability. His front foot should be about 45 degrees from his opponent with the sole of his feet remaining on the floor and his front knee slight flexed. The back foot is turned slightly more outwards with the heel raised at all times and knee flexed.²⁵⁶

In the vase paintings just discussed, all the boxers adopt this pose, particularly having the back-foot's heel raised. Arguably, this is an aesthetic trope employed by vase painters to illustrate movement; however, the resounding evidence throughout several centuries worth of vase iconography demonstrates that it was more likely part of the technique of boxing. Vase painters did want to show movement, thus the scenes depicted are always at crucial moments, seconds before or after striking. Therefore, the viewer does not get to see the stance boxers would take up when beginning a fight, and stances cannot be directly compared to the description quoted, especially in terms of where the head is positioned and how the feet are placed.²⁵⁷

1.4 Boxing Muscular Development

How then, does this all apply to understanding of the muscle development of the ancient boxer? Now that a basic understanding of the techniques and equipment of the ancient boxer has been conveyed, the muscles may be considered that were involved in the techniques that boxers used and therefore would need to develop to be successful in their sport. This will be taken in conjunction with how the training equipment and basic athletic practice could develop those muscles.

When throwing a standard or front punch (Fig. 66) from a stationary stance the dynamic muscles are used in two key movements: extending the arm and body drive. The arm extension, meaning the movement of throwing the punch, uses the deltoids, triceps, pectorals, and serratus anterior. The body drive, or putting the body's weight

²⁵⁶ Blower 2012, 33-34.

²⁵⁷ When boxers are seen at rest, they have their arms down at their sides, usually looking to a trainer as if in conversation. For example: the Panathenaic amphora in the Fogg Museum of Art 1925.30.124.

behind the punch, is propelled by the quadriceps and calves of the leg. Static muscles that are utilized during this move include the abdominals, posterior deltoid, gluteus maximus, quadriceps, and hamstrings. These static muscles will be tensed when delivering a punch. This form of attack can be seen on a Panatheniac *amphora* from the fourth-century BCE (Fig. 67). While both boxers extend their left arm out to strike, the boxer on the left holds his right arm up, possibly to deliver a two-punch combination. In contrast, the boxer on the right has his right arm near his waist possibly poised to deliver an uppercut punch from below. The vase painter paid detailed attention to the musculature of the athletes. When the bodies of the two active boxers are compared with the one standing off to the far left who is at rest, the muscles of the fighting athletes are clearly more engaged and prominent. The various lines rendered extenuate the different muscles groups of the thorax such as the pectorals, abdominals, and obliques. Even the quadriceps of the legs are more actively rendered than on the athlete who is at rest. It is these muscles that would have been flexed and therefore more noticeable during a fight than when at rest. Thus, it may be argued that the artist has accurately rendered a bout and their corresponding physique between two fighters.

Whereas a front punch only occupies the movements of turning the shoulder and extending the arm into a punch, a reverse punch adds the additional movement of turning at the hip to increase the power of the punch (Fig. 68). The dynamic muscles used in the arm extension are the same, but with this technique the obliques are engaged during the hip turn and the gluteus maximus is also active in the body drive in addition to the quadriceps and calves. Static muscles in the inner thigh (pectineus, adductor longus, rectus femoris, gracilis, adductor magnus, semitendinosus, and semimembranosus) would be tensed to support the weight of the body. This move is what is most often depicted in vase painting. The Panathenaic *amphora* previously discussed (Fig. 64) illustrates the move just being delivered to the opponent who falls to the ground, whereas, the sixth-century BCE *oinochoë* (Fig. 62) shows the moment just before the strike. On the *oinochoë*, the boxer on the left draws his right fist back with his leading left leg already moving forward, turning with both his shoulder and at the hips; the move culminates in explosive force that can deliver a ‘knock-out’ punch seen in the amphora.

An upper-cut strike, or striking from below, and hitting the opponent's chin in an upward motion, engages more muscles in the arm (anconeus, triceps brachii, and deltoid) and the extensors in the wrist while still gaining power from the body drive from the gluteus maximus, quadriceps and calves (Fig. 69). The trapezius and serratus anterior are also engaged in the arm extension. The abdominals are static. There is a lot of speed in this punch and can be powerful if it connects with its target, however misplacement such as to the chest has less destructive force.²⁵⁸ There is little visual evidence of this move being executed; rather vase paintings show the initial moments leading up to the punch (Fig. 63).

There are two 'classic' mid-body blocks: the in-to-out block (Fig. 70), which uses the guard arm to deflect the oncoming attack outwards and away from the body and the out-to-in block (Fig. 71) where the guard deflects the oncoming attack downwards but towards the inside of the body.²⁵⁹ The muscles engaged in these blocks are relatively the same. To supinate or extend the fist, involves the supinator and biceps of the arm. The obliques turn the shoulder, the gluteus maximus extends the body, and the calves drive the body forward. The abdominals, rectus femoris, extensors of the arm, and triceps are static but flexed. Where these blocks differ is how the shoulder is rotated. To externally rotate the shoulder outwards away from the body in the in-to-out block the trapezius, deltoid, and rhomboids are used. In the out-to-in block the shoulder is rotated internally by using the pectorals and deltoid.

These fighting techniques just described are only some of the basic moves utilized in boxing. It is beyond the constrictions of this dissertation to explore all the techniques seen in ancient boxing. The ones that have been detailed provide enough basis for a rudimentary understanding of the muscle groups that are vital to a boxer's performance. From the techniques described it is clear that the key dynamic muscles used most by a boxer are the deltoid, triceps, extensors, pronators, pectorals, and serratus anterior, to extend the arm into punch or block. The obliques, gluteus maximus, quadriceps (made up of the vastus lateralis, vastus medialis, vastus intermedius, and the rectus femoris) and calves (gastrocnemius and soleus) are key for driving the body forward and in turning the hip (which adds more power to a punch). The trapezius,

²⁵⁸ Link and Chou 2011, 22.

²⁵⁹ *Ibid.*, 34.

rhomboids, and latissimus dorsi are also utilized in some techniques. The abdominals are usually static in all of these maneuvers in combination with other muscles just listed that switch between dynamic and static depending on the movement.

Now knowing what equipment the ancient boxer had available and what muscles he would need to focus on training, the possible exercises used to build up these muscles can be examined. From the archeological and literary evidence, the main forms of training seemed to have been sparring either with a physical opponent, a punching bag, or through shadow boxing.²⁶⁰ Boxers seem to have also used the *halteres* to weight their punches during training.²⁶¹ The added weight would have put strain on the muscles, which allows for hypertrophy. Holding the *halteres* while shadow boxing, for example, would affect the extensor, triceps, deltoid, pectorals, trapezius, and rhomboids. Punching against a punching bag would build up resistance training to the high impact of hitting a solid mass, exercising the extensors in the arm and wrist. Practicing hip and body twists would flex and, therefore, work out the obliques, abdominals, gluteus maximus. Furthermore, if the *halteres* were used in any way like the modern dumbbell they would provide further exercises that workout the muscles of the arms, shoulders, and upper back.²⁶²

It is in the recounting of the legendary feats of athletes that other possible training practices come to light. One of the more famous athletes from antiquity, Milo of Kroton, was renowned for his feats of strength. He was reported to have carried a calf and as it grew older, he continuously carried it until it was a bull.²⁶³ This has been considered by some as the “first instance of progressive resistance training”.²⁶⁴ Stocking quoted it as a form of linear and uniform training progression in comparison with the cyclic model of the Tetrad system described by Philostratus.²⁶⁵ Stocking quoted an exercise physiologist, Mel Stiff, who explained the impossibility of linear, uniform

²⁶⁰ Plato, *Laws* 830a-c; Philostratus, *On Gym.* 57.

²⁶¹ Philostratus, *On Gym.* 54.

²⁶² However, this is less likely as there is no documented evidence in literature or art to support this claim. It is merely speculation.

²⁶³ Quintilian 1.9.5. Milo was also said to have carried a bull around the stadium at Olympia, then slaughtered it and ate it all in one sitting. Athenaeus 10.412e-f; Theodorus

²⁶⁴ Chiras 2005, 229; Spivey 1996, 39. Osborne 2011, 27-54 is critical of Spivey’s view. For more on this discussion see section six below.

²⁶⁵ Stocking 2016, 90-91. The Tetrad system consisted of a four-day cycle of varying levels of exercise intensity from easy exercises on the first day, intense on the second, a day of rest, and then moderate exercise on the last day. Philostratus, *On Gym.* 47, 54; Galen, *Thrasylbulus* 47.

progress in Milo's so-called training program. It implied that Milo would have been lifting over 500kg by his mid-twenties if he increased his load at the rate of one kilogram a week, and if he started at bench pressing a 60kg calf at the age of 16.²⁶⁶ Similarly, another famous athlete, Theagenes of Thasos, was also known for his great strength. Pausanias reported that when Theagenes was nine-years-old he saw a statue in the *agora* on his way home. Since it had caught his fancy, he picked it up, put it on his shoulders and carried it home.²⁶⁷ Beyond the practicalities of these two feats²⁶⁸, it is the action which is of interest here. In both cases, the athletes picked up a heavy weighted object and carried it some distance. The easiest way to pick up these heavy objects would have been to squat down, place the calf or statue over the shoulders, and then lift up-wards to stand. The squat works many muscular regions as Fig. 72 shows. It targets mainly the quadriceps, gluteal muscles, adductor group, erector spinae, abdominals, and the hamstrings. The intensity of this exercise, especially for the inner thigh muscles, increases the wider the legs are held apart.

Another way the heavy objects could have been lifted is similar to how powerlifters today perform. The athlete would bend into a squat, picking up the object, then lift into a standing position known as deadlift, then using the momentum during a quick squat, while simultaneously rising the weight up across the chest into the air above the head and down onto the shoulders. It is a move that is similar to a 'barbell complex' that is used in high intensity interval training (H.I.I.T) and is a move performed by powerlifters, although without laying the weight down onto the shoulders. Essentially the technique is comprised of three separate movements: squat (Fig. 72), deadlift (Fig. 73), and bench press (Fig. 74). These three movements combined work almost every muscle in the body.²⁶⁹

These 'lifts' performed by Milo and Theagenes would have been awkward to complete given that the unconventional shape of the objects may have made grasping to objects difficult. However, there are inscriptions on several different stones of varying weights that claimed to have been lifted by an ancient athlete: a black volcanic rock found on the island of Thera weighing 480kg bears the inscription stating that Eumastas

²⁶⁶ Siff 2003, 90 quoted in Stocking 2016, 91.

²⁶⁷ Pausanias 6.11.2-9.

²⁶⁸ Scholars have expressed their doubt about the feasibility of these events and usually they are considered exaggerations or satirical. Harris 1972, 142; Moretti 1953, 4.

²⁶⁹ Delavier 2010, 104.

lifted it from the ground.²⁷⁰ Crowther doubted that the stone would have been lifted beyond a few centimeters. He argued that Eumastas lifted the stone in a similar fashion to the deadlift.²⁷¹ Other inscriptions that make similar claims include a sandstone block found near Olympia of ca. 143kg, another stone found near Olympia, *ca.* 45kg, and a stone from Epidaurus weighing 334kg.²⁷² Crowther argued for the legitimacy of these ‘throws’ quoting similar feats of strength performed by strongmen in the nineteenth and twentieth centuries. Such as Arthur Saxon, a German strongman, who was reputed to have bench pressed a barbell weighing 153kg with his right hand while also lifting a weight of 50kg in his left.²⁷³ Nevertheless, lifting was a very archaic form of strength training and clearly the Greeks recognized its benefits as testament of the strength of men as seen from the numerous inscriptions and legends that are associated with the task.

In late antiquity, mention was made of the use of graded weights in various different exercises such as lifting to the knees and shoulders and that Athenians used a metal ball instead of a boulder to determine the strength of athletes.²⁷⁴ Other writings from the fourth-century CE described what Crowther considered more callisthenic exercises than weight-training, such as bending and straightening the arm in the form of biceps curls in modern terminology (Fig. 75), lunging forward with arms extended and weights in each hand, and alternating between bending and straightening the thorax with arms extended and weighted.²⁷⁵ Thus, the archeological and literary evidence indicate that weight-training was a recognized form of exercise and determination of athletic strength throughout antiquity.²⁷⁶

²⁷⁰ *IG* 12.3.449

²⁷¹ Crowther 1977, 112-113.

²⁷² Olympia stone: *Inscri. Ol.* 5.727, *Syll.* 3.1071, Crowther believes this may have been a practice stone given its lighter weight. Other Olympia stone: *Inscri. Ol.* 5.718. Epidaurus stone: *IG* 4.954; this stone was recorded to have been listed by non-athlete, Hermodicus of Lampsacus after he was instructed to carry the stone to the temple of Asclepius in a dream (*IG* 4.951). The stone is dated to the third to early second-century BCE. *Ibid.* 113-114.

²⁷³ *Ibid.* and bibliography.

²⁷⁴ Jerome, in *Zach.* 3.12.896-7

²⁷⁵ Oribasius 6.14.34

²⁷⁶ For more on weighted exercises see section three below on the Pentathlete.

1.5 Reflections

In the previous chapters the Terme Boxer (Chapter 2) and Ephesian Apoxyomenos (Chapter 3.1) were labelled as boxers. I have argued that each of these is a boxer based on their anatomical analyses. Both have wide shoulders with developed trapezius, deltoids, and biceps. Their obliques are particularly noticeable due to the Terme's seated position and the Ephesian's iliac crest. Their quadriceps and calves are also well defined. These figures are not lean-bodied but stand out because of their developed musculature. They seem to be boxers more than wrestlers, who would have a bulkier physique, or pentathletes or runners, who would have a slimmer body. This is not to say that these two statues have identical musculature, but that can be accounted for by the sculptors' aesthetics and the difference in the age of the athletes. The Terme is a bearded and mature figure who has had time to build up his defined musculature, while the Ephesian is beardless, youthful and still developing. Overall, given the exercises that were known to the ancient athletes, especially in regards to resistance and weight training, these body types seem plausible to obtain.

2. Wrestler

Wrestling has had a rich history in the Western tradition. Mythological and historical figures such as Gilgamesh, the Sumerian king Shulgi, and the patriarch Jacob participated in the sport.²⁷⁷ There is a plethora of Egyptian wall paintings illustrating wrestling techniques such as in the Tomb Chapel of Senbi in Meir, Egypt dated to the late twentieth-century BCE and from a number of tombs located at Beni Hasan dated to *ca.* 2000 BCE.²⁷⁸ Wrestling was also present in other forms such as belt wrestling where competitors were allowed to grasp each other's clothing. This variation of the sport is seen in Egyptian and Mesopotamian art.²⁷⁹ Wrestling did not require as much equipment as boxing or the pentathlon events. Greek wrestling (*pale*) was practiced on a softened area of sand called the *skamma*. The *skamma* along with another area covered in mud made up the *palaestra* where all combat athletes trained.²⁸⁰ Athletes would

²⁷⁷ Poliakoff 1987, 23.

²⁷⁸ *Ibid.* 49-52. For Tomb Chapel of Senbi see Blackman 1914; for Beni Hasan see Newberry 1893.

²⁷⁹ *Ibid.* 30-33. For example, a Sumerian belt wrestling scene on a bronze statuette from Khafaje is dated to the early third millennium BCE, Iraq Museum 41085 and a Babylonian wrestling scene on a Hematite seal from *ca.* 1800 BCE demonstrate the deep history of wrestling.

²⁸⁰ *Ibid.* 12.

prepare the sand by chopping up the ground with pickaxes; this was considered to be a useful exercise. The pickaxe served as one of the identifying markers of the athlete on vase painting (Fig. 76).²⁸¹ Beyond the designated arena for wrestlers there was little other designated equipment needed. The aim of ancient Greek wrestling was to score a fall on the opponent. Throwing a man to his back or shoulders or completely stretching a man prone was considered a fall. In formal competition, a wrestler had to score three falls against his opponent to win.²⁸² While striking was forbidden in the sport, more violent tactics were legal including strangleholds and breaking bones.²⁸³ Vase paintings show a plethora of wrestling techniques and it is known from sources that training books existed, one rare fragment of training book has survived and lists systematic drills of different wrestling tactics.²⁸⁴

2.1 Wrestling Techniques

In this section I will go through some wrestling techniques displayed in art.²⁸⁵ The most popular position seen in material culture is the starting position called the *systasis* (or ‘standing together’) (Fig. 75).²⁸⁶ Poliakoff noted this may be for aesthetics reasons as it is easier to depict a standing position than ground positions on vases.²⁸⁷ In this position, the wrestlers can try to grab the shoulders, wrists, neck, or legs of his opponent. Attacking these areas is an attempt to gain leverage of their opponent.

Gaining control of both the shoulders allows for the very effective hold, the waist-lock (*meson echein* or *labein*, ‘to have’ or ‘grab the middle’), which can be applied from the front or the back (Figs. 77, 78). This hold is effective because it allows for the advantageous position for the offensive athlete to lift his opponent from the waist and off the ground and into a throw. Seizing of the shoulder or wrist can lead into dragging the opponent, allowing the athlete to slip behind and lift his opponent for a

²⁸¹ *Ibid.*

²⁸² *Ibid.* 23-24. Seneca, *On Benefactions* 5.3; Plato, *Euthyd.* 277d; Aeschylus, *Choeph.* 338-9; Philo, *On Agriculture* 113. Throwing an opponent outside was also considered a win, though not necessarily a ‘fall’ (Nilus, *de voluntaria paupertate* 60).

²⁸³ Strangleholds: Lucian, *Anacharis* 1.8; Pollux 3.155. Breaking bones: Quintius Smyrneus 4.244026; Apollodorus 2.5.12; Pausanias 6.4.3.

²⁸⁴ *P. Oxy.* 3.466

²⁸⁵ Being conscientious of the limited space for this dissertation I am only able to go through a small number of wrestling techniques.

²⁸⁶ Poliakoff 1987, 33; Miller 2004, 47.

²⁸⁷ Poliakoff 1987, 33.

throw (Fig. 80). Grasping the neck can result in a headlock or lead into a hip-throw (*ankyrzein*, “to hook”)(Figs. 81, 82). Similarly, going for the legs of the opponent can turn into a shoulder-throw (Fig. 83). However, going for the legs often leaves the offensive athlete open to counter-attacks, such as when the defensive athlete can apply his weight down onto his opponent, forcing him to the ground, or reach over and grasp the waist and lift his opponent into the air (Figs. 84, 85), or he can apply a neck hold (Fig. 81). From many of these positions a leg-trip can also be performed, where the offensive wrestler ‘hooks’ his foot around his opponent’s in an attempt to ‘trip’ him into a fall (Figs. 86, 87).²⁸⁸

If a fall did not result from a standing throw the bout would continue in ground wrestling. One technique to maneuver the opponent onto his back was to pull the opponent’s arm back while applying pressure to the triceps (Fig. 88). The wrestler, if successful, would have his opponent in an armlock, preventing his opponent from escaping by stepping over one of his legs and pressing his head (Figs. 89, 90). From this position the wrestler in control of his opponent can pressure his opponent onto his back for a fall. The well-known wrestling group in the Uffizi shows another variation of a leg-hook (Fig. 91). Lastly, from a ground position a wrestler can climb onto his opponent’s back, wrapping his legs around his opponent’s waist or lacing his them around each of the legs; from this position he would apply a neck hold or knock the arms out from under his opponent for a shoulder-fall (Fig. 92).²⁸⁹ These are just a few of the wrestling techniques seen in Greek athletic art.

2.2 Muscular Development

Now I will go through the muscle groups that are utilized in the techniques just listed above.²⁹⁰ When controlling the opponent’s neck and or arm (Fig. 93), the initial arm pull uses the pectorals, deltoids, and biceps. Then dragging the opponent down and into a throw twists the shoulders and hips using the triceps, obliques, pectorals, quadriceps and calves. The abdominals, gluteus maximus, deltoids, and biceps are also tensed during this technique. In an Attic cup from ca. 425 BCE (Fig. 81), the wrestler on the left has gained control of his opponent by the neck and arm is preparing to throw

²⁸⁸ *Ibid.* 23-50; Miller 2004, 46-50.

²⁸⁹ *Ibid.*

²⁹⁰ Again, for the conservation of space I will only go through the major or popular techniques.

him over his hip and onto his back. Notice how the offensive athlete's leg is also hooking around his opponent's leg.

Doing a leg trip into a throw (Figs. 94, 95) activates the sartorius and hamstrings of the leg tripping the opponent. Simultaneously, the wrestler should be pulling down on the body using the majority of his upper body strength. The deltoids and trapezius allow the arm to pull, while the pectorals, triceps, and deltoids are used to push with the other arm, the obliques and latissimus dorsi help in twisting the shoulder and body drive. The quadriceps and calves of the other leg support the body during this move. The abdominals, biceps, brachialis, and triceps are also tensed. A Panathenaic amphora from ca. 480 BCE (Fig. 87) shows the athlete on the right extending out his leg in an attempt to do a leg trip while also seizing his opponent's shoulders and arm that if successful he would be able to throw the other wrestler down onto his back.

A shoulder throw (Fig. 96) first initiates the pectorals, biceps, and deltoids in the initial pull of the opponent's body. Then the arms are extended forward leading the opponent's movement into the throw with the athlete's deltoids and triceps and turning the shoulder with the pectorals, obliques, and rectus abdominals. The quadriceps and calves are also dynamic in this movement. An Attic cup from ca. 500 BCE shows the execution of this move (Fig. 83). Similarly, in the hip throw (Fig. 97), the key dynamic muscles as the body pulls and twists are the pectorals, deltoids, obliques, rectus abdominis, trapezius, and triceps. Again, the rectus femoris and calves support the weight during this move. On an Attic stamnos (Fig. 81), ca. 520 BCE, the wrestler on the right attempted to do a hip throw, however, he has been foiled by his opponent who has him in a waist lock.

Lifting an opponent from the waist off the ground as seen in figures 98 and 99 can be compared with the figure 100 though they are not exactly the same. The initial lift with a powerful thrust of the body requires the gluteus maximus, quadriceps and trapezius, while the pectorals, biceps, brachialis, deltoids, and latissimus dorsi would support holding the opponent's body in the air (as seen in Fig. 101). To throw the opponent down is the same movement as a shoulder throw.

Attacking the opponent's legs or waist (Fig. 102) gets power from the gluteus maximus, quadriceps, and calves. The arm movement of wrapping the arms around the waist or legs and lifting uses the deltoids, biceps, latissimus dorso, teres major,

pectorals, and trapezius. An Attic cup from around the fifth-century BCE (Fig. 85) shows the athlete on the right going in to grab the other wrestler's leg, while the athlete on the left reaches forward to grab his opponent by the hips. An amphora from the sixth-century BCE, shows the technique moments later. The right-hand wrestler has a grasp of his opponent's leg and attempts to lift him off the ground, but at the same time the left-hand wrestler also has hold of the waist to hoist the athlete into the air as seen in the previous figures 98 and 99.

From this brief survey of basic but popular wrestling techniques it can be seen that the majority of the muscles in the body are used during wrestling as the athletes grapple from movement to movement. In particular the deltoids, triceps, biceps, trapezius, latissimus dorsi, pectorals, calves, and quadriceps. Lifting weights would have been an important exercise for training the muscles needed in wrestling. For example, the deadlift (Fig. 73) would mimic the movements of lifting an athlete into the air. Other strength training exercises discussed in the previous section (see above) on boxing would have also been applicable.

Wrestling being a very technical sport, the best exercise of all for the wrestler would be to practice different wrestling moves to become familiar with the many throws and holds and how to escape from them. Furthermore, athletes exercised while being completely covered in olive oil. They believed this was good for the skin and kept the dirt from the *skamma* out of the pores of the skin.²⁹¹ Therefore, wrestlers grappled while slicked with oil, making it harder to grasp their opponent. I refer back to Milo of Kroton discussed above (section 1.5). Milo was a renowned wrestler, winning six Olympic (536-512 BCE) and seven Pythian victories.²⁹² Beyond his feats of strength in lifting an ox and even his own statue, there are other stories of his exploits. He was said to have been able to grip a pomegranate firmly enough that no one was able to pry it from his grasp, but not hard enough that it would have been bruised.²⁹³ This skill demonstrates that he had developed wrist extensors and grip, which would have been vital to his wrestling career in grasping and taking down his opponents. Another story is that he would stand upon a greased *diskos*, but no one would be able to knock him off of it.

²⁹¹ Philostratus, *On Gym.* 18, 56; Plato, *Hippias Minor* 368b-c; Hippocratic Corpus, *On Regimen in Acute Diseases* 55.20.

²⁹² Pausanias 6.14.5.

²⁹³ *Ibid.*

Again, this shows his prevalence as a wrestler and his sense of balance, which is directly related to the abdominal muscles. Colloquially referred to as the ‘core’ muscles, these muscles support the trunk and pelvis of the body; they connect the upper and lower halves of the body and are the reason humans have an erect posture.²⁹⁴ Major core muscles include the transversus abdominis, internal and external obliques, rectus abdominis, erector spinae (sacrospinalis) especially the longissimus thoracis, and the diaphragm. Minor core muscles include the latissimus dorsi, gluteus maximus, and trapezius.²⁹⁵ The fact that Milo was able to stand firmly on a greased *diskos* and not be pushed off attests to a strong set of core muscles. This is not to say that athletes would have been practicing with pomegranates or greased *diskos*, but the legendary exploits of victorious athletes are a testament to the muscular training these athletes achieved to be able to perform these tricks.

2.3 Reflections

The tendency for wrestlers to be overly muscular, like the Farnese Hercules, I argue is due to the sport itself. It has been shown the muscular intensity of wrestling techniques, especially when involved in lifts and throws. Looking at the musculature on the Farnese Hercules (Fig. 48) again, all the muscle groups that play key roles in wrestling are sculpted on the Farnese: the deltoids, biceps, triceps, trapezius, pectorals, rectus abdominis, obliques, latissimus dorsi, teres major and minor, quadriceps, and calves.²⁹⁶ Furthermore, the athletes on the *palaestrae* mosaic of the Baths of Caracalla (Fig. 51) are also large and muscular. Most of the athletes seen in figure 51 are boxers, seen from their *caestus* boxing gloves, but the athlete on the far right of the image I would argue is a wrestler. He has wide shoulders, developed deltoids, pectorals, and biceps. His hips are wide and on his right-hand side the distinctive curve of the buttocks indicates a firm gluteus maximus. His quadriceps and calves are also very muscular. The individual characteristics between the different figures shows an interest in representing more naturalistic images. These athletic figures could then be relatable to the bathers that walked over them. Allowing the bathers’ bodies and the visual athletic

²⁹⁴ Drake *et al.* 2015, 282.

²⁹⁵ *Ibid.*

²⁹⁶ See Chapter 4.1.1-6.

bodies in the art around them to become a series of bodies or the ‘precession of simulacra’ (see Chapter 4.4-5).²⁹⁷

3. *Diet*

Vital to muscle hypertrophy is an athlete’s diet. The ancient Greeks knew the importance of diet. Dietetics was a central component of Greek medicine and therapeutic remedy for illness. In Plutarch’s *Table Talk*, Diogenianus considered human diet as the root of all diseases: “it is the disagreement of our food and drink with us or our mistakes in using them that upset our system”²⁹⁸. The author of *The Art* in the Hippocratic Corpus went as far to say that the physician’s method of curing illness through dietetics was an art.²⁹⁹ Indeed, ancient authors boasted that the importance of a healthy regimen was through the *balance* of diet and exercise.

Knowing the importance of diet combined with exercise, many critics scorned the athletic diet. Euripides stated that athletes were slaves to their jaws and servants to their bellies.³⁰⁰ Galen thinks they were lower than pigs because even pigs did not force-feed themselves.³⁰¹ Further, in Plutarch’s account of Philopoemen, when Philopoemen asked his companions if becoming an athlete would hurt his military career “they told him the reality ... diet and exercise [were] especially different since athletes [were] always strengthening themselves with a lot of sleep and perpetual[ly] stuffing their stomachs and [had] fixed periods for motion and rest, and guard[ed] their condition against every lapse or deviation from the habitual.”³⁰² Which was the opposite of the military lifestyle that was perpetrated by irregularity and lack of sleep and food.

There were exceptional accounts of the amount of food (or namely the amount of meat) that athletes consumed. Stymphalos, a runner, according to Pausanias, is credited as the first to include meat into his diet and given his success (he won twice at Olympia, twice at Delphi, three times at Isthmia, and five times at Nemea) others adapted his new diet in an attempt to gain their own success.³⁰³ Milo of Kroton

²⁹⁷ See n. 204.

²⁹⁸ Plutarch, *Moralia: Table Talk* 9.9.2: 731e. Trans. Minar and Sandbach 1961.

²⁹⁹ Hippocrates, *The Art* 6-7.20.

³⁰⁰ Euripides, *Autolykos*, fragment 282.

³⁰¹ Galen, *Exhortation for Medicine*, 9-14.

³⁰² Plutarch, *Philopoemen* 3.2-4. Trans. Miller 2012, no. 208.

³⁰³ Pausanias 6.7.10.

(discussed above) was also one of the most gluttonous. He was said to have eaten “twenty pounds of meat and twenty pounds of bread and wash[ed] it down with eight quarts of wine. At Olympia he hoisted a four-year-old bull on his shoulders and carried it around the stadium, and then butchered it and ate it all alone in one day.”³⁰⁴

Other criticisms of ancient athletes included their sleeping habits³⁰⁵ and strict training regimen³⁰⁶. However, if these criticisms are viewed through the perspective lens of modern sports science it would be found that athletes *did* need to sleep more, eat more, and be mindful of their training regimen.³⁰⁷ Muscle is gained through the nutrients supplied to the body for energy (see below); in addition, during strength training, muscle fibers are ripped apart; they are stretched and torn so that they become larger. Afterward, the body then needs time to heal the ripped tissue and nutrients are vital at this stage because the nutrients consumed during this period are essentially what the body fills into the new fibrous gaps in muscle tissue.³⁰⁸

Athletic regimen (including diet and sleep), it can be argued, was highly criticized because it differed from the average Greek lifestyle, particularly in regard to the Mediterranean diet that boasts a low consumption of meat products. The trademarks of the Mediterranean diet have not changed much since antiquity. The key points include: high monounsaturated fat ratio from olive oil, moderate ethanol consumption, high consumption of legumes, high consumption of grains and cereals, high consumption of fruits, high consumption of vegetables, low consumption of meat and meat products, and moderate consumption of milk and dairy products (usually in

³⁰⁴ Athenaeus, *The Gastronomers* 10.412f. Trans. Miller 2012, no. 163b.

³⁰⁵ See Galen, *Exhortation for Medicine* 9-14; Philostratus, *On Gymnasticus* 54; Plutarch, *Moralia: The Roman Questions* 274d; Plutarch, *Philopoemen* 3.2-4.

³⁰⁶ See Hippocrates, *Aphorisms* 1.3-6; Plato, *Republic* 3.406a-b; Philostratus, *On Gymnasticus* 47 and 54 for tetrad system.

³⁰⁷ Sleep has been found to be vital in the muscle recovery process. Even minor reductions in sleep quality and quantity have been shown to slow reaction time, impair cognitive functions, decrease fine motor skills in sport that require hand-eye coordination (such as the *discus* and javelin throwing), and reduction of maximal output of strength in muscular and anaerobic power sports (such as boxing and wrestling). Fullagar *et al.* 2015, 165-179. For further information on the vital importance of sleep for sports performance see Booth *et al.* 1989; Mazur and Booth 1998; McCorry 2007. Training regimen needs to be regulated and monitored for over-training syndromes that can lead to permanent injury if adequate rest is not supplied. See Fullagar *et al.* 2015; Saremi 2009; Budgett 2009 (plus bibliography).

³⁰⁸ Maughan and Gleeson 2010, 16-39.

the form of cheese).³⁰⁹ This diet is consistent with scholars' discussions of ancient food consumption.³¹⁰

Dental pathology studies have furthered the modern understanding of the ancient diet. Studies by Keenleyside, and by Michael and Manolis on the dental pathology of the Greek colonies Apollonia and Almyros respectively have found differences in male and female diets.³¹¹ Keenleyside even stated his work stemmed from a lack of information on the sex differences in dental health on Greek populations, particularly those on the Black Sea.³¹²

Keenleyside's findings at Apollonia (modern day Sozopol, Bulgaria) were derived from 801 graves discovered in 1938 in the necropolis of Kalfata, located on the shore of the Black Sea approximately 2.5km south of Sozopol. The remains date from the second half of the fifth century to the beginning of the second century BCE. Keenleyside found that dental caries (or cavities) was the second most common dental disease observed in the sample, affecting 53.8% of the individuals with only 7.7% of the teeth having carious lesions. While males and females had very similar rates of caries males had more interproximal (between the teeth) lesions than females (64.5% compared to 44.5%) and females had more cervical lesions (located between the crown and root of the tooth) than males (19.5% compared with 6.4%). A study done by Lanfranco and Eggers found that the higher the carbohydrate consumption the higher probability that lesions are found in surfaces other than occlusal (top layer of the crown of the tooth) fissures and that the lesions tend to develop faster, reaching deeper dental tissues.³¹³ Furthermore, low carbohydrate intake leads only to enamel caries and diets with high protein were found to impede caries formation, whereas diets richer in carbohydrate lead to lesions that reach dentine or pulp. This, along with the location of caries, is crucial in identifying diets from dental pathologies.³¹⁴ Therefore, there was a

³⁰⁹ Trichopoulou and Lagiou 1997, 384. Further, this study shows the Mediterranean diet has been linked with lower mortality rates and lower risks for cancer.

³¹⁰ See Waterlow 1989, Garnsey 1999, and Wilkins and Nadeau 2015.

³¹¹ Keenleyside 2008; Michael and Manolis 2014.

³¹² Keenleyside 2008, 263.

³¹³ Lanfranco and Eggers 2010.

³¹⁴ Turner 1979; Larsen 1995; Keenleyside 2008.

subtle dietary difference between males and females of Apollonia, where females consumed more carbohydrates and males had a higher consumption of protein.³¹⁵

Furthermore, Keenleyside found from stable isotopic analysis of the bone collagen and carbonate samples taken from the remains of 54 of the adults, that these people relied on a mixed diet of terrestrial and marine resources.³¹⁶ Panayotova also found in archeological evidence recovered from Apollonia that during the fifth to second centuries BCE the population survived on a varied diet of grains, nuts, fish, meat, and shellfish.³¹⁷ When the dental pathology data was compared with stable isotopic evidence and ancient literary sources, Keenleyside concluded that the composition of the diet was consistent throughout these sources.³¹⁸

Michael and Manolis found similar results from Almyros at Corfu based on skeletal remains of 32 adults, dating from the seventh-century BCE to second-century CE. The caries rates were close to Apollonia where females showed higher rates of caries (13.6% compared to 4.3% in males).³¹⁹ Furthermore, the frequencies of caries degrees between sexes showed that females were higher in all degrees, especially degree 3 and 4 (which reach the dentine and pulp cavity respectively) where females were at 1.4% in each of these areas and men had 0%.³²⁰ This suggests a diet richer in carbohydrates for females compared to males.

These studies provide a basis for an argument that there were differences in dietary consumption between the sexes. This argument can be taken further in suggesting that the reason (some) males ate more protein than females is due to a participation in athletic regimen. For example, while the full scale of the archeological site at Apollonia has yet to be uncovered there is an inscription dated to *ca.* second to first-century BCE from the site that mentions a *gymnasiarchos* doing a good job in his

³¹⁵ Keenleyside 2008, 275. It is important to note that there are factors of corruption to this data. Anatomical tooth loss can have an effect on the calculation of caries rates. Thus, the Lukacs 'caries correction factor' and Diseased Missing Index had been applied to the figures (*Ibid.* 269). Further, sex differences in caries rates have been observed in both ancient and modern populations with females typically showing higher rates than males (See Walker and Hewlett 1990 and Hillside 2001, 253). Females are hypothesized to have higher caries rates due to lower social status, earlier eruption of teeth, and changes in salivary composition during pregnancy and lactation. *Ibid.* 271.

³¹⁶ Keenleyside 2008, 266.

³¹⁷ Panayotova 1998.

³¹⁸ Keenleyside 2008, 275. In the Greek colony Metaponto in Southern Italy, 64% of females were found to have carious lesions than 46% of males. Henneberg and Henneberg 2003.

³¹⁹ Michael and Manolis 2014, 243.

³²⁰ *Ibid.*

duties, showing that there was a *gymnasium* at Apollonia.³²¹ Further research needs to be done to see if Almyros and Metaponto also had *gymnasia*. However, a case can be made that if the ‘colonies’ were indeed Greek, a defining feature of Hellenism was a *gymnasion* and, therefore, it would be present at these sites.³²²

As mentioned above, nutrients are essential in muscle formation and towards the supply of energy. The body gets its energy production from three sources: proteins, complex carbohydrates, and triglycerides. The body gains these sources from a variation of food stuffs. Protein is found in meats, beans, lentils, eggs, nuts, and some dairy products. Complex carbohydrates from whole grains, legumes, and green and starchy vegetables. Lastly, triglycerides from sugary foods. Proteins are broken down into amino acids, complex carbohydrates into glucose (that can also be stored in the liver and skeletal muscle), and triglycerides into glycerol and fatty acids. These compounds can then be broken down into adenosine diphosphate (ADP) before being converted into adenosine triphosphate (ATP) (Fig. 103). ATP is the ‘key to energy metabolism in cells’ meaning without ATP muscles cannot perform work.³²³

Body chemistry can be adapted based on a specific diet to become dependent on one source of fuel or another. For example, weightlifters or strength performance athletes prefer to have a high protein diet where the body adapts and produces more enzymes to breakdown the protein, but if this high level of protein is reduced the body accustomed to a high level of protein will continue to break down at a faster rate than what is being supplied because the body is not able to store excess protein. What happens then is the body starts eating away at the muscle tissue and a loss of muscle will occur.³²⁴ So, ancient athletes like Milo of Kroton, who reportedly ate a whole bull by himself or those athletes that consumed mass amounts of meat may have altered their biochemistry to become dependent on a protein based energy source. This means that if an athlete did not continue eating at a continued rate of overconsumption of meat his

³²¹ IGBulg I2 390 Apollonia. ‘γυμνασιαρχήσας δὲ τελείως’ (lines 14-15).

³²² *P. Ent.* 8 (Austin n. 318); *I Maccabees* 1.10-25, 41-56; *II Maccabees* 3.1-13.

³²³ Maughan and Gleeson 2010, 10. Further, these compounds also play other vital factors to the biochemical basis of sports performance, especially protein. For instance, protein has the effect of increasing testosterone levels. Testosterone and exercise combined trigger the release of growth hormone and insulin-like growth factor 1 that in turn muscle growth. Eliakim and Nemet 2013, 606-7. To further this point, it has been reported that athletes today in strength events like bodybuilding inject human growth hormone and insulin to stimulate muscle protein synthesis and improve performance. Maughan and Gleeson 2010, 68.

³²⁴ Maughan and Gleeson 2010, 64-5.

amino acids would then begin to break down its own muscle tissue and experience the detrimental effects of muscle loss. Hence, the criticism of the gluttonous appetite in ancient sources (see above) has a biochemical basis.

On the other hand, long-distance runners need to have a larger storage of energy supply and rely more heavily on glycogen stores in the liver and skeletal muscle that is broken down from complex carbohydrates. Long-distance runners will have had similar body types to the pentathletes. Pentathletes were considered by the ancients to have been the most well-rounded of the athletic types and, arguably, the preferred ideal athlete (see previous section).³²⁵ This body type was characterized by a lithe form, developed anterior musculature of the thorax and abdomen, slender but still muscularly defined limbs, and a pronounced iliac curve. Clear examples of this form are Polykleitos' *Doryphorus* (Fig. 40), the Riace Warriors, and the Croatian *Apoxomenos* (Fig. 37-39). Interestingly, it was this athletic type that conformed best to the Mediterranean diet (see above) and was the least criticized by ancient authors. Very rarely were pentathletes disparaged in the literary tradition; criticisms were usually directed at athletes in general or specifically towards the combat sports (i.e. wrestling, boxing, and *pankration*). Arguably, a case can be made that these two notions could feed into each other. In other words, the peak athletic and least criticized form was the one that conformed most to the standards of Mediterranean diet and, therefore, differed the least from the majority of the (elite) populace and, because it was the least controversial athletic type that made it ideal.

To summarize, the archeological evidence, though scarce, does provide some basis that men consumed more protein than women, especially in cities that had gymnasiums. Also based on the biochemistry of protein consumption in relation to muscle hypertrophy and energy supply, athletes, particularly those of the heavyweight events (i.e. boxing, wrestling, and *pankration*), needed to consume more meat than the average Greek citizen. I argue that this difference in diet between the dedicated athlete and citizen (in addition to the athletic tendency to excessive behavior) was cause for the criticisms of the athletic diet.³²⁶ Furthermore, I would even argue that the high levels of meat consumption amongst athletes is equivalent to the steroid use of modern athletes,

³²⁵ Philostratus, *On Gym.* 31; Aristotle, *Rhetoric* 1361b.

³²⁶ Smith 2015, 17-29.

in that it is what sets dedicated athletes apart from the general populace and gives them a greater advantage in developing the large muscular bodies seen in athletic art.³²⁷

4. Conclusion

It has been shown that the anatomical detailing in athletic art is complementary to the muscular development needed to be proficient in specialized ancient sports. The muscles that would have been used to execute the fighting techniques seen in vase iconography and described in literary testimony are identifiable in athletic sculpture. There can be some ambiguity between body types, especially amongst the heavy combat sports (boxing, wrestling, and *pankration*), but this may be due to the similarities in training exercises and equipment. The exercises described overall within this chapter can be applied to any ancient athlete regardless of specialism, in fact, the equipment seems to have been used with versatility amongst athletes, such as with the *halteres*. Where it differs, I would argue, is the intensity with which certain exercises were executed and used. For example, pentathletes would most likely not lift the same weights as wrestlers or boxers (if pentathletes or runners lifted weights at all). Overall, the evidence would suggest that the most viable exercise for any athlete to perform is by practicing the sport itself, in other words boxers boxed, wrestlers wrestled, runners ran, etc. In doing so, they would exercise the necessary muscles their sport required. The supplementary exercises of weight-lifting or callisthenic exercises and the additional difference in diet would only increase their hypertrophy and versatility. Thus, it can be argued that the athletic bodies displayed in athletic art in the Hellenistic and early Roman-Imperial period were achievable.

³²⁷ I emphasize ‘dedicated athletes’ here as athletes who were dedicated to practicing sport as a full-time practice and possible source of livelihood in awards from athletic competition versus those who simply practiced sport for recreational purposes.

Chapter Six: Conclusion

This dissertation has examined the athletic body in art from the Hellenistic and early Roman period. The three case studies that were discussed presented different aspects of the athletic body. The Terme Boxer demonstrated the brutal ‘realism’ of ancient boxing was purposely represented by the sculptor to create a narrative around the sculpture and possibly to draw sympathy from the viewer. The anatomical analysis revealed that certain parts of the anatomy were manipulated to create a more aesthetically pleasing figure. For example, visual triangles can be seen from various angles of the sculpture and the tension of muscles is not anatomically possible but done so to make the figure seem larger. The Apoxyomenoi demonstrated that one athletic body ‘type’ was not rigidly conformed to under the umbrella type of *apoxyomenos* and that it was acceptable to employ a range of body types. The slight differentiation between musculature amongst the Apoxyomenoi sculptures lends credibility to the argument that artists were basing their sculptures directly on human models. Lastly, the Farnese Hercules, particularly when taken into the context of its surroundings within the Baths of Caracalla, exhibited the desire to imitate, even that which was supposedly impossible to attain. These athletic sculptures presented a visual bodily aesthetic that athletes would have sought to obtain. Thus, it can be argued that athletic art served a mimetic function for athletes even in idealized sculpture. From the examination into the achievability of these athletic body types it was shown that the musculature displayed in the athletic art discussed correlates with what physical anatomy the athletes would be developing during their sport. In other words, the muscles that are represented in athletic art correctly demonstrate the muscles that would have been seen on real ancient Greek athletes.

This dissertation only provides a preliminary study into the male athletic body. However, the methodology employed in this thesis serves as an innovative new approach into examining the ancient past. Utilizing modern science, and in this case sports science, to fill in the gaps in the ancient record is fruitful. The examination into the physiology of athletic practice, reflecting that back onto the visual evidence, provides further insight into how athlete and artist functioned. This form of examination can easily be expanded and furthered into studies on ancient sport and the

representations of the body. Osborne and Smith have strongly argued that the Classical Greek viewer was not interested in muscular development.³²⁸ The Classical age was the height of idealization and *symmetria* of the body with the introduction of Polykleitos' Canon demonstrated by the Doryphorus (Fig. 40). However, if the methodology used in this dissertation was applied to Classical figures would it provide further evidence to the contrary of Osborne and Smith?

Expanding this methodology into other periods is one way this research can be expanded upon. Where I would like to see this research continued is in the examination of the psychological factors that could have affected the athlete if and when he was trying to achieve these idealization standards of body perfection. For example, Pindar implied that athletic victors trained to attain perfected bodies.³²⁹ Nicholson explained: “[a] win implies a beautiful body and excellent character, beauty signifies victory and an aversion to arrogance, and excellent character implies an excellent body.”³³⁰ This circular mentality was a central concept of the Greeks, specifically in regards to the *kalos kagathos* or ‘the beautiful and the good’.³³¹ Indeed, athletes were constantly judged on their appearance from a young age.³³² Pubertal development is usually a positive experience for boys in terms of attaining the societal body ideal by growing more muscular and attaining a ‘manly’ physique. However, the rate of pubertal growth can impact the chances of developing eating disorders and exercise dependence. A small effect has been shown that early-maturing boys are more likely to start weight decreasing techniques than later-maturing boys because they do not fit the collective body standards of their peers. Retrospectively, late-maturing boys are more likely to develop exercise dependence than early-maturing boys, again, because the late-maturing

³²⁸ Osborne 2011, 41; Smith 2007, 108.

³²⁹ Olympian 8.19-20; 9.89-94; 10.99-104.

³³⁰ Nicholson 2014, 73.

³³¹ Aristotle, Eudemian Ethics 8.3:1248b. Hawhee 2004, 19.

³³² The gymnasiarchy law of Beroea (ca. first third of second-century BCE) stated that the *paides* were to be judged three times a year (assumingly on physical standards and the progress of their physical education) (SEG 27.261: 24-26). There were several contests to judge beauty and by associated physical standards of youths and athletes: the *euandria* (manly excellence) was measured on size, strength, and training (IG II2 2311); the *euexia* (bodily vigor) was particularly associated with the gymnasium as size and strength were the criteria; the *Kallisteia* was a contest for the ‘ideal male beauty’ though no sources give an exact description of what characteristics that would entail; and during the *Hermaia* there were contests for fitness (*euexia*), good discipline (*eutaxia*), and hard training (*philoponia*) (SEG 27.261:46-49).

boys do not have the same body image as their peers. In other words, they are not as big as their peers and develop excessive exercise tendencies to ‘catch-up’ to the larger size of the early-maturing boys.³³³ Arguably, this could be a phenomenon with the *paides* and *epeboi* that were routinely judged on their size, strength, and physical capabilities.³³⁴

The expansion of this research would reveal more insight into the physiology and psychology of the ancient male citizen. Utilizing modern science and taking advantage of multi-disciplinary studies can fill in the holes left in the ancient record as the human body has not changed biologically in the last three thousand years. This dissertation can serve as a stepping stone into a new line of thinking towards the ancient body and the art that represented it.

³³³ Kerr, Lindner, and Blaydon (2007), 78; Smolak, Murnen, and Ruble (2000); Ricciardelli and McCabe (2004), 180-190. Plus, bibliographies for additional studies. In addition, pressures from trainers, judges, and teammates have also been shown to encourage unhealthy eating practices as a form of weight management. Ricciardelli and McCabe (2004), 189-90. For evidence of influence of trainers or the importance of trainers in the lives of athletes see: Lucian, *Anacharsis* 38; Plato, *Lysis* 203a- 211a; Aischines, *Against Timarchos* 9-12; Philostratus, *Gymnasticus* 54; SIG3 578.

³³⁴ I have argued this in more detail elsewhere, see Smith 2015.

Figures

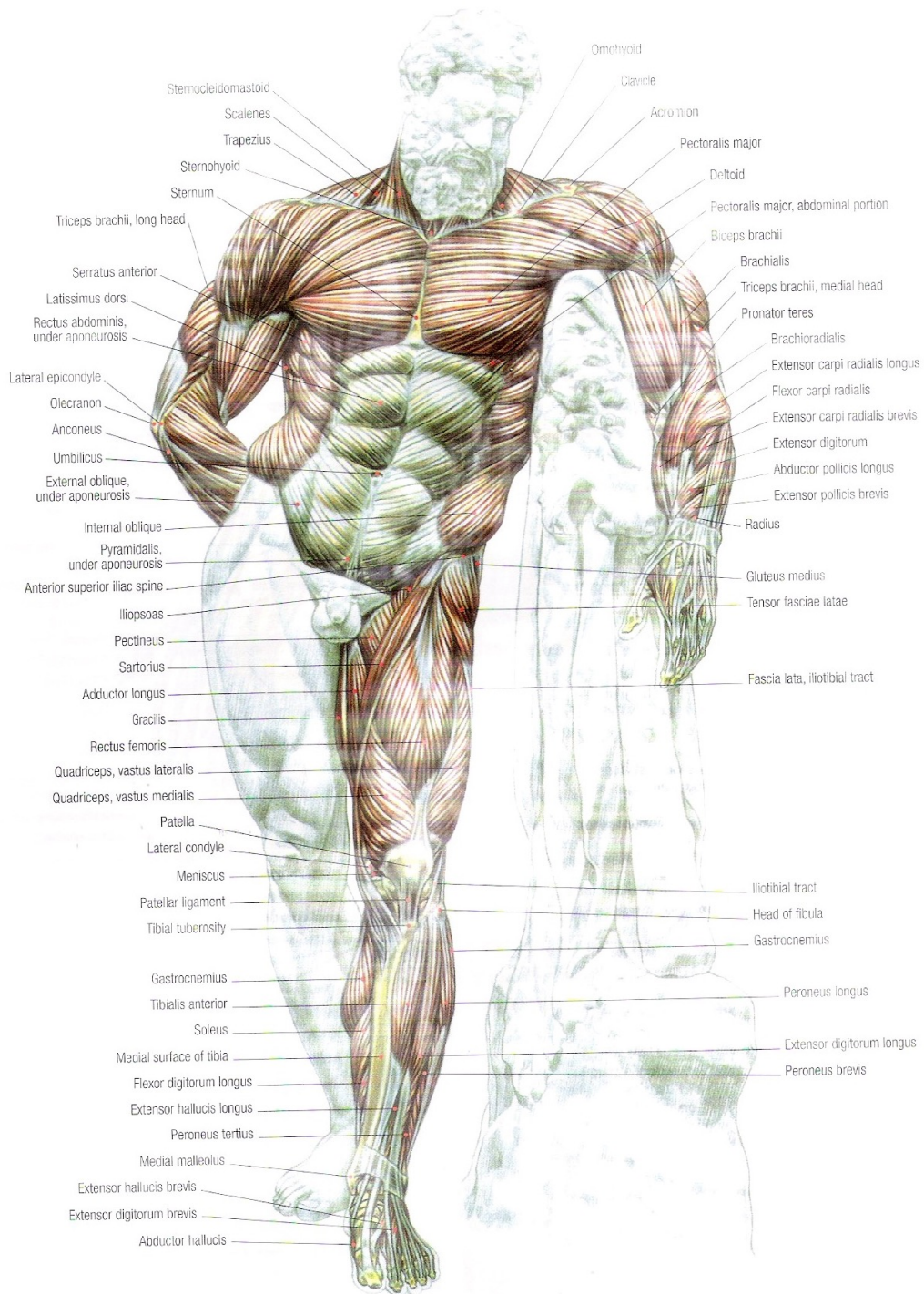
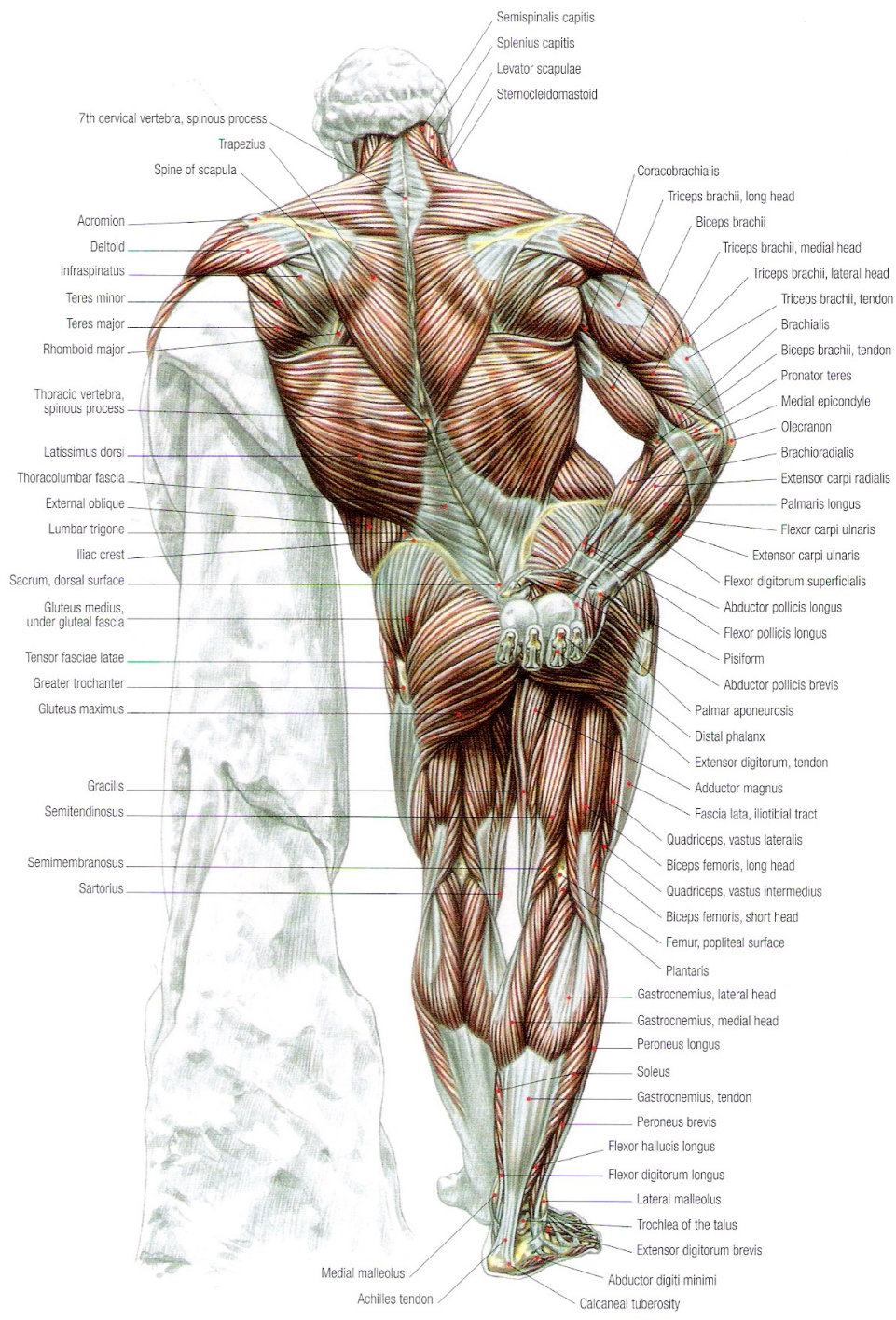


Fig. 1 Labelled Diagram of Muscle Anatomy, Anterior View.



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Fig. 2 Labelled Diagram of Muscle Anatomy, Posterior View

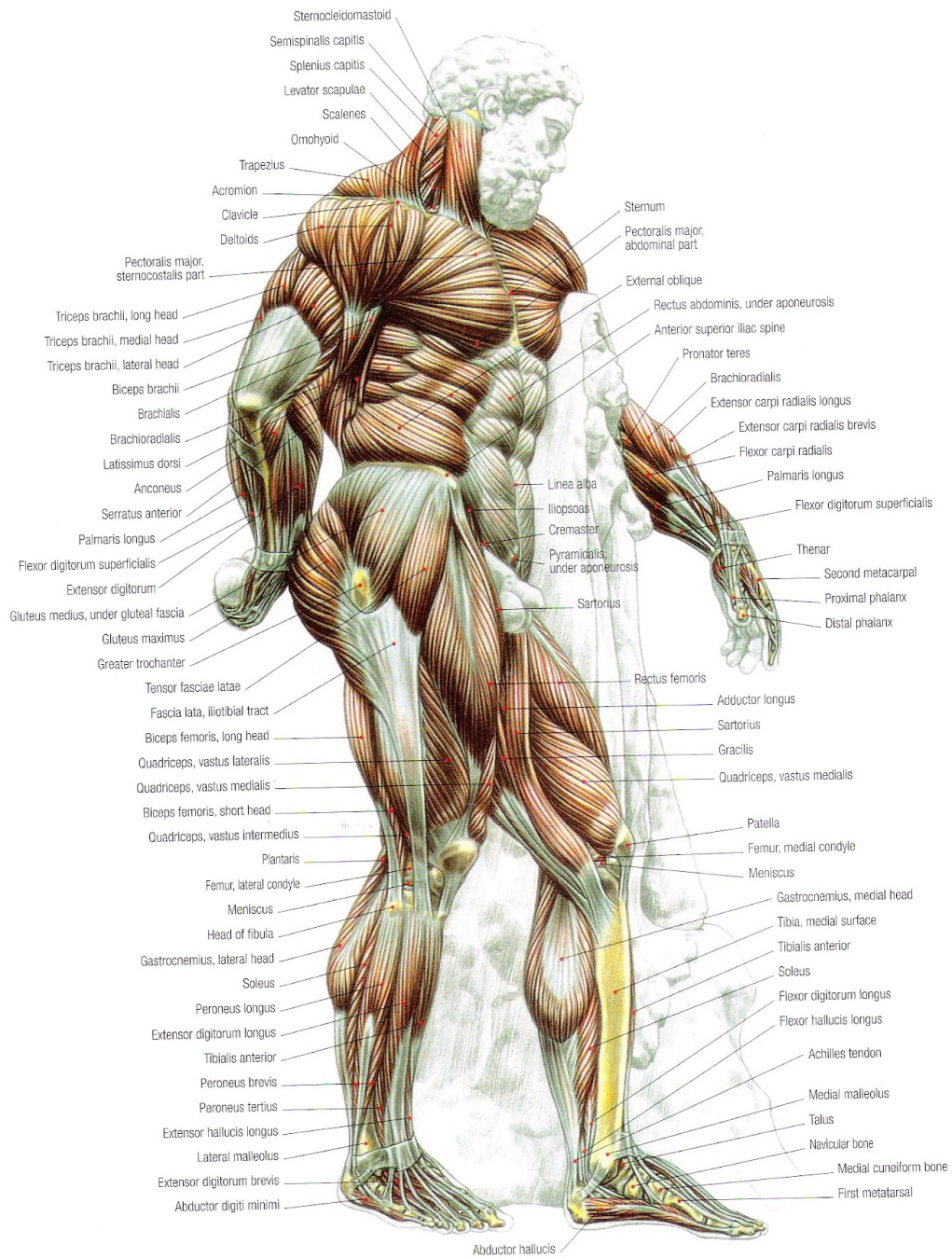


Fig. 3 Labelled Diagram of Muscle Anatomy, Profile View.

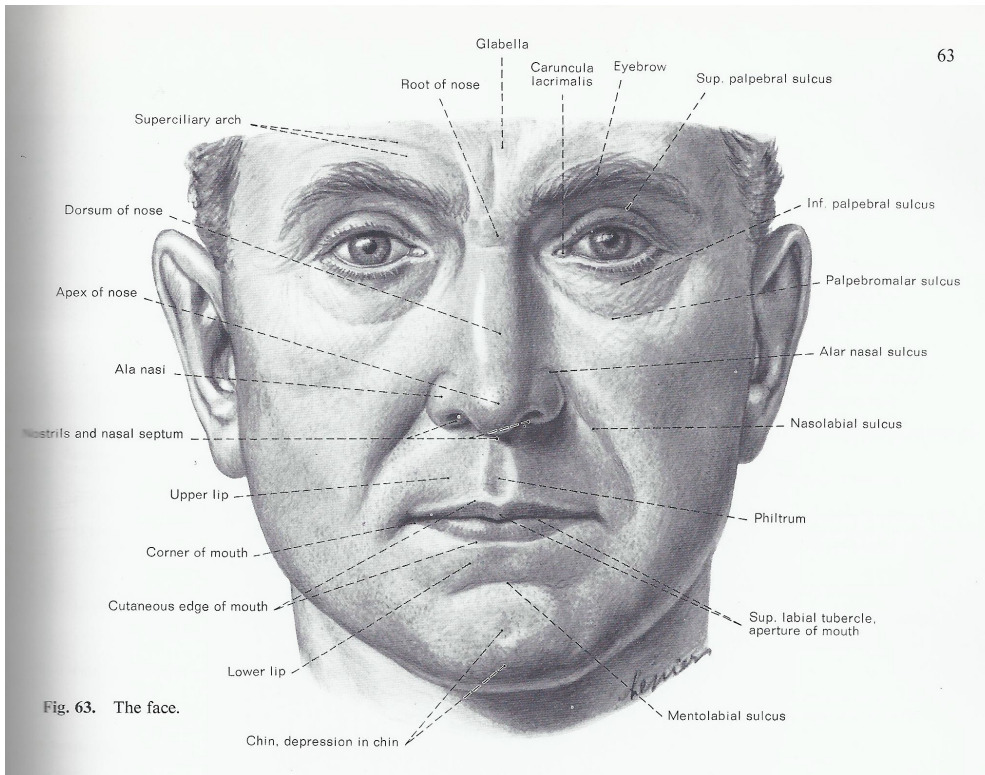


Fig. 4 Labelled Diagram of the Superficial Anatomy of Face.

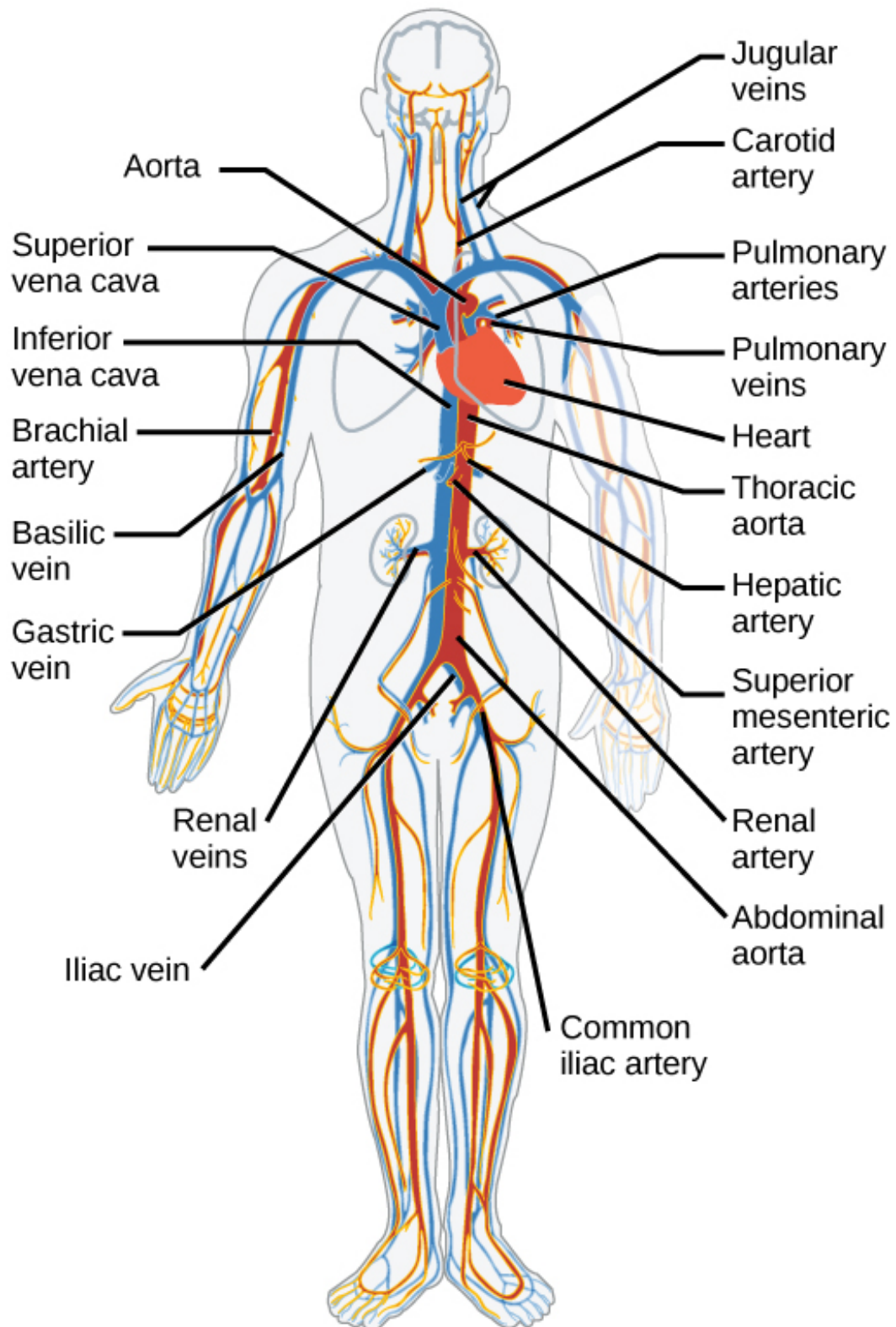


Fig. 5 Labelled Diagram of the Circulatory System.

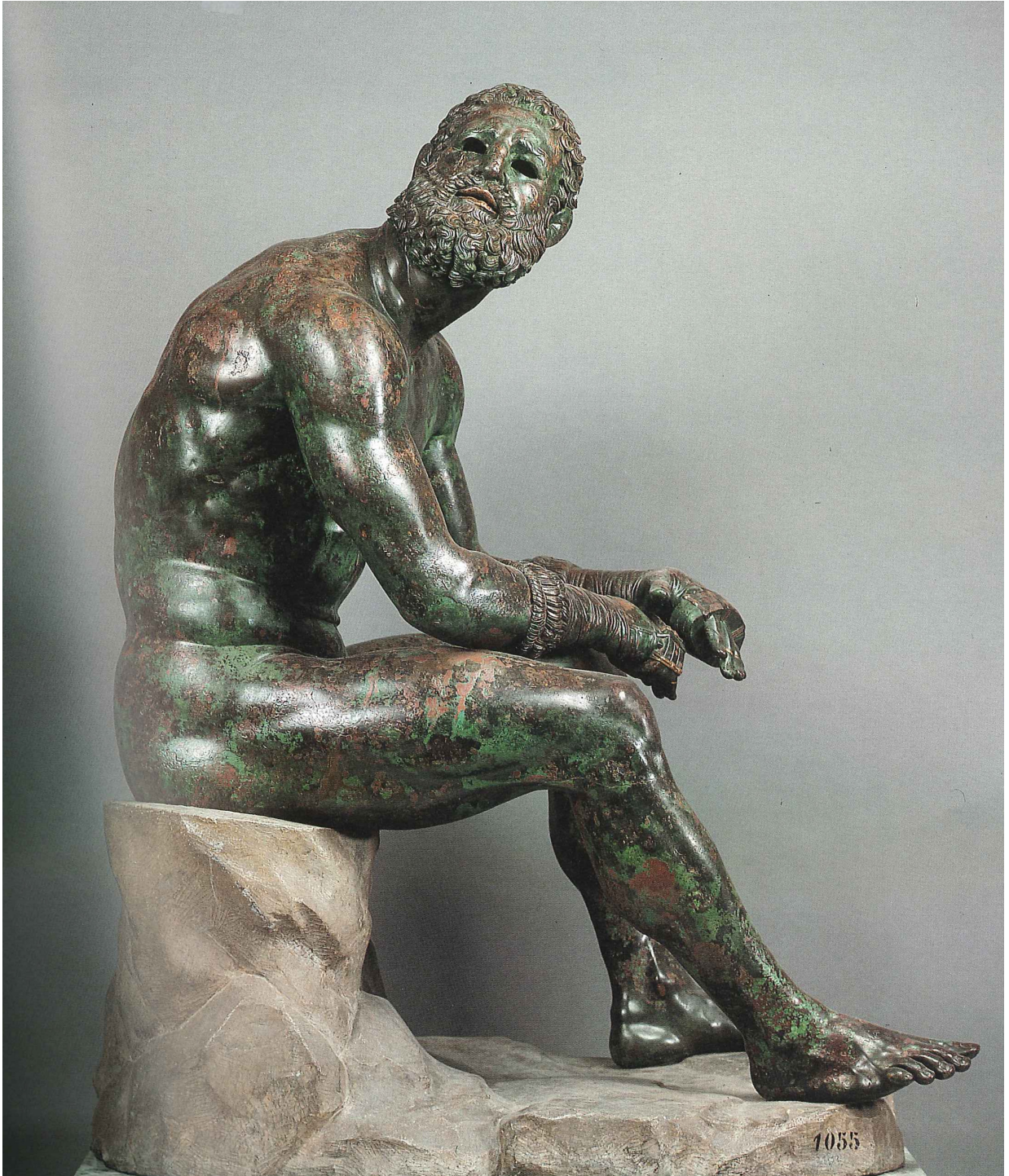


Fig. 6 Terme Boxer, profile view/right side.



Fig. 7 Terme Boxer, anterior view.



Fig. 8 Terme Boxer, posterior view.



Fig. 9 Terme Boxer, profile view/left side.



Fig. 10 Head detail of Terme Boxer, right ear.



Fig. 11 Head detail of Terme Boxer, anterior view.



Fig. 12 Head detail of Terme Boxer, left ear.

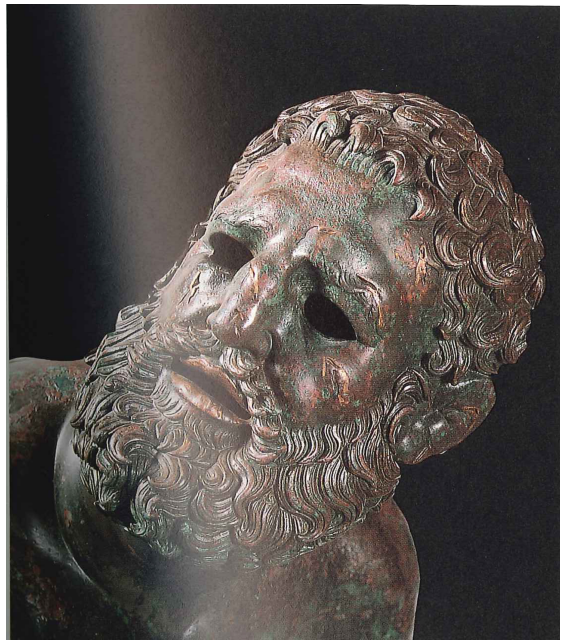


Fig. 13 Head detail of Terme Boxer.

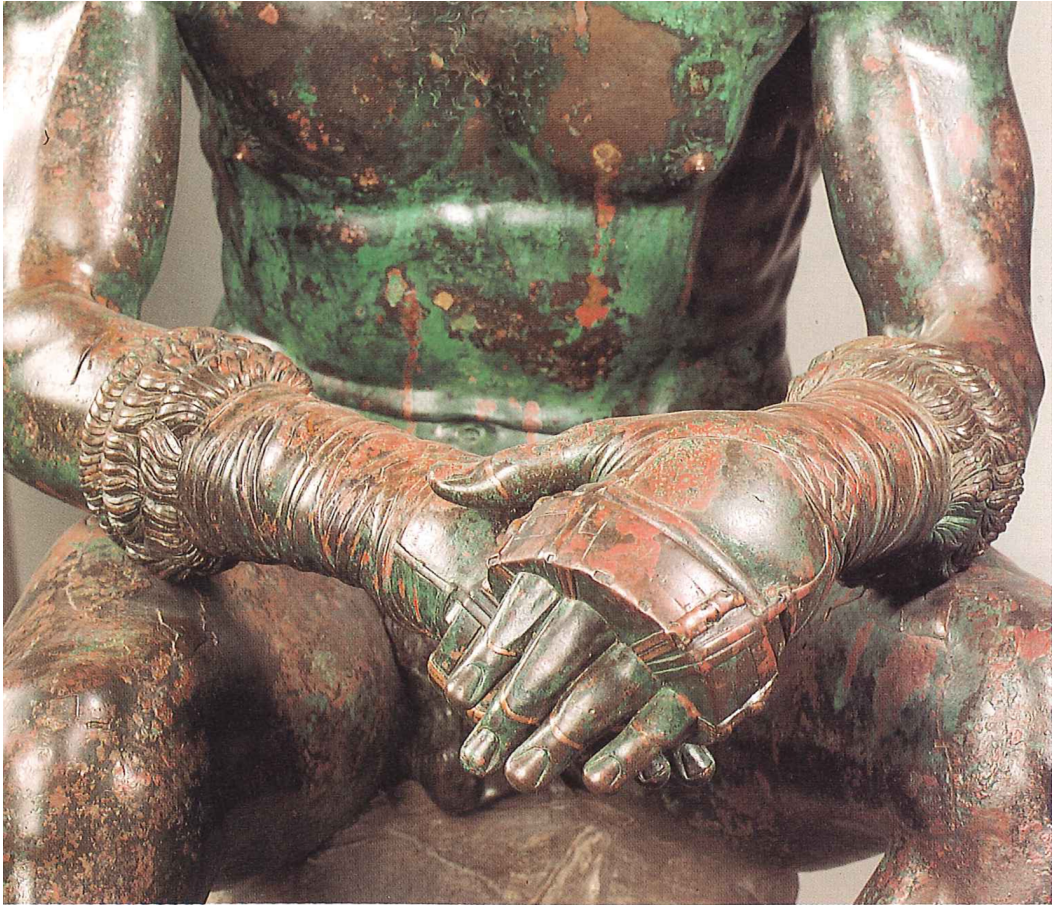


Fig. 14 Anterior detail of Terme Boxer, boxing gloves.

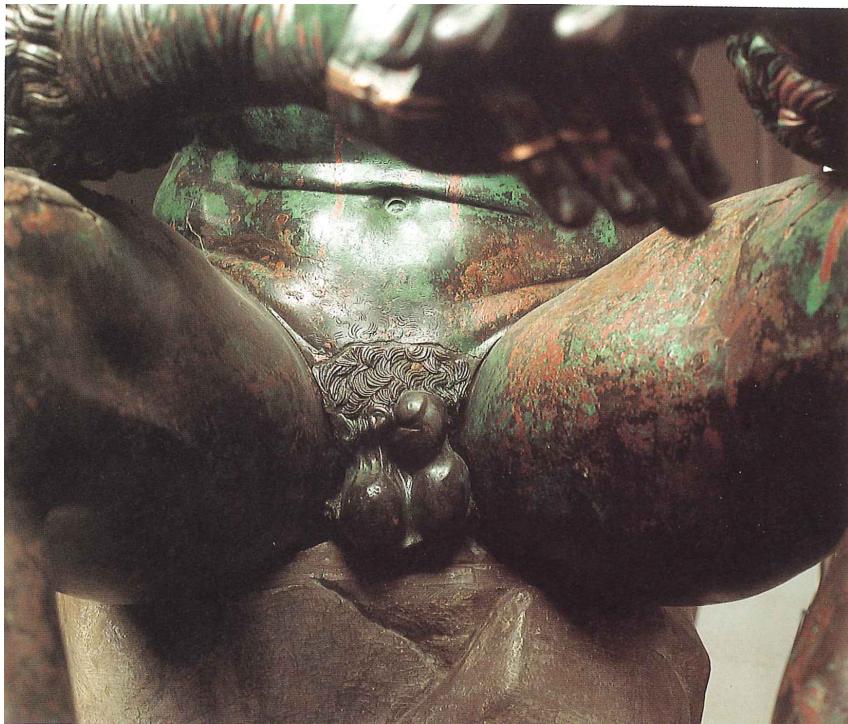


Fig. 15 Anterior detail of Terme Boxer, groin.

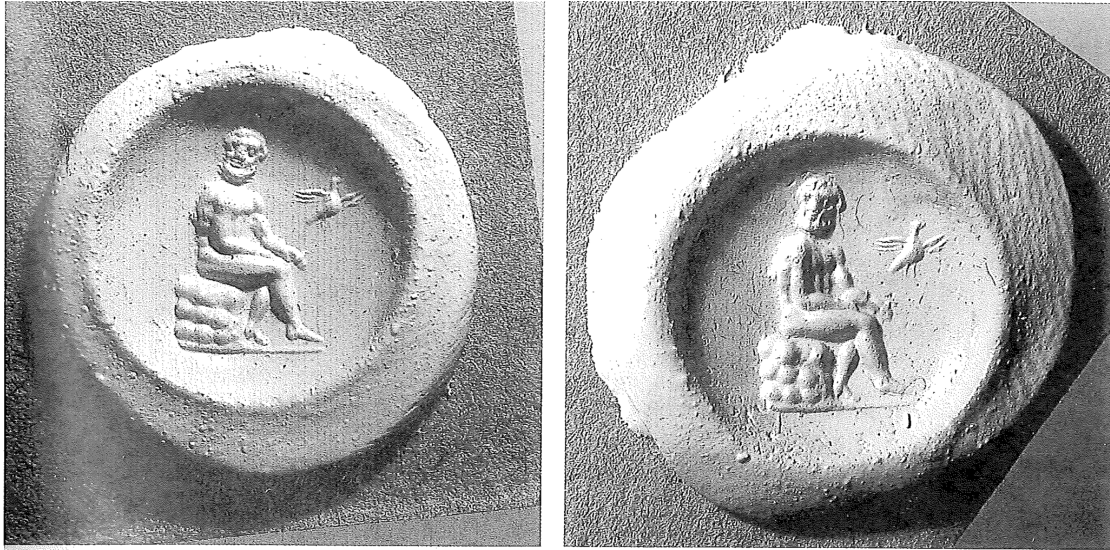


Fig. 16 Seated Boxer with Dove.

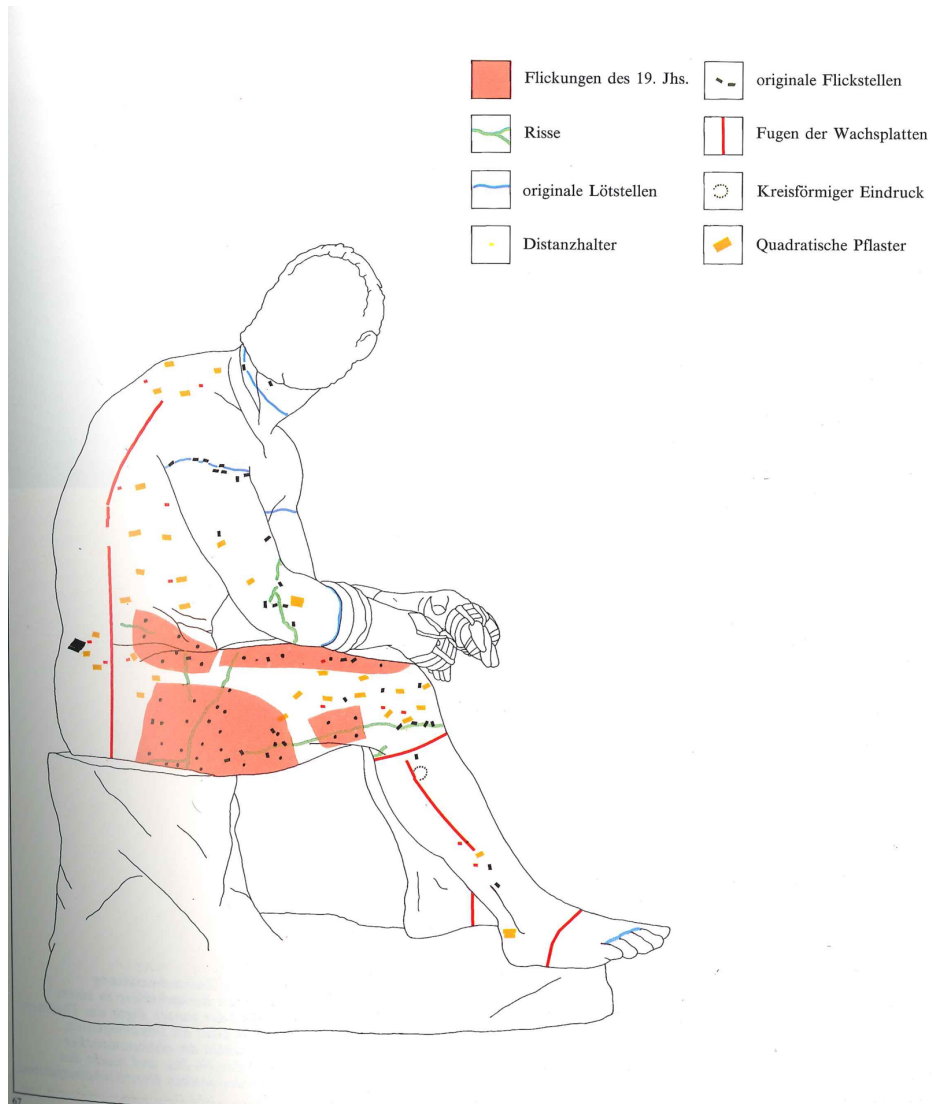


Fig. 17 Drawing of Restoration work to Terme Boxer, ancient and modern.



Fig. 18 Charioteer of Delphi and head detail.



Fig. 19 Getty Bronze.

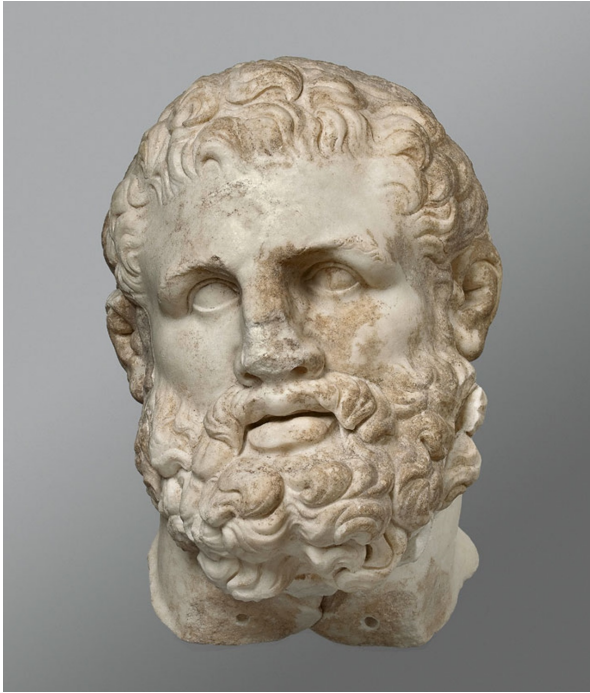


Fig. 20 Head of Herakles from Pergamon



Fig. 21 Bronze Head of Boxer from Olympia



Fig. 22 Altar of Zeus at Pergamon, Gigantomachy frieze, east side.

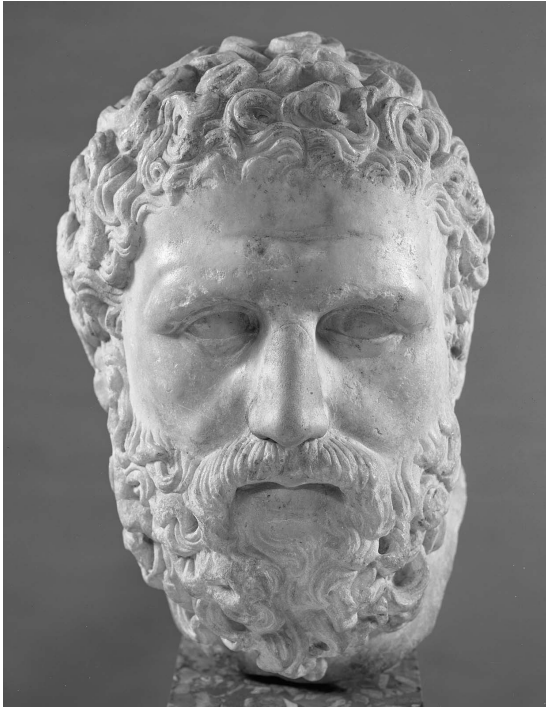


Fig. 23 Head of Herakles Dresden-Copenhagen type

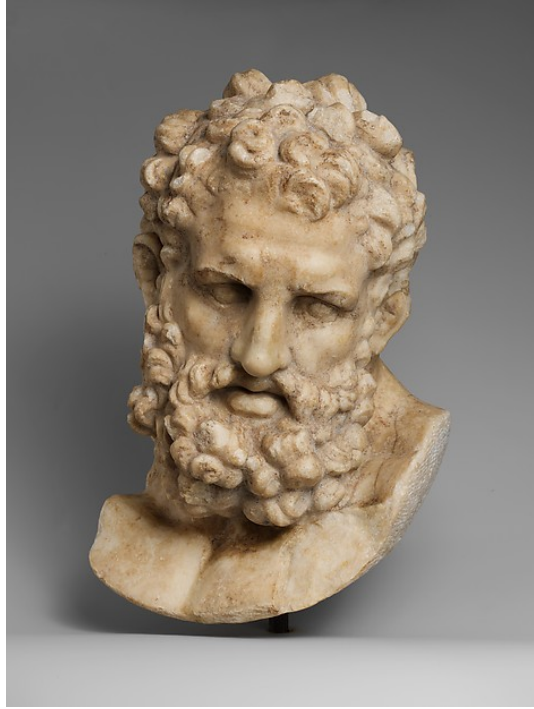


Fig. 24 Marble Head of Herakles



Fig. 25 Marble Head of Herakles

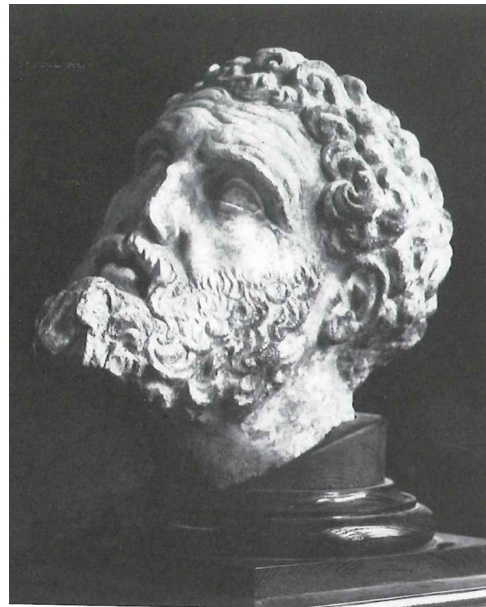


Fig. 26 Head of Herakles



Fig. 27 Herakles Epitrapezios



Fig. 28 Herakles Seated on a Rock

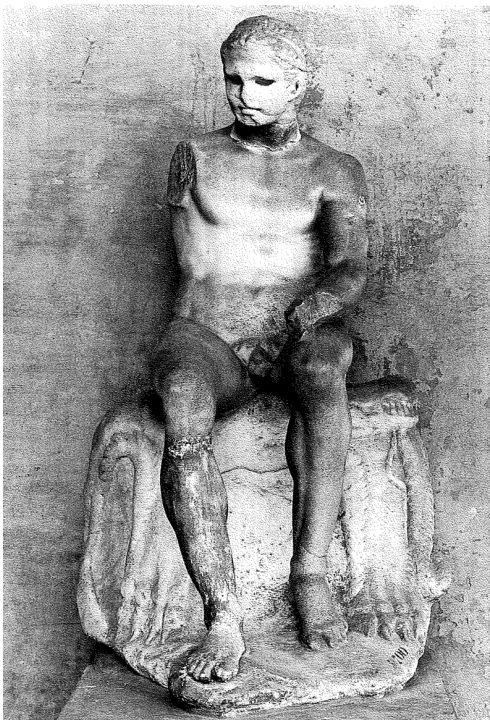


Fig. 29 Youthful Seated Herakles





Fig. 30 Campana reliefs

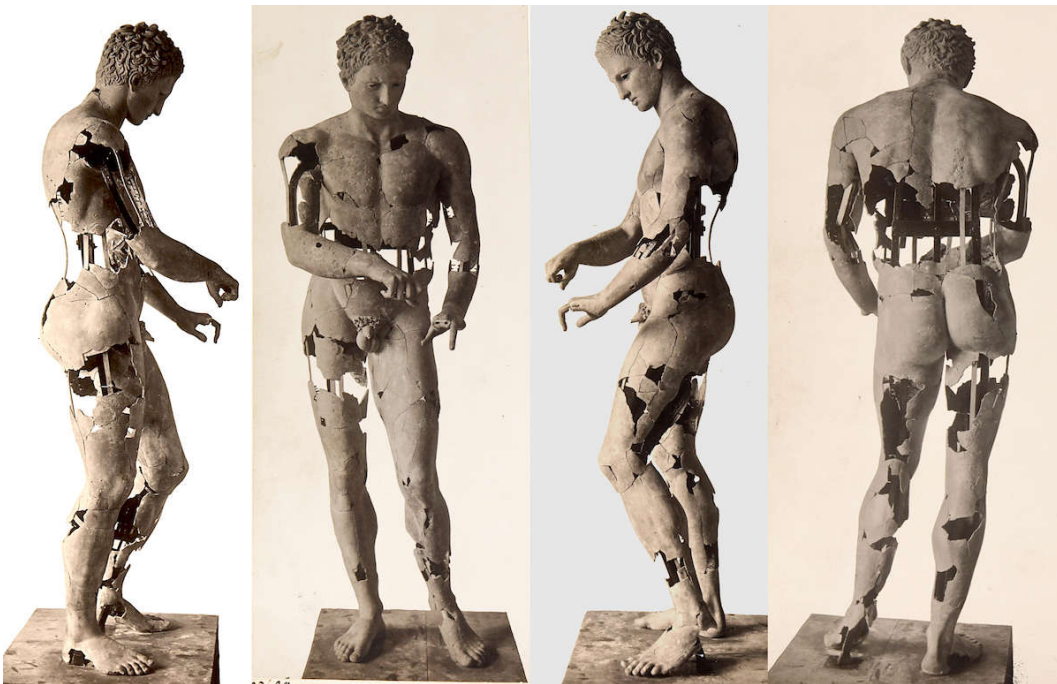


Fig. 31 Black and white images from 1897 of Ephesian Apoxyomenos without filling mortar



Fig. 32 Reconstruction of original position of Ephesian Athlete



Fig. 33 Ephesian Apoxyomenos



Fig. 34 Ephesian Apoxyomenos, anterior detail



Fig. 35 Ephesian Apoxyomenos, posterior detail



Fig. 36 Ephesian Apoxyomenos, profile detail



Fig. 37 Croatian Apoxyomenos



Fig. 38 Croatian Apoxyomenos, three-quarters view



Fig. 39 Croatian Apoxyomenos, three-quarters view



Fig. 40 Doryphoros



Fig. 41 Apoxyomenos Head



Fig. 42 Torso of an Apoxyomenos



Fig. 43 Uffizi Apoxyomenos



Fig. 44 Vatican Apoxyomenos



Fig. 45 Vatican Apoxyomenos, profile view



Fig. 46 Boston Apoxyomenos



Fig. 47 Boston Apoxyomenos hands detail (before right arm stolen)



Fig. 48 Farnese Hercules



Fig. 49 Latin Hercules

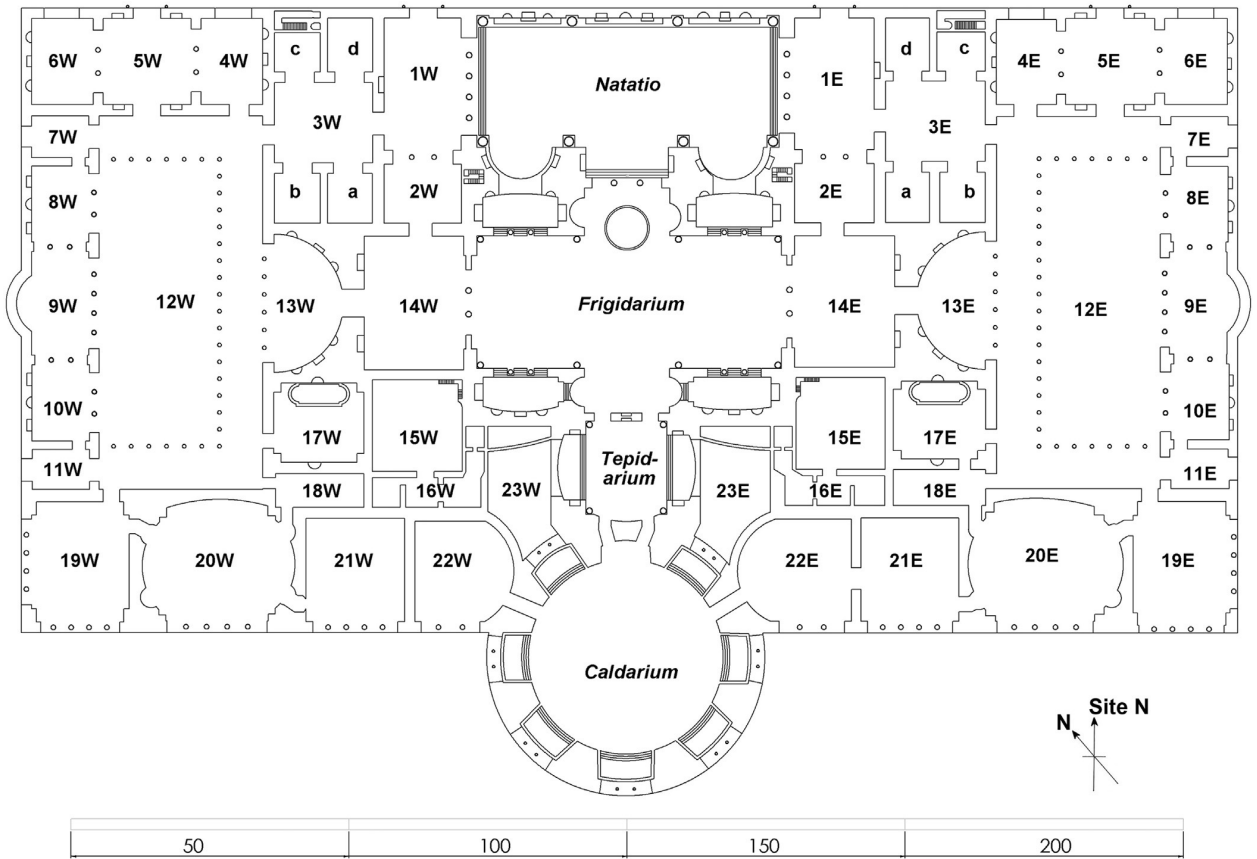


Fig. 50 Layout of the Baths of Caracalla



Fig. 51 Detail of Athlete Mosaics from Baths of Caracalla

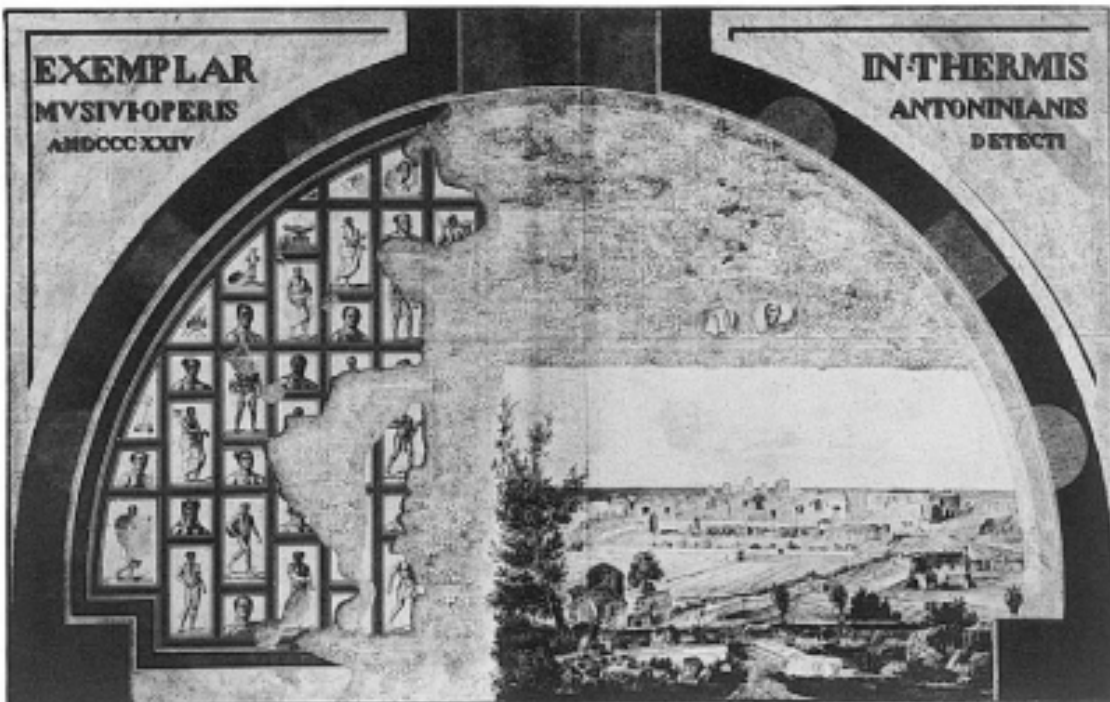
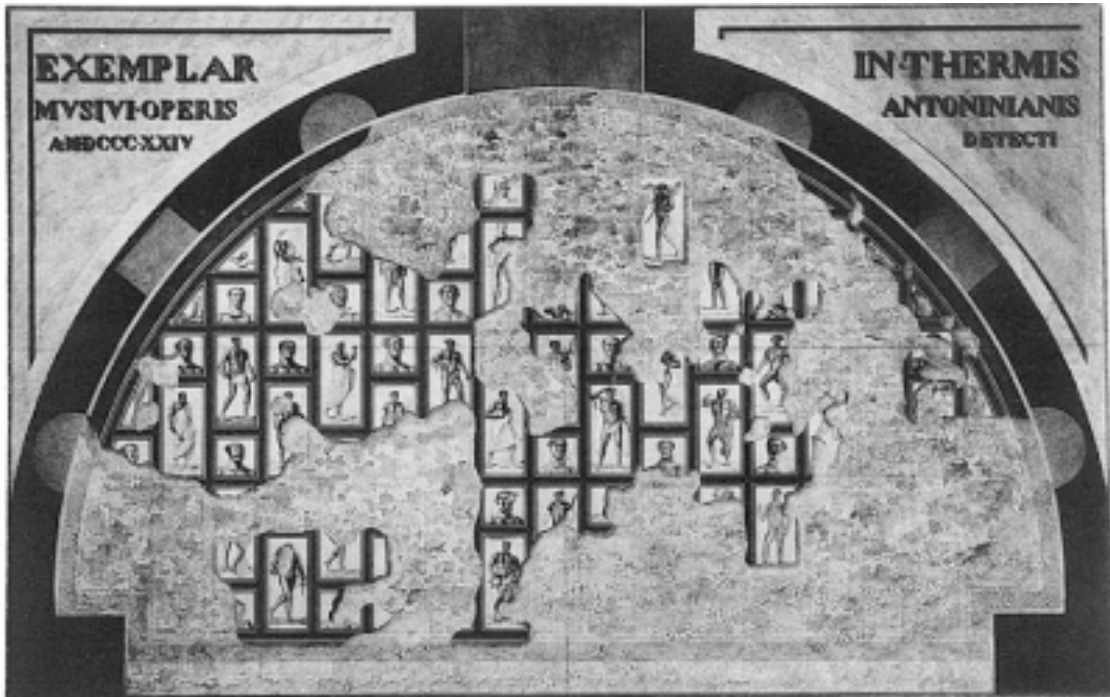


Fig. 52 Watercolors of athlete mosaics decorating the palaestrae of the Baths of Caracalla at the time of their excavation



Fig. 53 Sandow posing as Farnese Hercules

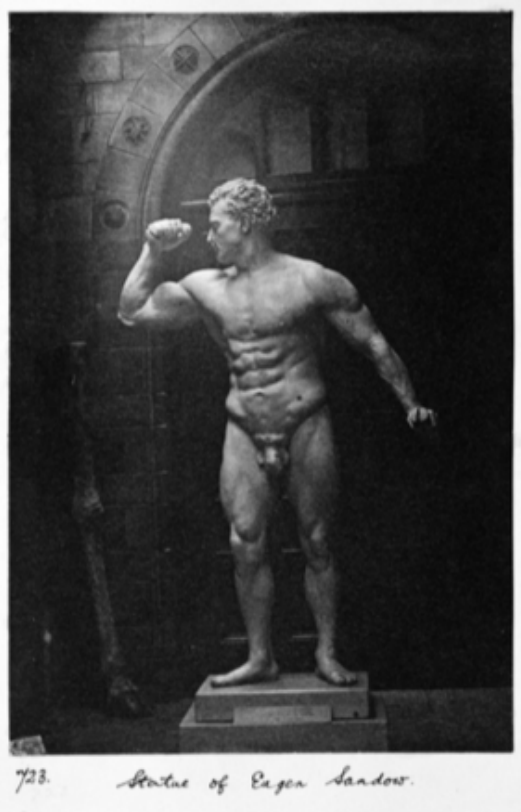


Fig. 54 Statue of Eugen Sandow



Fig. 55 The Boxing Boys



Fig. 56 From left to right: soft thong *himantes*; hard *himantes*; Roman *caestus*.



Fig. 57 Detail of Terme Boxer *himantes*



Fig. 58 Vindolanda boxing gloves



Fig. 59 Carciature of a boxer with *spairai*

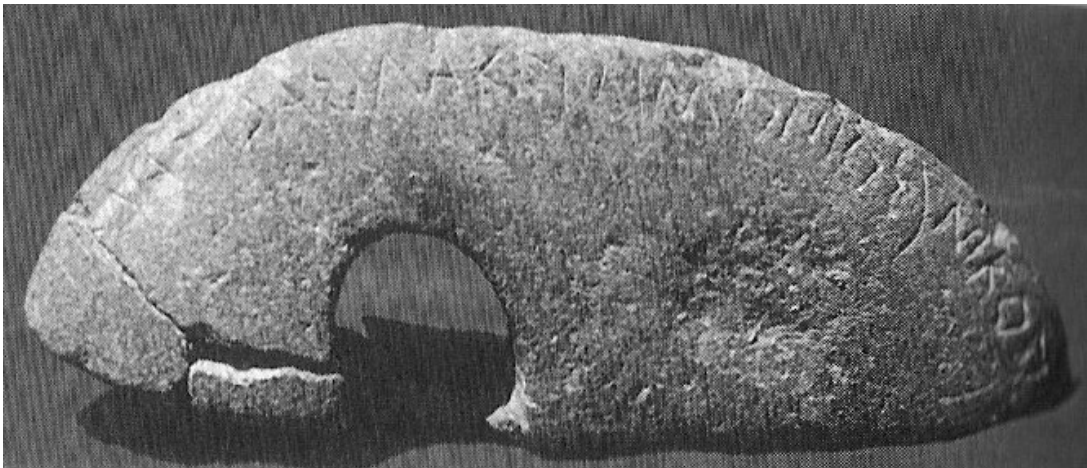


Fig. 60 Stone halter

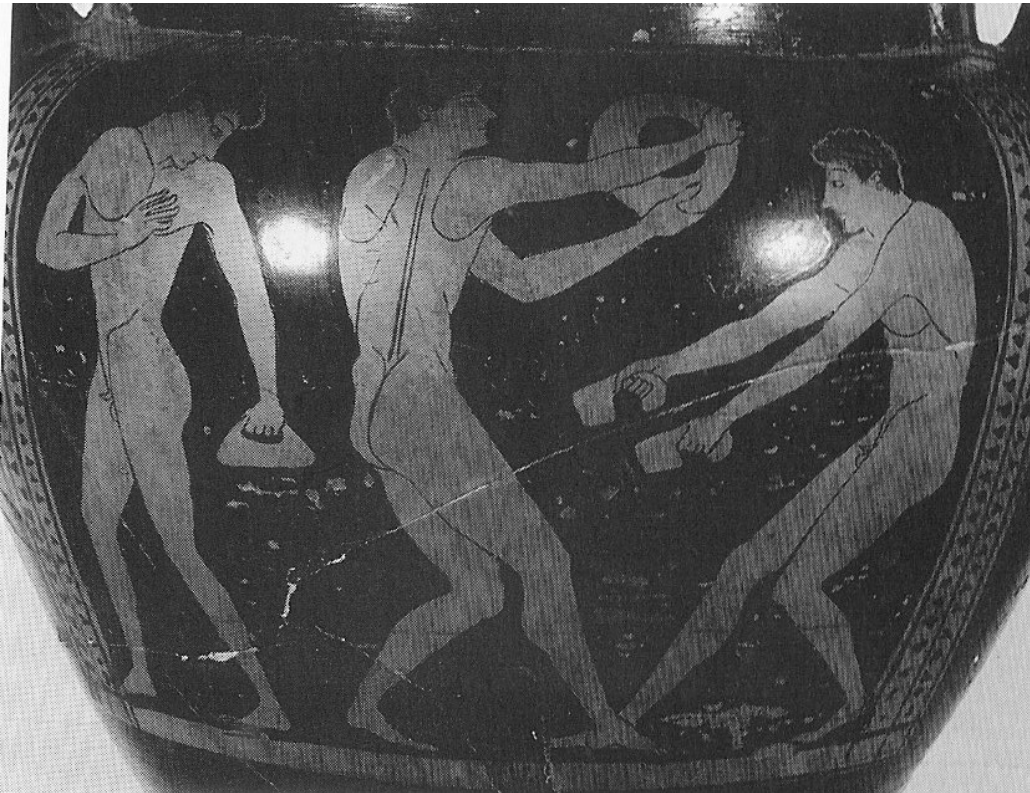


Fig. 61 Penathletes, red-figure column *krater*



Fig. 62 Boxing with open-hand block



Fig. 63 Boxers, left-hand punch



Fig. 64 Boxers



Fig. 65 Boxing

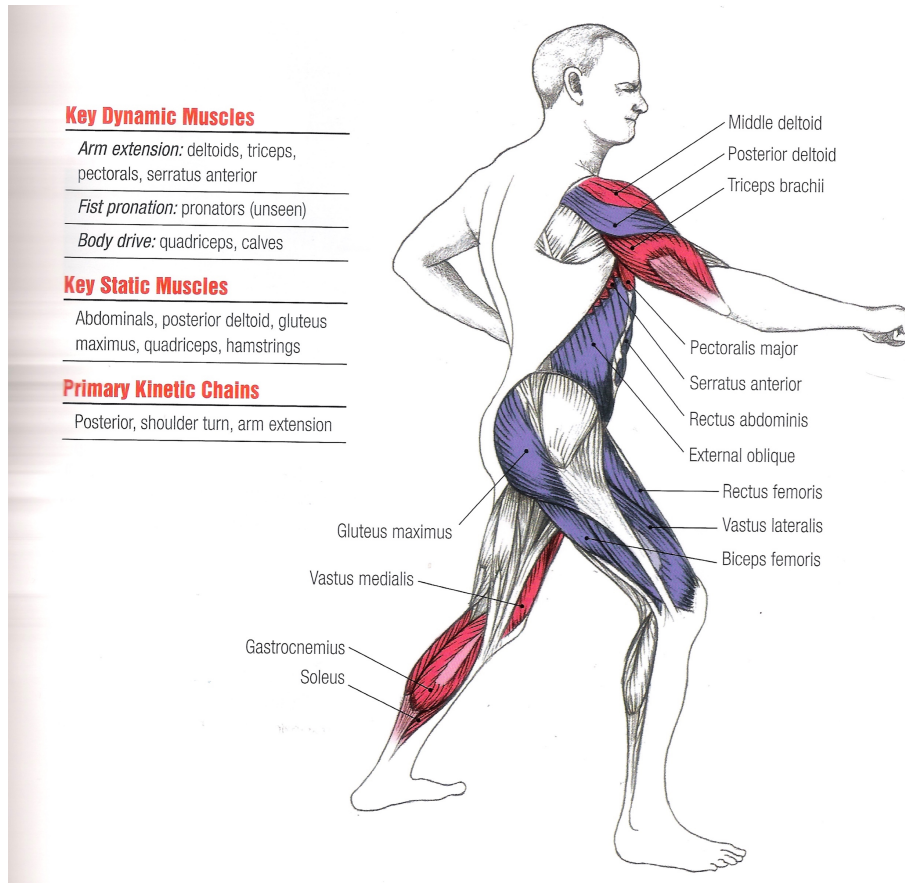


Fig. 66 Front Punch anatomy



Fig. 67 Boxing with hard *himantes*

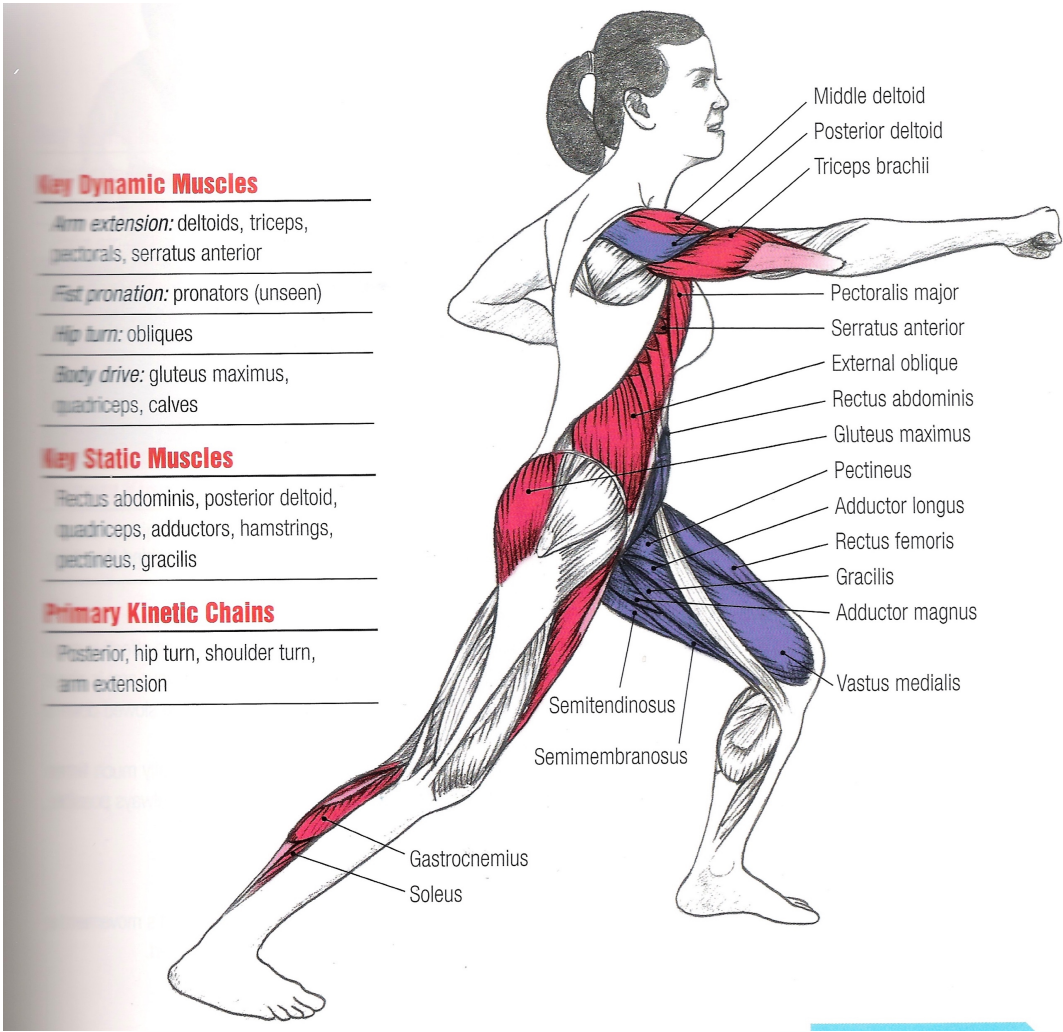


Fig. 68 Reverse Punch anatomy

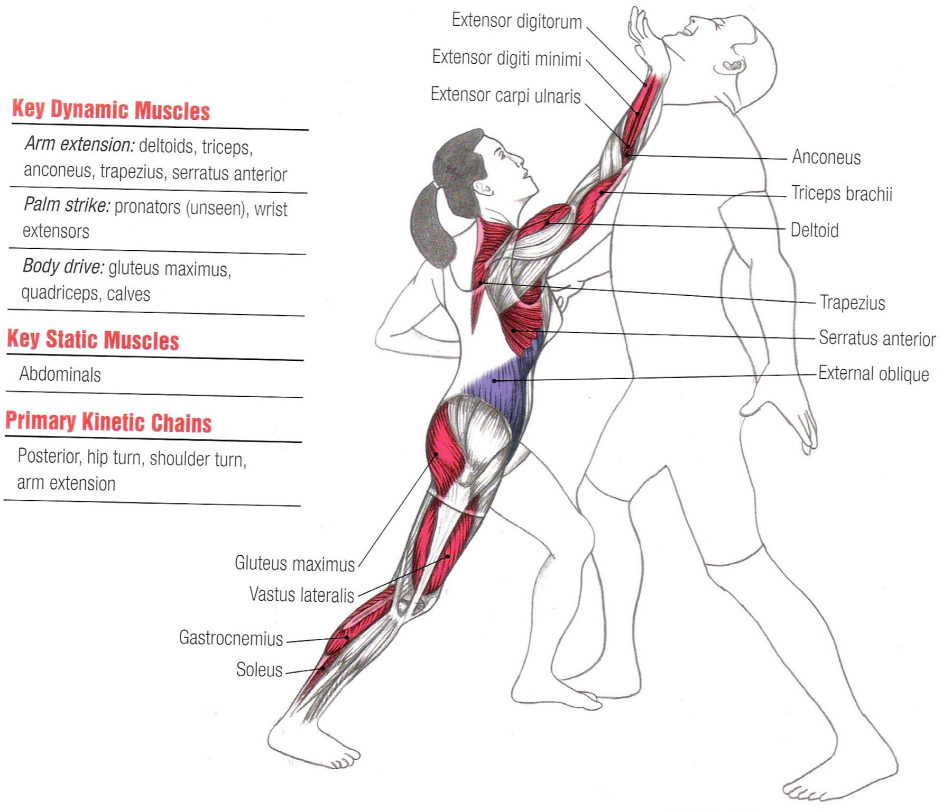


Fig. 69 Uppercut strike anatomy

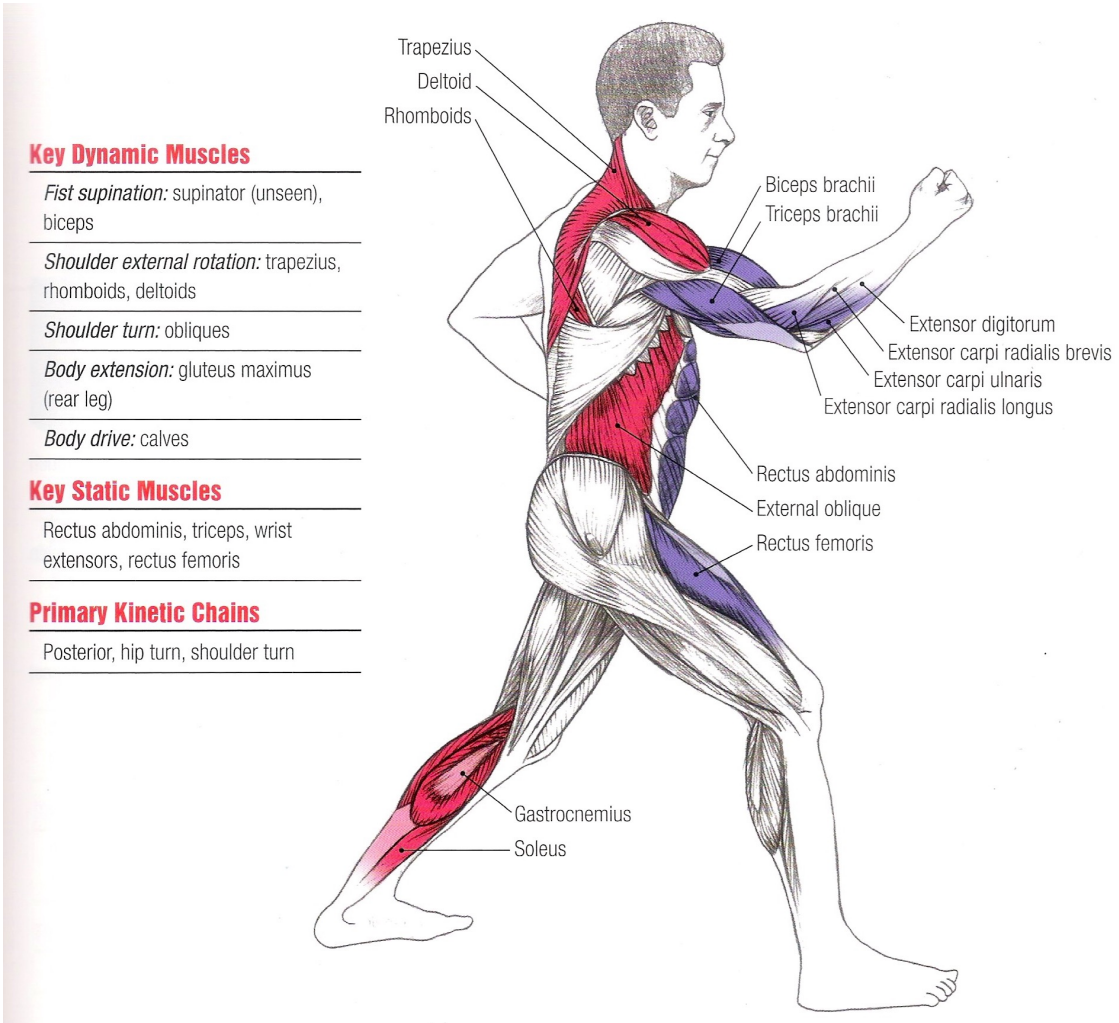


Fig. 70 In-to-out block anatomy

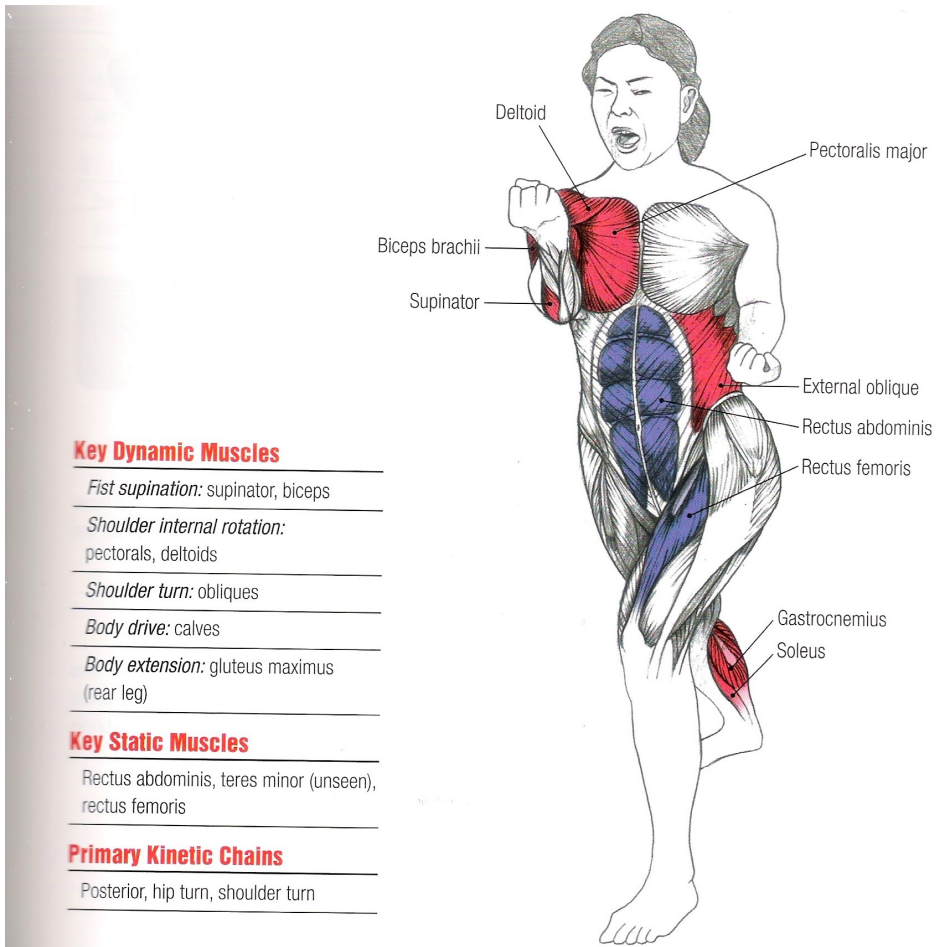


Fig. 71 Out-to-in block anatomy

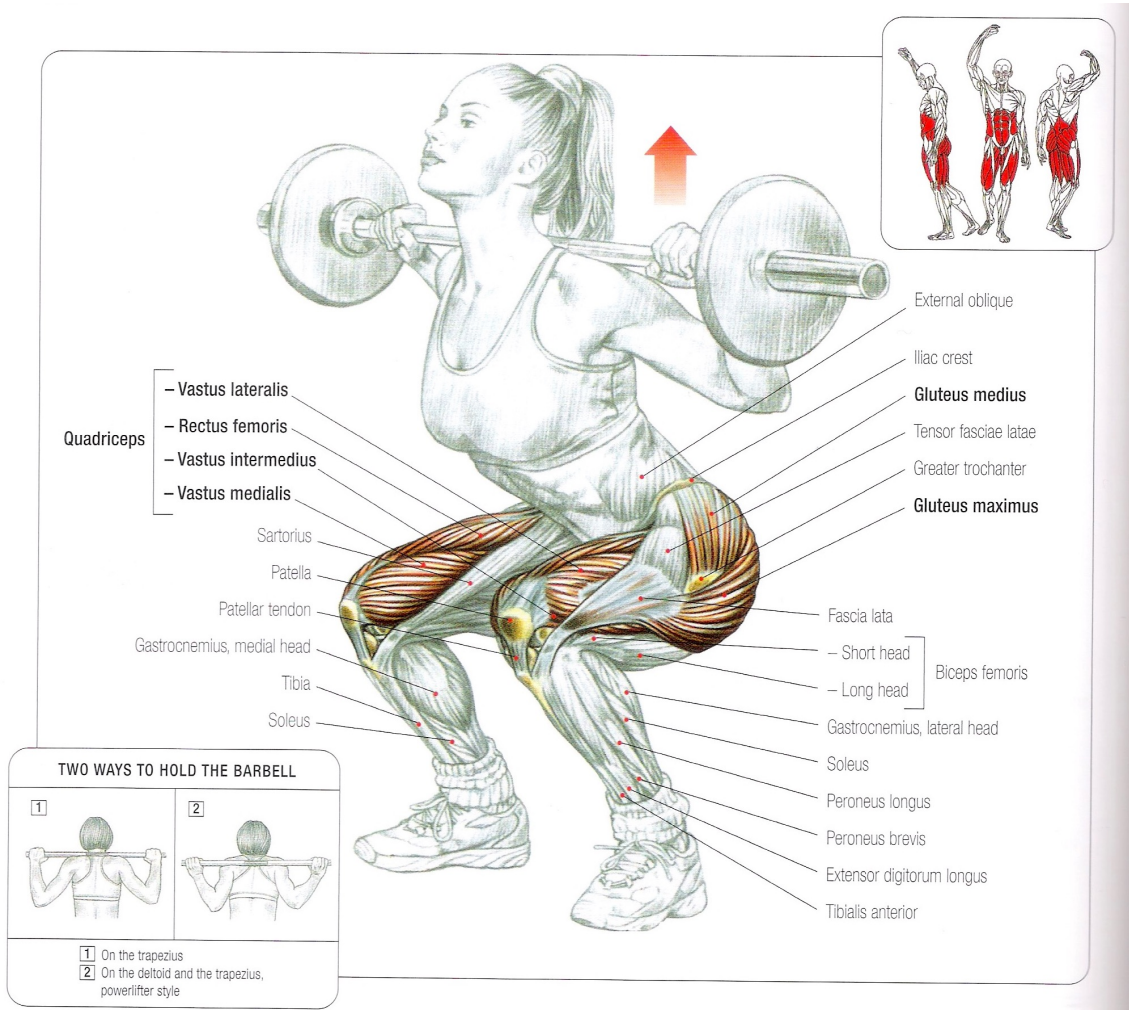


Fig. 72 Squat anatomy

16 DEADLIFTS

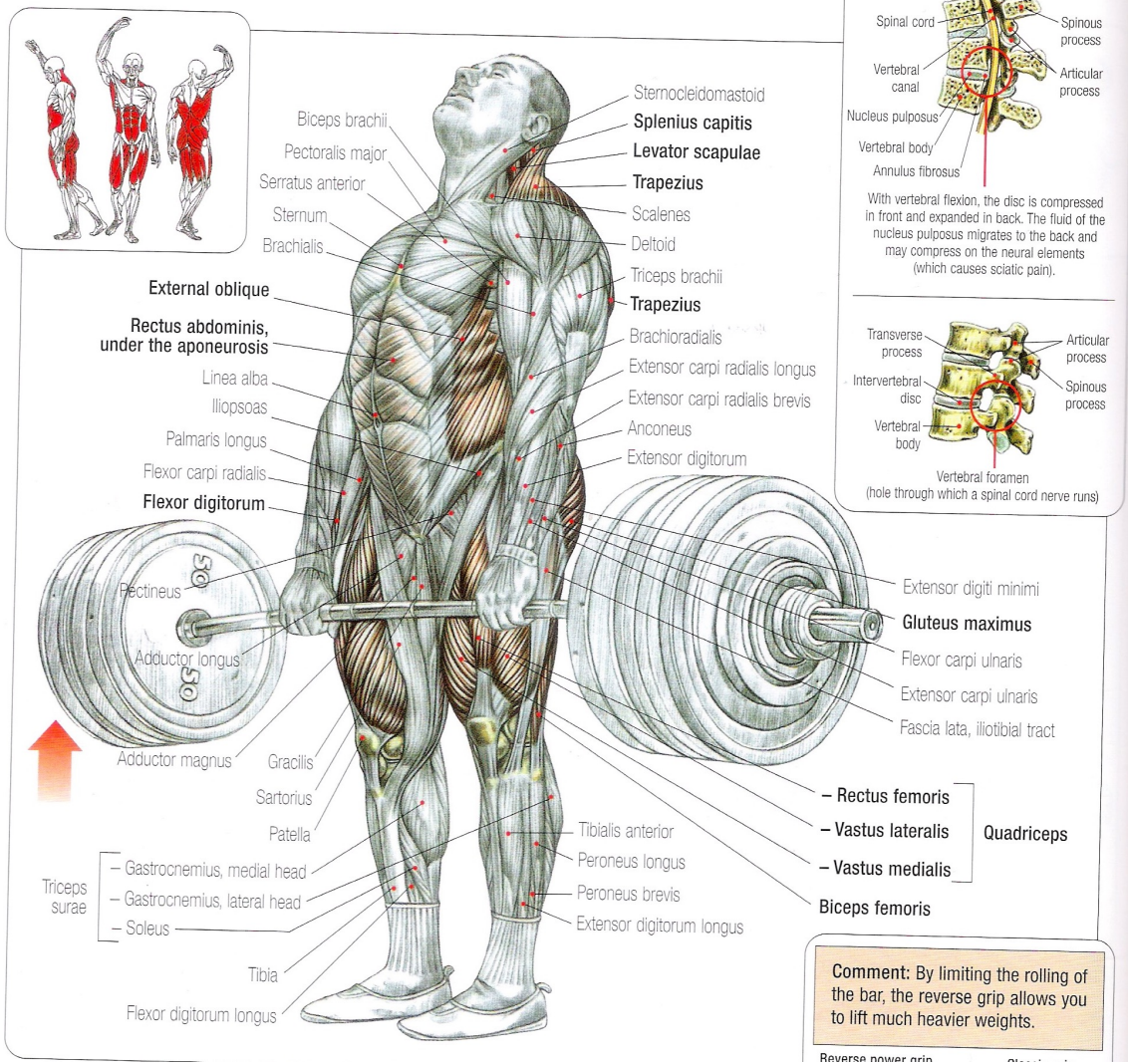


Fig. 73 Deadlift anatomy

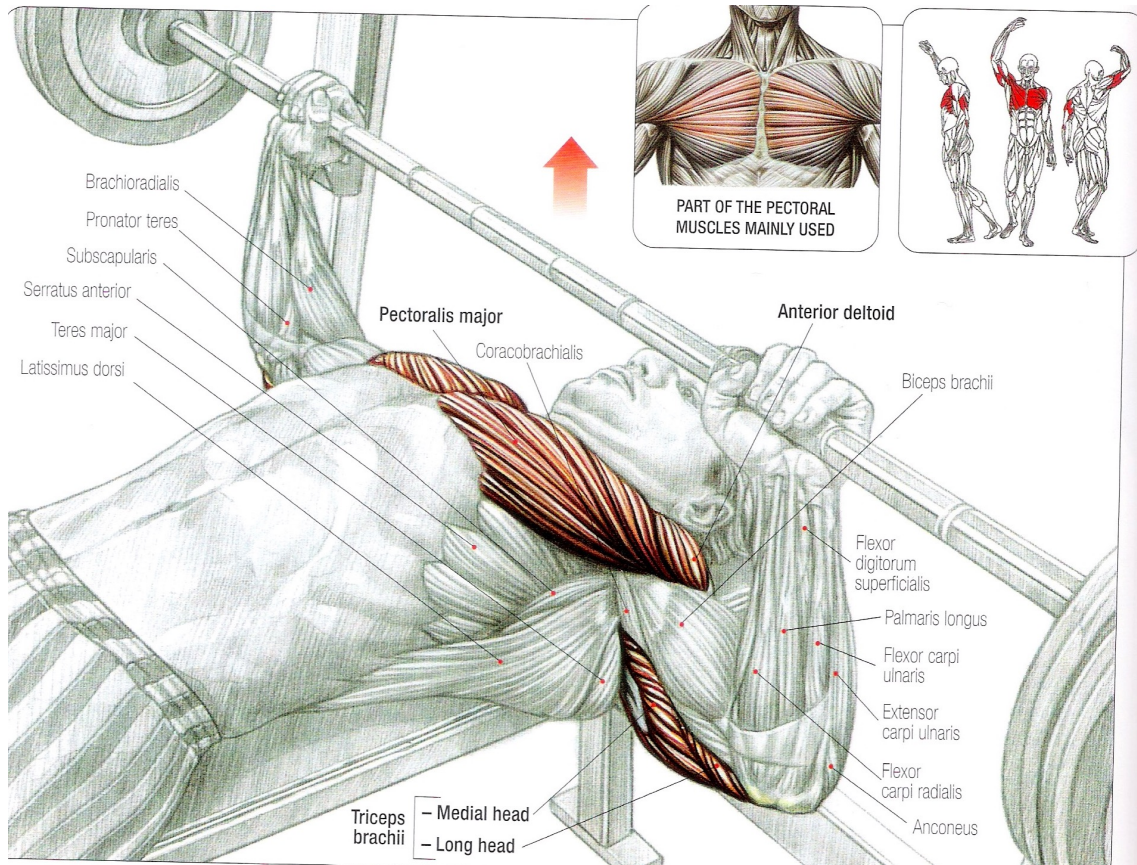


Fig. 74 Bench press anatomy

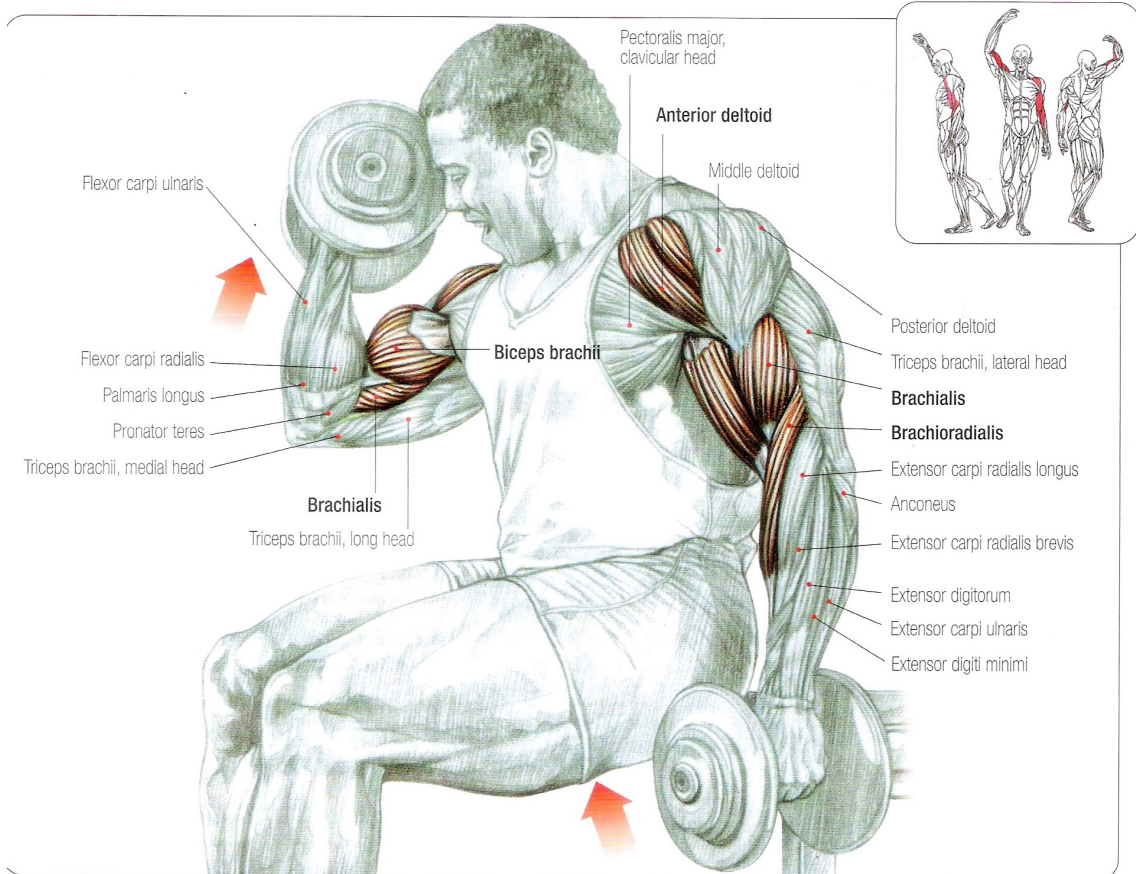


Fig. 75 Bicep curl anatomy

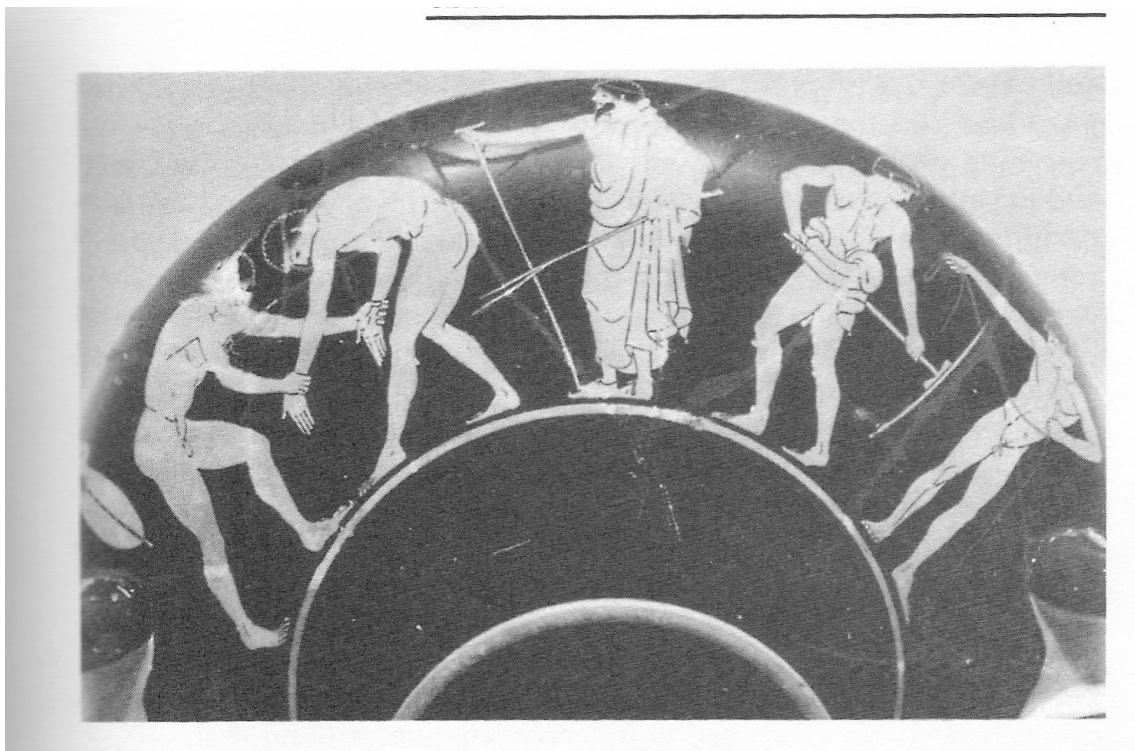


Fig. 76 Palaestra scene



Fig. 77 Waistlock from behind

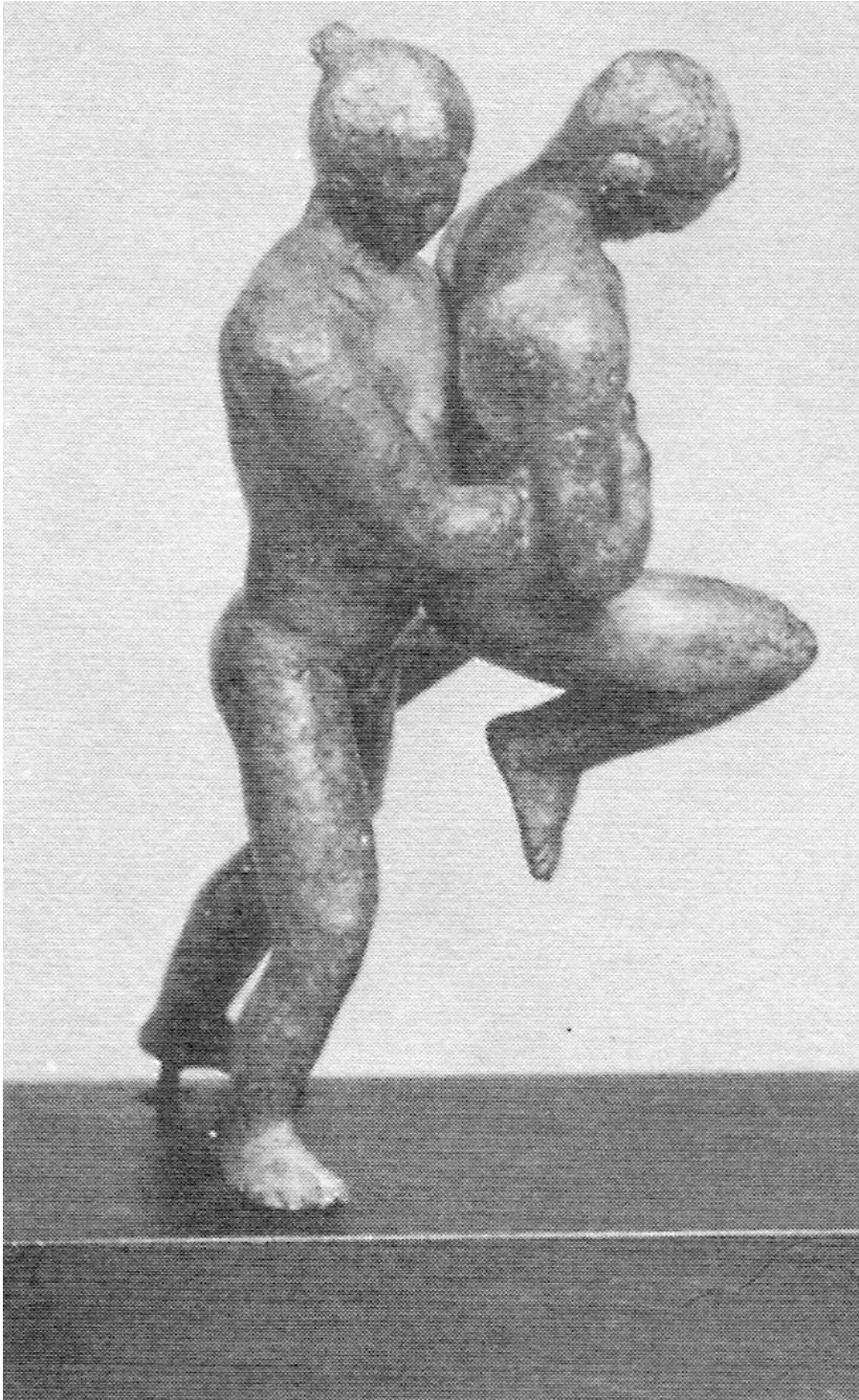


Fig. 78 Waistlock and lift

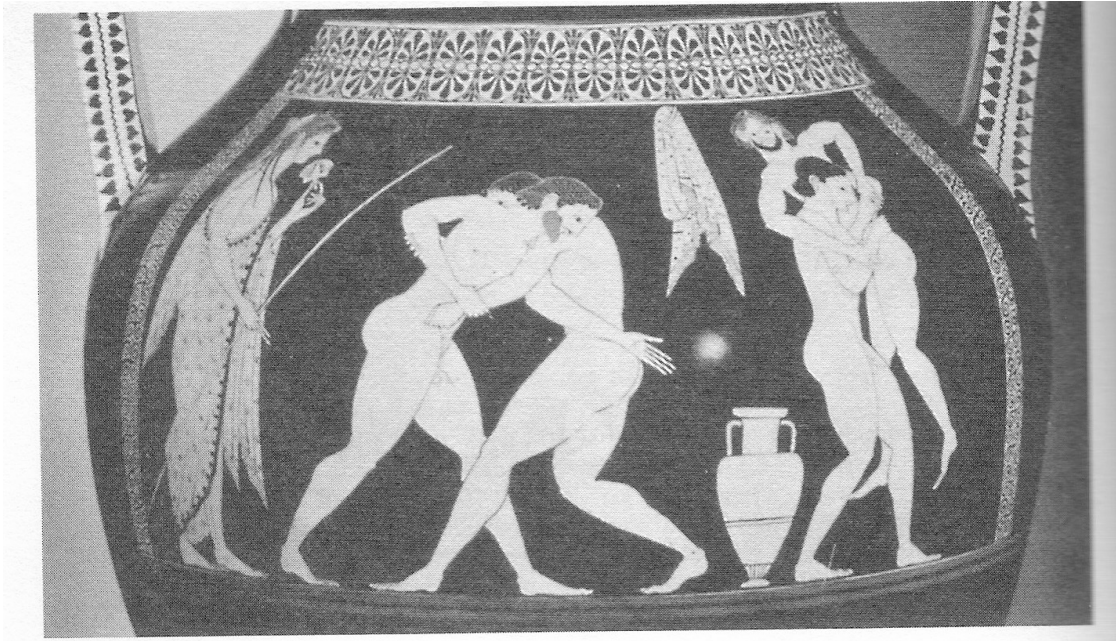


Fig. 79 Wrestling lesson



Fig. 80 Wrestlers



Fig. 81 Wrestlers



Fig. 82 Wrestler doing shoulder throw



Fig. 83 Wrestlers

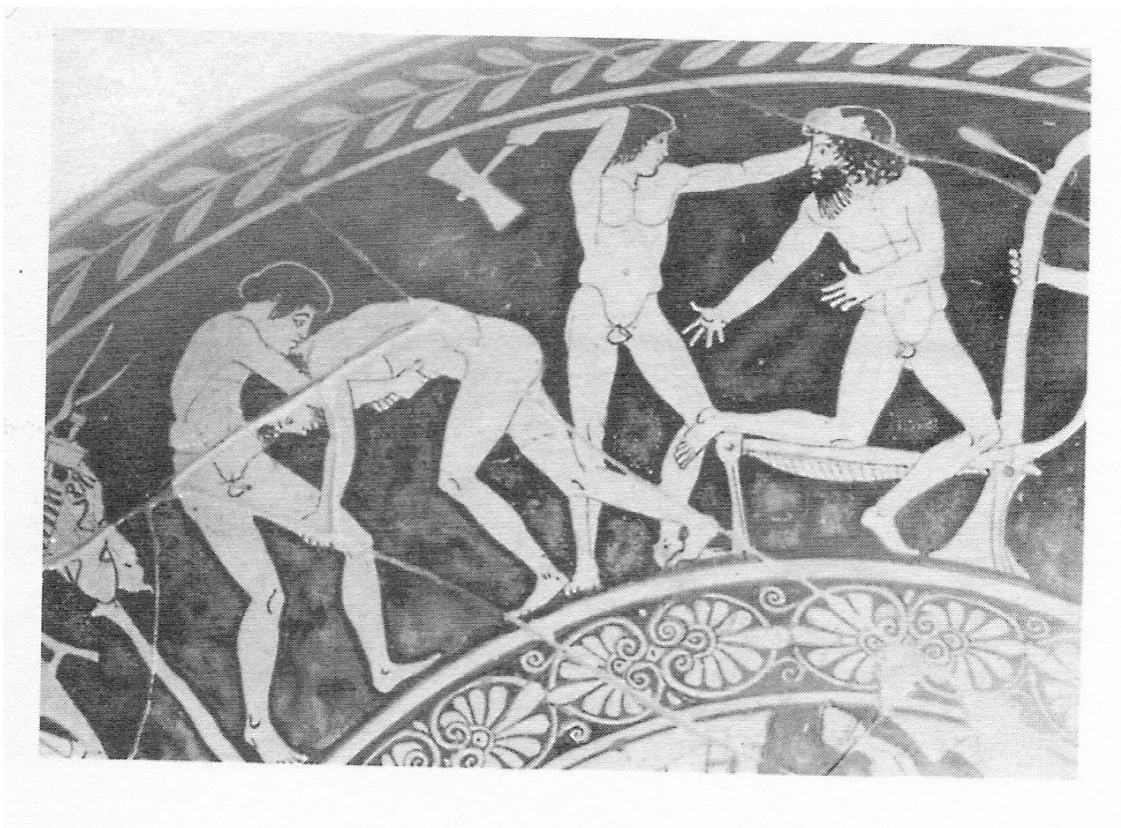


Fig. 84. Theseus counters Keryon's leg tackle



Fig. 85 Wrestler doing leg trip



Fig. 86 Wrestlers



Fig. 87 Ground wrestling



Fig. 88 Armlock



Fig. 89 Herakles pulling back Antaios' shoulders



Fig. 90 Ground wrestling



Fig. 91 Ground wrestling

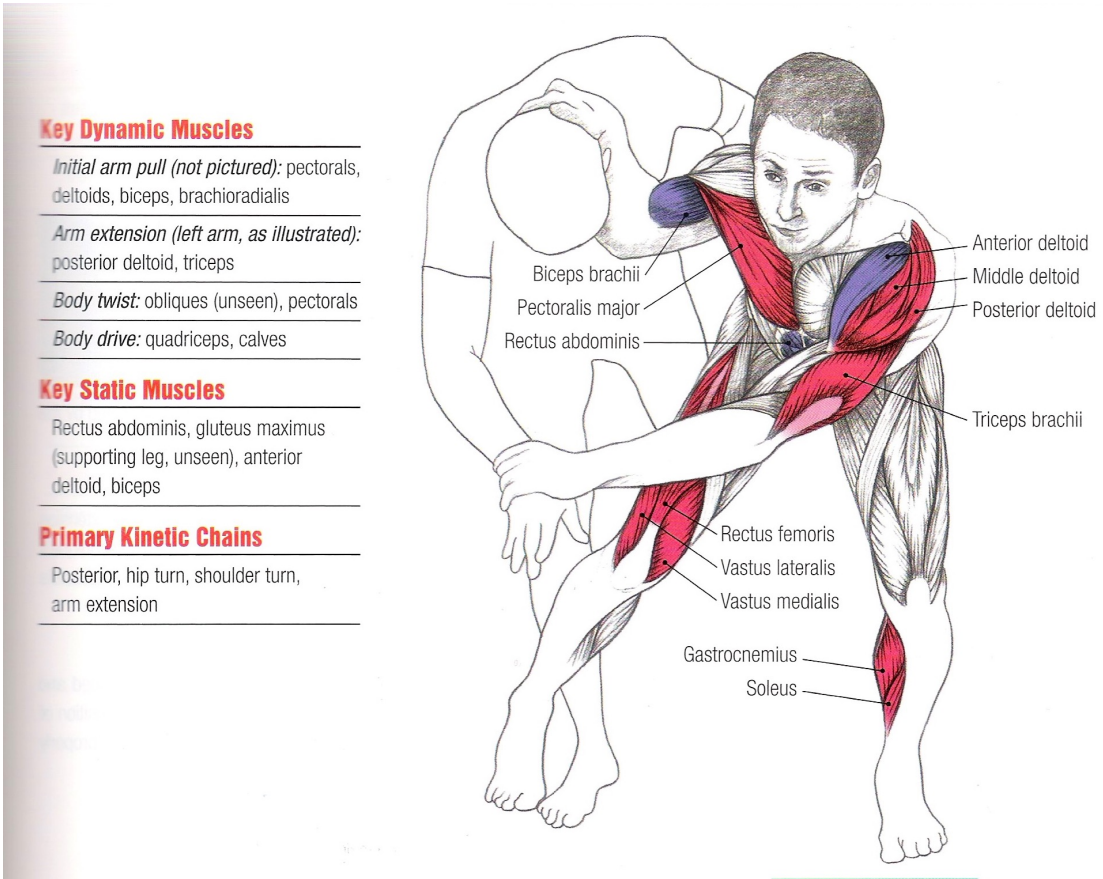
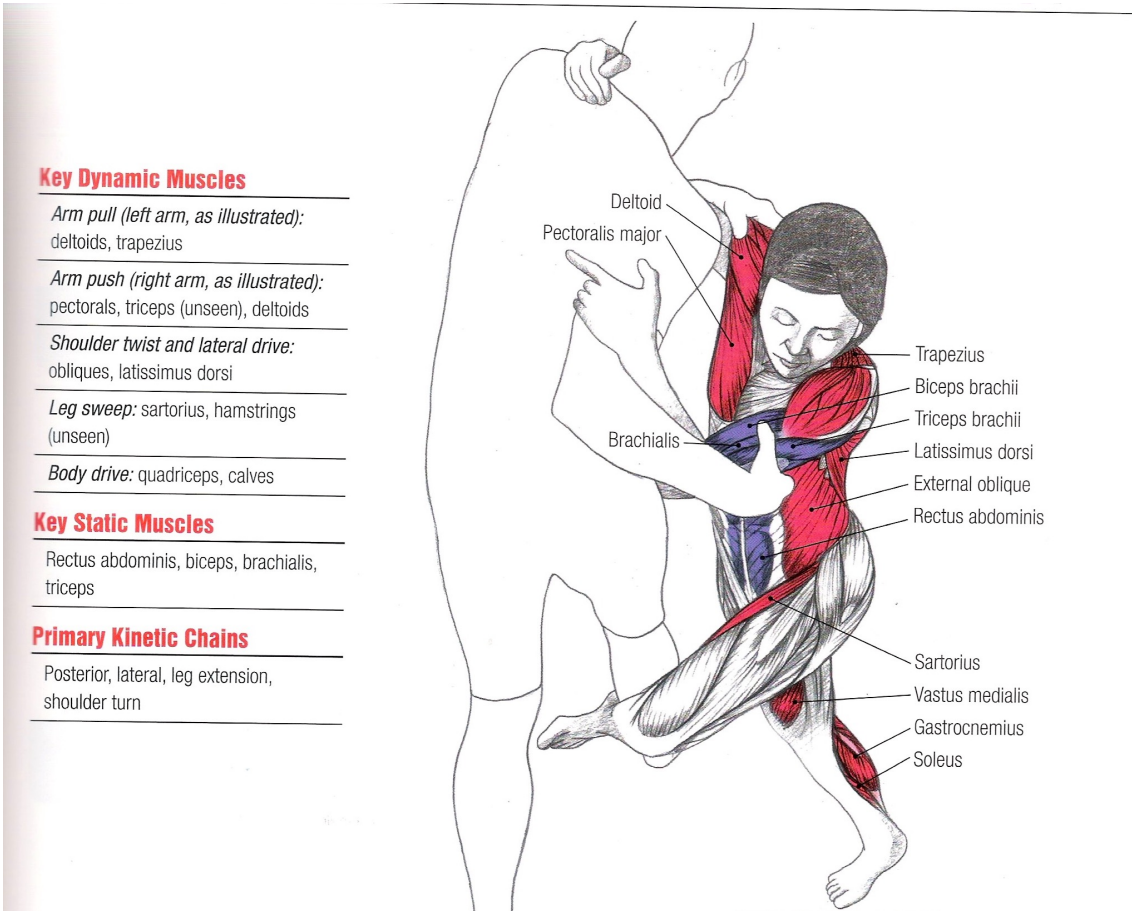


Fig. 92 Throw anatomy



Key Dynamic Muscles

Arm pull (left arm, as illustrated):
deltoids, trapezius

Arm push (right arm, as illustrated):
pectorals, triceps (unseen), deltoids

Shoulder twist and lateral drive:
obliques, latissimus dorsi

Leg sweep: sartorius, hamstrings
(unseen)

Body drive: quadriceps, calves

Key Static Muscles

Rectus abdominis, biceps, brachialis,
triceps

Primary Kinetic Chains

Posterior, lateral, leg extension,
shoulder turn

Fig. 93 Leg trip anatomy

Key Dynamic Muscles

Body drive: quadriceps (unseen), calves

Body pull-in and twist: pectorals (unseen), biceps (unseen), deltoids, latissimus dorsi, obliques, rectus abdominis (unseen)

Leg reap: gluteus maximus, hamstrings

Key Static Muscles

Calves

Primary Kinetic Chains

Posterior, shoulder turn



Fig. 94 Leg trip with headlock anatomy

Key Dynamic Muscles

Initial body pull-in (not pictured):
pectorals, biceps, deltoids

Arm extension (left arm as illustrated):
deltoids, triceps

Shoulder twist: pectorals, obliques
(unseen), rectus abdominis

Leg extension: quadriceps, calves

Key Static Muscles

Gluteus maximus (unseen), biceps,
brachialis

Primary Kinetic Chains

Posterior, leg extension, shoulder turn

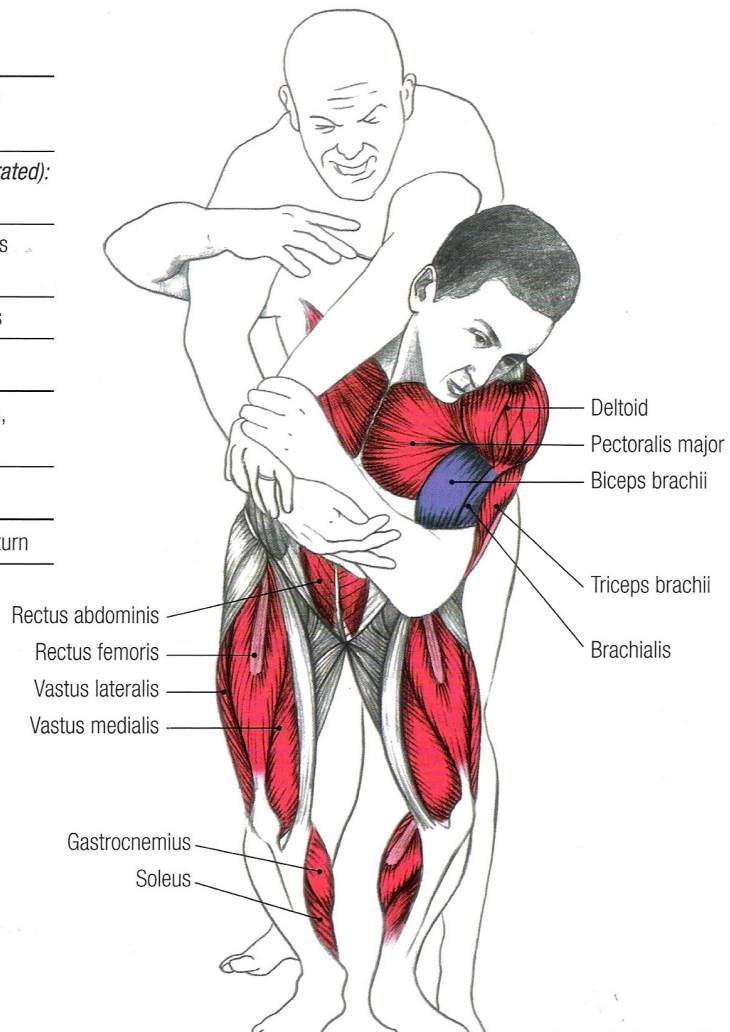


Fig. 95 Shoulder throw anatomy

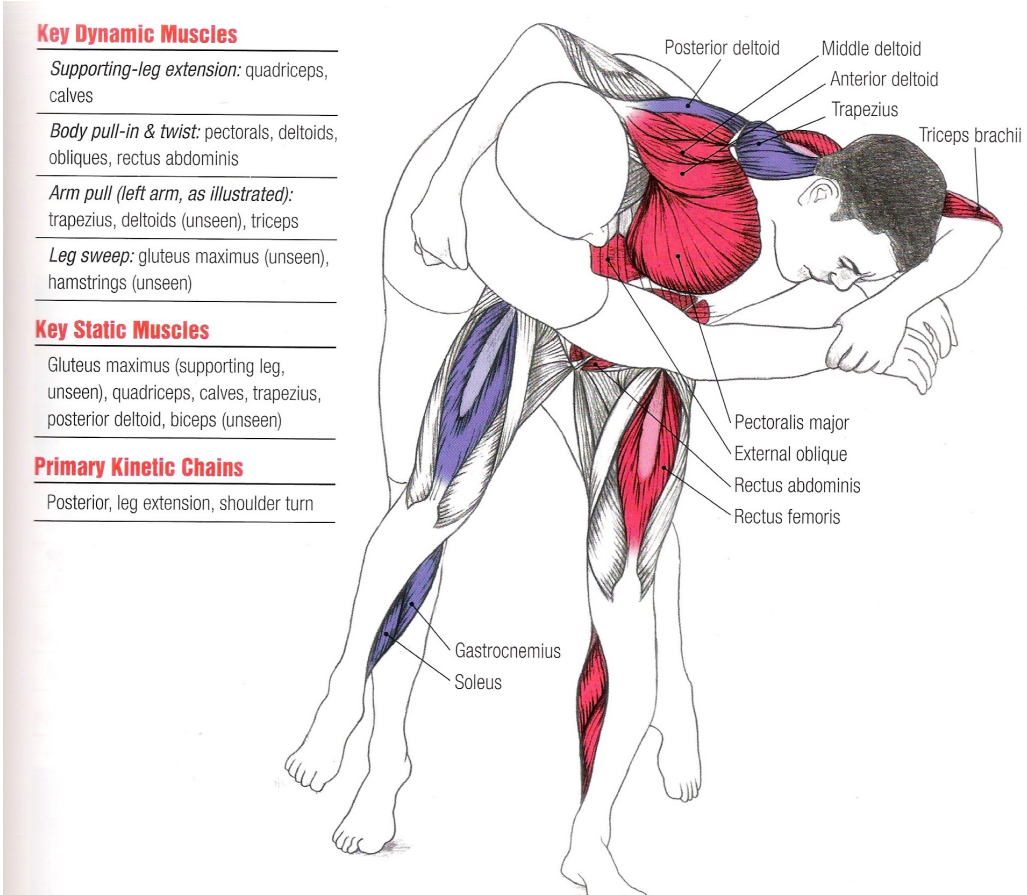


Fig. 96 Hip throw anatomy



Fig. 97 Reverse waistlock

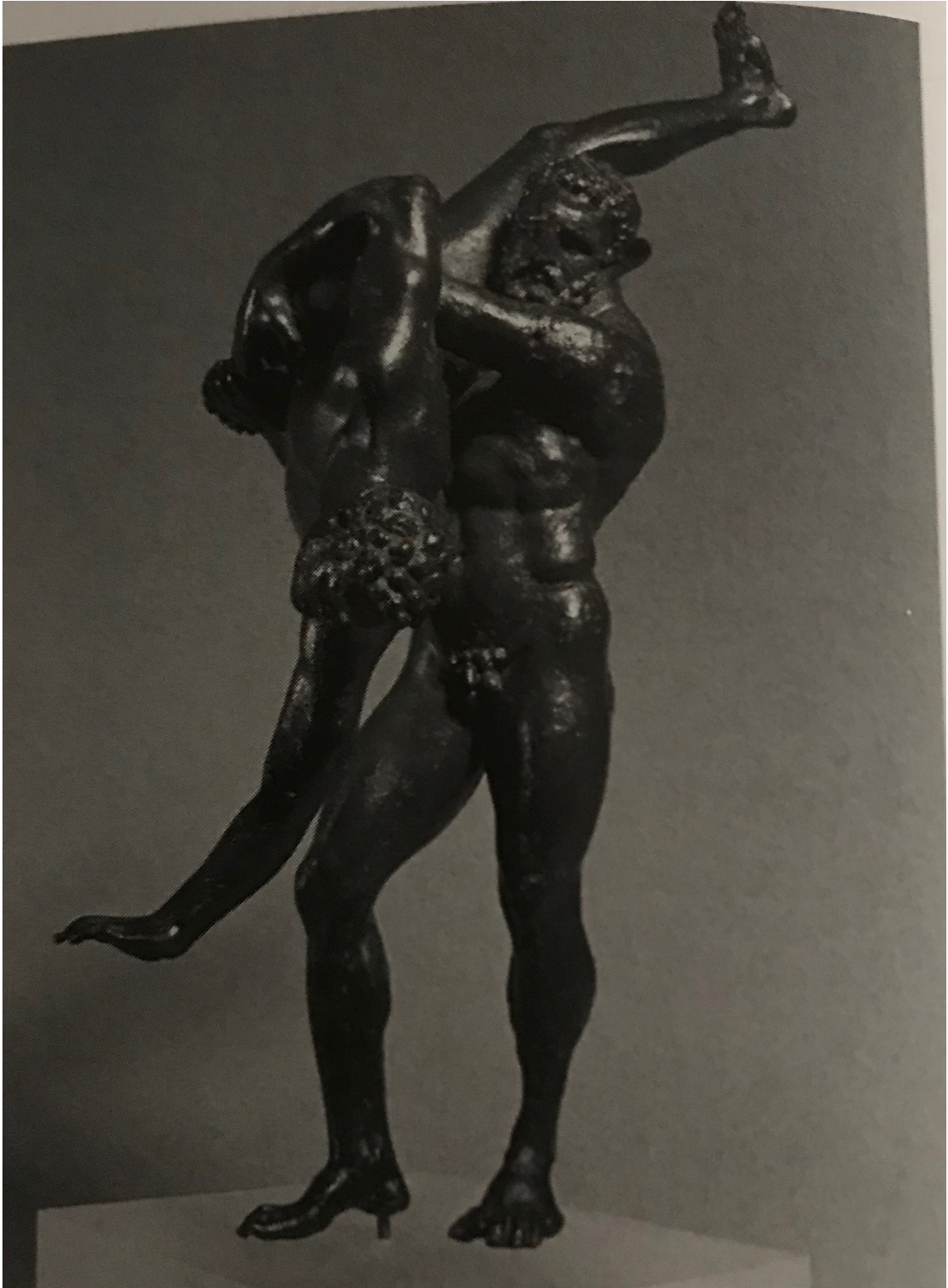


Fig. 98 Hercules and Antaios

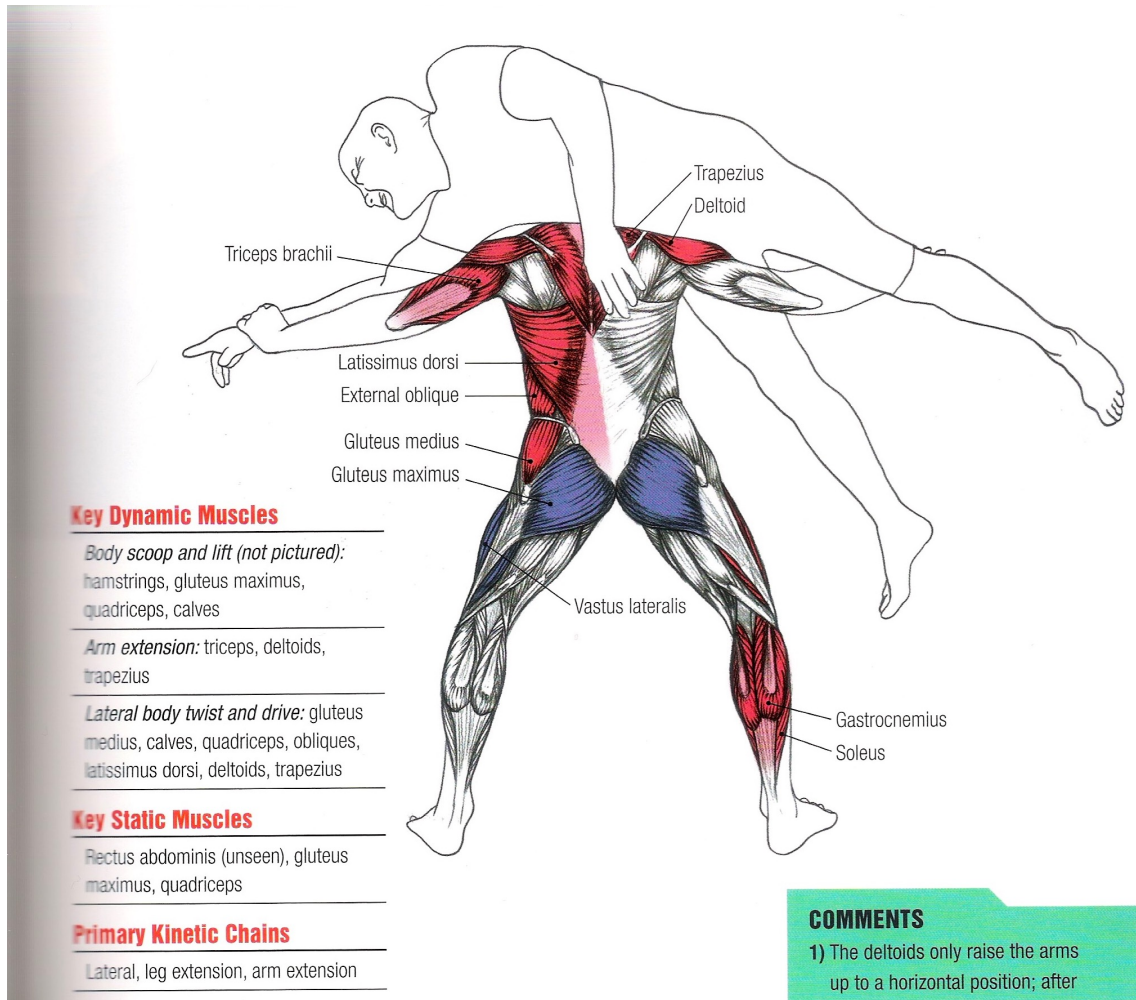
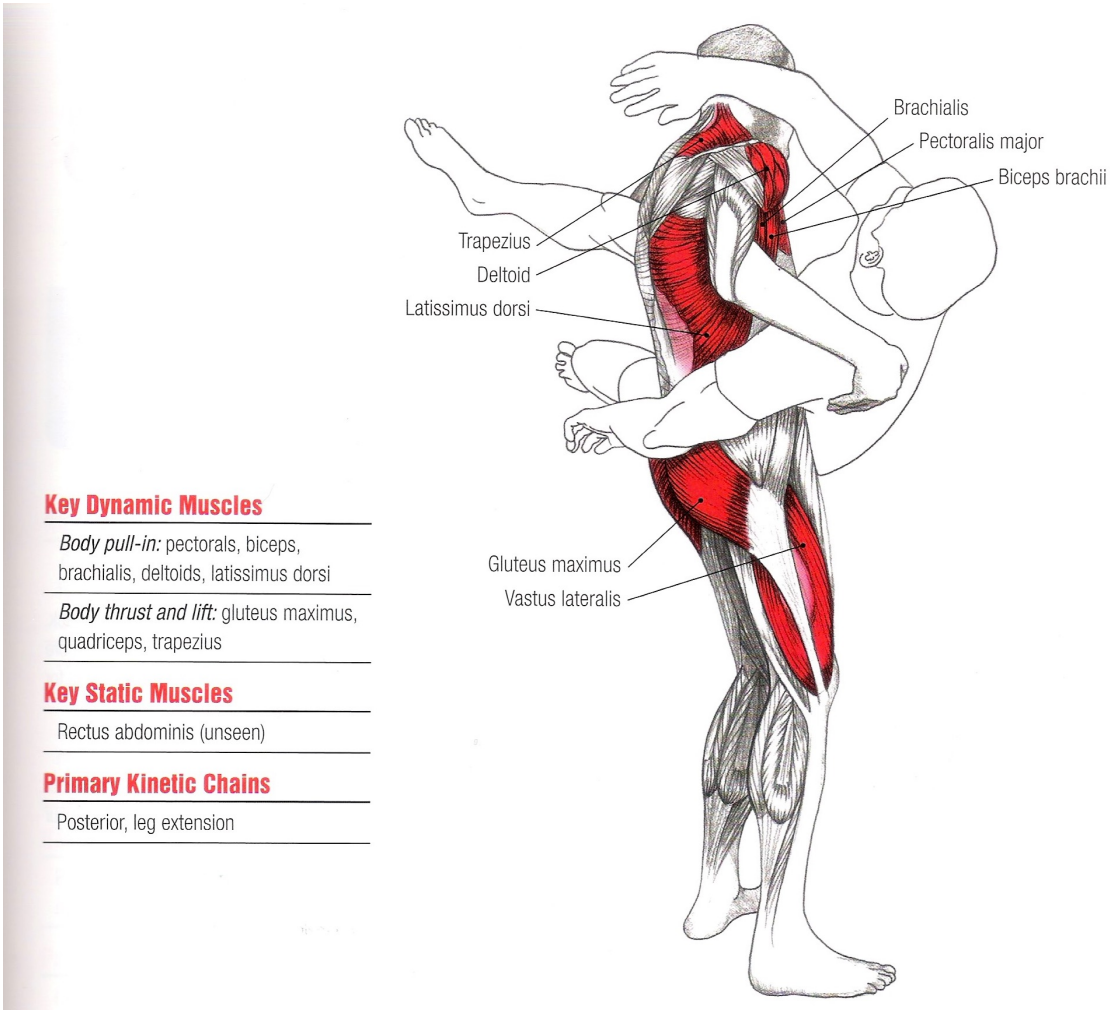


Fig. 99 Fireman lift anatomy



Key Dynamic Muscles

Body pull-in: pectorals, biceps, brachialis, deltoids, latissimus dorsi

Body thrust and lift: gluteus maximus, quadriceps, trapezius

Key Static Muscles

Rectus abdominis (unseen)

Primary Kinetic Chains

Posterior, leg extension

Fig. 100 Deadlift with throw anatomy

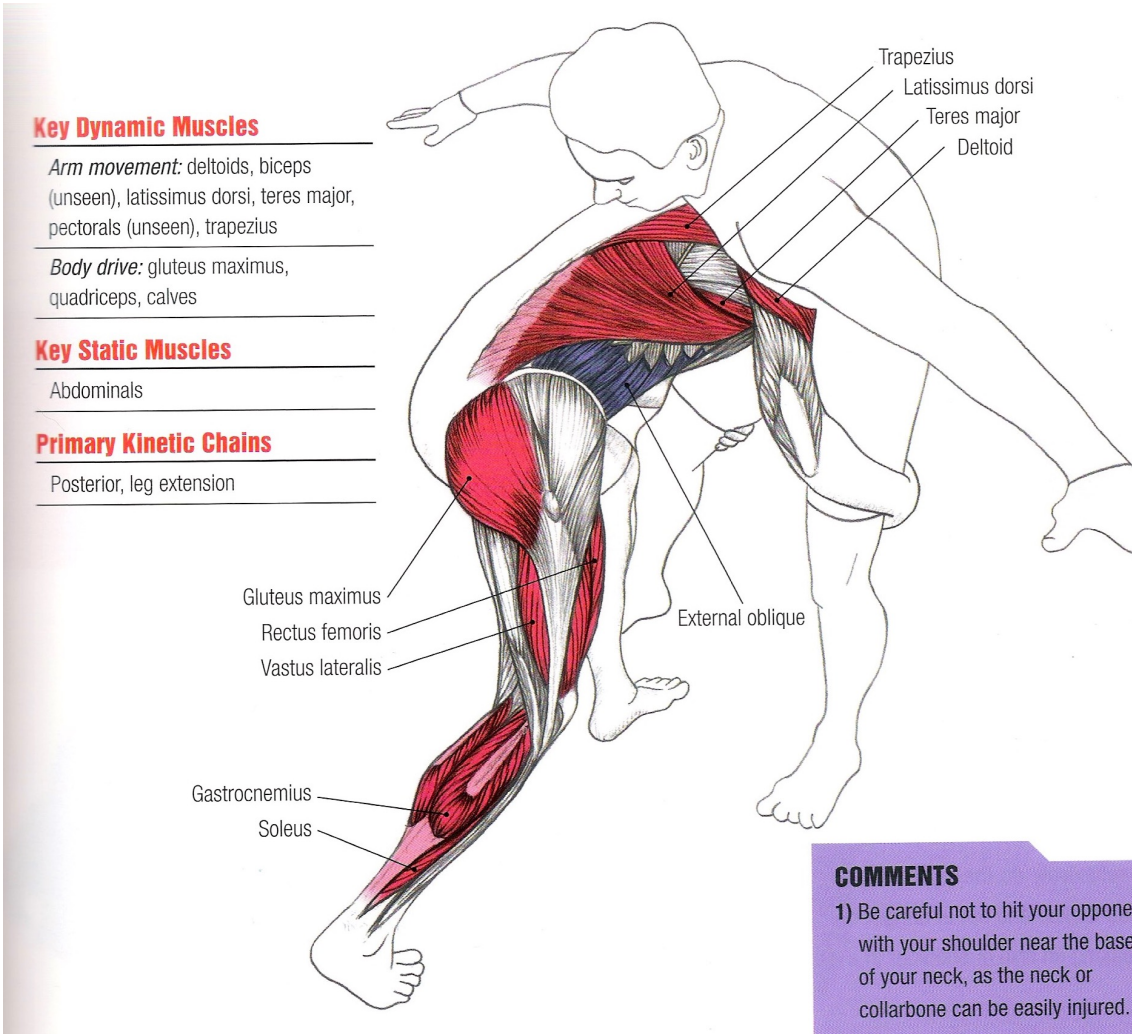


Fig. 101 Tackling the legs anatomy

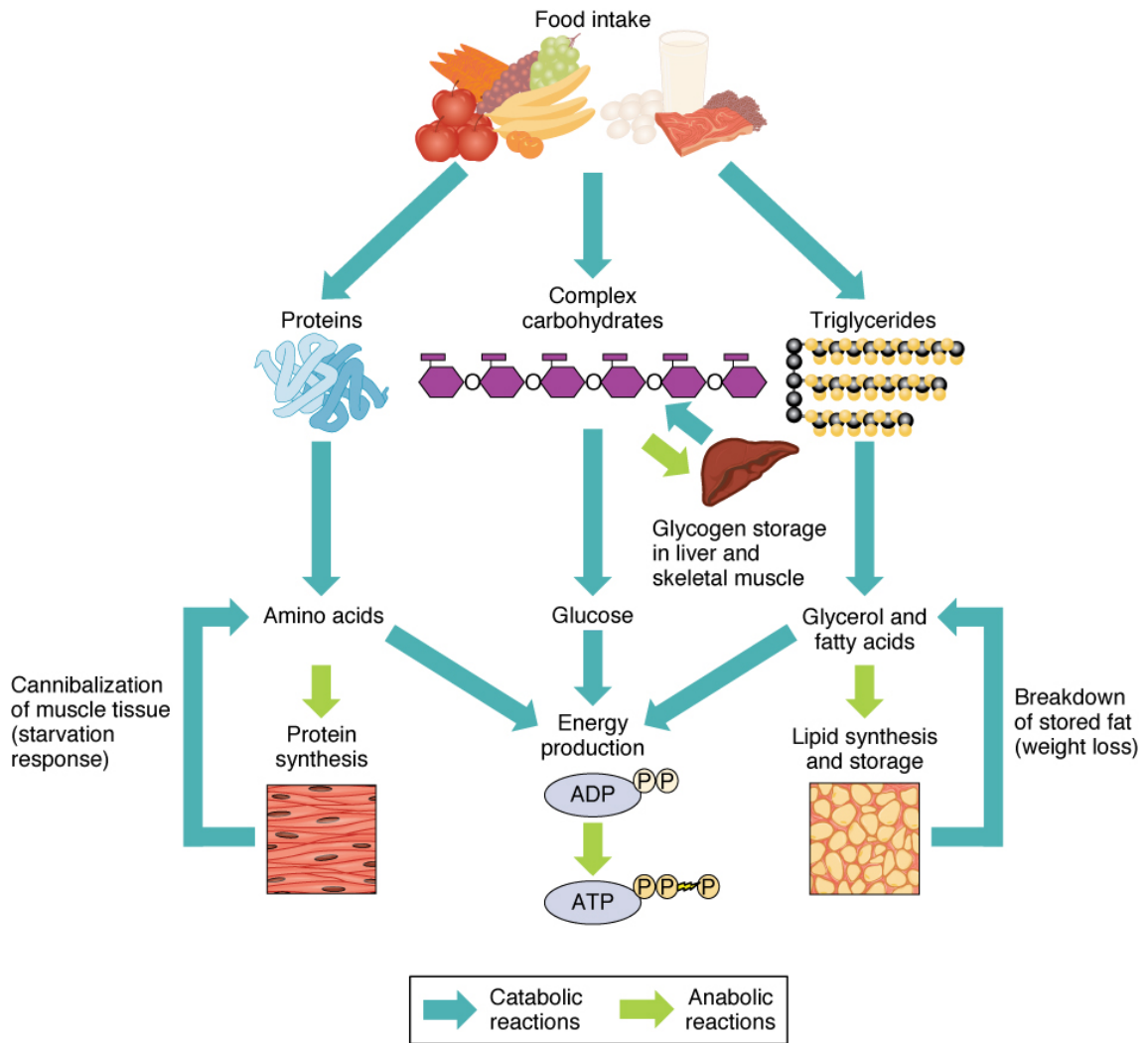


Fig. 102 Diagram of the breakdown from food intake to ATP

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