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Antikyran hellebore in the time of Caligula

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ABSTRACT

Caligula is the only emperor of Rome whose name is connected both to the plant hellebore and the ancient Greek town of Antikyra. These connections are reported by Suetonius and concern a Roman senator of praetorian rank, who had been granted a leave of absence on account of his poor health. The senator may have been granted the initial leave because he had successfully made a case for his need of the unique qualities of the hellebore treatments at Antikyra. Unfortunately, he had pressed his luck with the notoriously temperamental and cruel Caligula by asking for an extension of his leave one time too many, so the emperor had him executed. It is an intriguing tale, but it is also sadly short on specifics. Due to the scarceness of detailed information in Suetonius' anecdote, it is necessary to cast about more widely in a multivariate search for additional data to fill out our understanding of these events, Antikyra's place in Caligula's empire, and how these things relate to the town's longstanding fame for unique hellebore treatments. Most notably, this study introduces recent ethnobotanical field data collected around Antikyra and intensive study of the exquisite Anicia Juliana Codex (Vienna Dioscorides) facsimile held by the Yale Medical Historical Library to inject new life into an often-overlooked passage of Suetonius.

Caligula is the only emperor of Rome whose name is connected both to the plant hellebore and the Phokian town of Antikyra. These connections are reported by Suetonius, whose biography of the third Julio-Claudian emperor stands out for its unusual organization. Suetonius chose to split the life into two sections: the first section concerns the emperor and the second is about the monster[1]. Hellebore and Antikyra are found in an anecdote in the latter section (monster), and the story does not disappoint[2]:

> From his retreat at Antikyra, a man of praetorian rank kept asking to prolong his leave of absence, which he had sought on account of his ill health, and when Caligula ordered that he be killed, he added that a bloodletting was necessary for one whom hellebore had not benefited in all that time.
>
> *Praetorium virum ex secessu Anticyrae, quam valitudinis causa petierat, propagari sibi commeatum saepius*

[1] *Cal.* 22.1: *Hactenus quasi de principe, reliqua ut de monstro narranda sunt.* Latin text of Suetonius throughout: Kaster (2016).
[2] *Ibid.* 29.2.

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desiderantem cum mandasset interimi, adiecit necessariam esse sanguinis missionem. cui tam diu non prodesset elleborum.

This story concerns a Roman senator of praetorian rank who had been granted a leave of absence from Italy on account of his poor health[3]. The senator may have been granted the initial leave because he had successfully made a case for his need of the unique qualities of the hellebore treatments at Antikyra[4]. Unfortunately, he had pressed his luck with the notoriously temperamental and cruel Caligula by asking for an extension of his leave one time too many, so the emperor had him executed.

It is an intriguing tale, but it is also sadly short on specifics. We are not given the man's name, the kind of illness he had, the identity of the emperor (Tiberius or Caligula) who had granted him the initial leave, or any indication of the event's precise timing. It may be the case, for example, that the ex-praetor left Rome under Tiberius, who was more solicitous by far of others' health than was Caligula[5]. Due to the scarceness of detailed information in Suetonius' anecdote, it is necessary to cast about widely in search of more data to fill out our understanding of these events, Antikyra's place in Caligula's empire, and how these matters relate to the town's longstanding fame for unique hellebore treatments.

The place: Antikyra

Ancient Antikyra, the location of this senator's retreat, was located in southern Phokis, 18 km southeast of Delphi on the shores of the gulf of Corinth (Figure 1). Although it was not a particularly powerful or populous town in the Classical, Hellenistic, or Roman periods, the site has been continuously occupied from the Bronze Age to the modern era and has been identified with Homeric Kyparissos[6]. Located on the water, Roman Antikyra was a modest port town with a sanctuary of Poseidon, still active in Pausanias' (10.36.8) time. The triumvir Marcus Antonius used Antikyra's harbor to transport grain to his troops before the Battle of Actium in 31 BCE[7]. Antikyra's greatest fame, however, came from its association with unique hellebore treatments. Indeed, its connection to these treatments was so well known that the name Antikyra became a shorthand term for them.

The plants: the tale of hellebores

As with many ancient plants, fully grasping hellebore's nature is a complex challenge to unravel. In antiquity, the name hellebore can reference disparate plants not bound by modern taxonomical

[3] For commentary, see Hurley (1993, 120); Wardle (1994, 254). Hurley suggests that the invalid may have been Junius Priscus, a praetor executed by Caligula whom Cassius Dio mentions (59.18.5). This cannot be the case, as Priscus was praetor at the time he was executed, whereas the senator in Antikyra was a *former* praetor.

[4] Hurley (1993, 120) observes that praetors could only be absent from Rome for a maximum of ten days, citing Cicero (*Phil.* 2.13) as an authority on that point. Of course, the senator in this case is a senator of praetorian rank, not a current praetor. Under the empire, senators could request from the emperor *commeatus*, a leave from Italy. For Augustus' establishment of this practice: D.C. 52.42.6. Caligula's successor, Claudius, granted to some senators the privilege of not having to ask permission: Tac. *Ann.* 12.23. See also Suolahti (1969) 118; Wardle (1994, 254).

[5] Tiberius visiting with the sick on Rhodes: Suet. *Tib*. 11.2; Tiberius sparing no expense or inconvenience to care for his troops: Vell. 2.114.1-2.

[6] Koh *et al.* (2020, 49-52); McInerney (1999, 71-6).

[7] Plu. *Ant.* 68.4. Plutarch's own grandfather Nicarchos, who was among the many Greeks of the region pressed into the task of carrying grain to Antikyra, is his witness for this information.

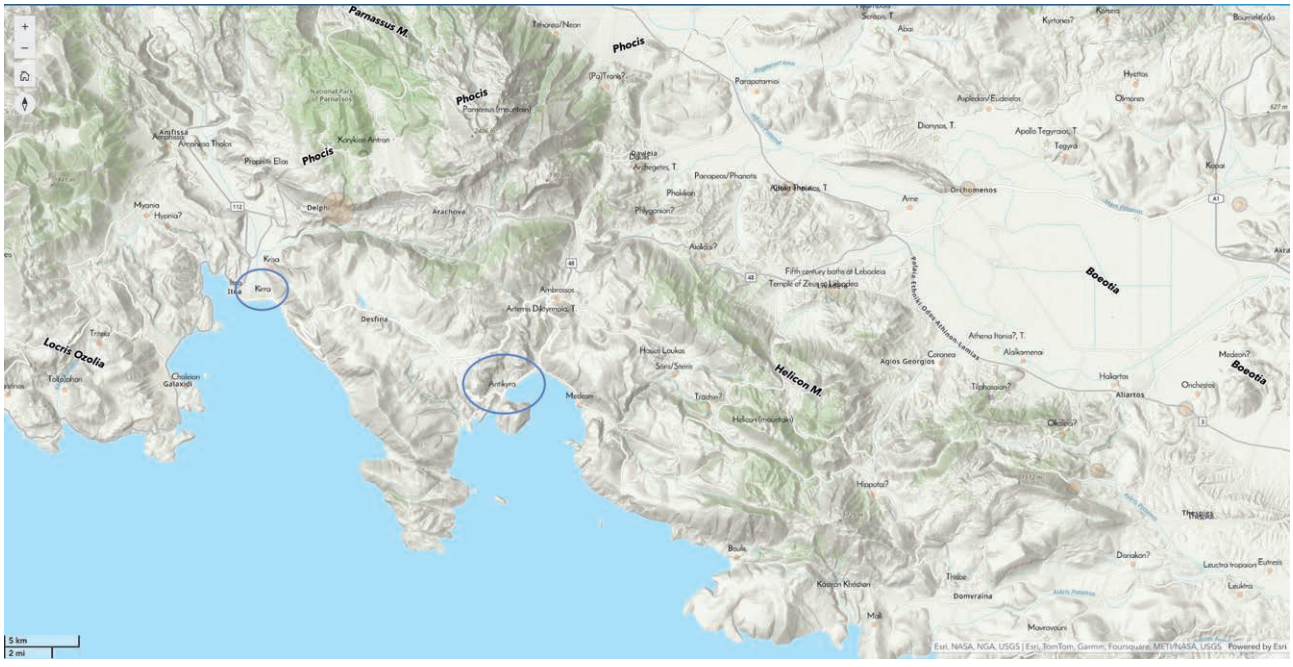

Figure 1. Map of southern Phokis with Antikyra and Kirrha highlighted. Ancient World Mapping Center, CC BY 4.0.

categories, perhaps due to a less strict sense of morphological typology and a higher concern with similarities of phytochemical function (e.g. storax resin from *Liquidambar* and *Styrax*, likely Pliny's superior and inferior storaxes[8]). This helps to explain how ancient identifications, i.e. common names, can evolve with time and space, as plainly seen when observing the taxonomical fluidity expressed in the copious scholia of the ca. 512 CE *Juliana Anicia Codex*, or Vienna Dioscorides[9], actively utilized by medical personnel for a millennium in Constantinople (Figure 2). This phenomenon should give scholars pause when assuming, for example, that *ku-pa-ro* in Bronze Age Linear B tablets, or even classical κύπερος, must refer to *Cyperus rotundus*.[10] There are no guarantees that the ancient plant being referenced is even from the Cyperaceae family short of robust paleobotanical or chemical analyses[11] performed on contemporaneous ancient organic samples suspected of harboring *ku-pa-ro*, or κύπερος, as the context dictates. Complicating matters are ethnographic identifications by modern local herbalists that clearly reference different plants than ancient sources as determined by typological illustrations and descriptions regardless of etymologically similar names. The most prominent example related to our study is how one local herbalist from Antikyra in the modern day identified "elleboro" as *Sambucus ebulus*, or dwarf elderberry (Figure 3a), typically thought to be ancient χαμαιάκτη (Figure 3b)[12].

What we call hellebore today can reference what the ancients called ἑλλέβορος (Figures 2 and 4). This term can refer to different species of the genus *Helleborus*, the so-called true hellebores, but it can also refer, in either the present or at different points in the past, to totally unrelated plants such as *Veratrum*, what we today call false hellebores (Figure 2). The ancient Greeks most famously used hellebore plants for their purgative properties. The plant was also put to deadly use in the first recorded instance of biological warfare. The army of the Amphiktyonic League, during its siege of Kirrha, Delphi's port (Figure 1), poisoned the town's water supply with hellebore, thus driving the Kirrhaeans to surrender ca. 590 BCE[13]. In a pseudepigraphic oration entitled *Embassy*, Thessalos, a medical writer and son of the famed physician and philosopher Hippokrates,

[8] Koh, Berlin, Herbert (2021).

[9] A fluidity perhaps also expressed in illustrations, as seen in the early 6th century CE depiction of ἑλλέβορος μέλας, black hellebore (Figure 4b), which potentially differs from both the plant described in the 1st century CE by Dioscorides (Dsc. IV, 162) and what botanists today most closely associate with ancient hellebore, *Helleborus cyclophyllus* (cf. Figure 4a), the only hellebore species thought to grow in Greece now. Long, Yamada, and Ochiai (2023) The early 6th century CE depiction in the Vienna Dioscorides, in fact, most closely resembles *H. vesicarius* (Figure 4c, cf. Meiners *et al*. 2011), whose distribution today is curiously marked as the region of Cilicia, the homeland of Dioscorides. Long, Yamada, and Ochiai (2023).

[10] For background, please see Shelmerdine (1985, 17-18) and Palaima (2014).

[11] Cf. Buckley *et al.* (2014).

[12] Perhaps *Sambucus ebulus* at some later point became a substitute for either sesamoides or even hellebore itself in the final concoction used to treat the ailing. See discussion below and especially n. 20 and 22.

[13] Paus. 10.37.7; Polyaen. 6.13; Fron. *Str.* 3.7.6. Pausanias reports that Solon, the famous Athenian lawgiver, was responsible for throwing hellebore into the Pleistos River, the source of Kirrha's water supply. Polyaenus, to the contrary, credits Eurylochus with the idea. Polyaenus' account is of special interest because he reports that Antikyra was the source of the hellebore used in the deed. Frontinus credits Kleisthenes of Sikyon with the poisoning.

Figure 2. Vienna Dioscorides entry for ἑλλέβορος λευκός, white hellebore, from the early 6th century CE, typically equated with *Veratrum album* today. Photo by C. Zollo; courtesy of Medical Historical Library, Harvey Cushing/John Hay Whitney Medical Library, Yale University.

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recounts that it was his great-grandfather (Hippokrates' grandfather), Nebros, who orchestrated the poisoning, leading some scholars to postulate that the event helped inspire the original Hippocratic Oath[14].

The earliest scientific writers discussed hellebore and its properties[15]. It is covered in the works of Theophrastus and other major writers in the fields of botany and medicine (including Dioscorides' *De materia medica*) in Greek and Latin. Ancient authors identify two major kinds of hellebore: black hellebore and white hellebore, typically with distinct physical characteristics and properties[16]. Ancient hellebore is mainly known as a purgative (white to clear things from the head, black from the bowels), but it was also employed to treat a variety of other ailments including mental illness, epilepsy, and gout. Other uses included the enhancement of vision and mental faculties. Antikyran hellebore's efficacy for the treatment of madness was so famous that the proverbial jibe directed at a person thought to be mad was, "To Antikyra, with you!"[17].

Knowledge of the special medicinal properties of Antikyran hellebore treatments likely first came to Italy with the influx of Greek physicians in the second century BCE. Two datum points indicate Roman awareness of Antikyran hellebore in the early first century BCE. First, Pliny reports that Marcus Livius Drusus, the tribune who was murdered in 91 BCE over his position on the extension of Roman citizenship to the Italians, traveled to Antikyra to avail himself of the local hellebore treatments and was there cured of his epilepsy[18]. This same Drusus was the grandfather of the empress Livia (Caligula's great-grandmother)[19]. Second, the doctor Asclepiades of Bithynia, whose writings evince a knowledge of hellebore, had made his way to Rome by the late 90s BCE, where he belonged to L. Licinius Crassus' circle of friends[20]. Caelius Aurelianus transmits some of Asclepiades' recipes. Included in their number is a treatment for delirium which contains hellebore[21].

The Phokian Antikyra treatment

Roman Antikyra was not famous for the special quality of its raw hellebore plants. Indeed, judging by the popularity of

[14] Ps.-Thess. *Presb.* 27.4; Robertson (1978, 68-71); Tolsa (2019, 637). Nelson (2005, 219-36) argues that the oration is an excerpt of the lost third-century history of Kos by Makareus. Tolsa (2019, 637-38 n. 31) finds Nelson's view speculative.

[15] While there is great overlap between the known uses for *Helleborus* today and what is written in antiquity, modern medicine has nuanced its properties into realms such as immunostimulation for anticancer treatment. Büssing and Schweizer (1998).

[16] Scientists today typically identify ancient white hellebore (Figure 2) as *Veratrum album* and ancient black hellebore as *Helleborus cyclophyllus* since *H. niger* is thought to grow only as far south as the northern Balkans today. Long *et al.* (2023).

[17] Hor. *S.* 2.3.83, 166; Ov. *Pont.* 4.3.53; Pers. 4.16; Juv. 13.97. See also Sumler (2023, 57).

[18] Plin. *Nat*. 25.52.

[19] Huntsman (2009, 124-9.)

[20] Cic. *Orat.* 1.14.62. The dramatic date of the *De oratore* is 91 BCE.

[21] *De morbis acutis et chronicis* 1.15.138.

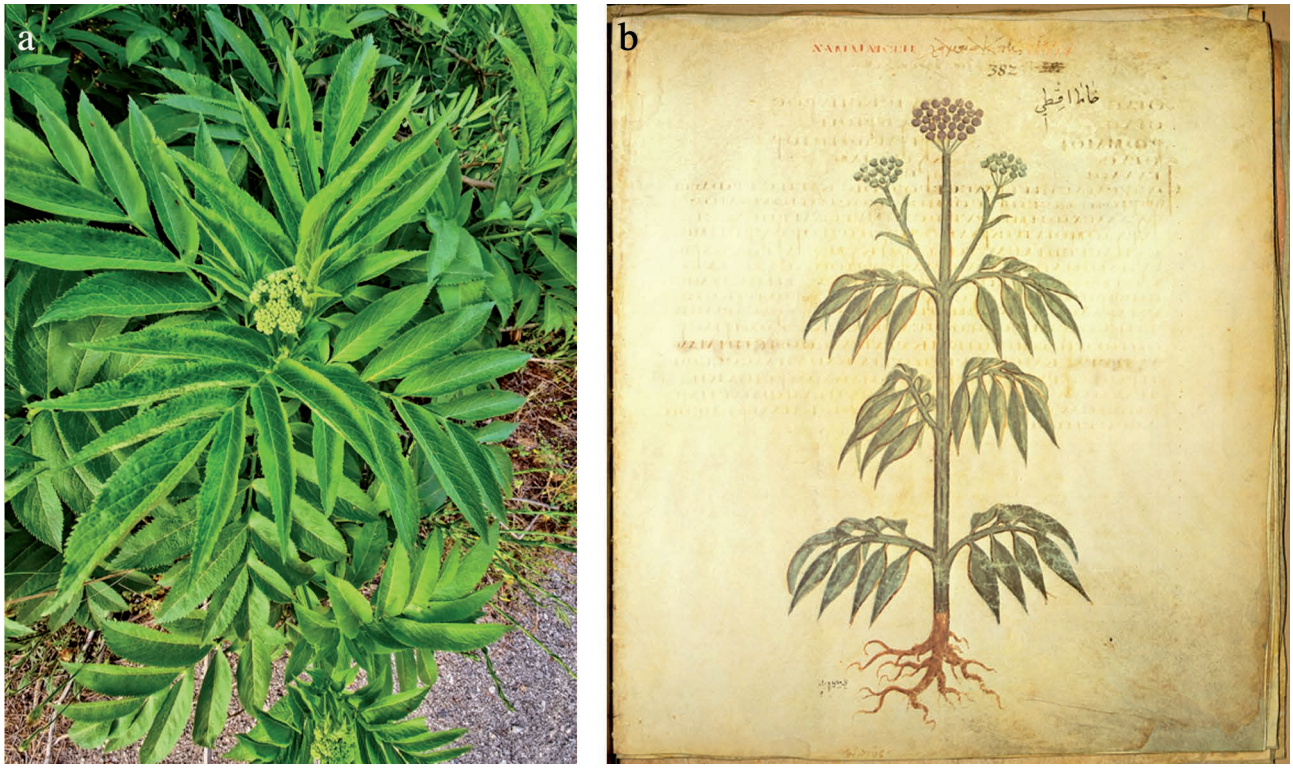

Figure 3. a) *Sambucus ebulus* on the slopes of Mt. Helicon today (Courtesy: Andrew Koh). b) Vienna Dioscorides illustration of χαμαιάκτη from early 6th century CE, typically equated with *Sambucus ebulus* today (Rollo, Christopher, Yale Medical Historical Library).

hellebore treatments during this time, it is likely that hellebore did not even grow in the quantities needed for largescale production around Phokian Antikyra[22]. In the present day, perhaps due to ecological changes, one must ascend above 1000 msl on the southern slopes of Mt. Helicon, stretching 10-40 km southeast of Antikyra between ancient Stiris and Thisbe (Figure 1), to find large stands of hellebore plants (Figure 4a), which apparently do better in coastal ecosystems cooler than today's Antikyra (Figure 5). Ancient Antikyra was instead renowned for the way its hellebore was prepared and for this potion's efficacy in treating melancholy, insanity, epilepsy (*comitialis morbus*), and gout[23]. Antikyra's hellebore was rendered safer because another plant, sesamoides, was added to it (Figure 6)[24], forming the basis for Antikyra's own *kukeon*. Pliny (*Nat.* 22.133) claims that a particular strain of the plant that grows in the area is called "Anticyricon." He provides several Antikyran recipes employing sesamoides:

> *Datur in vino dulci ad detractiones quantum tribus digitis capitur. Miscent ibi et ellebori albi unum et dimidium obolum, purgationem eam adhibentes maxime insaniae melancholiae, comitialibus, podagris. Et per se drachmae pondere exinanit.*
>
> A three-finger pinch in sweet wine is given for purges; there they mix one and a half obols of white hellebore, applying it as a purgative especially in cases of melancholic insanity, epilepsy, and gout. One drachma's weight by itself empties one out.

Whether or not Caligula's unknown ex-praetor was privy to the same information as Pliny is uncertain, but Pliny's testimony gets us closer to understanding what might bring Romans to Antikyra for its special hellebore treatments. Certainly, these treatments were distinctive for their special preparation in mixtures with sesamoides. The case of M. Livius Drusus in the early first century BCE shows us that Romans were already aware of the efficacy of Antikyran hellebore preparations for treating epilepsy at that date. Caligula's ex-praetor likely suffered from an illness that Antikyran hellebore mixtures were believed to treat effectively.

[22] Strabo (9.3.3) untangles the problem of identifying where the best raw hellebore comes from in his day by pointing out that the Antikyra of the Maliac Gulf near Mt. Oeta in Thessaly (Figure 5) produces hellebore of fine quality, whereas the hellebore of the Antikyra of southern Phokis is "better prepared." For this reason, says Strabo, people come to Phokian Antikyra "to be purged and cured." Strabo describes this special preparation as the mixing in of the sesamoides that grows in Phokian Antikyra. He then says that sesamoides is mixed into Oetean hellebore, raising the question of whether in the first century BCE Phokian Antikyra produced raw hellebore at all. One might be tempted to suppose that Oeteans imported sesamoides from Phokian Antikyra to mix in their own hellebore, but it was clearly Phokian Antikyra that was famous for its hellebore recipe. It seems more likely that Oetean hellebore was shipped to Phokian Antikyra for preparation by mixing with local sesamoides. It is possible that Phokian Antikyra, surely the original as it sits opposite ("anti") the Desfina peninsula from Kirrha, could no longer meet the demand for raw hellebore by itself and needed to import greater quantities from other regions such as Thessaly, perhaps even lending its name to Malian Antikyra, which would otherwise make little sense etymologically and geographically. Note that a third Antikyra was mentioned in western Ozolian Lokris near Naupaktos by Livy, Strabo, and Horace, but its existence has been dismissed in modern times as a misunderstanding. Yet Lokrian Antikyra would make good geographic sense as an additional source of hellebore to meet high demand being around the same distance west from Phokian Antikyra as Malian Antikyra is to its north. A third and last obvious place to source additional hellebore, since the Corinthian Gulf forms a barrier to the south, would be to the east, the southern slopes of Mt. Helicon in Boeotia, which is exactly where the Yale Ancient Pharmacology Program found *Helleborus* sp. in May 2024 (Figure 4a).

[23] Plin. *Nat*. 22.133, 25.52.

[24] On the sesamoides of Antikyra, see Plin. *Nat*. 22.133. Fourth century BCE author Theophrastus (*HP* 9.14.4) was aware of the special Antikyran treatment. Large sesamoides (Dioscorides: σησᾶμοειδής το μέγα) is identified by some today as a species of Resedaceae, *Reseda alba*, while white sesamoides (Dioscorides: σησᾶμοειδής το λευκόν) is attached to *Aubrieta deltoidei*, a species of Brassicaceae (Figure 6). Dioscorides recounts that the people of Antikyra referred to large sesamoides as έλλέβορος, helleboros, due to its preparation with white hellebore, which opens up the possibility that the "elleboro" referenced by local herbalists today, i.e. *Sambucus ebulus*, was originally an accessory to a hellebore recipe as sesamoides was in antiquity (Figure 3). To bring the confusion full circle, Dioscorides mentions that ancient Antikyrans sometimes refer to έλλέβορος μέλας, black hellebore, as sesamoides! See Đulović *et al.* (2023, 1) and Beck (2020, 312). By analyzing the ancient organic residues of ceramics from suspected pharmacological contexts, the Yale Ancient Pharmacology Program endeavors to clarify these botanical identifications through the distinct phytochemical fingerprints left by differing plant families, a true juxtaposition and intertwining of the sciences and humanities rarely accomplished today – ancientpharmacology.com.

Figure 4. a) *Helleborus* cf. *cyclophyllus* on the slopes of Mt. Helicon in Boeotia, Greece today (Courtesy: Andrew Koh). b) Vienna Dioscorides illustration of έλλέβορος μέλας, black hellebore, from early 6th century CE; photo by C. Zollo; courtesy of Medical Historical Library, Harvey Cushing/John Hay Whitney Medical Library, Yale University. c) *Helleborus vesicarius* on the slopes of Mt. Amanos in Cilicia, Turkey today (Cebeci, Zeynel, CC BY 4.0).

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Interpreting the Anecdote

In order to understand the anecdote about Caligula and the ex-praetor in Antikyra better, one needs to dig deep into the history of the reign of Caligula and his depiction in the ancient sources. Perhaps the most important fact to consider is Caligula's reputation for illness and madness. Before the end of 37 CE, Caligula fell ill[25]. He recovered some weeks later, but, thanks to his unusual behavior thereafter, he acquired a reputation for madness that emerges very early in our ancient sources (Philo and Seneca, Caligula's contemporaries) and remains consistent throughout[26].

One of the symptoms of Gaius' apparent madness was his shocking and even brutal frankness[27]. Suetonius (*Cal.* 29-30) preserves a number of examples of which the following are a representative few. When spectators applauded a chariot faction he opposed, he shouted, "I wish the Roman people had one neck." When they demanded that a bandit named Tetrinius be sent into the arena, Caligula called all those who asked for him "Tetriniuses," or, in other words, bandits themselves. When during a banquet a consul asked him why he was laughing, he said to the man and his colleague, "What do you suppose, except that at a single nod of mine both of you could have your throats cut on the spot"[28].

Caligula's response to the ex-praetor's request to stay in Antikyra belongs, perhaps ironically, to the same category of the madman's frankness. This accounts for Suetonius' choice to place it in the same collection of the emperor's quotations. Indeed, Caligula's recommendation is cruel and sarcastic, but it is also frank in that clearly this ex-praetor was not finding the cure he had sought in Antikyra. It is ironic because in complaining about the inefficacy of another man's hellebore treatments in Antikyra, Caligula reveals himself to be in need of Antikyra's famous treatments. The further, implicit irony is that the emperor's madness will only be cured by his own eventual bloodletting, that is, his assassination on 24 January, 41 CE[29].

It may also be the case that Caligula was personally familiar with hellebore because he had used it. Although there is no direct evidence that he did, Caligula suffered from a number of symptoms over the course of his life that were viewed as treatable by hellebore. According to Suetonius (*Cal.* 50.2), the emperor was epileptic as a child: *puer comitiali morbo vexatus*[30].Treatment of epilepsy was one of the principal uses of hellebore, particularly Antikyran hellebore mixtures containing sesamoides[31]. As an adult he was plagued by insomnia, never sleeping more than three hours a night, and even that sleep was disturbed by nightmares[32]. As early as Hippokrates, hellebore was viewed as a treatment for insomnia, although it was far from the most prescribed option[33]. Finally, the hellebore mixtures of Antikyra were renowned for

[25] Ph. *Leg.* 14-21; Suet. *Cal.* 14.2; D.C. 59.8.1-2. See also Barrett and Yardley(2023, 83-5); Barrett (2015, 107-10); Guastella (1992, 123-4).

[26] Ph. *Leg.* 76; Sen. *Cl.* I.25.2; Barrett (2015, 285-6); Yavetz (1996). Suetonius (*Cal.* 50.2) includes among the possible causes of his *furor* an overdose of aphrodisiac administered to him by Caesonia. See also J. *AJ* 19.193.

[27] Gellius' (18.7.1-4) depiction of the grammarian Domitius "Insano" and Lucian's (*Lex.* 11-12) portrait of Lexiphanes reflect similar views of the connection between madness and brutally frank outbursts in response to perceived slights. Suetonius' depiction of Caligula is consistent with this concept of the nature of madness in the Second Sophistic. See Kazantzidis (2019).

[28] Suet. *Cal.* 32.3.

[29] *Ibid.* 58.

[30] Although it might be doubted that a boy would have been treated with a powerful purgative, the Antikyran hellebore recipe was known to be the safest available. Plin. *Nat*. 25.52: *ibi enim tutissime sumitur*.

[31] Plin. *Nat*. 22.133.

[32] Suet. *Cal.* 50.3.

[33] Hipp. *Acut.* app. 40. Mandrake was the far more common treatment, however. See Harris (2018, 66; Zarcone (2005, 120). Since hellebore, in addition to its purgative properties, was a stimulant for the mind and eyes, it was unlikely to be used often in the treatment of insomnia.

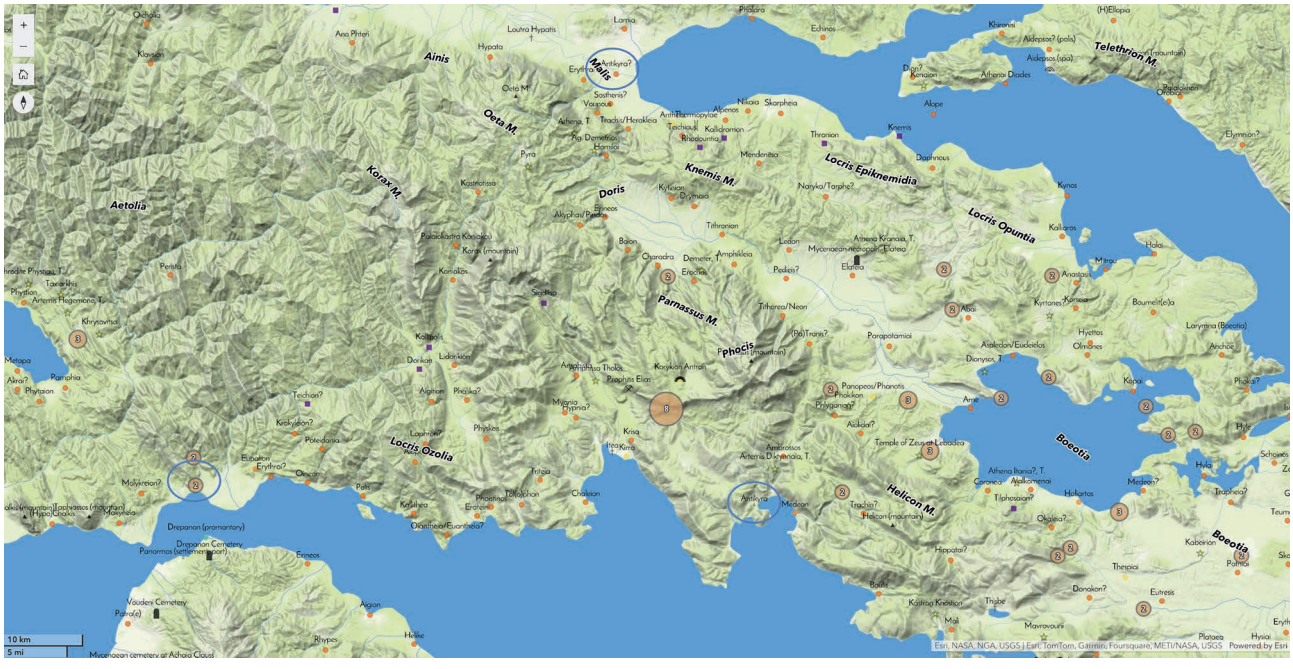

Figure 5. Map of Central Greece with Phokian Antikyra, Malian Antikyra, and Lokrian Antikyra highlighted (Ancient World Mapping Center, CC BY 4.0).

their effectiveness in treating insanity.[34] Caligula was probably familiar with the various uses of hellebore, and his interactions with the ex-praetor should be read with that strong possibility in mind.

Emperor-Physician?

Furthermore, Caligula probably perceived himself to be a kind of expert in *pharmakon*, which could denote either a remedy or poison[35]. His cruel joke to the ex-praetor in Antikyra contains language and treatment advice found in Celsus, a prominent medical writer in the time of Tiberius, Caligula's predecessor[36]. Moreover, accounts of Caligula's life are replete with references to poison. Indeed, Suetonius and Cassius Dio make the emperor out to be a master poisoner. According to the former (*Cal.* 12.2), Caligula used poison to put Tiberius out of the way so he could become emperor. A few months after his rise to power, Caligula allegedly poisoned his grandmother Antonia[37]. When he smelled his adopted son Gemellus' breath, which carried the odor of his cough medicine, he mistook it for a poison antidote and had the young man of seventeen executed[38]. Upon first smelling the medicine on the lad's breath, he shouted, "What! An antidote against Caesar?"[39]. When those who made Caligula an heir in their wills lived too long for his comfort, he sent them poisoned snacks (*venenatas matteas*)[40]. The emperor even allegedly fixed the outcomes of his favorite sports by poisoning athletes and horses[41]. After his death, his uncle and successor Claudius found Caligula's chest of poisons, which Claudius then cast in the sea, causing numerous fish to die and wash up on the shores of Italy[42].

Those accounts that make out Caligula to be a poisoner are poorly supported by fact, and, indeed, Suetonius reports a number of them as though they were mere rumors, the poisonings of Tiberius and Antonia being prime examples. On the topic of Tiberius' death, Suetonius (*Cal.* 12.2) reports alternative methods of murder including smothering with a pillow and strangling. In his biography of Tiberius (73.2), Suetonius reports Seneca's version of Tiberius' death in which Tiberius gets out of bed, but then his strength fails him, he collapses, and dies. Cassius Dio (59.3.6) makes the dubious claim that Caligula forced his paternal grandmother Antonia to take her own life by an unspecified method[43].

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34 See n. 28; Katsopoulos (2018); Dols (1984).

35 Derrida (1981).

36 Caligula uses the verb *prodesse* (negated by *non*) in reference to the inefficacy of the ex-praetor's hellebore treatments. Celsus regularly uses the verb *prodesse* to indicate the active virtues of medicines and other treatments. See Hurley (1993, 120). Celsus (*De medicina* 3.23) also prescribes bloodletting as an alternative to hellebore in the treatment of epilepsy. Caligula's recommendation of bloodletting when hellebore has failed the ex-praetor suggests the latter's condition may have been epilepsy.

37 Suet. *Cal.* 23.2.

38 *Ibid.* 23.3.

39 *Ibid.* 29.1.

40 *Ibid.* 38.2.

41 *Ibid.* 55.2; D.C. 59.14.5. Gambling on chariot races was a favorite Roman pastime. See Epict. 1.9.27; Mart. 11.1.15; Petr. 70.13; Tert. *Spect.* 16.1; Bell (2020, 182-232).

42 Suet. *Cal.* 49.3.

43 Barrett and Yardley (2023) argue against Caligula playing any role in the death of Antonia, citing her death within a month of his accession as a strong counterevidence.

Figure 6. Vienna Dioscorides illustrations. a) σησᾶμοειδής το μέγα, large sesamoides; photo by C. Zollo; courtesy of Medical Historical Library, Harvey Cushing/John Hay Whitney Medical Library, Yale University. b) σησᾶμοειδής το λευκόν, white sesamoides, from early 6th century CE; photo by C. Zollo; courtesy of Medical Historical Library, Harvey Cushing/John Hay Whitney Medical Library, Yale University.

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Nevertheless, rumors of Caligula's poisonings endured, as the theme of the mad ruler as poisoner was so prevalent in ancient literature and irresistibly attractive to the imagination. Ergo, both Caligula and Nero, being the "bad/mad" Julio-Claudian emperors, were predictably accused of being poisoners[44].

Of course, not every instance of the accusation was necessarily false, and it is likely the case that both men had some knowledge of *pharmakon*, as did certain Hellenistic kings before them[45]. Some of these kings, too, had their interest in medicine distorted into a prodigious record of poisoning. In Roman historiography, the prototypical eastern king who was both a madman and poisoner was Attalus III, the last ruler of the Attalid dynasty, who reportedly left his kingdom to the Romans in his will. Justin's (36.4.3) epitome of Pompeius Trogus provides the most extensive extant portrait of the pharmacological interests of the king:

> 3 *Omissa deinde regni administratione hortos fodiebat, gramina serebat et noxia innoxiis permiscebat, eaque omnia veneni suco infecta velut peculiare munus amicis mittebat.*
>
> Then, with no regard for the administration of his kingdom, he began to cultivate gardens, planting various herbs and mixing them together, the poisonous with the harmless. He would then send assortments of these, shot through with the sap of the poisonous ones, as special presents for his friends[46].

If we remove this material from its framing within a portrait of madness, what sticks out is the intellectual prowess of a brilliant mind in mastering one of the key areas of ancient medical knowledge. This same brilliance is also apparent in other of the king's interests:

> 4 *Ab hoc studio aerariae artis fabricae se tradit, cerisque fingendis et aere fundendo procudendoque oblectatur.*
>
> From this employment he turned to that of working in brass, and amused himself with modelling in wax, and casting and hammering out brazen figures[47].

Suetonius' reports about Caligula's interest in poisons reveal a similarly brilliant mind that had acquired a fair amount of technical knowledge. At points, however, the similarity between aspects of Attalus' and Caligula's pharmacological interests and activities is perhaps too close to be coincidental. Caligula's habit of sending poisonous snacks to those who had made him an heir is strikingly similar to the poison presents Attalus sent his friends. Though somewhat less striking, Caligula's chest of poisons is reminiscent of the sheer volume of Attalus' collection of plants. More generally, Suetonius (*Cal.* 54.2) mentions, albeit in passing, that Caligula, like Attalus, was a quick study in a wide variety of subjects: *atque hic tam docilis ad cetera.*

While it may be the case that Attalus became a historiographical model for subsequent unpopular rulers, and that Suetonius and others applied the Attalus model to emperors such as Caligula and Nero, Caligula was perhaps driven to emulate Attalus' pharmacological expertise for practical reasons. Caligula grew up in a family that was defined to no small degree by the conviction that his father Germanicus' death was caused by poisoning[48]. That belief sparked a paranoia that motivated members of the family to learn more about plants and their uses. Caligula's mother Agrippina the Elder, above all others, was convinced that her husband Germanicus was poisoned, and she was easily manipulated to suspect the emperor Tiberius intended to poison her next[49].We do not know whether she studied plants, but she would have had plenty of motivation to do so. Caligula's sister Agrippina the Younger learned enough about antidotes to fend off her son Nero's attempts at poisoning her[50].

In light of this family history, we propose that the rhetorical savaging of Caligula's memory in numerous fanciful accusations of poisoning is nevertheless built on the real pharmacological knowledge of a brilliant emperor. The view that Caligula was highly intelligent and knowledgeable can be found in the works of one his greatest critics, Philo of Alexandria. In his *In Flaccum*, Philo portrays the emperor as one who is knowledgeable about travel times and maritime resources[51]. To Herod Agrippa, Caligula recommends against the journey from Brundisium to Syria as being long and tiresome. Instead, the emperor tells Agrippa to wait for the etesian winds and travel to Palestine by way of Alexandria by catching an Alexandrian ship at Puteoli, as Alexandrian ships are swift and their pilots are highly skilled.

While one must acknowledge the possibility that Philo's imagination supplies some details, his Caligula wields knowledge that was crucial for any emperor to master. Rome was dependent on grain from extra-Italian sources to keep its titanic population fed, and Alexandria was the source of much of that grain. Caligula's uncle and predecessor, Tiberius, was well familiar with the dangers of a hungry Roman populace, and so he would have taught his successor the importance of mastering the ins and outs of Alexandrian maritime trade with Rome[52]. Before his reign, Caligula lived with Tiberius on Capri, an island near Puteoli, and in the year following this exchange with Agrippa about travel to the East the emperor staged a giant maritime spectacle involving an extraordinarily long bridge made of merchant ships, some doubtless from Alexandria, which he built between Baiae and Puteoli[53]. In short, it is possible Philo used his imagination to recreate Caligula's advice to Agrippa, but this scenario is plausible and even reliable regarding Caligula's actual knowledge, if not simply factual *in toto*.

The purpose of this foray into Caligula's practical knowledge of seamanship and trade routes has been to show that ancient authors inadvertently reveal a highly intelligent and knowledgeable Caligula when they are not focused on savaging his memory. Philo's Caligula understandably knows a thing or two about the life-sustaining grain coming to Rome from

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44 Calhoon (2010).
45 Winder (2017); Totelin (2012).
46 Trans. Watson.
47 Ibid.
48 Tac. *Ann.* 2.69.
49 *Ibid.* 4.55.
50 Suet. *Nero* 34.2.
51 26-27.
52 Tacitus (*Ann.* 6.13) reports that in 32 CE the populace was on the verge of rioting in Rome because of the high price of grain, and Tiberius pushed the consuls, partly through demonstrating his expert and detailed knowledge of the grain supply, to issue an edict to address the problem. This knowledge included the provincial sources of grain coming to Rome and the amount of grain the imperial *fiscus* was paying for.
53 J. *AJ* 19.1.1; Suet. *Cal.* 19, 32.1; D.C. 59.17. For recent discussion and bibliography, see Luke (2024, 280-82.)

Alexandria. He knows the quality of the ships and crews who bring it. He knows how long the journey takes. He knows when the best winds to facilitate the journey blow. He knows intimately the place where Alexandrian grain ships land in Italy. If Caligula was mentally ill in some way, that illness does not seem to have rendered him ignorant or dull.

In his *Embassy to Gaius*, Philo also intimates that the same Caligula who had a detailed knowledge of the maritime trade route for grain between Puteoli and Alexandria also had an impressive knowledge of the properties of ancient plants and pharmacological recipes[54]. There, Philo comments on how the emperor distorted Apollo's art of medicine from the invention of salutary remedies to promote human welfare and heal illnesses into a disease-bringing, crippling, and death-dealing technology. He introduces this section of his argument by referring to Caligula's notorious cosplay of the gods. Philo brings his reader's attention to three of Caligula's divine impersonations in particular: Hermes, Apollo, and Ares. He then proceeds to show how Caligula failed to conform his behavior to the virtues of these gods but instead embodied an inversion of their positive characteristics[55]. Philo might simply have called Apollo a healer and then showed how Caligula was a killer, but he goes further by talking about the *soterioi pharmakoi* ("saving medicines") Apollo invents. He then contrasts Caligula with the healing Apollo by bringing up Caligula's bottomless liberality with *panta ta phthoropoia*, or "all things causing destruction." A more specific meaning of *phthoropoios* is "abortifacient," which, in the context of Philo's prior mention of Apollo's production of saving medicines, must be considered a deliberate intimation[56].

Philo's allusion to Caligula's use of abortifacients adds another facet to the emperor's likely knowledge of pharmacology. In all, Caligula was certainly knowledgeable in the topics of toxicology, antidotes, and purgatives, and he was probably also aware of abortifacients[57] .That said, there is no direct evidence of Caligula directing the women in his life use abortifacients. The fact that Suetonius (*Dom.* 22) reports that Domitian (81-96 CE) forced his niece, with whom he committed adultery, to get an abortion, thus causing her death, shows that this author, at least, did not shrink from the topic. Surely, Suetonius, who considered Caligula a "monster," would not have spared the emperor if such an accusation were well known. Moreover, the accusation that Caligula committed incest with his sisters would have naturally raised the question of abortion[58]. After all, those sexual acts evidently did not result in live births[59]. As in the case of poisoning, however, incest is such a common accusation against the bad ruler as to engender immediate doubt[60]. Indeed, there is also no evidence of Caligula avoiding having children. In fact, he seems to have wanted a child, endured the grief of losing his first wife, Julia Claudilla, in childbirth, and rejoiced when Caesonia bore him a daughter, Julia Drusilla, whom he had divinised[61]. One must, of course, still acknowledge the possibility that the emperor both knew about abortifacients as his nephew Nero later did and could have urged abortifacients on partners when a fetus was undesirable in light of dynastic plans[62].

Overall, the evidence is strongly suggestive of Caligula's expertise in pharmacology, including both toxicology and medicine. This evidence helps us contextualize the story of Caligula's execution of the ex-praetor who was recuperating in Antikyra to take advantage of its famous hellebore treatments.[63] Caligula came to this interaction with copious knowledge of pharmacopeia and at least some knowledge of different medical methodologies. The author of the anecdote probably sought to weaponize Caligula's reputation for madness against him, thus obscuring the facts regarding the emperor's expertise. One cannot fail to recognize the irony of a madman who criticises others' use of a medicine known to cure madness, thus manifesting his insanity in the criticism itself!

Caligula and the Praetors

Any examination of this episode would not be complete without looking into Caligula's relationship with the Senate. After all, the man he executes in this case is an ex-praetor, or, in other words, a senator who had held the second highest magistracy in the Roman state after the consulship. Traditionally, praetors were assigned the task of running Roman legal affairs. They also held *imperium*, an authority that enabled them to command armies. The early Republic had only required two praetors, but the expansion of the empire and the increasing number of commands outside Italy demanded more praetors and former praetors with imperium to cover requisite tasks. Beginning in the time of Augustus, the roles of praetor and ex-praetor expanded into new arenas of activity, and the number of praetors was consequently increased to roughly twelve, depending on the need[64].

Caligula continued the trend of leaning on praetors and ex-praetors in his administration of the city. He required praetors to put on entertainments, something that would have made their position very costly to hold[65]. Under Caligula, two praetors per year were given the task of putting on gladiatorial games[66]. Presumably this added responsibility explains, at least partly, why Caligula sold gladiators who survived combat at greatly inflated prices to praetors (and consuls)[67]. Cassius Dio (59.20.1) also reports that

54 106-7.
55 Gruen (2019).
56 Ps.-Dsc. 1.1. Philo's own works provide an interesting contrast in usage of this word. In his *Questions and Answers on Exodus* (23), Philo opines that every soul is entered at birth by two powers, the salvific (*sôtêria*) and the destructive (*phthoropoios*). On the latter, see Dahl and Segal (1978).
57 Pliny (*Nat.* 19.39) mentions that in his time only one last specimen of silphium could be found in Cyrene, which was promptly given to the emperor Nero as a curiosity. Silphium is thought to be the most potent abortifacient in antiquity so surely well known to Caligula if his nephew Nero found it of interest. Cf. Johnston (1993).
58 Incest: J. *AJ* 19.204; Suet. *Cal.* 24.1; *V. Pass.* D.C. 59.22.6; Barrett and Yardley (2023, 39-40).
59 Only the late fourth century CE history of Eutropius (7.12) claims that he conceived a daughter with one of his sisters.
60 Barrett and Yardley (2023, 39).
61 Julia Claudilla: Suet. *Cal.* 12.2; Julia Drusilla: Suet. *Cal.* 25.3-4.
62 On Nero's awareness of abortifacients, see n. 57.
63 For a connection even between hellebore and abortifaciency, mention should be made of Dioscorides' φθόριος ἐμβρύων οἶνος, an "abortion wine" concoction composed of hellebore (black or white), squirting cucumber, and scammony. Cf. Riddle (1994, 54).
64 Tac. *Ann.* 1.14. Attempts to expand their duties further pop up in the ancient sources. For example, in 15 CE, the Senate proposed that praetors have permission to flog actors, but the proposal was opposed by a tribune of the plebs, and Tiberius used Augustus' earlier decision that actors be immune to flogging to refuse it. Tac. *Ann.* 1.77.1-3. See E. Cowan (2009, 183-90). Other examples of expanded duties for the ex-praetors under Augustus included the *curatores viarum*, who supervised the roads. See D.C. 54.8; Eck (2009).
65 D.C. 59.5.3.
66 *Ibid.* 59.14.2.
67 *Ibid.*

the praetors held a horse race and hunts in celebration of Caligula's birthday every year. To spread these financial burdens around a little more, perhaps, the emperor expanded the number of praetors to fifteen[68]. In the year 39, Caligula had a falling out with the Senate that was likely related to his discovery of a conspiracy against his life[69]. As the conspiracy unraveled, many senators were put on trial, and some were executed. Cassius Dio (59.23.8) remarks that even aediles and praetors were forced to resign their offices and to stand trial. Caligula was sole consul in January of 40, when he was still on campaign in Germany, and the praetors in Rome were too fearful to convene the Senate[70]. Finally, on the third day of the month, all the praetors at Rome issued a joint announcement of a meeting of the Senate, but no business was transacted[71].

Other anecdotes about individual praetors round out one's appreciation of how unpredictable, stressful, and sometimes deadly it was to be a praetor under Caligula. On the lighter side, the emperor once gave a senator a commission to become praetor simply based on the man's gusto at banquet[72] .He may have been making a point about the financial obligations that would repay the man's gluttony. Junius Priscus' experience reveals the dark side. He stood accused of various crimes and was apparently convicted simply because Caligula believed he was wealthy[73]. When Caligula discovered he had no property, the emperor exclaimed, "He fooled me and perished needlessly, when he might just as well have lived"[74]. One ex-praetor made the unfortunate mistake of falling asleep during the emperor's auction of gladiators[75]. Every time the senator nodded in his sleep, Caligula registered the nod as a bid. By the end, the ex-praetor was on the hook for nine million sesterces (i.e., nine times the minimum census requirement for senatorial status) to purchase a group of thirteen gladiators.

Perhaps the best documented praetorship in the reign of Caligula is the future emperor Vespasian's. Unfortunately, that documentation is very narrow and limited to Vespasian's speeches in the Senate. Vespasian's negative experience as an aedile under Caligula seems to have pushed him to seek Caligula's positive attention through fawning behavior. Caligula punished Vespasian in his aedileship of 38 for not keeping the streets clean by having soldiers heap mud into the bosom of Vespasian's magisterial toga[76]. As praetor in 39, Vespasian proposed that the conspirators in the Gaetulican conspiracy (against the emperor) be denied burial[77]. He also proposed special games to celebrate the emperor's victory in Germany. Finally, Vespasian thanked the emperor in the Senate for an invitation to dinner[78]. The order of these sycophantic actions suggests that Vespasian's efforts to make up for the bad attention he received through his negligence as aedile finally paid off by getting him an invitation to the palace[79].

Setting aside the question of whether each individual story about Caligula and the (ex-)praetors of his reign is factually accurate, the extant evidence creates a strong impression that the emperor had been unfair to his praetors, placing heavy financial burdens upon them. This impression is strengthened by the fawning behavior of Vespasian, which was designed to manipulate Caligula in defensive ways. It is also consistent with other stories pointing toward Caligula's financial problems, which resulted in the emperor taking unusual measures like auctioning off property from the imperial household and allegedly turning the palace into a brothel in which respectable Roman matrons were pressed into prostitution[80].

Caligula spent a lot of money at the beginning of his reign to draw a stark contrast between himself and his predecessor Tiberius, who was hated in the last years of his rule and had always been sparing in his spending on entertainments and building projects. A generous reading of Caligula's financial grasping is that after spending so much on entertainments in the early months of his reign, the emperor sought to shift some of the financial burden onto others, including the praetors and consuls. Since there were far more praetors than consuls (praetors: 15, consuls: 2), the praetors would have been especially exploited as a more promising and bountiful source of funds. Praetors such as Vespasian were motivated to cooperate with Caligula's demands if they hoped to rise to the consulship.

Ex-praetors were also pressed into curatorships in the city of Rome[81]. The financing of this work (on infrastructure, finances, and the grain supply) would have fallen partially upon the ex-praetors themselves, making this yet another unattractive and costly responsibility. Involvement in the administration of the city of Rome also put one in striking distance of an unpredictable emperor. If the unknown ex-praetor recuperating in Antikyra was malingering, he was probably doing so to avoid financially burdensome responsibilities and the general riskiness of being in Caligula's reach[82]. Had he been in Rome, he might have been burdened with a curatorship, erroneously implicated in a plot against the emperor, strapped with outrageous dues for an imperial priesthood, or placed in a burdensome consulship with further responsibilities to put on entertainments[83]. The life of a Roman senator was risky and expensive under competent emperors;[84] under Caligula prominent senatorial status could seem almost like a death sentence. Much of the grim humor of Suetonius' anecdote about the senator in Antikyra is found in the idea that even poor health and a great distance from Rome were no guarantee of safety from the mad Caligula.

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68 *Ibid.* 59.20.4.
69 Barrett and Yardley (2023).
70 D.C. 59.24.2-3.
71 *Ibid.* 59.24.6.
72 Suet. *Cal.* 18.2.
73 D.C. 59.18.5.
74 Trans. Cary.
75 Suet. *Cal.* 38.4.
76 Suet. *Ves*. 5.3.
77 *Ibid.* 2.3.
78 *Ibid*.
79 Wardle (2019, 399; 2012, 194) points out that Suetonius frequently observes chronological order within a single topic.
80 Suet. *Cal*. 38-41; D.C. 59.14-15.
81 Eck (1992). Not all curatorships were staffed by ex-praetors. The *curatores aquarum* could be consulars or ex-praetors (Rodgers [1982, 171] identifies the chairmen of the three-man board as consulars). Frontinus (*Aq.* 102) provides a list of his predecessors in the *cura aquarum.* The *curatores aquarum* appointed in the reign of Caligula were M. Porcius Cato (cos. 36) and A. Didius Gallus (suff. cos. 39). Both men were appointed in 38. Noteworthy is Gallus' appointment as head of the board *before* his consulship. This suggests that under Caligula ex-praetors were eligible for the top post. Didius was appointed curator during the consulship of Asinius Celer and Nonius Quinctilianus, who took office on July 1. His *adiutores* were the ex-praetors T. Rubrius Nepos and M. Cornelius Firmus. See *ILS* 5745; Bruun (2014, 207).
82 Hurley (1990, 120) suggests that avoiding Caligula was the ex-praetor's motive.
83 Costly priesthood: D.C. 59.28.5.
84 Even in the best of times and under good emperors, the financial demands placed on senators could push them into poverty and out of the Senate. Augustus set the census requirement for senatorial status at one million sesterces. Failure to meet that requirement did result in ejection from the Senate. Cassius Dio (55.2.3) reports that in 4 CE Augustus gave cash subsidies to young men from senatorial families seeking office because they were too poor to meet the census requirement for senatorial status.

Conclusions

Shortly after he became emperor, Caligula was visited by an Achaean embassy that included a prominent man from Phokis, the region where Antikyra was located. The embassy brought tidings of statues voted in celebration of Caligula's accession[85]. Despite the fact that the emperor accepted statues in only a handful of prominent places, including Phokian Delphi, a statue of Caligula was subsequently erected in Hyampolis, another Phokian town not far from Antikyra[86]. Caligula's statue at Hyampolis was placed in a sanctuary of the god Roma by a man holding a lifetime priesthood of Roma, Caligula, or both. Ironically, our ex-praetor might have played a role in extending this honor to the emperor. One wonders whether mention of the statue found its way into one of the ex-praetor's petitions to Caligula to extend his leave in Antikyra. Given Antikyra's closeness to the Delphic oracle, one is also prompted to wonder whether Caligula, paranoid about those who might seek divinatory guidance of a treasonous kind (*e.g.*, information regarding the emperor's future demise), thought his ex-praetor was seeking forbidden knowledge[87]. Whatever the case might have been, unfortunately we only know the outcome of those petitions: Caligula, cruelly taunting the sick senator, ordered his execution.

The value of the story of Caligula's execution of the convalescing ex-praetor as it is explored here is what it reveals about imperial-era Antikyra and Caligula. Romans were aware of Antikyra's reputation as a source of uniquely beneficial hellebore treatments by the early first century BCE, thanks to the immigration of Greek physicians to Rome and a lively Italian trade in Greek books. Shortly thereafter, members of the Roman elite were traveling to Antikyra to take those treatments on site. The story of Antikyra's entry into the medical culture of the Roman Empire is implicated in the larger phenomenon of the ancient Mediterranean's evolving medical and pharmacological culture. Just as today's people of means seek more affordable or effective treatments abroad, M. Livius Drusus in the 90s BCE and our unknown ex-praetor in the reign of Caligula (37-41 CE) were participating in the phenomenon of ancient medical tourism[88]. Such tourism involved not just the ailing but also their physicians. Antikyra's reputation as the source of special hellebore treatments was spread by the physicians who visited the city in their travels. Indeed, Antikyra became a node in the empire's health network, just as the Mayo Clinic is today for the affluent and influential around the globe.

A different side of Caligula has also come into view. This article has not sought to "rehabilitate" Caligula but rather to argue that he was more knowledgeable in the areas of medicine and pharmacopeia than previously understood. Like Attalus III, and thanks in no small part to his tragic family history, Caligula studied not only poisons and antidotes but also medicine in general. The standard historiographical invective aimed at unpopular emperors twisted Caligula's studies into an obsession with poisons for the purpose of murdering as many people as possible, but such was surely not the case. Even his outburst in response to the ex-praetor's request can be interpreted to suggest that Caligula had read the writings of Celsus, who composed his *De medicina* in the reign of Caligula's predecessor Tiberius. Caligula's words also show that he understood the qualities of hellebore and that he was sufficiently knowledgeable to surmise roughly how long it should take for Antikyra's special hellebore treatments to work.

[85] *IG* VII.2711; Hervás (2017, 170-3).

[86] On the dedicatory inscription from Phokian Hyampolis, see Klaffenbach (1935, 705-6). See also Mellor (1975, 106 n. 502, 211); Fossey (1986, 75 n. 41); Højte (2005, 291 n. 16). NB: Fossey (1986, Figure 17) inverts the findspots of the inscriptions to Caligula and Severus.

[87] Lawyer and astrologer, Maternus (*Math.* 2.30.4) comments on the problem of illegal divinatory consultations, namely, those that involve the emperor in any way. See also Sogno (2005, 170-4). The dangers of such divinatory consultations goes back to the Early Empire, and emperors, including Tiberius (Suet. *Tib.* 36), periodically banished astrologers from the city of Rome. See Ripat (2011).

[88] On medical tourism to particular cities, see Israelowich (2015, 124-34). For the modern phenomenon among Americans of the United States, see Maniam (2015).

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