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GREEK POPYRI OF PRAGMATIC LITERATURE ON COMBAT TECHNIQUE (P. OXY. III 466 AND LXXIX 5204)

ANTTI IJÄS*

1. Introduction

The scholarly interest in Greek sports tends to gravitate towards interpreting its cultural significance and role in the society, not so much the exact characteristics of the kinds of sports themselves. The understanding of the significance and relationships of any given activity, however, should be complemented by the understanding of the nature of the activity itself. To gain such understanding, a philologist will naturally turn to written sources, especially pragmatic literature about the activity. Ovid reveals that books were written about games (*Trist.* 2,471–84), showing that no topic was too banal or pragmatic to be discussed and distributed in writing. Unfortunately, works detailing the technique and training for sports are poorly attested in the extant corpus of literature. Accordingly, athletic training has not received its due attention in the study of ancient sports.

Greeks had not only skills in sports, but also knowledge on how to pass along their skills, as implied in Pl. *Lach.* 185b. Learnt skills may be contrasted with bodily strength and size, and there was no full agreement of opinion regarding their respective importance. In an epigram dated to the early fourth century BCE, Aristodamos of Elis ascribes his wrestling victories not to the ‘breadth of his frame’ but his ‘art’;¹ conversely, a Spartan boy wrestler boasts not being

* This article grew out of a research project funded by Kone Foundation. I thank the two anonymous reviewers for their useful suggestions.

¹ ‘οὐ πλάτει νικῶν σώματος ἀλλὰ τέχνη’, J. Ebert (ed.), *Griechische Epigramme auf Sieger an gymnischen und hippischen Agonen*, Berlin 1972, 113–14. For the aristocratic anxiety regarding non-inherited, teachable (fighting) skills, see N. Nicholson, “Representations of Sport in Greek

skilled like the others but winning through strength (*Anth. Pal.* 16,1). Plutarch alludes to the Spartan aversion to the art of wrestling, stating that Spartans employed no wrestling instructors, so that victory would be earned through valour instead of skill (‘μη τέχνης ἀλλ’ ἀρετῆς’, *Mor.* 233e; cf. *Mor.* 236e & 639f). Sports instructors are only attested in the literary sources for combat sports, though they are depicted in vase paintings for other sports as well.² Even though sports belong to activities where “doing” takes precedence over “knowing”, the knowledge on *how* to “do” is nevertheless a valid object of study. Such knowledge can be communicated visually and through hands-on instruction, but there is no reason why it could not be written down as well, though such attempts may fail to communicate some of the more tacit facets of the relevant know-how.

In this article, I present the first examination of the pragmatic sources for Greek combat sports within their generic context of pragmatic literature on fighting technique. The two Oxyrhynchus papyri discussed are *P. Oxy.* III 466 (I/II CE) and *P. Oxy.* LXXIX 5204 (II CE), with the editorial titles ‘Directions for Wrestling’ and ‘Directions for Pankration (?)’, respectively.³ A third source, *P. Oxy.* VI 887 (III CE) was tentatively titled ‘Directions for Wrestling (?)’ by Grenfell and Hunt.⁴ Since then, however, the text has been convincingly identified as a magical text.⁵ Though a connection between (protective) magic and fighting would not be unheard of, this source will not be subjected to further speculation in this article.

My primary purpose is not to (re)attempt an exact decipherment of the technical terminology of the sources, but rather to illuminate the structures of

Literature”, in P. Christesen – D. G. Kyle (eds.), *A Companion to Sport and Spectacle in Greek and Roman Antiquity*, Chichester 2014, 68–80, particularly 76–77.

² M. Golden, *Greek Sport and Social Status*, Austin 2008, 26.

³ Images of the two papyri were acquired from <http://papyri.info/apis/columbia.apis.p356/> and <http://papyri.info/ddbdp/p.oxy;79;5204>, respectively (last accessed 31 August 2020).

⁴ B. P. Grenfell – A. S. Hunt (eds.), *The Oxyrhynchus Papyri Part VI*, London 1908, 201–2.

⁵ The text is similar to passages from the Paris Magical Papyrus (BNE, Suppl. grec 574, LDAB 5564), as noted by A. Abt, “Nucularum hexas”, *Philologus* 69 (1910), 141–52, particularly 147–50. In *PGM* (XXIVb), the papyrus is described as instructions for writing magical words on a human figure, possibly to ward off physical attacks; E. Diehl (ed.), *Papyri Graecae Magicae*, volume 2, Leipzig 1931, 152. R. D. Kotansky’s English translation titled ‘love spell’ is found in H. D. Betz (ed.), *The Greek Magical Papyri in Translation, Including the Demotic Spells, volume one: texts*, Chicago – London 1992, xviii, 264.

communicating technique. This is arguably the only object of study for which these papyri provide unique source material: in order to decipher the rules and exact methods of Greek combat sports, far more evidence can be gathered from other literary and iconographic sources.⁶ Such evidence, when available, can be employed to make sense of the technical content of the sources, consequently making it possible to examine the linguistic form of how the technical content is communicated, which can then be oriented in the diachronic context of European literature detailing combat technique.

I will start by offering relevant background on the Greek combat sports and pragmatic writing on combat technique, followed by a summary of the relevant scholarship on the papyrus sources mentioned above. The discussion proper starts with an outline of the structural features of the tentative Greek ‘combat (sports) manual’ genre, followed by an examination of the composition of a unit of technical knowledge, and finishes with a consideration of how these relate to what is known of the instruction given in combat sports, and how all of this relates to the larger context of the history of subsequent European literature on fighting technique.

2. Greek combat sports and fighting skills

Within athletics, combat sports occupy a special place, as they are inherently based on a regulated form of interpersonal violence.⁷ From *pankration* to Roman gladiatorial games and the mediaeval tournament, the kinds of combat sports enjoyed by the people have been used as a measurement of the perceived

⁶ Literary sources: G. Doblhofer – P. Mauritsch, *Boxen. Texte, Übersetzungen, Kommentar*, Vienna 1995; G. Doblhofer – P. Mauritsch, *Pankration. Texte, Übersetzungen, Kommentar*, Vienna 1996; G. Doblhofer – W. Petermandl – U. Schachinger, *Ringeln. Texte, Übersetzungen, Kommentar*, Vienna 1998.

⁷ The standard work, not limited to Greek athletics, is M. B. Poliakoff, *Combat Sports in the Ancient World: Competition, Violence, and Culture*, New Haven – London 1987. Poliakoff, however, excludes gladiatorial combat from his definition of sport, considering it a form of warfare (7); for detailed discussion, see G. Horsmann, “Sklavendienst, Strafvollzug oder Sport? Überlegungen zum Charakter der römischen Gladiatur”, in H. Bellen – H. Heinen (eds.), *Fünfzig Jahre Forschungen zur antiken Sklaverei an der Mainzer Akademie 1950–2000: Miscellanea zum Jubiläum*, Stuttgart 2001, 225–41; for an opposing view, see Golden (above n. 2) 97–104.

brutality of the ancient times. When discussing violence and fighting in general, a distinction may be made between *agonistic* and *antagonistic* activity, where the former covers, as expected, activity typically pertaining to the *agones* or competitions, and the latter the kind of activity that occurs in war, illicit violence, and lethal single combat. The distinction may be a matter of degree. There is not necessarily a significant difference between the motor skills for agonistic and antagonistic violence, or play and serious fighting; arguably, practice for the latter would necessarily take the form of the former.

In Greek athletics, three kinds of combat sports ('heavy events') were distinguished: boxing (*πυγμαίη*), wrestling (*πάλη*), and *pankration* (*παγκράτιον*).⁸ There is an important conceptual distinction between types of fighting activity on the one hand, and how such types are organised into specific kinds of sports or sporting events, on the other. In the context of Greek combat sports, it is useful to distinguish striking, kicking, grappling, tripping, and choking, enacted either in the standing (stand-up fighting) or non-standing (ground fighting) position; the kneeling position is something in between. The three combat sports are defined by what types of actions are allowed and what constitutes victory.

Boxing entailed stand-up fighting with punches (striking with the fist) for a knockout or submission. In wrestling, the objective was to force the opponent to the ground three times (whence, apparently, *τριάζειν* 'to conquer, vanquish') through the use of grappling and tripping; apparently being secured in a controlling hold counted as a fall as well. In *pankration*, both striking and grappling grips and throws were allowed, with the addition of kicking and grappling on the ground (i.e., both stand-up and ground fighting); victory was determined by submission.⁹ A famous quote from Philostratus (*Imag.* 2,6)

⁸ For selections of primary sources in English translation on each of the three combat sports events, see W. E. Sweet, *Sport and Recreation in Ancient Greece: A Sourcebook with Translations*, New York – Oxford 1987, 60–88 and S. G. Miller, *Arete: Greek Sports from Ancient Sources*, third edition, Berkeley, Los Angeles – London 2004 (reprinted 2012), 27–39 (passages 32–46).

⁹ There is evidence for a kind of *pankration* where grappling was not allowed: a second-century inscription found in Fassiller in Pisidia (SEG 6,449, Sterrett, WE 167,275) sets down the rule that the pancratiasts must not make use of sand to sprinkle themselves with (*ἀφῑ εις τὸ πάσσειν*) or grappling moves (*παλαίσμασι*) but only compete in stand-up striking (*ὀρθοπαίει ἀγωνίζεσθαι*). For an analysis, see E. N. Gardiner, "Regulations for a local sports meeting", *CR* 43 (1929) 210–12. Interestingly, Suidas' entry for *Παγκρατιασταίς* gives the definition *ὔκταίς τοῖς χερσὶ καὶ ποσὶ πικτομαχοῦσι*, or

mentions two fouls, biting and gouging.¹⁰

A fourth combat sport, (poorly) attested in late antiquity, was called *pammachon* (πάμμαχον). In earlier sources, the word is used as a poetic synonym of *pankration*, but the event so named is explicitly distinguished from *pankration* in *SB* III 6222 and *CIL* VI 10154 = *ILS* 5164.¹¹ Hesychius' entry for Κυπρία πάλη ('Cypriot wrestling'), for which he supplies the alternate name πάμμαχον, indicates that it is a kind of untechnical wrestling, perhaps a parallel phenomenon to the similarly 'untechnical' boxing of the Roman *catervarii*.¹²

Though *pankration* is typically seen as the most dangerous and thus the most 'realistic' combat sport, Plato (*Leg.* 796a) was of the opinion that stand-up wrestling was a more suitable exercise for fighting skills relevant for military purposes. This is understandable considering that purposely engaging in ground-fighting in a situation involving multiple adversaries is dangerous. Moreover, contrary to what might be intuitively apparent, *pankration* was considered less dangerous than boxing by the Greeks.¹³ Boxing, where gripping the opponent's arms was not allowed (Plut. *Mor.* 638e), offers fewer possibilities for defence against blows, and protection for the benefit of the opponent was only used in training. Fighting by using only the clenched fist necessitates the use of support

'boxers who box with hands and feet'.

¹⁰ The latter, ὀρύττειν, seems to cover not only gouging the eyes, but also anal insertion; cf. *Ar. Av.* 441–43 and *Pax* 896–98.

¹¹ S. Remijsen, "'Pammachon', a New Sport", *BASP* 47 (2010), 185–204, particularly 199–204; S. Remijsen, *The End of Greek Athletics in Late Antiquity*, Cambridge 2015, 86, 168, and 336. For synonymy with *pankration*, see M. B. Poliakoff, *Studies in the Terminology of the Greek Combat Sports*, 2. ed., Frankfurt am Main 1986, 64–71.

¹² For the *catervarii*, see C. Mann, "Greek Sport and Roman Identity: The *Certamina Athletarum* at Rome", in T. F. Scanlon (ed.), *Sport in the Greek and Roman Worlds* vol. 2, 2014, 151–79.

¹³ Poliakoff (above n. 7) 63. According to Paus. 6,15,5, it was preferable to compete in *pankration* before boxing to avoid competing with injuries in the former, and, according to Artemidorus 1,62, dreaming of *pankration* was not harmful like dreaming of boxing. – In addition to the deaths of Arrachion in *pankration* and Creugas in boxing (Paus. 8,40), three other fatalities in boxing, two in wrestling, and only one in *pankration* are reported in R. Brophy – M. Brophy, "Deaths in the Pan-Hellenic Games II: All Combative Sports", *AJPh* 106 (1985) 171–98, and M. B. Poliakoff, "Deaths in the Pan-Hellenic Games: Addenda et Corrigenda", *AJPh* 107 (1986) 400–2. For the role of death in general, see T. F. Scanlon, *Eros and Greek Athletics*, Oxford 2002, 299–322.

to protect the fist from injury,¹⁴ as punching with the fist is not a natural method of employing the human hand for offence.¹⁵

Conceptualizing grappling as a type of fighting action used in both wrestling and *pankration* has some useful implications. Saying that *pankration* is a combination of wrestling and boxing is somewhat inaccurate, since *pankration* allows kicking and ground-fighting as well.¹⁶ Even though it is a useful shorthand to refer to fighting skills by the names of the corresponding sporting events, it is not exactly precise.¹⁷ Heracles provides an illustrative, albeit mythological case study.

Being the divine patron of athletics, Heracles' association with athletics goes beyond any single event, as he is credited with instituting the games at Olympia (Apollod. *Bibl.* 2,7,2; Paus. 5,7,9; Pind. *Ol.* 10). In the field of combat sports, he is referred to both as a pancratiast and Παλαίμων, 'a wrestler'. According to Apollodorus (*Bibl.* 2,4,9), Heracles was taught driving the chariot, wrestling, shooting with the bow, fighting in heavy armour, and playing the lyre, which all correspond to events in various games.¹⁸ Heracles' encounters with the serpents as an infant and with Antaeus, Nereus, and the Nemean lion during his labours are not sporting events but more properly "real fights" of antagonistic violence. The antagonistic nature of the so-called wrestling matches is corroborated by Heracles killing not only Antaeus, but also Polygonus, Telegonus, and Eryx

¹⁴ For the leather straps (ἰμάντες) used in Greek boxing, see T. F. Scanlon, "Greek boxing gloves: terminology and evolution", *Stadion* 8/9 (1982/3) 31–45; for an alternate view of their later development, see H. M. Lee, "The Later Greek Boxing Glove and the "Roman" Caestus: A Centennial Reevaluation of Jüthner's 'Über Antike Turngeräthe'", *Nikephoros* 10 (1997) 161–78.

¹⁵ For the contrary idea, see M. H. Morgan – D. R. Carrier, "Protective buttressing of the human fist and the evolution of hominin hands", *Journal of Experimental Biology* 216 (2013) 236–44. For criticism, see D. C. Nickle – L. M. Goncharoff, "Human fist evolution: a critique", *Journal of Experimental Biology* 216 (2013) 2359–60 and R. King, "Fists of furry: at what point did human fists part company with the rest of the hominid lineage?", *Journal of Experimental Biology* 216 (2013), 2161.

¹⁶ For a review of the evidence for kicking in Greek boxing, see N. B. Crowther, "The Evidence for Kicking in Greek Boxing", *AJPh* 111 (1990) 176–81.

¹⁷ Cf. Philostr. *Gymn.* 11, where the author does exactly this. Gal. *san. tuend.* 6,133–34K distinguishes between exercises (γυμνάσια) and activities (ἔργα) that may be performed independently.

¹⁸ Playing the lyre may seem unrelated to the other skills, which all have combative applications, but Apollodorus adds that Heracles killed his teacher by hitting him with the instrument.

(2,5,9–10).¹⁹ Menoetes has his ribs crushed by Heracles and is only saved due to the intervention of Persephone (2,5,12). Thus, Heracles' skill lies in grappling, a fighting skill applicable in both wrestling and *pankration*, the two events Heracles is said to have won on the same day, becoming the namesake for the honour bestowed upon those who duplicated the feat.²⁰

More importantly for the present article, the titles 'Directions for Wrestling' and 'Directions for Pankration (?)' given to the two papyrus sources may be brought under the umbrella of 'Directions for Grappling', thus removing the necessarily tentative commitment to specific sporting events while still staying true to their attested content.²¹

¹⁹ Apollodorus' wording τρις περιγεγόμενος does seem to refer to a proper wrestling match with Eryx, who in Verg. *Aen.* 5,400–13 appears to have been a boxer. Fatal results are also ascribed to the mythical boxing matches (πυγμαχίη) of Amycus, King of the Bebryces (Ap. Rhod. *Argon.* 2,1–7). The most graphic result of Heracles' grappling moves may be found in Soph. *Trach.* 777–82.

²⁰ C. A. Forbes, "Οἱ ἄφ' Ἡηρακλέους in Epictetus and Lucian", *AJPh* 60 (1939) 473–74.

²¹ It is not always practical to maintain a linguistic distinction between sporting events, kinds of sports, and the associated types of activity. There is, nevertheless, a clear conceptual distinction between jumping (high) and *the* high jump. Further, sports typically centre around activities that exist independently of the sporting event, like jumping, running, and swimming, whereas games, such as ball games and board games, involve goal-oriented activity that only exists in the context of the game. In the former case, the activity is governed by *regulative* rules, whereas in the latter, the activity is created by *constitutive* rules, using the terminology of J. Searle, *Speech acts: An Essay in the Philosophy of Language*, Cambridge 1969, 33–35. Both kinds of rules intermingle: the constitutive rules of a board game are the rules in the context of which moving a piece becomes meaningful (most importantly what kinds of arrangements of the pieces constitute victory), but how moving the piece is to be performed may be governed by additional regulative rules (e.g., the obligation to move the first piece touched in chess). Of course, any given competition is created by constitutive rules: running is an independent, meaningful activity the distinctive feature of which is speed of movement, but a competition in running requires defining the conditions for winning. Similarly, the motor skills employed in games (kicking things, manipulating small objects) exist independently of games, but the goals and the actions performed to reach them (passing the ball, making a move) are defined by the game. Combat sports are a special case in the sense that they 'simulate' hand-to-hand fighting, as formulated by Sweet (above n. 8) 60, whereas no one would argue that the high jump 'simulates' jumping high. (Cf. the use of μίμημα in Plut. *Mor.* 640a.) The inherent antagonistic violence associated with combative behaviour necessitates not only regulatory rules but also constitutive rules to determine the winner. In running, being faster than the other party involved constitutes a natural triumph whereas falling to the ground in a fight does not necessarily mean losing. Imposing such conditions on victory makes a combat sport necessarily more 'game-like'; coupled with regulatory rules for safety, the connection between the independent activity and the

As already noted, the skill set of grappling may have had uses outside of sports, but its connection to military training is not direct. In addition to pointing out the usefulness of upright grappling already mentioned, Plato (*Leg.* 833d–34a) suggests some changes in the games of his idealized society to encourage military prowess: there should be a mock hoplite battle (ὀπλομαχία) with experts in the subject giving instruction in the handling of weapons and devising a system for determining victory, and a contest in the use of projectile weapons of the peltasts.²² In the curriculum of ephebes established in Athens in ca. 335 BCE, military training included hoplite and peltast technique (ὀπλομαχεῖν καὶ τοξεύειν καὶ ἀκοντίζειν καὶ καταπάλην ἀφιέναι, *Arist. [Ath. Pol.]*, 42,3), though wrestling was certainly part of the sports programme.²³ *Plut. Mor.* 640a is explicit about the connection between grappling and warfare, though his testimony should be taken *cum grano salis*, as he simply tries to come up with an explanation for why Homer always has boxing, wrestling, and running in that order: the reason, says Plutarch, is that this is the natural order of encountering the enemy in striking distance, proceeding to grappling, and then either running away or chasing the enemy.²⁴

In any case, wrestling and its associated special language enjoyed wide penetration and reception, illustrated by the abundance of related metaphors in literature.²⁵ Detecting allusions of special language necessitates rigorous

sport derived from it becomes gradually more obscure: contrast, for example, duelling with small swords or sabres with Olympic fencing.

²² As the craft of hoplite combat (*Xen. Anab.* 2,1,7), ὀπλομαχία should not be equated with the armed funeral contests of *Hom. Il.* 23,802–25.

²³ Cf. D. Kah, “Militärische Ausbildung im hellenistischen Gymnasion”, in D. Kah – P. Scholz (eds.), *Das hellenistische Gymnasion*, Berlin 2004, 47–90, particularly 53–54.

²⁴ Boxing is explicitly contrasted with skills relevant to warfare in *Tac. Ann.* 14,20, as part of opposition to Nero’s *Neronia* festival, for which see Z. Newby, *Greek Athletics in the Roman World*, Oxford 2005, 28–31, 40. *Plut. Cat. Mai.* 20,4–5 reports that Cato the Elder taught his son to box, to endure hot and cold, and to swim in addition (and in contrast?) to the military skills of javelin-throwing, fighting in armour, and riding. In *Lucian Anach.* 24, 27–8 the character Solon states that boxing and *pankration* teach one not to turn away in fear of injuries, whereas the direct applicability of wrestling moves on the battlefield is implied; applying wrestling skills to pick up and evacuate wounded friends is also mentioned.

²⁵ For examples, see Poliakoff (above n. 11), Doblhofer et. al 1998 (above n. 6) 379–81, and M. R. Lefkowitz, “The poet as athlete”, *Journal of Sport History* 11 (1984) 18–24.

philological work. Technical literature is the native domain of technical language, and, especially if it were represented by more extant sources, of major importance for the study of the technicalities of Greek sports. Greek technical literature, often dubbed “subliterary”,²⁶ is of interest not only in the context of Greek literature and culture, but for the study of pragmatic literature from diachronic perspective as well.

3. Pragmatic literature on fighting technique

As already noted, in addition to being skilled in fighting, one can have knowledge regarding how such skills can be developed. The skill to throw a punch is achieved through the practice of punching, and practicing requires knowledge (accurate or not) on what to practice. Following B. Spatz’ definition of technique as knowledge that governs practice, I term such knowledge on how to prepare for fighting as *fighting technique*.²⁷ Individual units of fighting technique, or *techniques* as a countable noun, are typically made up of various types of grips, throws, trips, punches, and kicks. As is the case of other *artes*, technical knowledge can be made explicit in the form of rules, which, of course, are distinct from the rules governing a competition. Consequently, a collection of such rules is an *ars* or τέχνη, suggesting the designation *martial art* for an art (in the aforementioned sense) pertaining to fighting.²⁸

European literature on fighting technique is attested only from the early fourteenth century onwards.²⁹ This genre, termed *fight books* (German

²⁶ T. Renner, “Papyrology and Ancient Literature”, in R. S. Bagnall (ed.), *The Oxford Handbook of Papyrology*, Oxford 2009, 281–302, particularly 283.

²⁷ B. Spatz, *What a Body Can Do*, London – New York 2015, 26–44.

²⁸ The Latin word *ars* is used in connection with fighting technique in Suet. *Aug.* 45,2 and Val. Max. 2,3,2. The English expression *martial art*, a fairly recent loan translation from Japanese, is often distinguished from what is considered ‘mere’ sports and carries connotations of personal growth and training to be a ‘true’ warrior instead of simply learning to fight. For an argument regarding the use of the term in research in the general context of transferrable fighting skills (i.e., knowledge on how to fight), see S. Wetzler, “Martial Arts Studies as Kulturwissenschaft: A Possible Theoretical Framework”, *Martial Arts Studies* 1, 20–30.

²⁹ The standard work on the topic is S. Anglo, *The Martial Arts of Renaissance Europe*, New Haven – London 2000. For sources, see S. Boffa, *Les manuels de combat* (*Fechtbücher et Ringbücher*),

Fecht- und Ringbücher), has no precedents or models in antiquity. Describing and conveying fighting technique is the defining feature of fight books, but this feature may be present in literature properly belonging to other genres as well. For example, the anonymous *Speculum regale* written in the thirteenth century in Old Norwegian, belongs to *speculum* or “mirror” literature, but includes a passage on how to train fencing with sword and buckler (or shield), coupled with several hints for the mounted knight and various combat situations.³⁰ A classic example is Vegetius’ treatise on military matters, which is mainly concerned with the tactical level, but includes, among others, a passage advocating the use of the Roman *gladius* for thrusting instead of cutting (*Veg. Mil.* 1,12).

Exposition of technique may take the form of a mere technical allusion, as in *Taktika* of Leo VI (20,124), where the author states that a good general should be like a good wrestler, feinting one action (δεικνύειν μὲν ἕτερα) but performing another.³¹ Here the subject is not the technique itself (feinting) but it is used to illustrate something else. A more concrete example can be found in Xen. *Cyn.* 10,12, where the stance of a spear-wielding hunter is likened to that of a wrestler. In the passage already cited, Plato (*Leg.* 796a) briefly describes stand-up wrestling as ‘keeping free the neck, the arms, and the sides.’³² Incidentally, these three ‘target areas’ of grips are also featured in *P. Oxy.* III 466. For an example involving *pankration*, Galen, when discussing the muscles and tendons of the arm, illustrates the result of bending the four fingers by referring to the shape of the hand used to strike with the base of the palm.³³ For the purposes of this article, a topic more pertinent than fighting technique itself is how fighting technique was passed on. Relevant texts will be discussed further below.

Turnhout 2014, particularly 38 for *P. Oxy.* III 466.

³⁰ L. Holm-Olsen (ed.), *Konungs skuggsjá*, Oslo 1983, 58–61. For an English translation, see L. M. Larson, *The King’s Mirror (Speculum Regale–Konungs Skuggsjá)*, New York 1917, 212–20.

³¹ G. T. Dennis, *The Taktika of Leo VI: Text, Translation, and Commentary*, Washington 2014, 578.

³² ‘...τὰ δὲ ἀπ’ ὀρθῆς πάλης, ἀπ’ αὐχένων καὶ χειρῶν καὶ πλευρῶν ἐξειλήσεως’. This, of course, defines the offensive side only by implication.

³³ ‘εἰ δ’ ἕκαστος τῶν δακτύλων καμφθεῖη, τὸ σχῆμα τῆς χειρὸς γένοιτ’ ἄν μάλιστα τοῖς ἐν παγκρατίῳ προτετακόσιν αὐτὴν ὁμοίον’, *Gal. mot. musc.* 4,395K.

4. Previous discussions

Since the two sources have received relatively little scholarly attention, it is feasible to give a more or less complete account of previous research. Accordingly, the following literature review serves to meet the bibliographical needs of future research.

P. Oxy. III 466 was published in 1903 and was made use of in a few publications in the same decade.³⁴ E. N. Gardiner discusses Greek wrestling, using the papyrus as one of his sources; in his follow-up article on *pankration*, the author reproduces the second column in its entirety, hoping that someone ‘more experienced may be tempted to suggest a solution.’³⁵ Gardiner’s articles were followed by the posthumously published dissertation by K. J. Freeman, where the author discusses the papyrus as an example of the physical education of the Greeks, offering a free translation of one of the better preserved sections of the second column.³⁶ J. Jüthner’s introduction to his edition, translation, and commentary of Philostratus’ *Gymnasticus* includes a discussion and a translation of the second column, disagreeing on some details with Gardiner.³⁷ Gardiner, meanwhile, authored his handbook *Greek Athletic Sports and Festivals* published in 1910, building on top of his earlier articles on the combat sports, but taking Jüthner’s criticism into account.³⁸ A further iteration of Gardiner’s was published in 1930 (reprinted in 1955), basically a popularized abridgement

³⁴ B. P. Grenfell – A. S. Hunt, *The Oxyrhynchus Papyri Part III*, London 1903, 137–38.

³⁵ E. N. Gardiner, “Wrestling”, *JHS* 25 (1905) 14–31 & 263–93, specifically 15–16, 29, 265, 280, and 287; “The Pankration and Wrestling”, *JHS* 26 (1906) 4–22, particularly 22. For the sake of completeness, it may be noted that the latter volume also includes an article on Greek boxing, in which the author draws some rather biased conclusions regarding the technicalities: K. T. Frost, “Greek Boxing”, *JHS* 26 (1906) 213–25.

³⁶ K. J. Freeman, *Schools of Hellas*, London 1908, 131. Freeman’s translation and Gardiner’s interpretations of the ‘drill-book’ are referred to in R. S. Robinson, *Sources for the History of Greek Athletics in English Translation*, Cincinnati 1955, 274.

³⁷ J. Jüthner, *Philostratos über Gymnastik*, Leipzig – Berlin 1909, 26–30. For criticism on Philostratus as a source, see Poliakoff (above n. 11) 143–48 and M. Golden, *Sport and Society in Ancient Greece*, Cambridge 1998, 48–50.

³⁸ E. N. Gardiner, *Greek Athletic Sports and Festivals*, London 1910; for *P. Oxy.* III 466, see 374, 381 note 1, 388 note 3, 392–93. The chapter on boxing (402–34) corrects some of the views expressed earlier by Frost (above n. 35).

of his handbook, with an English translation of one section of the second column of *P. Oxy.* III 466.³⁹

A new edition was built on top of Grenfell and Hunt's by I. Cazzaniga, without access to a photograph of the papyrus. The author provides supplements based on the number of missing letters but is apparently unaware of any previous scholarship on the text.⁴⁰

An important contribution is the dissertation of M. B. Poliakoff on the terminology of Greek combat sports, originally published in 1982, where the first two columns of the papyrus are edited with a translation and a commentary.⁴¹ This was followed by a more general work on ancient combat sports, in which the same translation is reproduced with no indication of lacunae but supplemented by a photograph of the papyrus.⁴² Another (partial) translation into English appeared in the third edition of S. G. Miller's *Arete* in 2004.⁴³

Palaeographical insights of G. Cavallo, who dates the papyrus to the first century CE, were published in 1996, illustrated with a black-and-white photograph of the papyrus.⁴⁴ Cavallo contrasts the professional book hand of the papyrus with the crude writing of *P. Fay.* 313 (on hunting) and suggests it is an

³⁹ E. N. Gardiner, *Athletics in the Ancient World*, second edition, Oxford 1955, 91–2. For an overview of later criticism of Gardiner's idealizing tendencies, see D. G. Kyle, "E. Norman Gardiner and the Decline of Greek Sport", in D. G. Kyle – G. D. Stark (eds.), *Essays on Sport History and Sport Mythology*, Texas 1990, 7–44, reprinted in J. König (ed.), *Greek Athletics*, Edinburgh 2010, 284–311.

⁴⁰ I. Cazzaniga, "Osservazioni critiche intorno ai P. Oxy. 466 e P. Oxy. 2221, 1, 26" *Athenaeum* 42 (1964) 373–98, particularly 373–80. The edition was republished and translated into German in Doblhofer et al. 1998 (above n. 6) 201.

⁴¹ Poliakoff (above n. 11), particularly 33, 41, 50, 83, 111–13, 115, 120–21, 157, 161–63, 165–71. The edition of the text, based on a photograph of the papyrus, includes suggested supplements by L. Koenen and R. Brophy in the apparatus, to my knowledge not published elsewhere. Poliakoff's translation is cited in Golden (above n. 2) 37.

⁴² Poliakoff (above n. 7) 51–53.

⁴³ Miller (above n. 8) 32.

⁴⁴ G. Cavallo, "Veicoli materiali della letteratura di consumo. Maniere di scrivere e maniere di leggere", in O. Pecere – A. Stramaglia (eds.), *La letteratura di consumo nel mondo Greco-Latino: atti del convegno internazionale Cassino, 14–17 settembre 1994*, Cassino 1996, 13–46, 39; reprinted as part of G. Cavallo, *Il calamo e il papiro. La scrittura greca dall'età ellenistica ai primi secoli di Bisanzio* (Papyrologica florentina 36), Florence 2005, 228–29. The black-and-white photograph has also been published in Golden (above n. 37) 56, but the source is not discussed further in the text.

example of the literature related to leisure activities circulating in the educated circles of the Greco-Roman world.

P. Oxy. LXXIX 5204 was published in 2014, discussed by W. B. Henry in comparison with *P. Oxy.* III 466.⁴⁵ The volume includes an appendix by S. Remijsen, who tentatively identifies the text as a “handbook for demonstration matches of combat sports”.⁴⁶ There is, however, no compelling reason to assume such use for the text.

5. Layout and structure

Layout may be independent from text proper, but pragmatic literature nevertheless develops genre-specific ways of arranging and even composing texts for the benefit of the user. Layout may, for example, make the units of knowledge easily discernible, like entries in an encyclopedia or individual exercises in a grappling manual. Due to the exceedingly fragmentary nature of *P. Oxy.* LXXIX 5204, the following discussion will take *P. Oxy.* III 466 as its starting point, of which the second, best-preserved column (lines 17–31) is reproduced below from the *editio princeps*:

	παράθες τὸ μέσον καὶ ἐκ κε-
	φαλῆς τῆ δεξιᾶ πλέξον
	–
20	σὺ περίθες· σὺ ὑπ’ αὐτὴν ὑπό-
	λαβε· σὺ διαβάς πλέξον
	–
	σὺ ὑπόβαλε τὴν δεξιάν[· σ]ὺ
	εἰς ὃ ὑποβάλλει περι[θεῖ]ς
	κατὰ πλευροῦ τὸν εὐ[ώ]γυ-
	μον βάλε· σὺ ἀπόβαλε τῆ εὐ-
25	ωνύμφ· σὺ αὐτὸν μεταβάς
	πλέξον· σὺ μεταβαλοῦ· σὺ κα-

⁴⁵ W. B. Henry – P. J. Parsons (eds.), *The Oxyrhynchus Papyri Volume LXXIX*, London 2014, 143–49.

⁴⁶ S. Remijsen, “Games, Competitors, and Performers in Roman Egypt”, in Henry – Parsons (eds.) (above n. 45) 190–206, 196.

τὰ τῶν δύο πλέξον
 –
 σὺ βάλε πόδα· σὺ διάλαβ[ε· σὺ ἐ-
 πιβὰς ἀνάκλα· σὺ προστ[ᾶς
 30 ἀνάνευε καὶ εἰς αὐτὸ[v...
 λου καὶ αὐτὸν ἀντιβλ[....
 ...⁴⁷

In the papyrus, a diaeresis occurs above *upsilon* in ὑπολαβε (lines 19–20) and ὑποβαλλει (line 22); the word *ὅ* (line 22) has a breathing mark.⁴⁸ The division into sections is indicated by the reverse-indented word *σύ* with a straight *paragraphos* above it (lines 19, 21, and 28).⁴⁹ Line breaks at the ends of the sections, with varying amounts of empty space, can be observed in lines 18, 20, and 27. In the first column, the left side of which is missing, the line breaks at the end of the individual sections can be inferred from the apparently empty lines 3, 7, and 12.

The third column, not published by any of the editors, seems to include traces of one additional section.⁵⁰ The column has traces of ten lines (lines 32–41), the first of which begins with *σὺ τῆ δεξιᾶ*, but there is no *paragraphos* above the *σύ*, and it is aligned with the line that follows, so the phrase would appear to be a continuation of the preceding column.⁵¹ However, there seems to be a *σ[ύ]*

⁴⁷ Lines 17–18: ‘...put your waist against him and, with the right [arm], tangle from the head.’ Lines 19–20: ‘You, put [your arm] around; you, grab under it; you, step across and tangle.’ Lines 21–7: ‘You, hook under with the right [arm]; you, as he hooks under, put [your arm] around and throw your left [foot] down his side; you, throw off with the left [hand]; you, advance and tangle him; you, turn; you, tangle by the two [testicles?].’ Lines 28–31: ‘You, throw the foot; you, take a hold around him; [you,] press against him and bend him back; you, face him and keep the head up and [turn] against him and...’

⁴⁸ The diaeresis over a word-initial *iota* or *upsilon*, a feature introduced in the early Roman era, was apparently intended as a help for word division, W. A. Johnson, “The Ancient Book”, in R. S. Bagnall (ed.), *The Oxford Handbook of Papyrology*, Oxford 2009, 256–81, 262.

⁴⁹ The reverse indentation is used in literary papyri to indicate verse groups or change in meter, Johnson (above n. 48) 262.

⁵⁰ Poliakoff (above n. 11) 166 indicates that the third column was to be edited by R. Brophy, but to my knowledge no such edition has appeared.

⁵¹ As noted by Poliakoff (above n. 11) 166–67.

aligned left of the rest of the extant column on the last line, which would indicate the beginning of another section.

In *P. Oxy.* LXXIX 5204, no single line is completely preserved, but the beginning of a section can be seen in the second column of fragment 2, where the beginning of the seventh line projects to the left with a forked paragraphos above it. Unlike in *P. Oxy.* III 466, however, the section starts with the command *δὸς παρεμβολήν* without the preceding pronoun *σύ*, which is not necessary at the beginning of a section, considering its function discussed below.

6. The technical units

Having established that there are explicitly marked sections, the next step is to investigate the composition of the sections and their relationship to the subject matter.

A section is made up of a sequence of instructions. A single instruction may be a single imperative, e.g. *σύ περίθες*, or a combination of an aorist participle and an imperative, e.g. *σύ διαβάς πλέξον*; further specifications may be given by indicating which limb should be used in the action and where the action should be directed, e.g. [*σύ ...*] *ἐκ κεφαλῆς τῆ δεξιᾶ πλέξον* and *σύ κατὰ τῶν δύο πλέξον*. There may be a distinction between two movements being connected through the participial construction and using a conjunction, e.g. [*σύ*] *παράθες τὸ μέσον καὶ ἐκ κεφαλῆς τῆ δεξιᾶ πλέξον*. Further, there is one instance where the action is explicitly indicated to be performed in coordination with that of the opponent (lines 21–22): the *ὑπόβαλε τὴν δεξιάν* ('hook under with the right [arm]') is countered by a move to be performed *εἰς ὃ ὑποβάλλει* ('as he hooks under').⁵² This is a clear indication that the instructions are given to a pair of wrestlers; the change of addressee is marked by the pronoun *σύ*.

The ends of three sections in the second column all end with the command *πλέξον*, which may be restored to the ends of the first two sections in the first column (*πλέ|[ξον]* in lines 2–3 and 6–7). Because the command marks the end of a sequence, it has been of special interest for interpreting not only the technical content but the very structure of instruction. The various readings of

⁵² Poliakoff translates the phrase *εἰς ὃ ὑποβάλλει* as 'where he has taken the underhook'; Cazzaniga (above n. 40) 377 translates *εἰς ὃ* as *ipso tempore quo*.

πλέξον found in literature represent two distinct interpretations. The first one is that of Jüthner ('vollführe die Umschlingung'),⁵³ early Gardiner ('complete the grip'),⁵⁴ and Doblhofer et al. ('führe den Griff aus'),⁵⁵ which sees the command as indicating the execution of the attacking move achieved through the previous phases; the second interpretation, Freeman's 'engage',⁵⁶ Poliakoff's 'fight it out',⁵⁷ and Miller's 'mix it up',⁵⁸ is that the preceding commands establish a position from which the students are then commanded to engage in free wrestling. Even though this could be a plausible form of wrestling exercise, the imperative πλέξον is in singular and, consequently, directed to one addressee only.⁵⁹ Moreover, the command is in each case determined by another movement or a part of the opponent's body, so it seems highly unlikely that the command would have been intended to mark the start of a mutual free exercise. No particular analogy with the constraint-bound partner exercises described by Galen (*san. tuend.* 6,141–43K) is necessary, as they are aimed at developing strength of the body instead of teaching grappling-specific motor skills.

Poliakoff discusses the derivatives of the verb πλέκειν in various contexts related to fighting, noting that it must have been a technical term though its application is rather wide, as it is used to refer to struggling and erotic encounters as well.⁶⁰ In several cases, it seems reasonable that the primary sense of πλέκειν and its derivatives cover specifically offensive grappling actions. Plutarch (*Mor.* 640a) refers to such actions as συμπλοκή and the corresponding defensive action ὤθισμός, assuming analogy with the opposing pairs πλῆγή–φυλακή of boxing and φεύγειν–διώκειν of running, the other two of his three phases of hand-to-

⁵³ Jüthner (above n. 37), 26. The full phrase *σὺ διαβάς πλέξον* is translated 'du grätsche und vollführe die Umschlingung' ['you straddle and execute the grip'].

⁵⁴ Gardiner (above n. 38), 374. Here Gardiner suggests a distinction between the sections of the first column, which deal with throws, and the sections that deal with grips of the second column.

⁵⁵ Doblhofer et al. 1998 (above n. 6) 201.

⁵⁶ Freeman (above n. 36) 131, followed by Gardiner (above n. 39) 91.

⁵⁷ Poliakoff 1986 (above n. 11), 162–63 and 1987 (above n. 7), 52–53.

⁵⁸ Miller (above n. 8) 32

⁵⁹ Maurice's *Strategikon* (3,2; 3; 4; 5; 9; 14; 15; 12,16) shows that military commands in Latin could be given in singular as well, but this hardly seems like an appropriate parallel.

⁶⁰ Poliakoff (above n. 11) 75–85.

hand fighting.⁶¹ This interpretation does not appear to conflict with his use of the corresponding verb συμπλέκεσθαι in *Mor.* 638e (contrasted with boxing) and *Per.* 11,1. Similarly, Lucian *Anach.* 24 lists ὠθισμός and περιπλοκή after falling (καταπίπτειν) and standing up (ἀνίστασθαι), though the language is not exactly technical but a comical representation of how the sport may be viewed by an outsider.⁶² Another derived verb, ἐμπλέκειν, is used in *Anth. Pal.* 12,222 in the sense of grabbing the opponent's throat with the hand. In Philostr. *Imag.* 2,6, 'δεῖ ... συμπλοκῶν, ἐν αἷς περιγίνεσθαι χρῆ οἷον πίπτοντα' could be understood as referring to attacks (i.e., not 'struggles') which are completed through falling (i.e., sacrifice throws). It would not be unexpected for the root word πλέκειν and its derivatives denoting actions performed against another person to come to be used metonymically of the reciprocal activity.⁶³

If each sequence of instructions is concluded by a command indicating a general offensive action, it would seem logical that the action in question should directly denote the ultimate goal of the wrestling bout, making the opponent fall. It is the tendency in later literature of such sequences to end in a touch (in fencing) or a throw (in grappling).⁶⁴ Of course, the known senses of πλέκειν make this unlikely.⁶⁵ There is, however, evidence that taking a controlling hold of the opponent would count as a fall: Lucian *Anach.* 1 and Nonnus *Dion.* 37,576–609 describe a victory in wrestling through a hold, though both examples involve ground-fighting; later, Ambrose, the fourth-century archbishop of Milan, alludes

⁶¹ Mentioning offence and defence together when discussing fighting technique occurs also in Xen. *Cyr.* 2,3,9 (παίειν, φυλάττεσθαι), Pl. *Leg.* 830b (αἱ πλῆγαί, αἱ τῶν πλῆγῶν εὐλάβειαι), *Rep.* 333e (πατάξαι, φυλάξασθαι), Arist. *Eth. Nic.* 1116b (τὸ ποιῆσαι, τὸ μὴ παθεῖν, in his idiosyncratic terminology), Cic. *Orat.* 68,228 (*vitando, petendo*), Val. Max. 2,3,2 (*vitare, inferre ictus*), and, much later, in Hans Lecküchner's 1478 manuscript book Universitätsbibliothek Heidelberg, Cod. Pal. germ. 430, fol. 115r (*non modo dimicandi verum etiam tuendi puncta*).

⁶² R. B. Branham, *Unruly Eloquence: Lucian and the Comedy of Traditions*, London 1989, 88–89.

⁶³ Cf. Poliakoff (above n. 11) 83.

⁶⁴ In Leeds, Royal Armouries, RAR.0033 olim MS I.33, the oldest fencing manual extant dated to the early fourteenth century, practically each sequence ends with a successful cut or a thrust of the sword.

⁶⁵ Regarding the sense, perhaps πλέξον should be read πλῆξον 'strike'. The interchange of η and ε is attested in the accented position after a liquid in the papyri (F. T. Gignac, *A Grammar of the Greek Papyri of the Roman and Byzantine Periods, Volume 1: Phonology*, Milan 1976, 244), but without corroborating evidence, this must remain speculation (πλήξαι is, however, used in the context of boxing in Philostr. *Gymn.* 20).

to being *distentus vinculo lacertorum* (*Enarratio in psalmum xxxvii* 51, *PL XIV* 991–92) as having lost in wrestling. If this was legal way of winning in Greek wrestling, as suggested by Poliakoff,⁶⁶ then πλέξον might refer to establishing a hold equivalent to making the opponent fall, which can be performed in several variations and, for whatever reason, happens to conclude all the sections of *P. Oxy.* III 466. Perhaps the extant fragment is from a chapter dealing exclusively with variations of τὸ πλέκειν. There is one item of positive evidence of other commands completing a section, namely β]αλε in *P. Oxy.* LXXIX 5204 (fr. 2 ii 6), but there is not enough context for further interpretation; in *P. Oxy.* III 466, the derivatives of the verb (ὑποβάλλειν, ἀποβάλλειν, μεταβάλλεσθαι) are not used in the sense of throwing the opponent but performing moves with one's own limbs.

In *P. Oxy.* LXXIX 5204, there are two possible instances of the command, σὺ πλ[έξον near the end of a line (fr. 1.10) and σὺ πλ[έξον without any remaining context on one of the smaller fragments (fr. 7.4). There is no line break to be observed after the former, though there seems to be one on the line above the only preserved start of a section (fr. 2 ii 6, discussed above). Thus, the command πλέξον does not appear to hold a special position in this source.⁶⁷ If the text is assumed to discuss *pankration*, the difference could be attributed to the different conditions for winning (i.e., submission of the opponent), even if the possibility of winning with a hold in wrestling, as discussed above, would muddle up the distinction here. There is, however, no compelling reason to assume that the text is about *pankration*. The only evidence is the use of the formula (σὺ) κόψας διάσυρον (fr. 1.9, 10) occurring twice, and the single κόψον (fr. 1.12). The verb κόπτειν, however, is used not only of boxing (striking), but in connection with wrestling as well: in *Hom. Il.* 23,726 Odysseus κόψ' ὀπιθεν κώληπα τυχών, 'struck (kicked) from behind hitting the hollow of the knee'; the move reappears in Nonnus, *Dion.* 10,354.⁶⁸ Therefore, the verb may very well be used not only of tripping actions, but of any other beating move used to achieve results in grappling, noting also the metaphorical sense of 'tire out, weary'.⁶⁹ Unfortunately, the fragmentary nature of *P. Oxy.* LXXIX 5204 makes a more detailed definition difficult, but there seems

⁶⁶ Poliakoff (above n. 11) 8–10.

⁶⁷ There is also the prefixed word ἀπ[ό]πλεξαι, corrected from the active form ἀπ[ό]πλεξον, in line 16 of the same fragment, but the lack of context gives no clues as to its significance.

⁶⁸ Poliakoff (above n. 11) 106.

⁶⁹ LSJ s.v. κόπτω A 13.

to be no persuasive reason to equate κόπτειν with the *verberare* prohibited in wrestling (Ambrose, *Enarratio in psalmum xxxvi* 55, *PL* XIV 993).

The composition of the sections themselves is best examined through the two fully preserved examples in the second column of *P. Oxy.* 466. The first one (lines 19–20):

σὺ περὶθεες·
 σὺ ὑπ' αὐτήν ὑπό|λαβε·
 σὺ διαβὰς πλέξον⁷⁰

The technical unit described here is made up of three distinct phases. In the first phase, the addressee is instructed to take a hold around the opponent (περιτιθέναι); the subsequent instruction addresses the opponent, who takes a hold underneath the first one (ὑπολαμβάνειν); the third and last instruction is again addressed to the original agent, who should step across and perform the action the verb πλέκειν is intended to mean in this context.

Having established that two agents take turns to take actions, it remains to consider how the different actions following each other actually relate to each other.⁷¹ Making exact sense of the technical terms is nearly impossible, but on the general level the series of instructions can be understood in at least three different ways. Excluding the idea of setting up a position for free wrestling already discussed above, there remain two distinct possibilities. The first alternative is that the instructions describe the component parts of a single hold, with the opponent's assumed activity inserted in the middle. The second alternative is that the first command in itself refers to a hold which might be used to subdue the opponent but is, instead, countered by the opponent's hold; the last movement, performed by the original agent and denoted by the verb διαβαίνειν, is a counter to the (expected) reaction of the opponent. In this case the sequence, perhaps an example of αἰόλα κέρδεα τέχνης (Oppian, *Halieutica* 2,280), could be termed 'polymorphic', finishing at different points of execution, depending on the actions of the opponent. This would be significant in the sense that the appearance of technical-tactical level in wrestling texts is even in the late

⁷⁰ See above n. 47.

⁷¹ Doblhofer et al. 1998 (above n. 6) 201 do not make the change of addressee apparent in their translation.

mediaeval period more the exception than the rule.⁷² The sections with *ῥεῖψον* (*ῥίψον*) ‘throw’ near the beginning in the first column of *P. Oxy.* III 466 (lines 5 and 8) would indicate that the component parts of a section may constitute a winning move, as a fall would certainly result from a successful throw.

The section following the previous one is twice as long, and seems to incorporate a clear example of a polymorphic sequence (lines 21–27):

σὺ ὑπόβαλε τὴν δεξιάν[·
 σ]ὺ | εἰς ὃ ὑποβάλλει περι[θει]ς | κατὰ πλευροῦ τὸν εὐ[ώ]νυ|μον βάλε·
 σὺ ἀπόβαλε τῆ εὐ|ωνύμω·
 σὺ αὐτὸν μεταβάς | πλέξον·
 σὺ μεταβαλοῦ·
 σὺ κα|τὰ τῶν δύο πλέξον⁷³

What attracts attention in the above section is the occurrence of *πλέξον* not only at the end but in the middle as well. One possibility is that the section above should be split into two, and their running one after the other was simply a scribal error. There is, unfortunately, little in the technical vocabulary itself that would point to one or the other. Unlike in the previous example, here the winner of the exchange is not acting on the first instruction, whether the section is split into two or not. As there are only two fully attested sections, it cannot be said which would be the norm; apparently a section can be either offensive (the first agent wins) or defensive (the second agent wins). The simplest interpretation is that there are two sections running into each other due to the fact that the first movement of the second one counters the last movement of the first one. Thus, *μεταβαλοῦ* would counter the *μεταβάς* part of the opponent’s action, who then goes for the *κατὰ τῶν δύο* variation instead. The sections with *ῥεῖψον* mentioned above should perhaps be similarly divided.

The sections discussed above may be what is meant by the *σχήματα τὰ πρὸς τὴν ἀγωνίαν εὐρημένα*, ‘the figures invented for exercise’ discussed in Isoc. *Antid.* 183–4. According to Isocrates, what is taught first are the figures

⁷² R. Welle, “...und wisse das alle höbischeit kompt von deme ringen”. *Der Ringkampf als adelige Kunst im 15. und 16. Jahrhundert*, Pfaffenweiler 1993, 313–14; R. Welle, “...vnd mit der rechten faust ein mordstück. *Baummanns Fecht- und Ringkampfhandschrift*, Munich 2014, 121–26.

⁷³ See above n. 47.

(σχήματα), which are then practiced so that they may be applied when the situation calls for them. This is not unlike contemporary teaching: individual moves are drilled formally and then applied in free sparring. Isocrates reveals no other details of the teaching situation, but luckily other sources are available.

7. Instruction face-to-face

The teaching environment comprised of commands given by an instructor is attested elsewhere in literature as well, as already noted by Grenfell and Hunt.⁷⁴ The two texts cited are a homoerotic epigram ascribed to Strato of Sardis (*Anth. Pal.* 12,206) and an erotic passage in Pseudo-Lucian's *Asinus* (8–11). What follows here is a review of both sources and an evaluation of their relevance for the significance of the papyri.

In its extant form, Strato's epigram is comprised of three distichs. The setting of the epigram is a dialogue between a wrestling instructor and a student, but the attribution of the individual lines, or their parts, to the speakers is a matter of debate. Luckily, this is not relevant for the argument at hand, which necessitates no commitment to any of the more debatable points. Below is the epigram, reproduced from Beckby but without quotation marks:

Ἦν τούτῳ φωνῆς, τὸ μέσον λάβε, καὶ κατακλίνας
 ζεύγνυε καὶ πρῶσας πρόσπεσε καὶ κάτεχε.
 Οὐ φρονέεις, Διόφαντε· μόλις δύναμαι γὰρ ἔγωγε
 ταῦτα ποιεῖν· παίδων δ' ἡ πάλη ἔσθ' ἑτέρα.
 Ὅχλου καὶ μένε, Κύρι, καὶ ἐμβάλλοντος ἀνάσχου·
 πρῶτον συμμαλετᾶν ἢ μελετᾶν μαθέτω.⁷⁵

⁷⁴ 'That instructions in the palaestra were given in this way is shown by two curious passages [...]', Grenfell – Hunt (above n. 34) 137.

⁷⁵ Poliakoff's translation (above n. 11, 128) in slightly edited form: '[...] grab his waist and bending him over, / hold him tight; pushing forward, fall on him and get it on. / You've lost your senses, Diophantes. I can hardly / execute these tactics. Boys' wrestling is something different. / Let yourself be troubled and stay still, Cyris, and allow the attack. / First let him learn to do it with cooperation before he does his own workouts.' These are, as Brunck says, 'voces a palaestra ductae, sed ad alterius luctae significationem translatae'; R. F. P. Brunck (ed.), *Analecta veterum poetarum Graecorum III*, Strasbourg 1776, 212.

As for the first distich, the list of commands can be confidently attributed to the instructor, whether the Ἦν τούτω φωνῆς of the MS is considered a phrase reporting direct speech (in which case the whole of the distich is attributed to the student), or a corruption, or a reference to the dubious missing previous lines.⁷⁶

Commands made up of an active aorist participle and an aorist imperative such as κατακλίνας ζεύγνυε are, of course, similar to the ones in the papyri, but this similarity in linguistic form may very well simply be due to the fact that the sources are written in the same language. An interesting difference is that a series of movements is prescribed to the same person without intervening prescriptions regarding what the opponent should be doing: the effect is accentuated by the string of conjunctions (καί ... καί ... καί...). Since the opponent is not instructed to act otherwise, he is resisting the movements, prompting the student to complain about the σχῆμα in the second distich, directed at the instructor, apparently named Diophantus.

As for the last distich, the first line is clearly an instruction directed at the partner named Cyris. Some editors prefer to attribute the whole distich to the same student who is the speaker in the previous distich.⁷⁷ Depending on who is speaking, the third person singular in the last line (μαθέτω) either refers to the active student, whose learning the instructor is concerned of, or, spoken by the student, to his opponent, who ought to learn how to practice in cooperation with his partner before practicing at his own pleasure. The phrase ἑρώτων

⁷⁶ In Brunck's (above n. 75, *ibid.*) opinion, there are lines missing at the beginning, obscuring the meaning of the first extant line, which appears corrupt. The first distich is attributed to the instructor by Gardiner 1905 (above n. 35) 15–16, H. Beckby (ed.), *Anthologia Graeca Buch XII–XVI*, Munich 1958, 120–1, Poliakoff (above n. 11) 128, and G. Paduano, *Antologia Palatina. Epigrammi erotici libro V e libro XII*, Milan 1989, 340–1, all of whom attribute the second distich to the student and the third again to the instructor; reported speech in the first distich is suggested in R. Aubreton, F. Buffière, J. Irigoin, *Anthologie Grecque: première partie, Anthologie palatine, tome xi, Livre XII*, Paris 1994, 72, and followed by M. Marzi, *Antologia Palatina, volume terzo Libri XII–XVI*, Turin 2011, 158–61; both attribute only the penultimate line to the instructor.

⁷⁷ W. R. Paton, *The Greek Anthology with an English translation IV*, London – New York 1918, 386–87 translates: 'Fix yourself fast and stand firm, Cyris, and support it when I close with you. He should learn to practice with a fellow before learning to practice himself.' This reading is followed by D. Hine, *Puerilities: Erotic Epigrams of The Greek Anthology*, Princeton 2001, 96–97, where the third distich is more freely translated as 'Withstand my onslaught, Cyris, hold your own! / Let's practice together what you do alone.'

συμμελετᾶν ἢ μελετᾶν' seems to be a genuine maxim of wrestling practice, also implied by the papyrus sources, which necessitate that both parties follow the commands of the instructor.⁷⁸ The humour becomes understandable if this is how wrestling was generally taught: the epigram can be read straight or by interpreting it through the double entendres.

Based on its attestation in the above epigram, it can be concluded that the method of teaching was not limited to Roman Egypt of the first or second century CE. Accordingly, the papyri seem to represent not the *Sonderstellung* of Egypt but a more general practice in the Greek world. This is not to say that other methods would not have existed: another (homoerotic) epigram of the same collection, *Anth. Pal.* 12,222, sets up a scene where the wrestling instructor is giving a private lesson to a single student. Whether this is due to the lessons being of preliminary nature (as perhaps implied by the word προδιδάσκων), is unknown. In ps.-Lucian *Asinus* 8–11, a description of an erotic encounter, the character of Palaestra, acting as the (receiving) partner, states that she also takes the role of the instructor, which can be read to indicate that this was not common practice. Palaestra proceeds to give commands designating the various moves, or παλαίσματα, to be performed on her, confusing the order and made fun of by her partner. Though used of sexual activities in the passage, I would argue that παλαίσματα should be understood to have the denotative sense of 'grappling moves', as opposed to strikes and kicks. Accordingly, it can be postulated that a σχῆμα of grappling is made up of a sequence of παλαίσματα, which is exactly what the two papyrus sources contain, matching what is known of the face-to-face teaching situation.

8. Conclusion

Success in wrestling and *pankration* would have been achieved through skills gained from practicing the σχήματα formally and in free play. After the skills have been embodied, the σχήματα may be forgotten, but an instructor must

⁷⁸ Gardiner 1905 (above n. 35) 16 notes that the idea of cooperation when learning movements is not unknown in Japanese martial arts either. Incidentally, the terms used in Japanese martial arts for the attacker and the receiver of the attack, *seme* and *uke*, respectively, are also used to refer to the corresponding roles in Japanese homoerotic fiction of the *yaoi* genre.

retain explicit knowledge concerning the σχήματα, which is perhaps even more important than the actual skill level of the instructor. Grappling and teaching grappling are separate skill sets.

A σχῆμα would have been made up of actions composed of παλαισµατα or, in the case of *pankration*, other types of moves as well. The sequences of moves can be committed to memory and written down in books as a mnemonic aid, which explains why the books are made up of commands meant to be read out loud by the instructor. As such, they duplicate the linguistic reality of an actual training situation, instead of exemplifying a fully developed genre of pragmatic literature making use of literary devices to impart fighting technique. Fiore dei Liberi, a fighting instructor writing in the early fifteenth century, argues for the necessity of books, noting that one can only remember a quarter of the whole art without books.⁷⁹ Such arguments may have circulated at the time of production of the papyrus sources as well. Perhaps technical literature was produced as a reaction to the less sophisticated sports of the *pammacharii* and *catervarii* gaining popularity in the Roman empire. Owning books on such topics could also serve to elevate one above the more low-brow spectator sports.

As for boxing, or rather fist-fighting, there are no similar sources available, but there is little reason to assume that similar units of boxing technique would not have existed. Boxing involved skill or art (τέχνη), traditionally dated back to the victory of Pythagoras of Samos at Olympia in 588 BCE (Diog. Laert. 8,47), implied to be lacking in non-Greeks in Dem. 4,40, and indeed contrasted with the lack of *ars* in Roman *catervarii* boxers in Suet. *Aug.* 45,2. The ἀπ' ἀρότρου or 'the one from the plough' employed by Glaucus (Paus. 6,10,1–3, Philostr. *Gymn.* 20) may be considered something of a (σκιαμαχοῦντος) σχῆμα, even if the name probably is an *ad hoc* creation retold as a good story.

Seen as a list of moves to be practiced, a σχῆμα would be equivalent to a recipe listing the ingredients of a dish: to cook, one must also know how to handle and prepare the various ingredients. It may very well be that such details of fighting technique were never written down. In mediaeval and early modern fight books, the level of sophistication is far greater, though details only appear

⁷⁹ M. Malipiero (ed.), *Il Fior di battaglia di Fiore dei Liberi da Cividale: Il Codice Ludwig XV 13 del J. Paul Getty Museum*, 2006, 427. Unlike the papyri, Fiore's text is written in the first person, taking the form of how an instructor could be describing his own actions during a teaching situation.

sporadically. The papyri contain details of fighting technique only implicitly, since combining certain moves into a sequence implies that they fit together in a meaningful way, which is a matter of details of execution. Knowledge of such details may be gained from instructors in a face-to-face teaching situation or discovered through practice; an argument *ex silentio* should not be employed to make conclusions regarding the level of theoretical understanding possessed by the Greeks.

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