

---

# The Development of Boxing: The Ancient World (The Aegean)

Castor Dioscurus; Pollux Dioscurus

June 18, 2023

## Contents

<b>1</b>	<b>Introduction</b>	<b>74</b>
<b>2</b>	<b>Visual Evidence</b>	<b>74</b>
2.1	Plaques . . . . .	74
2.2	Figures and figurines . . . . .	75
2.3	Seal impressions . . . . .	82
2.4	High relief . . . . .	83
2.5	Rhyta . . . . .	84
2.5.1	The Boxer Rhyton . . . . .	84
2.5.2	Other rhyton fragments . . . . .	90
2.6	Frescoes . . . . .	93
2.6.1	The Boxing Boys . . . . .	93
2.6.2	Other frescoes . . . . .	104
<b>3</b>	<b>Written evidence? The Phaistos Disc</b>	<b>106</b>
<b>4</b>	<b>Conclusion</b>	<b>106</b>

### Abstract

Boxing in the ancient Aegean (Crete and the Cyclades) developed a unique visual vocabulary strongly suggestive of ritual and magic. A variety of artifacts depict boxers engaged in an anagogical praxis unobserved in the ancient Near East. The unusual attire of Aegean pugilists indicates that, like contemporary muay Thai and dembe boxers, Aegean boxers of the Bronze Age sought mystical protection in the ring. Deposition of boxer figurines at peak sanctuaries leads us to believe that Minoan boxing was linked to chthonic deities. We note the variety of pugilistic styles attested in the *disjecta membra* of boxing art left by the inhabitants of the Bronze Age Aegean.

## I Introduction

The evidence for boxing on the islands of the Bronze Age *Æ*gean is fragmentary but nonetheless convincing and copious. While only the barest inferences regarding pugilism can be made from *Æ*gean writing, the rich pictorial testimonia of Bronze Age boxing on Crete, Thera, and Naxos lead us to believe that boxing enjoyed a significant efflorescence there. During a period of perhaps a thousand years, practitioners experimented with a variety of parameters including boxing gloves *sensu lato*, participants, and striking. We will organize our discussion of these and other features by artistic medium. It is beyond the scope of this article to introduce the Minoan and Cycladic civilizations in all but the broadest terms. Moreover, we defer the mountain of evidence regarding boxing on mainland Greece (and Cyprus) to a future article.

The civilizations of the Bronze Age *Æ*gean Sea thrived on the islands of Crete and the Cyclades from the third millennium until late in the second millennium BC. Boxing is among the *Æ*gean cultural practices that have fascinated scholars for decades. The activity is amply attested in Minoan and Cycladic art across multiple sites and media. Minoan boxing, in particular, is remarkable for its wide variety of forms, including unique hand covering and attire. There should be no question that in the realm of Minos and across the ‘wine dark sea’ in the neighboring Cyclades, boxing was a meticulously elaborated practice, though its meaning to the ancient *Æ*geans eludes us. The relationship between Minoan pugilism and forms of boxing in western Asia and Egypt offers intriguing insights into the development of orthograde, unarmed combat in the Mediterranean basin (Dioscurus and Dioscurus 2022).

Minoan and Theran boxers are represented in the context of a unique visual vocabulary that emphasizes the fitness of the male boxer, his elite status, and his hierurgical activity. As we have explained elsewhere, ‘sacred boxing’ was not unknown in Egypt, Mesopotamia, Anatolia, and the Levant. *Æ*gean boxing may well be related to those forms in this sense, but it clearly distinguishes itself in many others.

## 2 Visual Evidence

### 2.1 Plaques

A marble plaque found on the Cycladic *œ*e of Naxos and dated to sometime in the third millennium is suggestive of a boxing match (Fig. 1). The plaque shows three male figures “crudely pocked in silhouette, not outlined with incision” (Hood 1978, p. 94). The two figures at left confront one another, one with an unnaturally elongated arm that he waves over the head of his adversary. The role of the third figure is ambiguous; he may be joining in the fight or he may represent a spectator or referee. All the figures raise their arms. The boxing plaque, along with two similar pieces—one showing men hunting and another depicting men in a boat—may have originally formed a frieze illustrating various aspects of male endeavor.

The simplistic figurative rendering suggests the plaque was executed during the earliest phases of Cycladic civilization. Naxos, which is set in the *Æ*gean Sea north of Thera, assumed a central role in the Cycladic culture of the Bronze Age, so its residents were presumably involved in seafaring commerce. Given the early date of the plaque, however, it is unlikely that the artist was influenced by Near Eastern depictions of boxing, which were not that

common in the third millennium (Dioscurus and Dioscurus 2022). Thus, the Naxos plaque may be the first evidence of autochthonous pugilism in the Aegean. We recognize, however, that the plaque does not unambiguously represent a boxing match, or even fist fighting. Later Aegean depictions do so much more clearly.

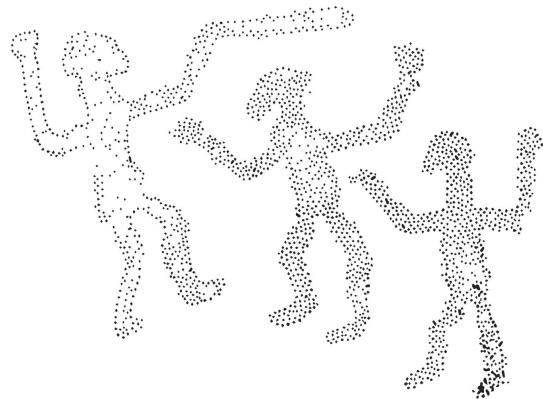


Figure 1: Detail of a marble plaque with male figures engaged in unarmed combat, from Korfi t'Aroniou, Naxos, and dated before 2000 BC (Naxos Archaeological Museum). The somewhat smaller figure at right may be a spectator or referee.

An unpublished ivory plaque found at Poros, on Crete, is said to depict paired boxers in the manner of the Boxer Rhyton (Rethemiotakis 2014, p. 151).

## 2.2 Figures and figurines

Minoan worshipers on Bronze Age Crete were drawn to holy sites on the summits of mountains, called peak sanctuaries [Ger. *Gipfelheiligtümer*], where they engaged in as yet poorly understood hierurgical activity.<sup>1</sup> In their peak sanctuaries, the Minoans deposited anthropo- and zoomorphic figurines, often in the clefts of rocks or in deep chasms, if available.<sup>2</sup> Unfortunately, the publication of peak sanctuary finds is still “very limited” (Morris 2009, p. 185) and critical approaches that emphasize the “stereotypical” or “crude” nature of the figurines tend to suggest a uniform peak sanctuary cult across Minoan Crete, when a theory of “local preferences and needs” may be more appropriate (*ibid.*, p. 186). A sanctuary could be marked by an enclosing wall with an altar in the center where sacrifices and votive offerings were made. The Minoan peak sanctuaries of Crete were constructed in the late third millen-

<sup>1</sup>Peatfield (2009, p. 253) catalogs the most common attributes of the sanctuaries: position on or near the summit of a prominent mountain, with an altitude range of between 700 and 4,000 feet above sea level; visible to nearby settlements; accessible; close to nearby settlements; close to “areas of human activity and exploitation”; and intervisible with other peak sanctuaries.

<sup>2</sup>A deep chasm associated with the Kophinas sanctuary is called Trypa tou Kofinou. While it has yet to be excavated, it “allegedly contains Minoan artifacts and bones” and therefore may contain even more evidence of Minoan boxing (Soeten 2009, p. 262).

nium and some were in continuous use for more than a thousand years. Looting and erosion have resulted in the extensive fragmentation of the figurines that survive.

We will emphasize the deposition of anthropomorphic figurines that represent boxers. These finds, which include fragmented representations of arms and boxing gloves, have been discovered primarily at Kophinas,<sup>3</sup> the highest summit in the Asterousia mountains on the south-central coast of Crete (Rethemiotakis 2014). The Kophinas sanctuary has a deposition record extending from as early as 3500 BC to as late as 1500 BC (Soetens 2009, p. 266).<sup>4</sup> The holy site is located in the vicinity of nearly fifty natural effluxes from the local aquifer (Soetens 2009, p. 264).<sup>5</sup> On this basis, it has been argued, “A sequence of ritual actions that involved throwing offerings and libations into chasms, other crevices, or even human-made receptacles may have been conceived as the means to request that water penetrate the mountain and find its way to the numerous springs around [it]... A strong interest in fertility was expressed at the peak sanctuaries by the dedication of representative figurines of flocks and humans” (Soetens 2009, p. 265).

The clearest example of a boxing figure comes (most likely) from the Kophinas sanctuary (Rethemiotakis 2001, p. 128). It is now housed in the British Museum (No. 1970,1107.1; Fig. 2). This terracotta figure, complete with its original legs, probably stood about thirteen inches tall.

The figure, dated to the seventeenth century BC, undoubtedly represents a boxer.<sup>6</sup> He wears a single enlarged glove on his left hand (the figure’s right arm is missing). From the frontal view, the Kophinas Boxer’s glove appears remarkably modern in its shape and proportions; it resembles nothing so much as a standard sixteen-ounce boxing glove of the twentieth century. However, closer examination reveals that, it is “shaped like a semi-spherical cup, hollow underneath with a ledge around the ‘rim’” (Rethemiotakis 2014, p. 150).<sup>7</sup> Together with other Minoan artifacts, including fragments found at Kophinas (Rethemiotakis 2014), we note that there was some variation in the size, shape, and constitution of Minoan boxing gloves (see Figs. 3 and 4). We may even observe a descendant of the Kophinas Boxer’s glove in Greek art of the seventh century BC (e.g., a pedestaled krater, National Archeological Museum of Athens, No. 12896). The curious boxing glove worn by the Kophinas Boxer is also attested in a splendid Minoan artifact known as the Boxer Rhyton (Sec. 2.5.1).

Perched precariously atop the pugilist’s head, the distinctive conical hat was most likely donned in ceremonies that took place before combat. According to one commentator, the hat is an “insignium of official, sacerdotal or even divine status” (Rethemiotakis 2001, p. 126). It taxes credulity to imagine a scenario in which a hat serves any practical purpose in the boxing ring. The closest parallel may be found in the *mongkon*, a braided headgear worn by fighters during the rite of *wai khru* that precedes muay Thai bouts. After the initiatory *wai khru* is performed, the headgear is removed before the first bell rings and the boxers commence their

<sup>3</sup>Another figurine, most likely a boxer, was discovered at Palaikastro (Fig. 5).

<sup>4</sup>According to Soetens (2009, p. 266), the “remarkable longevity” of the Kophinas sanctuary attests to its importance in Minoan religious practice.

<sup>5</sup>There was likely a processional path from nearby Phaistos to Kophinas, a distance of about 15 miles by modern roads (Soetens 2009, p. 267).

<sup>6</sup>Figurines of this type were “usually modeled from several pieces of clay that were joined through the use of shaped clay pegs, for example at the neck or at the join between torso and skirt” (Morris 2009, p. 181). In the case of the Kophinas Boxer, the head has been restored to its original position, so that the original ligature between head and body is unknown.

<sup>7</sup>Elsewhere, Rethemiotakis describes the glove more succinctly as having a “perimetric rim” (2001, p. 128).



Figure 2: Restored fragment of a terracotta boxer figure (British Museum No. 1970,1107.1) found at a hypaethral peak sanctuary at Kophinas, Crete, and dated to 1700–1600 BC. The “pad” or patch is visible in the lower image, as well as another view of the glove.

agonistics.<sup>8</sup> Rethemiotakis (2014, p. 150) suggests that the Kophinas Boxer may be at prayer (due to the placement of his hand), congruent with our interpretation of the hat's ceremonial nature. Based on evidence from Minoan/Mycenaeān seals and signet rings, Rethemiotakis argues that “a conical hat or tiara” may have been used as an “insignia of power or hieratic office” (*ibid.*). If this is correct, then it puts the Kophinas boxer squarely in the realm of the hierurgical boxers we observed throughout Mesopotamia and its satellites (Dioscurus and Dioscurus 2022).

Another curious detail of the Kophinas Boxer is a patch that covers his left shoulder. It has been described as a “pad” by curators at the British Museum, though this may suggest a thickness which the object does not itself possess.<sup>9</sup> It is hard to imagine that this bit of material conferred safety from blows in any practical sense. Instead, it is more likely a protective amulet worn on the boxer’s body during or immediately before combat. The patch bears a double cross, similar in form to the *Croix de Lorraine*. We are unaware of this symbol appearing elsewhere in Minoan or Cycladic art. Like the small looped object in the belt of one of the Boxing Boys of Akrotiri (Section 2.6.1), the purpose of the shoulder patch is most likely telesmatic.

As we will elaborate in the sections below, there is mounting evidence that, as in contemporary muay Thai and dembe boxing, Bronze Age boxing of the Aegean was marked by ritual activity: fighters sought protection by wearing magical objects during or immediately before their fights. In the case of the Kophinas Boxer, another possibility is that only the representation of the boxer was adorned in this way, perhaps to protect a particular fighter from harm through a kind of *participation mystique*, i.e., by the fighter or his ritual patron forming an identity with the enchanted figure.

This leads us to further speculation on the significance of the votive boxer figurines deposited at Cretan peak sanctuaries. It has been argued that they were intentionally simplified in order to represent “only selected aspects of the human form” (Morris 2009, p. 180). The Kophinas Boxer was most likely designed to accentuate his attire (the hat, the patch, and the boxing glove) and his broad chest. The meaning of these elements to the Minoan observer remains elusive. One commentator has argued, however, that figures like the Kophinas Boxer were intended to project “the exercised, athletic body of coteries of male worshipers” as an “ideal value” (Rethemiotakis 2001, p. 126).<sup>10</sup>

Most scholars believe that the figurines represent participants who actually took part in the peak sanctuary rituals. Perhaps boxers commissioned their own images to be made, then offered them at the sanctuary in an attempt to gain some divine favor. Given the brutal nature of boxing among the Minoans, it is reasonable to assume that such a ritual participant would request protection in future bouts or healing from injuries previously sustained.

More generally, it has been hypothesized that “the main purpose of the peak sanctuaries was the ritual supplication for water, which was essential to fertility” (Soeten 2009, p. 268). In a later article, we will take up the subject of how contemporary ‘folk boxing’ in Mexico still serves this imbriferous function. It is possible that the Minoans viewed the spilling of blood during fist fights as a prefiguration of rainfall, as their New World counterparts do to

<sup>8</sup> Dembe boxers in Nigeria (discussed further in Section 2.6.1) also wear hats on occasion, though none so pavone as that of the Kophinas Boxer.

<sup>9</sup> [https://www.britishmuseum.org/collection/object/G\\_1970-1107-1](https://www.britishmuseum.org/collection/object/G_1970-1107-1)

<sup>10</sup> We cannot help but think of the Mattel sword-and-planet-themed media franchise “Masters of the Universe”, with muscle-bound action figures created for the *participation mystique* of young boys in the 1980s.

this day (Zorich 2008).

Along with the Juktas sanctuary, Kophinas had a “strong spiritual attraction” owing to its katabatic chasms (Soetens 2009, p. 268). The prevalence of boxing iconography at Kophinas suggests that pugilism, too, was associated with chthonic powers. Minoan boxing was brutal, as indicated by such artifacts as the Boxer Rhyton (Section 2.5.1). The Minoans nurtured a love of gladiatorial combat which, like boxing, must have routinely sent souls to the underworld, accessed through the chasms associated with Minoan peak sanctuaries (Evans 1921–1935, vol. 3, pp. 500, 502). The Kophinas sanctuary may have even served as a memorial for boxers who expired in combat. We find support in this speculation from Morris (2009), who argues that the figures deposited at Kophinas and elsewhere “should be read not as undifferentiated worshipers, but as individuals operating within a complex social reality” (p. 187). Rethemiotakis (2001) finds support for the claim that boxers belonged to a specialized guild capable of commissioning these *ex-voto* offerings “charged with ideological meaning” (p. 128–129).

It is unclear whether the gestures assumed by the figurines should all be subsumed into simple categories like supplication. With the boxer figurines, in particular, one might wonder whether or not they were represented in the act of combat. Because the arms of figurines with an open gesture are more likely to be broken (Morris 2009, p. 186), we may not expect to find surviving boxer figurines *in flagrante pugnā*, as observed in the Minoan glyptic arts. This, of course, does not mean that such sculptures did not exist.

Among the “elite artifact[s]” (Soetens 2009, p. 267) deposited at Kophinas are at least three arms terminating in boxing gloves (Fig. 3) and at least three more boxing gloves *sans bras* (Fig. 3).



Figure 3: Three arms of boxers found at the Kophinas peak sanctuary (Heraklion Archaeological Museum).

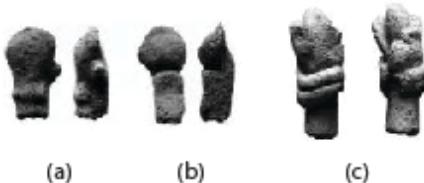


Figure 4: Three sets of gloves found at the Kophinas peak sanctuary (Heraklion Archaeological Museum?). Gloves (a–b) have the ‘perimetric rim’ of the Kophinas boxer (Fig. 2).

The arms are described as having a “hemispherical finial with perimetric rim and incised band” (Rethemiotakis 2001, p. 126). These undoubtedly once belonged to figurines of boxers and offer a stunning analog to depictions on rhyta (see Section 2.5.1) and frescoes (see Sec. 2.6.1). Additional pieces of legs have been discovered which the excavator asserts “probably belong to figurine groups of boxers in action” (Rethemiotakis 2001, p. 128). Any such figurines were most likely intended for display and bespoke the high social status of their dedicators, associated as they were with the pugilistic activities of the palace culture.

The gloves, which we will see again in the Boxer Rhyton (Sec. 2.5.1), deserve special comment. As shown in Fig. 4 (a–b), they have the appearance of a cup covering the knuckles. This is obscured when the rounded base of the cup faces the viewer. When the viewer sees the cup from the side, however, it is clear that its rim could be sharp (Fig. 4 (b), right). Similar forms are immediately visible to the careful observer of the Boxer Rhyton. The boxing glove in Fig. 4 (c) is anomalous. It appears to have three prongs—perhaps a rudimentary preview of late versions of the Roman *cæstus*. The sanguigenous nature of Minoan boxing can be inferred from these instruments of punishment.

Another sculptural representation of a boxer was found at a peak sanctuary near Palaikastro (perhaps Mt. Petsofas?) in eastern Crete (Fig. 5). Unlike the Kophinas boxer, the Palaikastro Boxer’s hands are not enlarged to suggest boxing gloves, nor do we detect a perimetric rim on the palm side of the gloves.<sup>11</sup> The figure is athletic in build and does not raise his hands in the supplication gesture typical of Cretan orant figurines. Instead, he bends his arms at the elbow and pushes his knuckles against each other.<sup>12</sup> Most important for our interpretation, the Palaikastro Boxer wears a loincloth identical to the pugilist depicted in the Tylissos fresco (Fig. 20). This wide, leaf-like apron covers both front and back, secured with a wide belt, leaving the upper thighs exposed. His locks of hair are reminiscent of those worn by the young boxers of Thera (Fig. 16).

The existence of figures like the Kophinas and Palaikastro Boxers suggest a “strong message of social emulation” (Rethemiotakis 2014, p. 152). As members of a distinguished male group, Minoan boxers may have sought “effective ways to consolidate and set off their ideological identity within a broader frame of competitive behaviors and practices of the elite class” (*ibid.*). Moreover, the figurines “project the perception of a hardy, manly body, a diachronic ideal” intended for Minoan society more generally (*ibid.*, p. 155).

<sup>11</sup>We will observe various examples of bare-knuckle boxers elsewhere in the Minoan corpus, including on the Boxer Rhyton.

<sup>12</sup>It has been observed that bringing the hands in front of the chest is “the commonest gesture of the Minoan clay figurines in all periods” (Rethemiotakis 2001, p. 80).



Figure 5: Figurine of a boxer found at Palaikastro (Heraklion Archaeological Museum No. 3904). The boxer, which stands about 7.25 inches tall, wears a loincloth similar to the one worn by a boxer depicted at Tylissos (Fig. 20).



Figure 6: Ivory arm of a man with a clenched fist, found near the Royal Road at Knossos and dated to between 1500 and 1450 BC (Heraklion Archaeological Museum). It can be inferred that the complete figure would have been approximately 1.3 feet tall (Hood 1978, p. 120).

A fragmentary boxer scene, executed in the round, is described by Rethemiotakis (2014, p. 151) but unfortunately photographs of the sculpture are unavailable. It apparently includes a male figurine acquired by the Heraklion Archaeological Museum in the 1960s, in addition to other fragments from Kophinas “confiscated by the police”. The original scene probably depicted two boxers in a tableau similar to those on the Boxer Rhyton.

Finally, another disembodied arm has been found, the structure of which has brought at least one commentator to the conclusion that it belonged to a boxer (Hood 1978, p. 120). The arm, which has a bare, clenched fist, is associated with the palace culture of Knossos (Fig. 6). It must have originally belonged to a representation of a pugilist a little over one foot tall.

### 2.3 Seal impressions

Seals, together with the impressions they left in clay and other media, functioned as a kind of cryptographic device in the Bronze Age Mediterranean and Near East.<sup>13</sup> Boxing appears to have been a favored subject to inscribe on Aegean seals, a fact we infer from the remains of two seal impressions. These offer further insights into the boxing culture of Minoan Crete.

The first seal impression, found in a repository at the palace complex in Knossos, shows a boxer assuming a classic pose we will see repeatedly on drinking vessels (Sec. 2.5). In these scenes, the boxer always faces right, with his fallen opponent before him and his chest towards the viewer; the boxer’s left arm is raised and slightly arched, his right arm bent more acutely and lowered. However, the seal that produced this impression was not intended as a copy of these scenes, because here the boxer’s back faces the viewer. This is the only piece of Minoan boxing art where the boxer moves in this direction.<sup>14</sup> The skillful artisan was toying with his

---

<sup>13</sup>We review several Levantine seal impressions related to pugilism in Dioscurus and Dioscurus (2022).

<sup>14</sup>On the original seal itself (which does not survive) the boxer would have faced right but his back would still have been to the viewer.

audience's expectations. We see the shoulder, back, and gluteal muscles rippling across the boxer's body, as well as a column of doubtful interpretation (see Sec. 2.5). We expect to see a fallen boxer to the figure's left, but insufficient detail remains to consider this subject in depth. The figure wears a band around his right wrist, suggestive of a boxing glove.

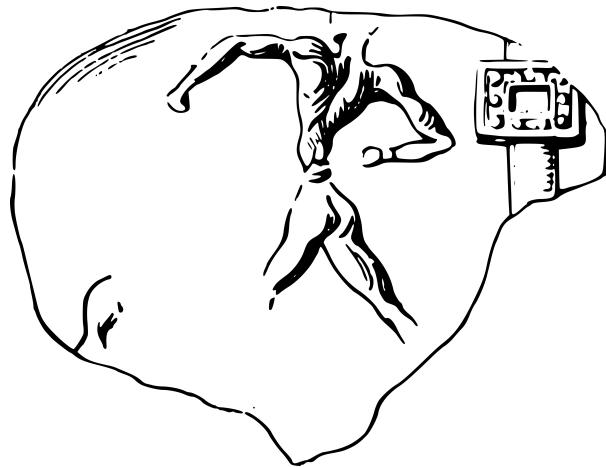


Figure 7: Boxing scene on a repository sealing from Knossos. Unconventionally for Minoan boxing art, the boxer shows the viewer his back.

In another seal impression, this one from the Little Palace at Knossos (Evans 1921–1935, vol. IV, p. 600, Fig. 594), we watch as a boxer tumbles to the ground head first, his arms splayed out to brace his fall (Fig. 8). The opponent's legs appear at left, so that the two boxers' bodies overlap dramatically. The boxer is apparently bald but little detail is visible in the impression, which is only a fragment of the original. In truth, the boxer appears to dive to the ground. It is not clear what sequence of boxing and wrestling moves might have brought this about, but it seems plausible that the boxer has been thrown into this unenviable position by his doughty adversary.

#### 2.4 High relief

Evans catalogs three arm fragments from high reliefs that may have belonged to boxers (1921, vol. III, pp. 497–503). Unfortunately, in none of these cases is there evidence of a boxing glove to provide us greater certainty. Evans' ingenious interpretation is based on a close examination of the musculature represented in the fragments, flexed, in one case (p. 501, Fig. 345), to support the weight of a fallen boxer (as we will see in numerous instances on the Boxer Rhyton, Sec. 2.5.1).

A stucco fragment corresponding to a closed fist and forearm (Fig. 9) is considered by at least one author to belong to an otherwise unknown bas-relief sculpture of a boxer, *le boxeur au bracelet* (Coulomb 1981, p. 37). The fist is closed with the enlarged thumb parallel to the forefinger. The wrist is adorned with a five-ringed bracelet. The outside rings are brown and the inner three rings are cream in color. The bracelet may have been intended to protect

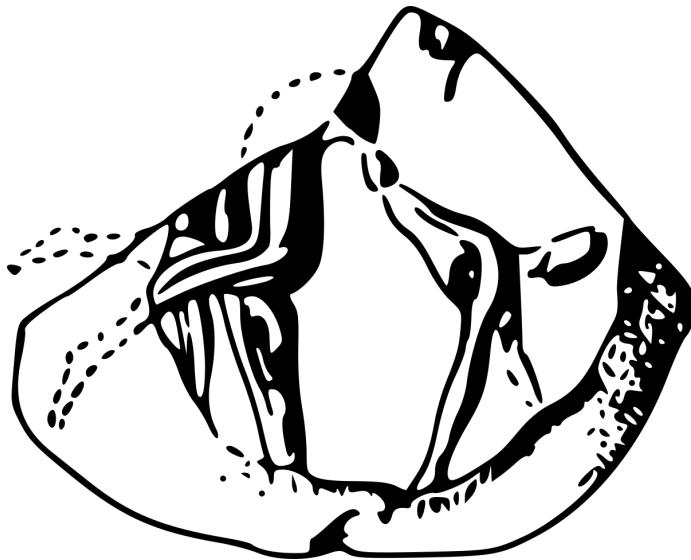


Figure 8: Seal impression of an overthrown champion, from Little Palace, Knossos, 3rd Millennium.

against wrist injuries as in modern boxing (Coulomb 1981, p. 39, n. 42). The *pouce énorme* ‘enormous thumb’ of the hand may suggest encasement of the thumb, as well. Coulomb suggests that in Minoan bare-knuckle bouts, boxers would have used “a large wrist strap extended by a type of fingerguard” (1981, p. 39).<sup>15</sup> Perhaps the wrist and thumb were wrapped with a continuous band to provide support and protection to the exposed thumb.

## 2.5 Rhyta

The rhyton is a conically shaped drinking vessel that cannot be laid on a flat surface without spilling its contents. Perhaps originally designed as skeuomorphs of drinking horns, rhyta were used at elite tables throughout the ancient world. Over time their decoration became more and more elaborate and the vessels assumed a variety of spectacular shapes, including a Hittite rhyton shaped as a fist (Güterbock and Kendall 1995, Dioscurus and Dioscurus 2022). Some rhyta were perforated at the bottom and could only hold liquid when plugged, suggesting ceremonial use McInerney (2011). At least three rhyta in the Minoan realms were closely associated with boxing.

### 2.5.1 The Boxer Rhyton

Among the remains of a Minoan settlement near Phaistos, now called Hagia Triada, a black steatite (soapstone) rhyton was discovered in the early twentieth century.<sup>16</sup> Dated to be-

<sup>15</sup> *un large bracelet de maintien du poignet prolongé par une sorte de doigtier protecteur.*

<sup>16</sup> The soft stone allowed the artisan to carve rich details, which allow the modern observer to access the adumbrant world of Minoan boxing.



Figure 9: A fragment from a lost bas-relief sculpture known as *le boxeur au bracelet*, this fist and forearm suggest that a variety of boxing gloves were used at Knossos (Heraklion Archaeological Museum).

tween 1550 and 1500 BC and now housed in the Heraklion Archaeological Museum (No. 342; 498; 676), the vessel is elaborately carved with images of men boxing each other and leaping bulls,<sup>17</sup> two athletic activities cultivated among the upper echelons of Minoan palace culture (Rethemiotakis 2001, p. 128). Though fragmented and now heavily reconstructed, many of the key details of the rhyton's carvings have survived the forces of weather and pillage. The rhyton is perforated at the bottom. It has been argued that it was meant to contain sacrificial blood from a bull (N. Marinatos, cited by McInerney, 2011). Though troubling to modern Western sensibilities, it is just as likely that the rhyton was intended to hold the blood of human victims shed during the activity depicted on its surface.<sup>18</sup>

Four registers (Figs. 10 and 11) arranged vertically on the rhyton show boxers in plumed helmets (register I); bull-leapers (register II); boxers with helmets (no plumes; register III); and bare-headed boxers (register IV). The Minoans, who sedulously accounted for hairstyle and headdress in their rendering of the human form, used these distinguishing characteristics in the Boxer Rhyton, as well. (Davis 1986, Rethemiotakis 2001). We are still unsure what they represent, though age, social status, and hieratic disposition have all been suggested. In the context of a boxing match, the role of the helmets, at least, seems relatively accessible to us.

In registers I and III, the boxing takes place in front of a kind of colonnade, with capped pillars. According to one commentator this is “undoubtedly a synoptic rendering of the palatial architectural environment” (Rethemiotakis 2001, p. 128). According to another, it is evidence that Minoan pugilism took place in religious shrines (Hood 1978, p. 146). In a similar scene from a repository sealing found at Knossos (Fig. 7), Evans saw in the column an indication of the “Grand Stands” [that] enabled crowds of spectators to look on at agonistic contests” (Evans 1921–1935, vol. 1, p. 689). Yet another critic saw in them flagpoles draped with banners (Graham, p. 231). These theories may not be mutually exclusive, as it seems that the Minoan attraction to boxing was of a cultic even as it accresced to the aristocratic culture of the Bronze Age Aegean. Boxing in the palatial context must have attracted wide attention. Minoan pugilists most likely battled at sites like the so-called theatrical areas of Knossos and Phaistos, where the bloodletting could be exhibited to a large crowd (Baikie 1913, p. 101).

<sup>17</sup>The danger of these athletic contests may be what unites them thematically.

<sup>18</sup>This possibility seems less remote when we consider the sanguinary nature of pugilism in the ancient as well as contemporary New World (Zorich 2008, Saunders 1984).



Figure 10: Detail of the two upper registers of the Boxer Rhyton: Plumed boxers in register I and bull-leaping in register II (Heraklion Archaeological Museum No. 342; 498; 676).



Figure II: Detail of the two lower registers of the Boxer Rhyton: Helmeted boxers in register III and unhelmeted boxers in register IV (Heraklion Archæological Musem No. 342; 498; 676).

While we can infer much about Minoan boxing from the activity of the figures on the rhyton (notably their posture and the dynamism of their limbs), their gauntlets are most puzzling. Almost all of the fighters wear one or more cup-shaped coverings over the back of their fists, secured at the wrists by straps. There can be no doubt that these gloves have the same formal characteristics as those found at the Kophinas peak sanctuary (Sec. 2.2).

Poliakoff (1987) suggests that the helmeted fighters on the boxer rhyton wear “devices that cover the whole hand with what seems to be a stiff plate” (p. 68). He argues that “a wrist strap secures the plate under the boxer’s fist” and notes that gloves capable of such damage explain the helmets (*ibid.*, p. 659, Fig. 68). However, it is not only the helmeted boxers that wear this distinctive gauntlet. In register IV of the Boxer Rhyton, bare-headed boxers also wear a similar, if not identical, glove (see Figs. 11 and 12 IIb and IIh). Only one boxer has an unambiguously ungloved hand; this is one of the defeated, bare-headed boxers (see Fig. 12 III). It is possible that all of the fallen bare-headed boxers are also bare-handed—unlike their fallen, helmeted counterparts.

The left- and right-hand gloves are rendered somewhat differently for the bare-headed (standing) boxers in register IV (see Fig. 12 II). The left-hand (apparently striking) glove conforms to Poliakoff’s description (though it is arguable that the plate curves around the back of the fist only and extends beyond it, to a sharp point). This is in contradistinction to the right (apparently non-striking) hand, the depiction of which suggests a shorter, more pointed, perhaps cultrate glove.

The lead hand of the fighters in register III and IV appears gloved in most cases. There is almost always some indication of a wristband and never any indication of fingers on this hand, which also happens to be the hand most strongly implicated in the knockout punch delivered. For one figure in register IV (the rightmost in Fig. 11) the left glove looks almost modern, with a large thumb. In register IV, the lowered (right) hand of all pugilists is narrow and pointed, suggesting that it is not gloved, although, in any case, the hand is hardly naturalistic. The artist is capable of including fingers on the hand: the downed opponent with both legs in the air, in register IV, has a curved finger and thumb. If this was a fair fight, then it suggests one-gloved boxing of an enantiomorphic variety: the fallen pugilist would presumably have a glove on his right hand (not shown), while the victorious boxer wears a glove on his left. In many cases, the gloves seem sharply pointed, or at least almond-shaped.

It is also possible that these apparent differences in form come from the variable angle from which the gloves are presented to the viewer. In any event, the artisan has paid exquisite attention to these details, once more suggesting their profound significance to the culture that commissioned and produced the artifact, which is only about 18 inches tall and carved in relatively unforgiving stone.

While the helmeted boxers have the cup-shaped glove on both hands, the bare-headed boxers (register IV) seem to wear a different glove on their forward and back hands. Given the fact that the bare-headed boxers wear the cup-shaped glove, it is less likely that they represent boxers in training. Indeed, if the modern analogy holds, then it is even possible that the helmeted boxers, who are more protected from the injurious blows, are the ones in training. If, as we hypothesize, the bare-headed fallen boxers are not wearing gloves, then register IV may depict a kind of pugilistic human sacrifice rather than a ‘fair’ match between equally-

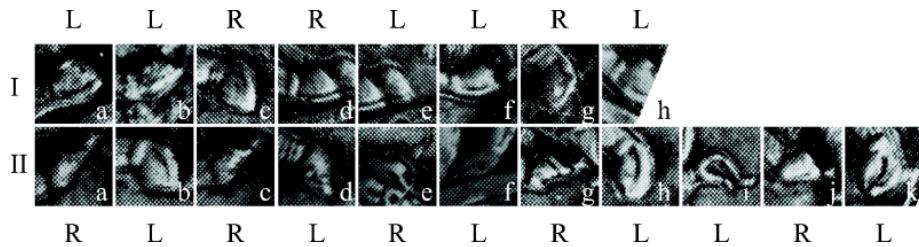


Figure 12: Detail of all boxers' hands from registers III and IV of the Boxer Rhyton (see Fig. 11). The left (L) and right (R) hands of helmeted boxers appear on the top row (I, corresponding to the upper register in Fig. 11); the hands of bare-headed boxers appear on the bottom row (II, corresponding to the lower register in Fig. 11).

equipped adversaries.<sup>1920</sup>

The artist who executed the Boxer Rhyton made some puzzling iconographic choices. “Instead of depicting the fighters in actual conflict, [he] has represented the individual combats a moment before or a moment after they are won and thereby has avoided any contact between the figures” (Davis 1977, pp. 30–31).<sup>21</sup> This is not true of the combatants in register I of the Boxer Rhyton, who seem to be punching and maybe even kicking each other. When describing the lack of contact between fighters, Davis seems to describe registers III and IV only. It is difficult to discern whether the overwelt boxers depicted on the rhyton are utterly vanquished or presume to continue their fight. Having delivered a stunning recumbentibus, the gesture of the standing boxer is also ambiguous: does he intend to strike even more blows?

Because the combatants in register III wear helmets, it can be assumed that a boxer in such a contest intended to inflict considerable injury on his opponent and/or that some degree of safety was to be maintained during the bout.<sup>22</sup> A blow with such a ‘glove’ could easily blind or otherwise mutilate the face of an adversary.<sup>23</sup> If strikes to the body were allowed, the result would be no less sanguinary, though perhaps more easily remedied after the encounter.

It is possible that the half-fallen boxer in register I may be kneed in the chest by a heavily eroded figure standing behind him. This, and the fact that the boxers in register I wear a kind

<sup>19</sup>We are not the first to suggest that the Minoans sacrificed human beings. In a Late Minoan IB house near Knossos, excavation revealed the bones of “several children that appear to have been defleshed deliberately” (Younger and Rehak 2008, p. 170). South of Knossos, on the route to Mount Iuktas, the skeleton of a young male was found “lying on a platform next to a lance blade”; the excavator concluded that he was a victim of ritual sacrifice (*ibid.*).

<sup>20</sup>A student observed to us that the Boxer Rhyton furthermore appears to exhibit the earliest instance of foot wraps for boxers.

<sup>21</sup>A useful comparison can be made to the ‘Boxing Boys’ fresco of Akrotiri, where the artist positions the gloved hand of one boxer *behind* the face of his opponent, suggesting the blow may not have landed at all (see Sec. 2.6.1).

<sup>22</sup>Modern boxing headgear offer a revealing, if somewhat ambiguous, parallel. While headgear are considered by many to offer greater protection, at least to amateur boxers, it is well known, among boxers at least, that they limit peripheral vision and thereby increase the chance of being struck from the side. Since the International Boxing Association banned headgear (for men’s competition only) within the past decade, the accuracy of claims that they serve as an unequivocal protection to fighters appears to be in considerable doubt (Wang 2013).

<sup>23</sup>Mayan boxers, who carried a type of fist-load weapon, are also represented wearing heavy helmets (Taube and Zender 2009, Taube 2018). Boxers represented in the situla art of northern Italy and the Eastern Alps use fist-load weapons, but have completely bare (and shaven) heads (Lazar 2011).

of puttee, may suggest a form of kickboxing. However, the “kickboxing” attitude observed in register IV and confirmed by Koehl (2006) may be more akin to a defensive technique seen in modern mixed martial arts, when one combatant has fallen and the other remains standing and able to strike. The best choice for the boxer on the ground may be to strike out with his legs. Owing to the artist’s penchant for acrobatic movement, however, the flailing legs of the boxer may simply suggest his dramatic downfall.

Though to the modern viewer the Boxer Rhyton appears to depict a pastiche of boxing, wrestling, and kickboxing styles, the fights on the rhyton almost certainly formed a coherent praxis for the Minoan spectator/participant—one that was linked to an elaborate male cultus. It has been proposed that the rhyton “may have been used in communal elite male rituals” which probably also included “dining, drinking, and anointing” (Koehl 2006, p. 336). Indeed, it has lately become fashionable to interpret the Boxer Rhyton in terms of “male initiation rituals” (*ibid.*, p. 165). We imagine a scene in which the boxers drank from the rhyton before the bouts to calm their nerves and reinforce their sense of common feeling before pummeling each other before gods and other witnesses.

### 2.5.2 Other rhyton fragments

An additional steatite fragment, with a figure closely resembling the bare-headed pugilists in register IV of the Boxer Rhyton (Fig. 11), was first published in the 1960s. It was initially thought to be a sherd of the celebrated rhyton found at Hagia triada (Warren 1969, p. 177, fn. 1). However, a later consensus emerged that the object, referred to as the “High Mowing” fragment,<sup>24</sup> in fact comes from another, albeit highly similar, steatite vessel (Davis 1977, p. 31, fn. 71). While we do not agree with the claim that the boxers on the High Mowing Fragment and in register IV of the Boxer Rhyton wear “caps” we concur with the assessment that they are “dressed only in a kind of jockey strap with a roll around the waist and a tail hanging down the back” (Benson 1966, p. 36). The scene suggests a powerful blow has been landed, though which hand did the dirty work is unclear to us (*pace* Benson, who believes it was the left). The artist presents the boxer to us in the moment when the hands are being withdrawn back into a guard stance. The awkward cantilevering of the boxer’s limbs is probably meant to suggest the rotation of his torso and the recoil from the delivery of a “three–four” (hook) combination—in the terms of modern pugilism.

An unhelmed boxer in a pose similar to the boxers on the High Mowing and Hagia Triada rhyta is found on another fragment of dark steatite (Evans 1921–1935, vol. 1, p. 689, Fig. 510). The only identified remains of a rhyton (or perhaps a pyxis), the fragment was excavated in a chamber at Knossos that also housed a representation of tauromachy. In the sherd we see what must have been a ‘stock’ pose for boxers as depicted in this medium: arms extended downwards, the right arm bent at a greater angle than the left, which is only slightly *cambré*. We cannot agree with Evans that the left arm is held out for defense and the right is ready to strike a blow (*ibid.*, p. 690). Instead, we think that the scene represents the retraction of the arms after the knockout has been delivered. Brawny and dynamic, the energetic pugilist revels in his triumph; a subtle tumescence below his waistline betokens his confidence and swagger (Fig. 14). The mound at his feet has been described as the bent knee of his fallen opponent, whose broken frame lies just beyond the fragment’s edge. The scene bears such a

<sup>24</sup>The fragment was in the private collection of Beulah Emmet, headmistress of High Mowing School at Wilton, New Hampshire (Benson 1966, p. 36).



Figure 13: Shown here is the High Mowing fragment, once considered a piece of the Boxer Rhyton, now considered more likely from a duplicate rhyton.

strong resemblance to register IV of the Boxer Rhyton that it may have come from another copy of that masterpiece.



Figure 14: Victorious boxer, with the knee of fallen opponent at bottom. From a fragment of a dark steatite rhyton or pyxis found at Knossos.

Evans sees in the fragment delicate traces of a *cæstus* “bound round the wrist” (*ibid.*, pp. 690–691). In fact, it may extend to the bicep, presaging much later Greek and Roman developments in boxing glove structure. Elsewhere, Evans notes the “beautiful modeling” of the legs, which emphasizes the muscular thighs, a prerequisite for successful modern boxers, as well (1900–1901, p. 96). The narrow waist, circumscribed by a tight belt, is a hallmark of Minoan art; we have observed it, though without comment, in other depictions of Minoan pugilists.

Finally Evans (1921–1935, vol. IV, p. 600, Fig. 595) illustrates a fragment of another steatite vessel, probably a rhyton, from Stà Hellenikà, Knossos (our Fig. 15). In his lively description, the master writes: “The winner of the bout throws his adversary—who seems to have leaped upon him—backwards by a powerful uppercut” (p. 600). Warren (1969, p. 85) notes that this relief scene was a chance find above the Little Palace in 1933. Evans (*op. cit.*, p. 600) imagines that such a scene should precede a representation of the defeated pugilist falling on his back, e.g., in the seal impression he illustrates elsewhere (our Fig. 8). Perhaps the

most fanciful image in the Minoan boxing repertoire, we cannot help but smile at the force conveyed through the arm of the assailing pugilist, despite the absence of virtually any visible muscular exertion on his part. This proleptic image delightfully foreshadows the pugilism of comic books and cartoon cinema—the dream of every little boy who ever threw an uppercut at a rival’s chin.



Figure 15: Detail from a fragment of a steatite vessel from Knossos (Heraklion Archæological Museum No. 2329). What an uppercut!

## 2.6 Frescoes

### 2.6.1 The Boxing Boys

Sometime in the Late Bronze Age, a strong earthquake prompted the residents of Akrotiri on the Cycladic isle of Thera<sup>25</sup> to flee *à la débandade* (Marinatos 1999, vol. 3, pp. 64–66).<sup>26</sup>

<sup>25</sup>Some do not consider Bronze Age artifacts on Thera to represent Minoan culture *per se* although there can be little doubt that Bronze Age residents of Akrotiri, including the artist who painted the ‘Boxing Boys’, were strongly influenced by Minoan culture (Koehl 1986, p. 101, fn. 13). Accordingly, we treat the ‘Boxing Boys’ as Minoan.

<sup>26</sup>To date, no human remains have been found in the volcanic layers that whelved Thera.

Later, a massive volcanic eruption on the island filled many of Akrotiri's buildings with ash and pumice.<sup>27</sup> An edifice today known as Building B was among the doomed structures. Later a stream of water swept through the ruins of Building B, causing further damage to the precious artwork that had been abandoned there (Doumas 1992, p. 109).

On August 10, 1970, the excavators who had been laboring in and around Building B for several years found “[a] piece of fresco lying face upwards on the floor [that] depicts the head of a youth... wearing a necklace and bracelet of amethyst” (Marinatos 1971, p. 31). This piece of plaster, fallen from an interior wall of Room 1 (hence B1), was the first recognized bit of the ‘Boxing Boys’ fresco, a masterpiece of Minoan art today conserved in the National Archaeological Museum at Athens (Fig. 16).

Unlike some other frescoes at Akrotiri, much of the ‘Boxing Boys’ fresco could not be recovered (Fig. 17). Modern inpainting offers a glimpse of what the fresco may have looked like when it was first composed, but the results of this technique, regardless of the discretion with which it is applied, must be regarded critically. The restored fresco is frequently cited as a primary example of ancient boxing, even though approximately 47% of it has been inpainted by modern artists who were forced to make a number of critical guesses as to what the original looked like.<sup>28</sup>

We can profit from understanding the conditions in which the ‘Boxing Boys’ fresco was discovered. About half of the fresco was presumably crushed, weathered to dust, or swept away long before archaeologists arrived. The deposition of the bits still extant at the time of the excavation provided no incontestable evidence as to their original position on the wall. In fact, the primary account of the fresco’s excavation does not refer to any piece of the fresco being found *in situ*. The fresco was originally painted on plaster that covered a partition wall of unfired bricks. Luckily, pieces of the ‘Boxing Boys’ fresco “had mostly fallen together with the bricks without getting detached” (Marinatos 1971, p. 32). The earthquake that first toppled the partition wall in B1 left the bricks in a confused jumble before the coming of the even more destructive *nuees ardentes*, followed later by at least one torrent of rainwater. It does not appear that the bricks of the partition wall were themselves fitted back together during the fresco’s reconstruction. Instead, the bits of fresco were removed—most easily from bricks that had fallen face-up, but also from bricks that had fallen face-down. In the case of the latter, excavators scratched away the brick to reveal the stucco beneath (Marinatos 1971, p. 32). Bits of fresco were removed and reassembled some time later with the assistance of “infrared rays and specific photographs,” during a period of recueillement in Athens (Marinatos 1971, pp. 47, 49).

Given the much-deprecated state of the ‘Boxing Boys’ as we have it, we will begin our analysis, *faute de mieux*, by examining the surviving fresco without inpainting (Fig. 17) and proceed from what is clear to what is conjectural. To ease discussion, we will call the boxer on the left ‘Alpha’ and the boxer on the right ‘Beta’.

Both boys have a fairly impassive countenance despite the punches they deliver to each other’s head. Alpha, whose facial coloring is somewhat paler than Beta’s, attacks his opponent with an outstretched left arm.<sup>29</sup> Alpha’s left hand, though damaged, is likely in contact

<sup>27</sup>The initial eruption, along with subsequent pyroclastic clouds and tsunamis, were likely implicated in the general decline of Minoan civilization across the Aegean.

<sup>28</sup>Our calculation is based on the figures we present here. We have excluded the decorative border below the boys’ feet, as well as the ivy-leaf garland above them.

<sup>29</sup>Determining the left and right arms of Alpha is not as easy as it may at first appear. The best clue is the beaded



Figure 16: The 'Boxing Boys' of Akrotiri: 'Alpha' (L) and 'Beta' (R). About half the fresco has been inpainted. Some details, like the shape of the boxing glove, are conjectural.



Figure 17: The 'Boxing Boys' of Akrotiri (Thera) with modern inpainting removed. Only original bits of the fresco are included in this image.

with Beta's face. Alpha's left arm is adorned with a blue-beaded bracelet about the bicep.<sup>30</sup> Alpha's right arm is lower and inflects upward from a bent elbow. His lower forearm and wrist reveal a black gauntlet with a bright blue cuff and a gold band, perhaps another bracelet. A tiny portion of the glove's terminus is visible, but not enough survives to define the glove's shape.<sup>31</sup> Alpha's stance is wide; both his feet are partially visible but detail in the region of the upper thigh is absent, so the left and right legs cannot be identified with certainty. The longer extension of his left arm may suggest Alpha is an orthodox fighter delivering a left-hand jab to his opponent. If we presume the biomechanics of a modern boxing technique, then it is Alpha's left foot that projects closest to Beta.

Both boxers wear belts at the level of the omphalos.<sup>32</sup> There is no evidence of a ventral-caudal extension of the belts, suggesting they are just that, and not loincloths.<sup>33</sup> Both Alpha and Beta have shaved heads except for a few locks that dangle in the front and back. The pendulous posterior tresses reach below shoulder level and suggest that these locks were spared the razor from the boys' infancy.<sup>34</sup> The scalp is blue in color.<sup>35</sup> In addition to the beads on his right arm, Alpha wears similar jewelry around his neck (draping onto his chest) and on both ankles.

Owing to severe damage to the fresco's right side, much less evidence is available regarding Beta. Despite the lacuna, Marinatos (1971) still concluded that Beta is "more vivid and more aggressive" than his sparring partner (p. 49). He seems somewhat shorter than Alpha, and some (e.g., Marinatos 1971) consider him to be younger. Beta wears a dark purple belt with a slender loop tucked in at his hip.<sup>36</sup> Beta's right hand extends behind Alpha's face. The angle of his legs and the placement of his feet are barely discernible. Evidence for the position of his left arm is questionable. Beta appears to project his belly somewhat more than Alpha, giving rise to speculation that Beta is disfigured by spondylosis, perhaps by routine fighting (Ferrence and Bendersky 2005, p. 109). While Alpha stands in simple profile, Beta's posture is more complex. His head and belly are in profile while his shoulders are in frontal or three-quarter view (recall that Beta's legs and feet are almost entirely absent). It could be that Beta is turning his torso (starting at the shoulders), thereby delivering a right hook to the left side

---

necklace that Alpha wears. The artist has carefully rendered the necklace so that it is interrupted by his right shoulder (Immerwahr 1990, p. 52). Faint outlines of the right shoulder against the chest and the chest against the left bicep also provide a layered perspective.

<sup>30</sup>Marinatos (1971, p. 31) regarded it as a "bracelet of amethyst".

<sup>31</sup>This dark speck may instead be a part of Beta's hypothetical left-hand glove, supposing his elbow is bent.

<sup>32</sup>Immerwahr (1990) asserts that the belts are "probably of leather" (p. 52).

<sup>33</sup>According to one commentator, the boys wear "a belt with a knot and a loincloth" common to Cretan "ado-rants as well as people engaged in sports" (Marinatos 1984, p. 109). It is possible that the artist chose to render no trace of the genital covering of this hypothetical loincloth because that portion was invisible in profile, but we are unconvinced. Alpha's belt, for example, extends slightly beyond his belly, but there is no evidence of material below that point. A strict reading of the image—all relevant portions of which are preserved—tells us it is a belt and not a loincloth. Belts worn by otherwise nude boxers are well attested in toreutic situla art of northern Italy and the Eastern Alps (Lazar 2011), as we will discuss in a future article.

<sup>34</sup>The consensus seems to be that the boys, with their still adipescent torsos and lack of musculature (Immerwahr 1990, p. 52), are between six and ten years old; Marinatos (1971, p. 47) estimates they are 7–8.

<sup>35</sup>Marinatos (1971, p. 32) originally considered this to be a "lapis-lazuli head-cover," with the hair presumably appearing through its openings. In the same volume (pp. 47–48), he claimed it was "a kind of wig" and cites Homeric verses referring to blue hair as support. Others argue that the blue coloring merely indicates shaved skin. Its pallor may be due to the fact that it was only recently exposed to the sun.

<sup>36</sup>This may be the "knot" referred to by Marinatos (1984, p. 109) but its size and structure are not consistent with a knot made of the same wide material that extends around the boys' waists.

of Alpha's jaw.

Some have noted that Alpha wears jewelry while Beta does not, perhaps indicating their relative status (Immerwahr 1990, Ferrence and Bendersky 2005). However, many relevant portions of Beta's legs, feet, and left arm are missing, so the total absence of jewelry on his body cannot be confirmed. Certainly, Beta does not wear an earring in his left ear or a necklace and his (right) glove does not bear the blue cuff or bracelet of Alpha. However, Beta could be wearing a single earring on his right side, invisible because he stands in left profile. A boxing glove on his missing left arm could have been equipped with a cuff and bracelet just like Alpha's.

Another feature, remarkable for its inclusion in the inpainted fresco, is the distal portion of Alpha's boxing glove. We can guess as to the gauntlet's length, based on the orientation of the arm, but the glove's shape is simply unavailable to the viewer.<sup>37</sup> It may be scalloped or pointed like the Minoan boxing gloves of the Boxer Rhyton or of the fragments found at Kophinas (Rethemiotakis 2014, p. 160, Figs. 7–10). The inpainter chose to render Alpha's glove as a blunt, club-like object, reminiscent of at least some Cretan boxing gloves (Fig. 2). This (modern) rendering of the glove may also owe something to later Greek depictions, e.g., on the Enkomi krater (British Museum No. 1897,0401.1287). In the context of the fresco alone, however, the shape of the boxing glove is entirely conjectural.

While oft-repeated, the claim that the boys each wear a single boxing glove is based on the slimmest of primary evidence and reinforced by the suppositions of the inpainting. While a solid case can be made that single-gloving is true of Alpha, Beta's left arm is mostly dislimned; his left wrist and hand are entirely absent.<sup>38</sup> In addition to the glove on his right hand, Beta may have worn a glove on his left hand, too. This claim depends crucially on the reconstruction of his left arm, which disappears at exactly the position on his forearm where the boxing glove should manifest. Marinatos (1971, p. 49) indicates that “the position of the hands cannot be accepted with absolute certainty for it was possible that the boxers [including Beta] held one elbow bent against the adversary.” Indeed, there is not much to recommend the position of Beta's left arm. The relevant stucco bits could just as easily belong to one of his or Alpha's legs. Single-gloved and two-to-one-gloved combat is not unknown in later Greek depictions of pugilism (see, e.g., the kantharos, Dresden Staatliche Kunstsammlungen, No. 865499, included in a subsequent paper in this series on Greek boxing; and the oinochoe, Cleveland Museum of Art, No. 1916.1062, included in the same paper) and Minoan depictions (e.g., the Boxer Rhyton) suggest dual-gloving as well as ungloved fights.

There are at least two restored versions of the ‘Boxing Boys’ fresco that merit discussion. The fresco as we know it today, and which has been the object of our contemplation thus far, was first published in Marinatos (1971, Color Plates E–F; Plates 57b, 117, 119–120). A photograph of this version appeared in *Time* magazine in 1972. It is described in a caption that reads “Two princes: playful boys in a boxing pose were imaginatively reconstructed from hundreds of fragments.”<sup>39</sup>

<sup>37</sup>This seems no great deterrent to most commentators, who tend to follow the lead of the inpainter rather uncritically. Immerwahr (1990), for example, calls the glove “mitt-shaped” (p. 52) and Ferrence and Bendersky (2005) call it “spherical” (p. 109) without commenting on its hypothetical nature.

<sup>38</sup>More secure evidence of one-gloved boxing is found in early Greek vase painting, as we will demonstrate below.

<sup>39</sup>“The Lost Atlantis”, Feb. 28, 1972, vol. 99(9), pp. 56–57. Another article (“Light on Lost Epochs”, April 16, 1973, vol. 101(16), pp. 46–48) mentions “two boys playfully boxing”; no photograph is included. By the 1980s, it had been concluded that the boxing match depicted at Akrotiri was “of a ritual nature [and] not merely a children’s

Curiously, in the same volume as the color plates mentioned above, Marinatos presents a drawing of the fresco with a number of features not found in the canonical reconstruction and without any comment (1971, Fig. 3, p. 48). This version (Fig. 18) persisted in print until at least 1976, when a reprint of Marinatos' first volume (1968) included a color graphic of the novel reconstruction on its back cover. In the novel reconstruction, Alpha bears the same curious loop in his belt as his adversary, even though there is no extant plaster in this position. The boys wear a kind of net or mail across their haunches, hanging from their belts. An animal hide (?), spotted in Alpha's case, drapes from each boy's belt and dangles over the hypogastric region.<sup>40</sup> We find no evidence for these graphic accretions in the surviving fragments of the fresco. Except for some dark splotches on Alpha's hindquarters (these are rendered as an unidentifiable accessory—perhaps they are weights holding the netting in place), there is no primary evidence for any other clothing besides his belt. Scholars and staff at the National Archaeological Museum of Athens excluded these fanciful elements from the reconstruction that captivates visitors today (Fig. 16). The existence of an alternative version of the fresco highlights the differences of opinion that apparently arose between scholars as it was being restored. This is worth our attention because it emphasizes the doxastic nature of the inpainted 'Boxing Boys' fresco and leads us to question how we evaluate its meaning.

Next we turn to the fresco's *mise-en-scène* for clues as to its interpretation. As mentioned above, the fresco was discovered in Room B<sub>1</sub>. Building B was two-storied and some have argued it was a domestic unit, though in his initial description Marinatos (1971, pp. 29–33) suggests that the site was associated with hierurgy. The fresco was found on the south wall of Room B<sub>1</sub>, on the second story, across from a window on the north wall. It has been argued that this window made the fresco visible to passersby on the street below (Doumas 2005). This reinforces the possibility that boxing was a public, rather than private, activity on Thera. In fact, the fresco may have functioned as a kind of Bronze Age billboard, proclaiming that boxing matches regularly took place in Building B.

The fresco was situated between two doors, one leading south to Room B<sub>1-α</sub> and the other leading west to B<sub>1-β</sub>. Anyone entering these rooms would have seen the 'Boxing Boys'. Room B<sub>1-α</sub> has been described as "a sacred apartment" or a congeries of "sacral repositories" due to the presence of "two tables of offerings" found *in situ*, as well as vessels for "holy oil" (Marinatos 1971, p. 31; Plates 54–55). Room B<sub>1-β</sub> is of a "still unknown nature" (*ibid.*). Intriguingly, the beaten clay floor of B<sub>1-β</sub> shows the talon marks of a domesticated bird larger than a hen, as well as the prints of other unidentified animals. We believe this could suggest the presence of fighting animals—like gamecocks—in proximity to the fresco.

The walls adjacent to the 'Boxing Boys' fresco bear some evidence that fighting animals were associated with the fighting boys. A procession of cavorting antelopes (*Oryx beisa*), a species unknown on the modern island, leads the viewer from the north window to the agon depicted on the south wall. It has been argued that the iconography of Room B<sub>1</sub> would lead the viewer to contemplate the juxtaposition between the natural world and the world of human activity, specifically when it comes to conflict. According to Marinatos (1984, p. 112), "The boxing contest is perceived in relation to nature" (Marinatos 1984, p. 112). Citing Morgan (1995), Georma (2019, p. 37) argues, "[I]t is widely acknowledged that human activities are rendered in Theraean and Minoan art as part of and in total harmony with the natural

---

game" (Marinatos 1984, p. 109).

<sup>40</sup>Was this suggestion of a loincloth an attempt to bowdlerize the nudity suggested in the original?



Figure 18: An alternative reconstruction of the 'Boxing Boys' fresco (cf. Figs. 16 and 17) with novel sartorial features unattested in the original, including the curious extensions of the boxers' belts and a nimety of gold bands on Alpha's (L) arms and ankles (Marinatos 1968, back cover). Its disuse in later publications suggests that this version has been discredited and perhaps even disavowed by the scholars and artists who produced it.

world.” Georma continues: “On the whole, the young boys participate in an initiation rite effectuated through boxing and are at the same time symbolically associated with the male animals, the antelopes, which exhibit vigour and strength through their posture. What the painter evidently aimed for was the harmonious integration of the compositions in the eyes of the residents or visitors from all viewpoints in the room” (*ibid.*). Why integrate animals into the scene? Like the Hittites, the Minoans may have linked human and animal blood-sport (Soysal 2003, Dioscurus and Dioscurus 2022). The claw marks and hoof prints on the second story of Building B suggest that animals were kept there. Perhaps Room B1 was used to hold divinatory fights between animals and youths like the ones depicted on the walls. It may be that the curious ‘antelope’ are in fact a kind of Bronze Age livestock that was kept for its fighting ability, like the rams of the Hittite bloodsport, *tarpa*.

As we have already suggested, modern critics tend to view Minoan boxing as a ritualistic activity: “[B]oxing was probably a popular sport in the life of the people of that era. We presume that it was held in the context of initiation rites and perhaps other rituals...” (Georma 2019, p. 36). Various ritual elements in the fresco have been identified, including the boys’ hair and attire. For example, one critics writes: “[T]he hairlocks left unshaved in the Thera frescoes, in conjunction with other pictorial features, reveal a developed set of artistic and social conventions for indicating the specific stages of life from youth to maturity to old age” (Davis 1986, p. 399). However, it seems that consensus has not emerged on the interpretation of Minoan coiffure.<sup>41</sup> In any event, the locks would have presented a tantalizing functional opportunity during combat—particularly among small boys—with one hand freed up for mischief. These tresses were likely grasped and pulled to antagonize, taunt, and subdue (Ferrence and Bendersky 2005, p. 109).

Some writers seem to take the impractical wearing of jewelry (by Alpha) and the boys’ age to suggest it is only a playful match (e.g., *Time* 1972). Others conclude that the adversaries are deadly serious. For example, Alpha’s eye rolls up in his head after Beta delivers a shocking blow (Davis 1977, p. 31). Still another commentator takes the jewelry and the relatively static, relatively non-overlapping poses, to indicate that this is “no childish game but a ritualized sport” (Morgan 2000, p. 930). The boxers wear only belts, which do not constrict their stomachs (as in other Minoan representations, most notably the Boxer Rhyton of Haia Triada). There is no indication of a breechcloth or codpiece as in the Boxer Rhyton. We agree with Morgan that the attitude of the boys is not at all playful. The boys stand “firmly and with confidence on a solid level rendered by a black band” (Georma 2019, p. 35). In other words, they mean business.

The adornment of a fighter’s limbs, like Alpha’s, is not unknown in modern muay Thai boxing. Thai boxers routinely wear armbands, necklaces, and garlands into the ring; with the occasional exception of armbands (*pra jiad* in Thai), these are removed at the initiation of combat.<sup>42</sup> These accoutrements are worn for good luck and as signs of rank in the fight game. Alpha may have worn them for similar reasons; perhaps they distinguished him as the champion.<sup>43</sup> The slender looped object tucked into Beta’s belt may be a protective amulet.

<sup>41</sup> Girls depicted at Xeste 3, another Akrotiri site, wear their hair this way, as well (Immerwahr 1990, p. 52).

<sup>42</sup> Western boxers occasionally wear necklaces during the in-ring preliminaries, always removing them—sometimes with an osculation and other signs of devotion—before setting-to.

<sup>43</sup> It is possible that, by convention (as in the Hagia Triada duos), the victor appears on the left. Though an opposing viewpoint (Immerwahr 1990, p. 52) argues that in the Akrotiri contest the boxer on the right (Beta) is winning, having just delivered an aggressive blow (Ferrence and Bendersky 2005, p. 110).

The use of telesms is also a common feature of dambe (introduced below).

The Akrotiri boys wear belts of different colors; Alpha wears blue while Beta wears dark purple. Differentiating the color of a boxer's attire from that of his opponent is still practiced in modern sport boxing, with red/blue the typical color scheme in the amateur and Olympic varieties. This is presumably designed to help judges accurately register a fighter's merits and demerits despite fast action in the ring.<sup>44</sup> The color-based differentiation of the boys may suggest betting on the outcome of the agon; it would be easier for the audience to bet on "blue" or "purple" if they were otherwise unfamiliar with the boys names or families.<sup>45</sup>

The belts—which seem to lack the genital-protective function of loincloths worn by adult men—have been the subject of comment by numerous observers including Parke (1987). He interprets the belt as the headdress of a poorly-attested sea goddess worn about the waist to rescue sailors from naufrage. According to him, the boys—residents of an island where marine commerce was paramount to survival—wear the belt to indicate their supplication of this protective deity. In a marvelous flight of erudition, Parke equates the boxing boys of Akrotiri with the legend of a semi-divine set of twins who come to blows over a swan, the hypostasis of this sea-mother.<sup>46</sup> The parallels to stories of the Dioscuri in this account—and their connection to pugilism—merit close attention in the mythopœia of western boxing.

Much is ambiguous about the boys' punching technique. Has Beta delivered a wherret to the left ear of his opponent, or has he missed? Or does the artist avoid occluding Alpha's face with Beta's striking fist, even though that is precisely the action that he intended to portray? Much is lost by the damage at the end of Alpha's arm: does he strike his opponent with a fist or an open hand? Is he grasping one of Beta's forelocks or does his hand disappear behind Beta's head, the way Beta's disappears behind Alpha's? As we have seen before with this Minoan masterpiece, the crucial piece of the puzzle is missing.

If we acquiesce that both boys wear a single glove, then it seems most likely that each wears this gauntlet on his right hand (Marinatos 1984, p. 109). (The enantiomorphous variety of gloving is attested in other ancient depictions.) There can be no question that Beta wears a glove on his right hand. As we have already noted, close inspection of Alpha's necklace, which is discontinuous at his right shoulder, provides evidence the painter meant to indicate that Alpha is gloved on the right hand, as well. Without this detail, which demonstrates the artist's "understanding of the separation of planes," the result would have been ambiguous (Immerwahr 1990, p. 52).

What are the implications of both fighters wearing a glove only on one hand, and on their right hand, in particular? Perhaps the only modern parallel is dambe, the traditional pugilism of the Hausa people in Nigeria (Fig. 19). A dambe boxer wraps cords<sup>47</sup> around his dominant fist while leaving his non-dominant hand open. The dominant hand is used for offense (it is called *mashi* 'spear') and the weak hand is used for defense (*garkuwa* 'shield'). The combatants stand with the dominant hand furthest away from the opponent, as in modern sport boxing. If, as seems likely, the Akrotiri boys are both right-handed (and if the same func-

<sup>44</sup> Interestingly, this practice is not true of professional boxing, where, on occasion, boxers may be dressed almost identically, from the color of their gloves to the color and style of their trunks.

<sup>45</sup> At modern amateur boxing matches it is not at all uncommon to hear spectators calling out encouragement and chastisement to "Blue" or "Red."

<sup>46</sup> In possible parallel to the boys' belt, a muay Thai fighter's protective *prajiad*, mentioned above, is traditionally made of strips of cloth from a sarong once worn by the boxer's mother.

<sup>47</sup> It appears that a single, modern boxing glove may serve, as well.

tional primitives of dambe apply) then their strongest arm is gloved and their weaker arm is unequipped. In dambe, the gloved fist is used for striking while the open hand can (defensively) catch, block, and hold or (offensively) push, grasp, and gouge. The glove appears to be the only physical constraint on what a man or a boy can do with his hands in the dambe ring, where a great variety of regulation (including almost none) seems to prevail. There seems to be evidence for a proscription against striking with the closed fist of the weak hand, although this hand is by no means idle. The fingers of the open hand are routinely forced into the face of the opponent, with no taboo on gouging or fish-hooking the eyes, nostrils, and mouth. For all its utility, the *garkuwa* never appears to form a striking fist.

It seems likely that the boys of Akrotiri fought in a similar style. A Theran pugilist could use the open hand to seize his opponent by the belt or hair and yank him ‘inside’ to receive an even sounder drubbing with the gloved hand.<sup>48</sup> While the inpainter of the ‘Boxing Boys’ fresco has produced an image of a club-like boxing glove much like the Hausa *mashi*, it is possible that the boys wore an even more dangerous, sharp glove like the ones depicted on the Boxer Rhyton. The threat of grave injury in the Minoan ‘ring’ may have changed the boys’ technique substantively. Given the fearsome nature of the *mashi*,<sup>49</sup> dambe boxers often assume an extraordinarily wide stance at the onset of a bout, leaning backward to keep their heads as far away from the dreaded ‘spear’ as possible. By contrast, the boys of Akrotiri approximate one another, somewhat cambré,<sup>50</sup> and their stance is relatively narrow, suggesting their eagerness to mix it up.<sup>51</sup> We learn from dambe that single-gloved boxing provides for a unique level of brutality, which may have been *de rigueur*—practiced even by young boys—on Bronze Age Thera.

While elusive in its interpretation and oblique in some of its most basic graphic characteristics, the ‘Boxing Boys’ is hardly a *locus desperatus* in our history of boxing. According to Marinatos (1971), the boys are “depicted boxing in most perfect earnestness” and “rendered... with an amazing dexterity and discretion” (p. 49). We cannot help but agree with the archæologist’s summation and find in this work of art a powerful expression of boxing’s mysterious duality—what Robert Graves, in his memoir of boyhood pugilism, called “the pain not felt as pain” (1985, p. 47). Though in a heavily reconstituted form and across millennia of forgetting, the fresco still speaks volumes to contemporary boxers. Moreover, the unique forms represented in the fresco further evince the malleability of boxing as cultural praxis. While Marinatos (1971, p. 49) argued that the boys were “young princely brothers”, he did not rule out the possibility that they represented “divine beings”, further acknowledging that “divine children and divine twins abound in Mycenaean mythology” (p. 49). By so doing, he likewise suggested the numinous power of boxing itself, which the Minoans may have understood better than any other culture, ancient or modern.

<sup>48</sup>Repeated attempts to withdraw from such a clinch, especially when pulled towards an opponent at the hips, may have resulted in “acute arching of the lumbar area,” a dysthetic posture which Ferrence and Bendersky (2005) observe in Beta (p. 109).

<sup>49</sup>There are reports that the ‘spear’ hand was once coated in resin and then rolled in broken glass but only, we are assured, in a bygone era.

<sup>50</sup>Davis (1977) notes that the boys bend “backward from the waist,” like (some of) the fighters on the Boxer Rhyton (p. 31). This is particularly true of Beta, whose posture was of interest to Ferrence and Bendersky (2005).

<sup>51</sup>Obviously, dambe boxers must close the distance eventually, and this could be precisely the moment of the fight that we observe in the fresco.



Figure 19: A dambe fight, with each boxer gloved on his right hand. The combatant at right throws a wide hook with his gloved, strong hand (*mashi* ‘spear’) while shoving his opponent with his open, weak hand (*garkuwa* ‘shield’). This may be the closest modern parallel to the fight depicted in the ‘Boxing Boys’ fresco (kumaconda.com).

### 2.6.2 Other frescoes

Another fresco found at Tylissos, on Crete has been reconstructed as including a boxer with an extended, striking arm, with a hand that is evidently ungloved (Fig. 20). The figure was first recognized as a boxer by Evans (1921–1935, vol. 3, p. 35). The fighter’s posture contrasts with that of the victorious boxers of the Boxer Rhyton: his stance is inverted horizontally so that his right arm is outstretched and his left is (most likely) bent and lowered. Detail is insufficient to assess whether the boxer is gloved or bare-fisted, but there are no marks that might accompany the various forms of the Minoan boxing glove. From what we can infer from the fragmentary evidence, the boxer’s legs have a narrower stance with respect to the Hagia Triada boxers.

The boxer in the Tylissos fresco wears an apron-like loincloth. Its shape strongly resembles that of a similar garment worn by a boxing figurine (Fig. 5) found at Palaikastro. Indeed, it is the distinctive form of this loincloth that presents the strongest evidence for the identification of the Palaikastro figurine.

Another possible example of a boxing scene in Minoan art comes from the “Grand Staircase” fresco in the palace complex at Knossos (Blakolmer 2016, pp. 49–53). The reconstructed fresco (Blakolmer 2016, Fig. 11, p. 51) is imaginatively based on a single fragment that shows a human face looking closely at what Blakolmer regards as the backside of a boxer’s loincloth. According to the reconstruction, the face belongs to a fallen pugilist who gazes at the nether regions of a victorious rival.

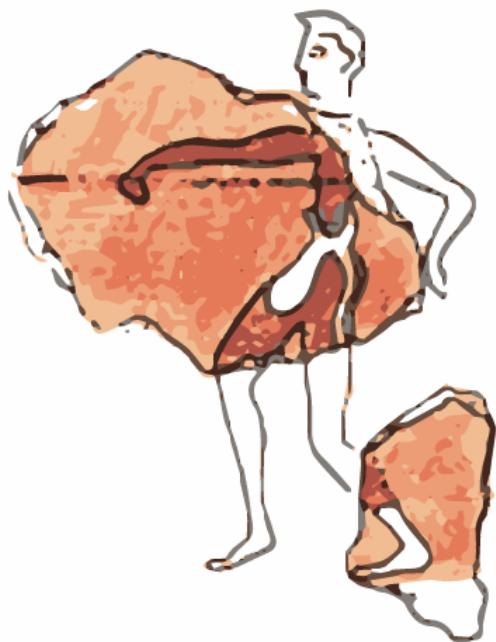


Figure 20: Reconstructed boxer from Tylissos fresco (Shaw 1972, p. 184, Fig. 13).

### 3 Written evidence? The Phaistos Disc

There is a sign for a boxing glove or *cæstus* on the Phaistos Disc, a fired clay object found in a Minoan palace on Crete and possibly dating to the second millennium (Kober 1948). The disc is inscribed with a variety of symbols that have been named and numbered but not yet deciphered. Sign No. 8 (Fig. 21) has been given the name GAUNTLET and resembles a hand wrapped round the wrist and the thumb with the fingers free (Godart 1995).<sup>52</sup> It has much in common with the high-relief stucco arm housed at the Heraklion Archaeological Museum (Fig. 9).



Figure 21: Phaistos Disc sign GAUNTLET (Sign No. 8). Like the rest of the corpus of Cretan hieroglyphs, this sign is undeciphered; it has the form of a wrapped fist and may be equated with a *cæstus*.

GAUNTLET may well be associated with Minoan boxing, perhaps as a logogram representing the activity.<sup>53</sup> Because helmeted pugilists appear on the Boxer Rhyton, it may be worth noting that GAUNTLET appears after HELMET (Sign No. 7) in three of the five instances it occurs on the disc (though HELMET is admittedly a frequent sign, appearing a total of 18 times).<sup>54</sup> Whether GAUNTLET represents the idea of boxing or, more likely, a syllable of the (unknown) spoken language associated with the characters, the inclusion of this sign in the writing system bespeaks the profound cultural importance of boxing to the composers of the disc.

### 4 Conclusion

It is astonishing that so much evidence of pugilism survives from the Bronze Age Aegean and we naturally wonder, how much more has been lost? Boxing was undeniably a prestige activity on Crete and Thera in the second and third millennia before Christ. The practice merited faithful rendering by craftsmen skilled in numerous artistic traditions (Rethemiotakis 2001, pp. 128–129). The prestige of Minoan boxing is further supported by the deposition of intricately crafted *ex-voto* figurines in religious contexts at Kophinas and Palaikastro, the strong association of boxing with the opulent palace culture of Knossos, and the jewelry worn by at least one of the boxing boys at Akrotiri. Aegean pugilism was also heavily bound up in cultic activity, as suggested by the attire of fighters, by the production of votive boxer figurines, and by the ritual libations most likely poured from the Boxer Rhyton (Koehl 2006, p. 165).

<sup>52</sup>The sign is rendered in Unicode as U+101D7.

<sup>53</sup>Such a logogram existed in Sumerian and was passed on to Akkadian and Hittite (Dioscurus and Dioscurus 2022).

<sup>54</sup>GAUNTLET also occurs next to CLUB (No. 13), SMALL AXE (No. 44), and CAT (No. 29).

We must not forget that boxing in the Aegean spanned more than ten centuries and that the numerous innovations in Greek and Roman boxing observed during a comparable period, e.g., between 800 BC and 400 AD, may be expected just as well in the little kingdom on Crete. Because the dating of the relevant Aegean artifacts is not all that precise, we have opted to emphasize the variation in Minoan boxing culture rather than its evolution. In the case of the boxing glove alone, we have secure evidence of bare-handed boxing, boxing with a cup-shaped glove, and boxing with a type of fingerguard. There is less secure but still discernible evidence of bracelets and ‘gloves’ that extended all the way to the bicep, as in much later Mediterranean pugilism.

Did boxing arrive in the Aegean or did it emerge autochthonously? Contact between the civilizations of the Near East, Egypt, and the Aegean during the Bronze Age is all but assured. Elites in all three centers likely maintained communications “through the active mediation of material culture and/or the exchange of correspondence in Akkadian, the *lingua franca* of the time” (Knapp 1998, p. 205). It is not difficult to imagine that courtly exhibitions of boxing were held for visiting dignitaries, whether at Knossos or Ugarit. As Aegean traders and Minoan ambassadors traveled to Egypt and the Near East their knowledge and experience became “invisible commodities that motivated trade, modified cultural attitudes towards the maritime seascape, and continuously transformed socio-ideological practice in the wider world of the Bronze Age Mediterranean” (*ibid.*).

Was boxing one of these “invisible commodities”? There is so little evidence of boxing as a deeply-ingrained cultural practice in Egypt we are skeptical that the Minoans could have derived their boxing traditions from the land of the pharaohs. Comparison with the relatively copious iconography of pugilism in the ancient Levant also makes us doubtful that contact, in regards to boxing, was particularly influential. For example—and with the possible exception of the Naxos Plaque—we find no representation of a referee or official in any Minoan boxing art. This is a remarkable lacuna, given the near ubiquity of a ‘third man in the ring’ in similar art of the ancient Near East (Dioscurus and Dioscurus 2022). The absence of any ‘prize’ situated between Minoan boxers is another significant difference. We have described the considerable variety found in Minoan boxing, particularly in terms of attire, gloves, and posture. All that said, there can be no doubt that cultural contact with Egypt and the Near East was generally pervasive in the ancient Aegean. For this reason, we believe that autochthonous fist fighting, perhaps like the primitive form pocked into the marble of the Naxos Plaque, was known in the truly ancient Cyclades. As it developed, munivagant Minoans became aware of boxing in the mystical city states of the Levant and Egypt, if not in the heart of Mesopotamia. Perhaps some of the pageantry of Near Eastern boxing was incorporated into the Aegean variety but we believe Minoan boxing was fundamentally auturgical and that it fulfilled unique cultic, even magical, needs for the islands of the Aegean.

Minoan boxing appears to have been lost at the end of the Bronze Age, evidently exerting little direct influence on the iconography of pugilism in mainland Greece. Though similar in function to the Minoan gauntlets, for example, the Roman *cæstus* is almost certainly an example of convergent evolution rather than direct inheritance. While oral traditions of the most brutal forms of Bronze Age boxing may have persisted in the Iron Age Mediterranean (like the stories of Minos and his Minotaur), there is little iconographic evidence that the Greeks directly adopted the fistic practices of their Aegean predecessors. As we will see, it is the Greeks who were more directly influenced by Near Eastern models of boxing. If we are correct, the singularity of Minoan boxing provides evidence of boxing’s polygenesis in the

ancient Mediterranean.

We cannot restrain ourselves from giving the last word to the great archæologist, who deftly stitches the rich and strange fabric of Bronze Age boxing together with that of its more celebrated classical inheritors, our forthcoming foci:

[T]he lords of Mycenæan Knossos glutted their eyes with violent displays, just like their cultural descendants, the Greeks and the Romans... The sports of the amphitheatre, which have never lost their hold on the Mediterranean world, may thus in Crete at least be traced back to prehistoric times. It may well be that, long before the days when enslaved barbarians were ‘butchered to make a Roman holiday,’ captives, perhaps of gentle blood, shared the same fate within the sight of the ‘House of Minos’ and the legends of Athenian prisoners devoured by the Minotaur preserve a real tradition of these cruel sports (Evans 1900–1901, p. 95–96).

## References

- James Baikie. *The Sea-Kings of Crete*. Adam and Charles Black, London, 2nd edition, 1913.
- J. Benson. A new Boxer-Rhyton fragment. *Boston Museum Bulletin*, 64(335):36–40, 1966.
- Fritz Blakolmer. Ein prozessionsfresko im ‘grand staircase’ von knossos oder im banne von persepolis? zum minoischen freskofragment einer boxerszene. In F. Blakolmer, M. Seyer, and H. D. Szemethy, editors, *Angekommen aus Ithaka. Festgabe für Jürgen Borchhardt zum 80. Geburtstag*, pages 37–53. Vienna, 2016.
- J. Coulomb. Les boxeurs minoens. *Bulletin de Correspondance Hellénique*, 105:27–40, 1981.
- E. Davis. Youth and age in the Thera frescoes. *American Journal of Archaeology*, 90(4): 399–406, 1986.
- E. N. Davis. *The Vapheio Cups and Aegean Gold and Silver Ware*. Garland, New York, 1977.
- Castor Dioscurus and Pollux Dioscurus. The development of boxing: The ancient world (Western Asia and Egypt). *Scholia Pugillātōria*, 1:23–71, 2022.
- Christos Doumas. *The Wall Paintings of Thera*. Thera Foundation, Athens, 1992.
- Christos Doumas. La répartition topographique des fresques dans les bâtiments d’Akrotiri à Théra. In I. Bradfer-Burdet, B. Detournay, and R. Laffineur, editors, *Kρής Τεχνίτης. L’artisan crétois. Recueil d’articles en l’honneur de Jean-Claude Poursat, publié à l’occasion des 40 ans de la découverte du Quartier Mu*, volume 26 of *Ægæum*, pages 73–82. Liège, 2005.
- Arthur Evans. The palace of Knossos: Provisional report of the excavations for the year 1901. *The British School at Athens*, 7:1–120, 1900–1901.
- Arthur Evans. *The Palace of Minos at Knossos*. Macmillan and Co., London, 1921–1935. 4 vols.

- S. C. Ferrence and G. Bendersky. Deformity in the ‘boxing boys’. *Perspectives in Biology and Medicine*, 48(1):105–123, 2005.
- Fragoula Georma. The wall paintings from Building Beta, Akrotiri Thera: A new approach to the iconographic programme. *Δωδώνη*, 47:31–49, 2019.
- Louis Godart. *The Phaistos Disc: The Enigma of an Aegean script*. Itanos, Heraklion, 1995.
- J. Walter Graham. Egyptian features at Phaistos. *American Journal of Archaeology*, 74(3): 231–239.
- Robert Graves. *Good-bye to All That*. Doubleday, New York, 1985.
- Hans Gustav Güterbock and Timothy Kendall. A Hittite silver vessel in the form of a fist. In J. B. Carter and S. P Morris, editors, *The Ages of Homer: A Tribute to Emily Townsend Vermeule*, pages 45–60. University of Texas Press, Austin, TX, 1995.
- Sinclair Hood. *The Arts in Prehistoric Greece*. The Pelican History of Art. Penguin Books, New York, 1978.
- S. A. Immerwahr. *Aegean Painting in the Bronze Age*. Pennsylvania State University Press, University Park, PA, 1990.
- A. Bernard Knapp. Mediterranean Bronze Age trade. In Eric H. Cline and Diane Harris-Cline, editors, *The Aegean and the Orient in the Second Millennium: Proceedings of the 50th Anniversary Symposium*, number 18 in *Ægæum: Annales d’archéologie égéenne de l’Université de Liège et UT-PASP*, pages 193–205. Université de Liège, Liège, 1998.
- Alice E. Kober. The Minoan scripts: Fact and theory. *American Journal of Archaeology*, 52(1):82–103, 1948. ISSN 00029114, 1939828X. URL <http://www.jstor.org/stable/500554>.
- R. Koehl. The Chieftain Cup and a Minoan rite of passage. *The Journal of Hellenic Studies*, 106:99–110, 1986.
- Robert B. Koehl. *Aegean Bronze Age Rhyta*, volume 19 of *Prehistory Monographs*. Institute for Aegean Prehistory Academic Press, Philadelphia, PA, 2006.
- Tomaž Lazar. The Fighting techniques of the Hallstatt period boxers: An attempt at reinterpretation of the situla art. *Arheološki vestnik*, 62:261–288, 2011.
- Nanno Marinatos. *Art and Religion in Thera: Reconstructing a Bronze Age Society*. D. & I. Mathioulakis, Athens, 1984.
- Spyridon Marinatos. *Excavations at Thera I: First preliminary report (1967 season)*. Number 64 in Vivlioθēkē tēs en Athēnais Archaiologikēs Hetaireias. Archaiologikē Hetaireia, Athens, 1968. Reprinted 1976.
- Spyridon Marinatos. *Excavations at Thera IV (1970 season)*. Number 4 in Archaioi Topoi kai Mouseia tēs Hellados. Archaiologikē Hetaireia, Athens, 1971. Reprinted 1977.

- Spyridon Marinatos. *Excavations at Thera I–III: 1967–1969 seasons*. Number 178 in Vivlio-thēkē tēs en Athénais Archaiologikēs Hetaireias. Archaiologikē Hetaireia, Athens, 2nd edition, 1999. 3 vols.
- Jeremy McInerney. Bulls and bull-leaping in the Minoan world. *Expedition Magazine*, 53 (3):6–13, 2011.
- Lyvia Morgan. Of animals and men: the symbolic parallel. *Bulletin of the Institute of Classical Studies*, 40:171–184, 1995.
- Lyvia Morgan. Form and meaning in figurative painting. In Susan Sherratt, editor, *The Wall Paintings of Thera: Proceedings of the First International Symposium*, pages 925–946. Hidryma Theras, Athens, 2000.
- Christine Morris. Configuring the individual: Bodies of figurines in Minoan Crete. In Anna Lucia D'Agata and Aleydis Van de Moortel, editors, *Archaeologies of Cult: Essays on ritual and cult in Crete in honor of Geraldine C. Gesell*, pages 179–187. American School of Classical Studies at Athens, Princeton, NJ, 2009.
- H. W. Parke. A Note on the fresco of the ‘Boxing Boys’ at Akrotiri. *Journal of Prehistoric Religion*, 1:35–38, 1987.
- Alan Peatfield. The topography of Minoan peak sanctuaries revisited. In Anna Lucia D'Agata and Aleydis Van de Moortel, editors, *Archaeologies of Cult: Essays on ritual and cult in Crete in honor of Geraldine C. Gesell*, pages 251–259. American School of Classical Studies at Athens, Princeton, NJ, 2009.
- Michael Baron Poliakoff. *Combat Sports in the Ancient World*. Yale University Press, New Haven, CT, 1987.
- George Rethemiotakis. *Minoan Clay Figures and Figurines: From the Neopalatial to the Subminoan Period*. Number 219 in Archaeological Society at Athens Library. The Archaeological Society at Athens, Athens, 2001. Trans. by A. Doumas.
- Giorgos Rethemiotakis. Images and semiotics in space: the case of the anthropomorphic figurines from Kophinas. *Kρητικά Χρονικά*, 34:147–162, 2014.
- Nick Saunders. Jaguars, rain and blood: Religious symbolism in Acatlán, Guerrero, Mexico. *Cambridge Journal of Anthropology*, 9(1):77–81, 1984.
- M. Shaw. The miniature frescoes of Tylissos reconsidered. *Archäologischer Anzeiger*, 2: 171–88, 1972.
- Steven Soetens. Juktas and Kophinas: Two ritual landscapes out of the ordinary. In Anna Lucia D'Agata and Aleydis Van de Moortel, editors, *Archaeologies of Cult: Essays on ritual and cult in Crete in honor of Geraldine C. Gesell*, pages 261–268. American School of Classical Studies at Athens, Princeton, NJ, 2009.
- Oğuz Soysal. Did a Hittite acrobat perform a bull-leaping? *Nouvelles Assyriologiques Brèves et Utilitaires*, pages 105–107, 2003.

Karl Taube. The Ballgame, boxing and ritual blood sport in Ancient Mesoamerica. In Colin Renfrew, Iain Morley, and Michael Boyd, editors, *Ritual Play and Belief in Evolution and Early Human Societies*, pages 264–301. Cambridge University Press, Cambridge, 2018.

Karl A. Taube and Marc Zender. American gladiators: Ritual boxing in ancient Mesoamerica. In Heather Orr and Rex Koontz, editors, *Blood and Beauty: Organized Violence in the Art and Archaeology of Mesoamerica and Central America*, pages 161–220. Cotsen Institute of Archaeology Press, Los Angeles, CA, 2009.

Shirley S. Wang. Boxing group bans headgear in bid to reduce concussions. *Wall Street Journal, Eastern Edition*, 261(61):A3, 2013. March 15.

Peter Warren. *Minoan Stone Vases*. Oxford University Press, Oxford, 1969.

John G. Younger and Paul Rehak. Minoan culture: Religion, burial customs, and administration. In Cynthia W. Shelmerdine, editor, *The Cambridge Companion to the Aegean Bronze Age*, pages 165–185. 2008.

Zach Zorich. Fighting with jaguars, bleeding for rain. *Archaeology*, 61(6):46–52, 2008.

## Changelog

- ~2022.7.1 First public release.
- ~2022.8.14 (Younger and Rehak 2008) reference, footnote added; fixed pagination.
- ~2023.6.10 Boxer rhyton foot wraps noted.

