

ERICHTHO THE DOCTOR? MEDICAL OBSERVATIONS ON LUCAN'S NECROMANTIC EPISODE*

ABSTRACT

This article aims to offer a fresh analysis of two passages in the extensive necromancy episode in Lucan's *Bellum Ciuile*: the ritual to reanimate the dead soldier's corpse (6.667–73), and the surgical procedure *Erichtho* then proceeds to undertake (6.750–7), resembling the practice of a vivisection. The study will focus mostly on the strong connection of magic to medical traditions in antiquity, with a commentary on, and analysis of, these verses through the lenses of medical vocabulary, themes and motifs. It ultimately concludes that Lucan was familiar with the language and characteristics of the medical tradition, enriched his report with them, and was playing with his audience's knowledge of the same.

Keywords: Lucan; necromancy; medicine; *materia medica*; vivisection

INTRODUCTION

The border that separated medical practices from magic in antiquity was very tenuous, to the point that it is sometimes blurred; Pliny the Elder shows that the idea that magic was born from medicine was well established (*HN* 30.2 *nam primum e medicina nemo dubitabit ac specie salutari inrepsisse uelut altiore sanctioreque medicinam ...*).¹ Thus, in a given context, it may not be obvious whether one is reading about a magical ritual or about medical care. Faraone, in an article related to both magic and medicine, called attention to the fact that doctors and sorcerers sometimes shared the same education, which may be seen in the recipes/spells used to cure the sick.² Cordovana, in a comprehensive study of magic and medicine in Pliny the Elder, also stresses the points of contact between these two domains.³ Terminology points in the same

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¹ 'Nobody will doubt that it first arose from medicine, and that professing to promote health it insidiously advanced under the disguise of a higher and holier system ...'; transl. W.H.S. Jones, *Pliny. Natural History, Volume VIII: Books 28–32* (Cambridge, MA, 1963), 279. Unless otherwise indicated, all texts are taken from the *Thesaurus Linguae Graecae* (TLG) or from *PHI Latin Texts*. For Galen, I followed the edition of C.G. Kühn, *Galenii opera omnia* (Leipzig, 1819–1833).

² C.A. Faraone, 'Magic and medicine in the Roman Imperial period: two case studies', in G. Bohak, Y. Harari and S. Shaked (edd.), *Continuity and Innovation in the Magical Tradition* (Leiden and Boston, 2011), 135–57, at 135.

³ O.D. Cordovana, 'Pliny the Elder between magic and medicine', in A. Mastrocinque, J. Sanzo and M. Scapini (edd.), *Ancient Magic: Then and Now* (Stuttgart, 2020), 61–80, at 63: 'An osmotic fusion of magic and medicine was common in ancient authors. The structured learning within both disciplines lent the two a certain autonomy, one from the other. Nevertheless, ancient commentators were aware of several points of contact, "flexible boundaries", between magic and medicine.'

direction: in Greek and Latin, ambiguous terms are used to mean both a remedy and a poison—*φάρμακον* and *uenenum*—and, as noted by Costantini, these words were associated early on with goetic magic.⁴

Lucan's necromancy (6.413–830), one of the longest literary descriptions of a magic ritual in ancient literature, deals with the practices performed by the 'superwitch' Erichtho as Sextus Pompeius questions her about how the Civil War between Pompeius and Julius Caesar will end.⁵ Scholarship has focussed mainly on the gory aspect of the episode and on its originality among literary depictions of magical practices.⁶ None the less, as Tesoriero points out, superstition and medicine go hand in hand in Erichtho's spell, reinforcing the close relation between Pliny the Elder's recipes and magical practices.⁷

To extend the discussion of Lucan's necromantic episode in a new direction, towards its strong relation with medicine and medical practices, I would like to highlight the many parallels between Erichtho's spell and medicine, offering an analysis of the *materia medica* and of the language present in the ritual (which is also used by ancient physicians), as well as of the anatomical practice of vivisection, in close dialogue with ancient medical traditions, such as those of Hippocrates, Celsus and Galen.⁸

NOTES ON LUC. 6.667–73

Latin poetry seems to have developed a taste for medical language and motifs, even when they are not specifically related to medicine, and many are the examples where one may find hints of medical language or practices.⁹ One such example is Venus'

⁴ Cf. L. Costantini, *Magic in Apuleius' Apologia: Understanding the Charges and the Forensic Strategies in Apuleius' Speech* (Berlin and Boston, 2019), 126–7. See *TLL* 8.534.62–84 and 8.535.1–13, s.v. *medicamentum*.

⁵ Georg Luck considers this the greatest episode of literary magic. See his *Arcana Mundi: Magic and the Occult in the Greek and Roman Worlds* (Baltimore, 2006²), 246. Cf. also D. Ogden, *Magic, Witchcraft, and Ghosts in the Greek and Roman Worlds: A Sourcebook* (Oxford, 2009²), 123.

⁶ For commentaries on Lucan Book 6, see M. Korenjak, *Die Erichthoszene in Lukans Pharsalia: Einleitung, Text, Übersetzung, Kommentar* (Frankfurt am Main, 1996) and C.A. Tesoriero, 'A commentary on Lucan *Bellum Ciuile* 6.333–830' (Diss., University of Sydney, 2000). Both commentaries on this episode engage mainly with the Graeco-Roman tradition concerning ancient magic, focussing especially on the relationship between the Erichtho episode and descriptions of magical aspects, and the *Papyri Graecae Magicae*.

⁷ Tesoriero (n. 6), 189–90. This relation between medicine and magic is already found in Nicander (*Ther.* 98–114), where the poet describes the preparation of an unguent. See F. Overduin, *Nicander of Colophon's Theriaca: A Literary Commentary* (Leiden and Boston, 2015), ad loc. This idea was previously noted by E. Sistikou, *The Aesthetics of Darkness: A Study of Hellenistic Romanticism in Apollonius, Lycophron and Nicander* (Leiden, 2012), 229.

⁸ For the relation between medical authors and magic, cf. P. Gaillard-Seux, 'Sur la distinction entre médecine et magie dans les textes médicaux antiques (I^{er}–VI^e siècles)', in M. de Haro Sanchez (ed.), *Écrire la magie dans l'antiquité. Actes du colloque international (Liège, 13–15 octobre 2011)* (Liège, 2015), 201–23; J. Jouanna, 'Médecine rationnelle et magie: le statut des amulettes et des incantations chez Galien', *REG* 124 (2011), 47–77; P.T. Keyser, 'Science and magic in Galen's recipes (sympathy and efficacy)', in A. Debru (ed.), *Galen on Pharmacology: Philosophy, History and Medicine. Proceedings of the Vth International Galen Colloquium, Lille, 16–18 March 1995* (Leiden / New York / Cologne, 1997), 175–98.

⁹ For a more detailed information about this feature of Latin poetry, cf. D.R. Langslow, 'The language of poetry and the language of science: the Latin poets and "medical Latin"', in J.N. Adams and R. Mayer (edd.), *Aspects of the Language of Latin Poetry* (Oxford, 1999), 183–226, especially 202–25.

use of *materia medica* in Verg. *Aen.* 12.411–19 to heal Aeneas,¹⁰ and Lucan uses a medical analogy elsewhere (2.141–3) to describe the dramatic situation under Sulla.¹¹ However, in the passage of interest here, Lucan goes into greater depth and offers his readers a detailed description of ingredients used to perform Erichtho's spell, all with clear links to magical tradition but also used by physicians who dismissed magic. Therefore, I wish to highlight Lucan's use of medical language and themes. The text reads as follows:

pectora tunc primum feruenti sanguine supplet
 uolneribus laxata nouis taboque medullas
 abluit et uirus large lunare ministrat.
 huc quidquid fetu genuit natura sinistro
 miscetur. non spuma canum quibus unda timori est,
 uiscera non lyncis, non dirae nodus hyaenae
 defuit et cerui pastae serpente medullae.

Then she began by piercing the breast of the corpse with fresh wounds, which she filled with hot blood; she washed the inward parts clean of clotted gore; she liberally poured in the poison that the moon supplies. With this was blended all that Nature inauspiciously conceives and brings forth. The froth of dogs that dread water was not wanting, nor the innards of a lynx, nor the hump of a foul hyena, nor the marrow of a stag that had fed on snakes.¹²

667 feruenti ... sanguine: the adjective *feruens* is also applied to blood by Caelius Aurelianus, who writes of the blood of a haemorrhage rising up in the throat: *plurimus tenuis et spumosus et plurimum feruens sanguis excluditur* (*Chron.* 2.11.130).¹³

668 uolneribus ... nouis: in Latin medical prose, Celsus and Caelius Aurelianus refer to fresh wounds as *recentia uulnera*, for example Celsus, *Med.* 5.19, 5.26, Cael. Aurel. *Acut.* 2.12.86, *Chron.* 2.12.146. However, Seneca and Statius also refer to fresh wounds with the adjective *nouus*, perhaps for metrical reasons: Sen. *Ag.* 188 *en Paridis hostem! nunc nouum uulnus gerens*;¹⁴ Stat. *Theb.* 5.235 *excipit et laceros premit in noua uulnera crines*,¹⁵ 10.744 *nunc spargit torquens uolucris noua uulnera plumbo*.¹⁶ Quintus Serenus uses the same adjective: *Lib. med.* 8.108, 35.688.

laxata: Celsus uses similar vocabulary. In *Med.* 7.5 he mentions the extraction of darts from the body with emphasis on the opening of the wound: *item si ex alia*

¹⁰ See M.B. Skinner, 'Venus as physician', *Vergilius* 53 (2007), 86–99, at 89–90. Cf. also R. Tarrant, *Virgil Aeneid Book XII* (Cambridge, 2012), ad loc. On the common aspects of the language of poetry and medical texts, see I. Mazzini, 'La descrizione delle malattie nei poeti e nei medici', in C. Deroux (ed.), *Maladie et maladies dans les textes latins antiques et médiévaux: actes du Ve colloque international (Bruxelles, 4–6 septembre 1995)* (Brussels, 1998), 14–28, at 17–21.

¹¹ *dumque nimis iam putria membra recidit, | excessit medicina modum nimiumque secuta est, | qua morbi duxere, manus* ('and while he lopped off too fiercely the limbs that were corrupt, his surgery went beyond all bounds, and his knife followed too far on the path whither disease invited it'); text and transl. of Lucan's *Bellum Civile*: J.D. Duff, *Lucan: The Civil War* (Pharsalia) (Cambridge, MA, 1928), 66–7.

¹² Duff (n. 11), 352–5 with minor adaptations.

¹³ 'A great deal of thin, foaming, and very hot blood is given up'; text and transl. I.E. Drabkin (ed.), *Caelius Aurelianus: On Acute Diseases and on Chronic Diseases* (Chicago, 1950), 649.

¹⁴ 'Look at this enemy of Paris! Now, wounded afresh'; transl. J.G. Fitch, *Seneca: Oedipus, Agamemnon, Thyestes, Hercules on Oeta, Octavia* (Cambridge, MA, 2018), 145.

¹⁵ 'and presses her torn hair into the fresh wounds'; transl. D.R. Shackleton Bailey, *Statius: Thebaid Books 1–7* (Cambridge, MA, 2004), 287.

¹⁶ 'Now he scatters sudden wounds with discharge of rapid lead'; transl. D.R. Shackleton Bailey, *Statius: Thebaid Books 8–12. Achilleid* (Cambridge, MA, 2004), 181.

*parte uulnus aperiatur, laxius esse debet.*¹⁷ See also 7.19.12 *in id demittendus est sinistrae manus digitus index, ut deductis interuenientibus membranulis sinum laxet.*¹⁸

669 abluīt ... ministrat: *abluere* is a term widely used by medical authors. Scribonius Largus employs it for the cleaning of the nostrils with fresh water (8). Pliny the Elder uses it for the medical properties of roses (*HN* 21.125) and for the washing of herbs' roots (23.26). Marcellus mentions the repeated washing of pomegranate peel after it has been boiled (*Med.* 4.29) and notes that spots may be washed using goat's blood (19.38).¹⁹ In using *ministrat*, as noted by Tesoriero, Lucan may have in mind Ovid and the lamentation of Acontius for failing to take care of Cydippe: *Her.* 20.135 *me miserum, quod non medicorum iussa ministro.*²⁰ This verb is also used in a wide range of prose texts concerning medicine.²¹ For example, the physician Philumenus states that water must be administered to a sick person (*Med.* 1.113) and refers to the beneficial effects of heat when administered inside the body via warm water (1.107).

671 spuma canum: according to Pliny the Elder, the foam of rabid dogs is used to prevent hydrophobia (*HN* 29.99), and the ashes of a mad dog's head to cure toothache (30.21). Ovid mentions hydrophobia in a series of medical metaphors, stating that medicine is ineffective against this disease (*Pont.* 1.3.23–4 *tollere nodosam nescit medicina podagram | nec formidatis auxiliatur aquis*).²² According to Celsus, *Med.* 5.27.2c, hydrophobia is a *miserrimum genus morbi* ('the most dreadful kind of disease'), which simultaneously provokes a huge thirst and a fear of water. Scribonius Largus describes a treatment to relieve the patient's suffering, although he knows it will be ineffective (171). Paulus of Aegina also treats this theme, explaining the effects of the disease (5.3), but it is to Caelius Aurelianus that we owe the lengthiest description of hydrophobia and its effects. His *Acutae passiones* 3.9 offers the possible causes of infection and a complete list of symptoms, concluding that death will come quickly after the signs:

communiter autem est passio stricturae atque uehemens et acuta uel celeris. etenim ob nimium tumorem et humoris defectum aegrotantes celeriter interficiuntur.

In general, hydrophobia is a disease which involves a state of stricture; it is severe and acute, that is, swift; for, because of the severe inflammation and lack of moisture, the patients die quickly.²³

672 uiscera ... lyncis: the lynx is also mentioned by Pliny the Elder at *HN* 28.122. He states that on the island of Carpathus the ashes of lynx claws are considered an effective medical means of inhibiting men's libido or of achieving the opposite effect in women.

¹⁷ 'So also when a counter opening is made, this ought to be too wide'; transl. W.G. Spencer, *Celsus: On Medicine Books 7–8* (Cambridge, MA, 1938), 317.

¹⁸ 'Into this the index finger of the left hand is introduced, in order that by the separation of the intervening little membranes the hernial sac may be freed'; transl. Spencer (n. 17), 401.

¹⁹ See also *TLL* 1.107.5–24.

²⁰ 'Ah me, wretched, that I may not be the one to carry out the bidding of your doctors'; transl. G. Showerman, *Ovid: Heroides, Amores* (Cambridge, MA, 1914), 285. See Tesoriero (n. 6), ad loc.

²¹ Cf. *OLD* s.v. *ministrare* 2b. See also *TLL* 8.1021.71–8.

²² 'The healing art knows not how to remove crippling gout, it helps not the fearful drosy'; transl. A.L. Wheeler, *Ovid: Tristia, Ex Ponto* (Cambridge, MA, 1924), 283. See J.F. Gaertner, *Ovid, Epistulae ex Ponto, Book 1. Edited with Introduction, Translation and Commentary* (Oxford, 2005), ad loc.

²³ Transl. Drabkin (n. 13), 367.

hyaenae: hyenas were held to possess many properties useful in magic and were prized by the *magi* (Plin. *HN* 28.92). They were also widely used in ancient medical practices, as Aetius of Amida (*Libri medicinales* 7.48) states:

Ἡρόφιλος ... ἐν τῷ περὶ ὀφθαλμῶν φησι· πρὸς τοὺς ἐν ἡμέρα μὴ βλέποντας κόμμι κροκοδείλου χερσαίου κόπρον μίσυ χολῆν ὑαίνης λείαν μετὰ μέλιτος ὑπόχριε δις τῆς ἡμέρας καὶ ἐσθίειν δίδου νήσται ἦπαρ τράγου.’

Herophilus says ... in his work *On Eyes*: ‘For those who cannot see in daytime, twice daily rub on an ointment [composed of] gum, the manure of a land crocodile, vitriolic copper, and the bile [gall] of a hyena made smooth with honey; and give the patient goat’s liver to eat on an empty stomach.’²⁴

Herophilus was probably the first to recommend the use of hyena’s bile for medical purposes. After him, many writers made the same recommendation: see, for example, Plin. *HN* 28.94–5, Scribonius Largus 38. Galen also mentions hyena’s bile, for instance, in *SMT* 12.280.5 K and 12.368.5 K, and refers to the use of hyena’s fat in a chapter on alopecia (12.392.6 K).

673 cerui ... medullae: stag’s marrow was highly valued for use in both magic rituals and medical treatments.²⁵ Tesoriero remarks that ‘the annual loss and renewal of the stag’s antlers made it a powerful symbol of death and rebirth’.²⁶ Ovid advises women not to use mixtures prepared with deer’s marrow for cosmetic purposes (*Ars am.* 3.215 *nec coram mixtas ceruae sumpsisse medullas*).²⁷ Horace (*Epod.* 5.37–8) denounces the intentions of Canidia, who tries to use the marrow and liver of a young boy in an erotic spell (*exsecta uti medulla et aridum iecur | amoris esset poculum*).²⁸ Besides the power of the stag’s marrow in magical rituals, one must note the great number of medical sources concerning its use. Dioscorides, in a chapter about animal marrow of his *De materia medica*, states that the stag’s is the most powerful of them all.²⁹ Even Nicander mentions stag’s marrow in the preparation of an unguent at *Ther.* 101. Hippocrates recommends deer’s marrow or fat for the purgation of the uterus, melted and applied with a piece of wool (*Nat. mul.* 32.104); he also recommends their use as a cathartic (*Nat. mul.* 109.11). Soranus of Ephesus (*Gyn.* 3.38) refers to vaginal suppositories made with deer’s marrow.³⁰ The marrow of this animal is described as ‘excellent’ (κάλλιστος) by Galen in the *SMT* (12.332.2 K), and he dedicates a chapter of the *SMT* to stag’s antlers and goat’s horns, which, when burned, produce powder of the greatest utility (12.334.13–14 K); he also states that antlers boiled in wine are a good remedy for the teeth (12.882.1 K). In the Latin medical tradition, Celsus recommends the use of *medulla*

²⁴ H. von Staden, *Herophilus: The Art of Medicine in Early Alexandria. Edition, Translation and Essays* (Cambridge, 1989), 424.

²⁵ On the use of *medulla* for erotic purposes in Latin literature, see P.A. Rosenmeyer, ‘Tracing *medulla* as a *locus eroticus*’, *Arethusa* 32 (1999), 19–47, at 36–45.

²⁶ Tesoriero (n. 6), ad loc.

²⁷ See R. Gibson, *Ovid: Ars Amatoria Book 3* (Cambridge, 2003), ad loc.

²⁸ ‘his dried-up marrow and liver should be cut out and used as a love charm’; transl. N. Rudd, *Horace: Odes and Epodes* (Cambridge, MA, 2004), 283. See also L.C. Watson, *A Commentary on Horace’s Epodes* (Oxford, 2003), ad loc.

²⁹ Dioscorides 2.77 μυελῶν δὲ κράτιστός ἐστιν ὁ ἐλάφειος (‘the most powerful is the marrow of a stag’).

³⁰ καὶ πεσῶν τοῖς διὰ βουτύρου, ὑσσώπου, στέατος χηνείου, ὀρνιθείου, μυελοῦ ἐλάφου ἢ ἐγκεφάλου (‘and vaginal suppositories made with butter, hyssop, goose fat, chicken fat, deer’s marrow or brain’); transl. O. Temkin, *Soranus’ Gynecology* (Baltimore and London, 1956), 160.

ceruina for dysentery (*Med.* 4.22) and as an emollient to treat the induration of the uterus (*Med.* 4.27), and as one of the ingredients in a widely known poultice called *enneapharmacum* (*Med.* 5.19.10).³¹

This analysis, though not exhaustive, is intended to highlight the medical and healing possibilities of the ingredients used by Erichtho during her ritual. If this episode reflects a strong and well-established tradition concerning magic and necromancy, it is also true that it contains a medical hypotext. The use of particular language and themes shows that Lucan was well acquainted with the medical literary tradition. This reinforces the hypothesis that in the following verses the witch-doctor Erichtho engages in practices which, given the tenuous line separating magic from medicine, can be understood to be medical, not only necromantic, in nature.

A CASE OF VIVISECTION?

The above commentary shows that Erichtho's spell has a strong link to the medical traditions of antiquity. A look at Erichtho's treatment given of the corpse of the dead soldier (6.750–7) will strengthen and develop the analysis above:

protinus astrictus caluit cruor atraque fuit,
uolnera et in uenas extremae membra cucurrit.
percussae gelido trepidant sub pectore fibrae,
et noua desuetis subrepens uita medullis
miscetur morti. tunc omnis palpitat artus,
tenduntur nerui; nec se tellure cadauer
paulatim per membra leuat, terraque repulsum est
erectumque semel.

Instantly the clotted blood grew warm; it warmed the livid wounds, coursing into the veins and the extremities of the limbs. Struck by it, the vital organs thrilled within the cold breast; and a new life, stealing into the inward parts that had lost it, wrestled with death. Next, the dead man quivered in every limb; the sinews were strained, and he rose, not slowly or limb by limb, but rebounding from the earth and standing erect at once.³²

As noted, Lucan seems to have a marked taste for medical language, throughout the *Bellum Ciuile*, and gives particular attention to dead and dismembered bodies,³³ for instance the mutilation of Marius Gratidianus, to be explored in this article, and of soldiers' bodies in 3.657–8. The poet's vocabulary and images in 6.750–7 may be said to recall a vivisection, since he offers an accurate description of the internal organs and the reactions of an open body.³⁴ Although such practices belong to a very specific and scientific field of activity, they seem to have been familiar to a broad range of ancient writers, not only those with specialist knowledge or interest in medicine.

³¹ See *TLL* 8.599.56–68 for further examples of the medical uses of *medulla*.

³² Duff (n. 11), 358–61.

³³ M.T. Dinter, 'Death, wounds, and violence in ancient epic', in C. Reitz and S. Finkmann (edd.), *Structures of Epic Poetry, Volume II.2: Configuration* (Berlin and Boston, 2020), 447–81, at 463: 'The poem is thus a microcosm, in that its characters' bodies—and by extension their individual choices and tribulations—allegorise the entire body corporate of the Roman *res publica*.'

³⁴ According to Celsus, *proem.* 23, Herophilus and Erasistratus were the first to practise vivisection. See von Staden (n. 24), 142–3. The practice raised many ethical questions, and Celsus shows his disapproval in *proem.* 74.

Among them are several who give these practices a poetic treatment, for instance Ovid's description of Marsyas' punishment for challenging Apollo (*Met.* 6.387–91) or Seneca's description of Atreus' impious act of killing his nephews (*Thy.* 755–63).³⁵

Erichtho's treatment of the soldier's body shows similarities in theme and vocabulary to the passages of Ovid and Seneca.³⁶ But another text may be called on in a discussion concerning the literary tradition of vivisection, namely Ps.-Quintilian's *Declamationes maiores* 8, which recounts a tale of sick twins. In desperation, the twins' parents call a doctor who says that he can cure one of the children if he observes the internal organs of the other. After the father gives his permission, one of the children is killed and the other recovers. Overwhelmed by grief, the mother takes the father to court.

Throughout this rhetorical piece the author shows knowledge of such practices and often condemns them.³⁷ The use of vivisection as a theme for a rhetorical exercise may suggest that contemporary Roman society was familiar with the subject, so that, as Bernstein notes, '[w]e may therefore make the reasonable assumption that the audience of *DM* 8 could have been expected to assess the advocate's claims regarding the relationship between body and kinship in terms of the basic medical knowledge that formed part of a cultured person's curriculum.'³⁸ Ps.-Quintilian makes extensive use of medical/surgical vocabulary, showing what seems to be a strong acquaintance with the subject. At the end of the *declamatio*, the mother says:

quod solum tamen potui, corpus, quod medicus, quod reliquerat pater, hoc sinu misera collegi ac uacuum pectus frigidis abiectisque uisceribus rursus impleui, sparsos artus amplexibus iunxi, membra diducta composui et de tristi terribilique facie tandem aegri cadauer imitata sum.

But the only thing I could, I did: in my wretchedness, I brought together in the fold of this dress what the doctor and the father had left behind, and replenished your empty breast with the organs they had discarded, now grown cold. I made the scattered members embrace each other, put the limbs together again, and out of that grievous and ghastly spectacle finally contrived the semblance of the sick youth's corpse.³⁹

Although not part of the poetic tradition, this source allows us to link Erichtho's ritual to the practice of vivisection. If one compares the vocabulary used by Lucan and

³⁵ G.B. Ferngren, 'A Roman declamation on vivisection', *Transactions and Studies of the College of Physicians of Philadelphia* 4 (1982), 272–90, at 276–7: 'because of its sensational nature, the subject [vivisection] seems to have exercised a peculiar fascination over a number of ancient writers on medical subjects, both lay and professional.' See M. Goyette, 'Deep cuts: rhetoric of human dissection, vivisection, and surgery in Latin literature', in K.L. Hsu, D. Schur and B.P. Sowers (edd.), *The Body Unbound: Literary Approaches to the Classical Corpus* (Cham, 2021), 101–37.

³⁶ Goyette (n. 35), 123–6.

³⁷ Although not related to vivisection, see also Sen. *Controu.* 2.5 and 10.5 for rhetorical approaches and treatments of torture and its moral and social implications in the Roman world. As V.E. Pagán, 'Teaching torture in Seneca *Controuersiae* 2.5', *CJ* 103 (2007–2008), 165–82, at 176 pointed out: 'His rhetorical handbook provides standard ways of describing the physical mutilation of the human body. In the anatomical description of horror in the drama of Seneca the Younger, or the mutilation of the human body in Lucan's epic, for example, we can detect a degree of Seneca's success in educating his son and grandson in the rhetoric of physical abuse.' On 10.5, see H. Morales, 'The torturer's apprentice: Parrhasius and the limits of art', in J. Elsner (ed.), *Art and Text in Roman Culture* (Cambridge, 1996), 182–209.

³⁸ N.W. Bernstein, 'Bodies, substances, and kinship in Roman declamation: the sick twins and their parents in Pseudo-Quintilian *Major Declamations* 8', *Ramus* 36 (2007), 118–42, at 119–20.

³⁹ *Decl. mai.* 8.22; text and transl.: Quintilian, *The Major Declamations. Volume II*. Ed. A. Stramaglia, transl. M. Winterbottom (Cambridge, MA, 2021), 170–1.

Ps.-Quintilian, it is possible to note many similarities that cannot be mere coincidence; in Ps.-Quint. *Decl. mai.* 8, the mother states that she has done everything she can: she has gathered together her son's body, returning his internal organs to their places and reuniting the limbs. This image creates a thematic bond with the text of Lucan. As noted, the detailed information used in this passage, and throughout the text of the *declamatio*, reinforces the acquaintance of its author with such practice.⁴⁰

It is pertinent here to mention the description of the mutilation of Marius Gratidianus, which Martin Dinter compares to butchery,⁴¹ portrayed by Lucan in 2.177–85:

cum laceros **artus** aequataque **uulnera membris**
uidimus et toto quamuis corpore caeso
nil animae letale datum, moremque nefandae
dirum saeuitiae, pereuntis parcere **morti**.
auulsae cecidere manus exactaque lingua
palpitat et muto uacuum ferit aera motu.
hic aures, alius spiramina naris aduncae
amputat, ille cauis euoluit sedibus orbes
ultimaque effodit spectatis **lumina membris**.

We saw his mangled frame with a wound for every limb; we saw every part of the body mutilated and yet no death-stroke dealt to the life; we saw the terrible form taken by savage cruelty, of not suffering the dying to die. The arms, wrenched from the shoulders, fell to the ground; the tongue, cut out, quivered and beat the empty air with dumb motion; one man cut off the ears, another the nostrils of the curved nose; a third pushed the eye-balls from their hollow sockets and scooped the eyes out last of all when they had witnessed the fate of the limbs.⁴²

Scholarship on this episode has noted the influence of Philomela's mutilation in Ovid's *Metamorphoses* and Oedipus' blinding.⁴³ When one compares the mutilation of Marius Gratidianus with Erichtho's treatment of the corpse, the parallels of vocabulary may induce one to connect these grim episodes.⁴⁴ Both are marked by hints of medical and anatomical knowledge but also by Lucan's opprobrium.

Although different in their main core, the idea remains the same for these three texts and episodes: *Decl. mai.* 8, a text openly about vivisection, shows the grief of a mother

⁴⁰ L. Costantini and A. Stramaglia, 'Vivisection, medicine and bioethics: a case study from ancient Rome', *Intertexts* 26 (2022), 16–30, at 25: 'The unknown author of *DM* 8 seems to have had some familiarity ... with the practice itself or at least with surgical procedures akin to it. He may well have witnessed butchery, animal sacrifice, possibly also surgical operations and he must have enriched this direct knowledge with the reading of specialised literature.'

⁴¹ M. Dinter, *Anatomizing Civil War: Studies in Lucan's Epic Technique* (Ann Arbor, 2012), 46.

⁴² Duff (n. 11), 68–71; emphasis added.

⁴³ See G.B. Conte, 'La guerra civile nella rievocazione del popolo: Lucano, II 67–233. Stile e forma della *Pharsalia*', *Maia* 20 (1968), 224–53, at 234–5. Cf. also E. Fantham, *Lucan: De Bello Civili Book II* (Cambridge, 1992), ad loc. and A. Ambühl, 'Lucan's "Ilioupersis" – narrative patterns from the Fall of Troy in Book 2 of the *Bellum Civile*', in N. Hömke and C. Reitz (edd.), *Lucan's Bellum Civile: Between Epic Tradition and Aesthetic Innovation* (Berlin and New York, 2010), 17–38, at 27.

⁴⁴ Gratidianus' death also parallels that of Scaeva in Book 6. Cf. N. Hömke, 'Bit by bit towards death – Lucan's Scaeva and the aesthetization of dying', in N. Hömke and C. Reitz (edd.) *Lucan's Bellum Civile: Between Epic Tradition and Aesthetic Innovation* (Berlin and New York, 2010), 91–104, at 99. On the treatment given to bodies in Roman epic, see also M.T. Dinter, '... und es bewegt sich doch! Der Automatismus des abgehackten Gliedes', in N. Hömke and C. Reitz (edd.), *Lucan's Bellum Civile: Between Epic Tradition and Aesthetic Innovation* (Berlin and New York, 2010), 175–90, for Marius Gratidianus at 185–6. Cf. S.F. Bonner, 'Lucan and the declamation schools', *AJPh* 87 (1966), 257–89, at 277–8.

who has lost her son; Luc. 2.177–85 and 6.750–7 portray the horrors of the war and the wickedness of a witch, both with associations to medicine and vivisection. If poetically Lucan is closer to Ovid and Seneca, with many common expressions, sounds and ideas, I would argue that thematically Lucan is closer to Ps.-Quintilian's text, filiating himself openly in such anatomical practice, thus playing with the medical knowledge of his audience. The medical tropes, language and paraphernalia featured could suggest that these practices were, to some extent, familiar to educated people of Lucan's time.⁴⁵

CONCLUSION

The suggestion of a vivisection in 6.750–7 links this episode to the medical tradition. By inserting into the description of Erichtho's ritual a considerable amount of *materia medica* used by ancient physicians, both Greek and Latin, Lucan is challenging his audience regarding the knowledge that people would have concerning medicine and other surgical practices, knowing that the ingredients he mentions were used and consumed in medical treatments. Therefore, I propose that the poet echoes these medical tropes in order to portray the ritual more realistically, since he would expect his audience to recognize the symbiotic relationship between magic rituals and medicine.

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⁴⁵ In a different register, the same could be said of the use of magical references in Roman comedy: in order to achieve comic effect, the audience had to have been familiar with, or at least had some understanding of, what they were watching. Cf. M.W. Dickie, *Magic and Magicians in the Greco-Roman World* (London, 2001), 131–2.