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<th>Pliny, Nero, and the 'Emerald' (NH 37,64)</th>
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In his *Natural History* which he seems to have completed shortly before his death in AD79, Pliny the Elder preserves a strange story of how the emperor Nero used to watch the gladiatorial games in Rome with the assistance of a piece of a mineral which he describes as *smaragdus*. The relevant line occurs at the conclusion of a long description of the general properties of *smaragdus*, as follows (*NH* 37,64):

_Iidem plerumque concavi, ut visum conligant. quam ob rem decreto hominum iis parcitur scalpi vetitis. quamquam Scythicorum Aegyptiorumque duritia tanta est, ut non queant vulnerari. quorum vero corpus extentum est, eadem qua specula ratione supini rerum imagines reddunt. Nero princeps gladiatorum pugnas spectabat in smaragdo._

'Smaragdi' are generally concave in shape, so that they concentrate the vision. Because of these properties, mankind has decreed that 'smaragdi' must be preserved in their natural state and has forbidden them to be engraved. In any case, those of Scythia and Egypt are so hard as to be unaffected by blows. When 'smaragdi' that are tabular in shape are laid flat, they reflect objects just as mirrors do. The emperor Nero used to watch the fights between gladiators in a reflecting 'smaragdo'.

This allegation is one of the most famous anecdotes within Pliny's text, and is routinely cited by various modern historians of science and technology. There has been some debate as to whether Pliny intended to describe the use by Nero of the *smaragdus* either as a lens or as a mirror, but the fact that he describes Nero's use of the *smaragdus* immediately following his description of how *smaragdi* reflect objects in the same way as mirrors, ought to make it clear that he intended this anecdote concerning Nero as an example of this property.

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of smaragdus, that is, of the way in which it could be used as a mirror. Hence the translator above inserts 'reflecting' into his translation by way of clarification. There may also be some doubt as to the exact nature of the mineral which Nero used in this way. The problem here is that Pliny uses the term smaragdus to describe a wide variety of green minerals. He claims that there were twelve kinds of smaragdus (NH 37,65), and commentators have identified these with various minerals, whether emerald, malachite, or the green varieties of porphyry, basalt, schist, or jasper. Hence one must not jump to the conclusion that Nero necessarily used a particularly fine or large emerald as his mirror. He may well have used a large piece of highly polished porphyry. Yet the action attributed to him remains equally ridiculous no matter with what mineral one identifies his piece of smaragdus. The reality is that he would very soon have tired of squinting at the dim reflection of the games on the surface of this smaragdus, if, that is, he could discover any reflection at all there, no matter what type of stone he was using. He would also have discovered that the soothing effect of the colour green on the eyes had been greatly overstated, no matter what Pliny or his predecessors have to say on this matter.

One notes here that Pliny does not actually explain why Nero should have preferred to watch the games in this way. The temptation is to assume that he must have been suffering from some sort of eye-condition, whether temporary or permanent, which he thought that he could relieve in this way, not least because the colour green was believed to be soothing to the eyes. Yet none of our main sources for his reign – Suetonius, Tacitus, Cassius Dio – preserve any independent evidence that he ever suffered from any sort of eye-problem.3

It is no surprise, therefore, that they provide no support either for Pliny's allegation concerning the strange way in which Nero had used to watch the gladiatorial games, despite the fact that they say a great deal otherwise about his attendance at or performance in various types of games or spectacles. In the circumstances, since no-one supports Pliny's claim that Nero used a smaragdus to watch the gladiatorial games, and since it seems highly implausible that he should have done so, one is tempted to wonder whether Pliny has made a mistake here.

If an ancient author makes a claim which is highly implausible, ridiculous but not actually physically impossible, one ought to investigate whether he has properly understood his source before conceding to the implausible or ridiculous. Consider, for example, the strange claim by Livy that when the Romans tried to tunnel into the town of Ambracia in 189BC, and the besieged Aetolians broke into their tunnel, fighting became difficult because both sides thrust doors in front of them. Fortunately, one can compare Livy to his original Greek source in this matter, Polybius, so that it quickly becomes apparent that he has misread the Greek term θυρίδα "shield" as θύρα "door", and mistranslated his source accordingly. Yet without Polybius one suspects that many modern commentators would have been quite happy to accept Livy's text as it stands, no matter how implausible, because his description of events is not absolutely physically impossible. In this case, one needs to be open to the possibility that Pliny may have misunderstood his source, in particular, that he may have misunderstood a Greek source in the manner of Livy above, since it is highly improbable that he should have misunderstood a Latin source. Although we do not possess Pliny's original source here, Suetonius preserves a valuable passage which may preserve some insight into what this source had originally stated. At the end of a lengthy description of the various types of games and spectacles which Nero had displayed at Rome, he describes how an actor playing the part of Icarus had once fallen next to the imperial couch and


4 See J.F. Healy, Pliny the Elder on Science and Technology, Oxford 1999, 241–45. One notes that Healy, 147, does not believe that Nero can have used his smaragdus as either a lens or a mirror, but concludes that "further speculation is pointless without additional evidence".

5 Pliny, NH 37,63. Cf. Theophrastus, De Lapidibus 24.

6 Suet. Nero 51 reports that Nero's eyes were blue and rather weak (oculus caesis et

spattered Nero with blood, and this leads him to digress into a short description of how Nero had normally conducted himself at these events (Nero 12,2):

Nam perraro praesidere, ceterum accubans, parvus primum foraminibus, deinde toto podio adaperto spectare consueverat.

...; for Nero very seldom presided at the games, but used to view them while reclining on a couch, at first through small openings, and then with the entire balcony uncovered.8

The revelation that Nero had used to watch the performances through small openings, presumably in the wall or screen which apparently surrounded the imperial box, is interesting for several reasons.9 One has to ask, for example, what purpose such a wall or screen could have served. Had it been intended to provide some form of physical protection for the emperor and his entourage, much like a modern security barrier, or had it been designed to ensure some privacy for the emperor? In fact, given that any type of screen would have greatly impeded the view of the performances, one suspects that the main purpose of this screen had been to conceal the fact that the emperor himself was not actually in attendance there.10 Here one must remember that the emperor was expected to attend the games normally, whatever his personal inclination, that the reputation of Julius Caesar had suffered when he was seen to be conducting business at the games rather than paying due attention to them, and that Augustus had been careful properly to excuse himself when he could not attend them and to be seen to be paying attention to them when he did attend.11 While Nero's behaviour during his later years confirms that he was personally interested in every type of game or spectacle, he had remained relatively restrained in his behaviour during the earliest years of his reign when he was still young and in which he was so obsessed with horses as a young boy that he had been forbidden to talk about them at all.12

On the initial five 'good' years of Nero's rule, see B.M. Levick, "Nero's Quinquennium", in C. Deroux (ed.), Studies in Latin Literature and Roman History III (Coll. Latomus 180), Brussels 1983, 211–25; also Griffin (above n. 10), 67–82.

13 Cf. Suet. Nero 22,1 which records that Nero used to delight in the violence between the factions, that he had used to watch it secretly, and that he forbade the soldiers who had always attended such performances in the past to attend them any longer precisely in order to encourage this violence.14 Suetonius preserves a more exaggerated version of this allegation, which he clearly derives from the same ultimate source as Dio, when he claims that Nero even joined in and threw some missiles himself.15 Finally, Tacitus preserves the same basic information as Dio and Suetonius when, in his account of the year AD55, he also records that Nero withdrew the cohort usually present at the theatre.16 He then proceeds to speculate about the reasons for this, claiming that Nero had wanted to create a greater appearance of liberty and to prevent the troops from being corrupted by too close contact with the theatre. In reality, it was probably Burrus who had

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8 Text and trans. from J.C. Rolfe, Suetonius II (Loeb Classical Library 38), Cambridge MA 1914, 104–05.
9 K.R. Bradley, Suetonius’ Life of Nero: An Historical Commentary (Coll. Latomus 157), Brussels 1978, 86, does not speculate as to the reason for this screen.
10 M.T. Griffin, Nero: The End of a Dynasty, London 1984, 110–11, suggests that Nero viewed the gladiatorial games through screens or shutters because he did not want people to see his enthusiasm for the games and to condemn his bloodthirstiness as a result, and that he used to remain concealed at the theatre because he wanted to find out what the people really thought about him by observing them secretly. Given the similarity between his alleged behaviour at both amphitheatre and theatre, it seems to me that one cannot explain them except as the results of the same policy.
12 On the first five 'good' years of Nero's rule, see B.M. Levick, "Nero's Quinquennium", in C. Deroux (ed.), Studies in Latin Literature and Roman History III (Coll. Latomus 180), Brussels 1983, 211–25; also Griffin (above n. 10), 67–82.
13 Cf. Suet. Nero 22,1 which records that Nero had been so obsessed with horses as a young boy that he had been forbidden to talk about them at all.
14 Dio 61,8,2–3.
15 Suet. Nero 26,2: Interdiu quoque clam gestatoria sella delatus in theatrum seditionibus pantomimorum e parte proscaeni superiore signifer simul ac spectator aderat; et cum ad manus ventum esset lapidibusque et subselliorum fragminibus decerneretur, multa et ipse iecit in populum atque etiam praetoris caput consauciavit. Bradley (above n. 9), 157, recognises the claim that Nero had used to throw missiles himself also as tendentious.
16 Tac. Ann. 13,24. In his account of the following year AD56, he reports once more how Nero had used to view the riots among the spectators in secret. See Tac. Ann. 13,25.
decreased the military attendance at the performances, on his own initiative and simply because he knew that the emperor was not really present in his screened imperial box, but this then had the unfortunate effect of emboldening the factions who quickly learned to take advantage of the military absence. The reason why Nero did not act to restrain the factions, at least at first, was that he was not really there to see any of this. Unfortunately, the spectators did not know this, and the rumour soon began that Nero did not stop the violence because he enjoyed it so much.

The reality of Nero's attendance at the games and spectacles during his earliest years does not concern us here. What matters here is that people assumed his presence in an imperial box into which they could not see, and that some historian thought that this apparent quirk of Nero's character deserved to be noted down for posterity, that he initially preferred to watch the games through small openings in the screen about his box. The question which we must now ask, therefore, is how might Pliny have so misunderstood a description of Nero's behaviour in this way as to reach the conclusion that he had used to watch the games with the help of a mirror, whether made of smaragdus or not. The first point to note is that the normal term for mirror in Greek is κάτοπτρον. Next, how would one describe Nero's behaviour if he was thought to have peered out at the games through holes in a screen? He would seem to have acted in the manner of a spy rather than of a normal theatre-goer, and one may suspect that a hostile source would have delighted to make the analogy. There are various terms for 'spy' or 'onlooker' in Greek, but the terms κατόπτυς and κατόπτηρ were commonly used in this sense. It is my suggestion, therefore, that Pliny misunderstood one of these terms to describe someone who uses a mirror rather than a spy. To be more specific, since these terms are common in themselves, it is hardly likely that he would have misunderstood either of them had he heard or read them correctly. It is more likely, therefore, that he misread the relevant term, or that an assistant mispronounced it as he read the relevant text out loud to him, so that it seemed to be spelled with an extra rho immediately after the tau and to bear a much closer relationship to the term κάτοπτρον than was actually the case. Pliny then had to guess at the meaning of this otherwise unattested term. Hence he interpreted a statement that Nero had used to watch the games like a spy to mean that he had used to watch them in the manner of a man using a mirror, that is, by using a mirror. This would doubtless have struck him as a rather strange form of behaviour and, just like any modern commentator, he would then have tried to rationalize what he had read or heard, or thought that he had read. Obviously, or so it must have seemed, Nero had wanted to save his eyes rather than look at the games directly. It is at this point that Pliny's general scientific knowledge would have come into play. He knew that smaragdus was thought to be beneficial to the eyes, so he assumed that Nero's mirror must have been made out of this substance in particular. As to the nature of the relationship between Suetonius and Pliny in this matter, one suspects that they derive their information from the same ultimate source, but by different routes.

17 A.A. Barrett, Agrippina: Mother of Nero, London 1996, 173, links the removal of the praetorian guard from the theatre with the denial of her traditional praetorian escort to Agrippina (Tac. Ann. 13,18), and suggests that the first had been but part of a larger package of reforms designed solely to implement the latter attack upon the security and prestige of Agrippina.

18 One suspects that, when he finally forced his will upon Seneca and Burrus and began to attend the games and performances, Nero was so shocked at how disorderly the crowds had become, that it really was his initiative to banish the theatre-factions from Italy altogether. See Tac. Ann. 13,25; Suet. Nero 16,2. Neither the philosopher Seneca nor the soldier Burrus would have cared much for the actors and those who flocked to see them, so it would not have bothered them that violence was now resulting in serious injury and death or disrupting the performances. Certainly, there was a history of serious riots at the theatre, so they cannot have expected that the removal of the military presence from there would have resulted in anything but death and disruption. See e.g. E.J. Jory, "The Early Pantomime Riots", in A. Moffatt (ed.), Maistor: Classical, Byzantine, and Renaissance Studies for Robert Browning (Byzantina Australiensia 5), Canberra 1984, 57–66. In contrast, Nero, an enthusiastic spectator, would have wanted an orderly performance. On the contempt or indifference which intellectuals such as Seneca displayed towards actors, charioteers, and gladiators, see M. Wistrand, Entertainment and Violence in Ancient Rome: The Attitudes of Roman Writers of the First Century AD, Göteborg 1992.


20 Ibid. 929. Other terms include σκόπις and κατάσκοπος.

21 The alternative, of course, is that he correctly read and understood a Greek source where the author of this Greek source had already made the key error here, that is, had misunderstood an original Latin source so that, simply because of the similarity of the terms, he had translated the term spectactor 'onlooker', used in reference to Nero in his imperial box, to mean a man who uses a speculum 'mirror'.

22 Cf. Pliny (the Younger), Ep. 3,5,12.
of transmission, so that Suetonius, or an intermediate author, has translated it correctly, whereas Pliny, or an intermediate author perhaps, did so incorrectly.\textsuperscript{23}

In conclusion, Pliny’s claim that Nero had used to watch gladiatorial games in a \textit{smaragdus}, by which he seems to mean a mirror made of \textit{smaragdus}, is best explained as the result of the misreading and mistaken translation of a source which had originally described how Nero had used to watch the games like a spy, not in the manner of a man with a mirror. It is not entirely clear why Pliny should have committed this error, or have failed to detect his error subsequently, if it really was he rather than an intermediate author who did so, but one suspects that two factors may have been at play here. First, Pliny carried out an enormous amount of work very quickly, often in highly unfavourable conditions, such as when he was travelling.\textsuperscript{24} Furthermore, he deprived himself of sleep in order to keep up the pace so that he often dozed off during his work. All told, therefore, it is not difficult to believe that he, or the assistant who read to him as he made his notes, could have made a mistake as described above. Next, the reputation of Nero was such that any descriptions of strange behaviour probably did not seem quite so strange when attributed to him. In other words, Pliny was deceived by his basic prejudice against Nero.\textsuperscript{25} The same prejudice probably underlies much of the continued modern acceptance that the flamboyant and extravagant Nero could have behaved exactly as alleged.

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\textsuperscript{23} For other indications that Suetonius derived some of his information concerning Nero from a Greek source, see e.g. D. Woods, ‘Nero’s Pet Hippopotamus (Suet. \textit{Nero} 37,2)’, \textit{Arctos} 38 (2004) 219–22.

\textsuperscript{24} Pliny (the Younger), \textit{Ep.} 3,5,7–19.

\textsuperscript{25} On his hostility towards Nero, see e.g. \textit{NH} 7,45–46; 22,96; 34,45; 35,51; 37,50.