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ON THE MUSHROOM THAT DEIFIED THE EMPEROR CLAUDIUS

inter ea quae temere manduntur et boletos merito posuerim, optimi quidem hos cibi, sed inmenso exemplo in crimen adductos, veneno Tiberio Claudio principi per hanc occasionem ab coniuge Agrippina dato, quo facto illa terris venenum alterum sibique ante omnes Neronem suum dedit. (Pliny the Elder)[1]

From Pliny the Elder, who was his contemporary, to the present, the unhappy ending of the fourth Julio-Claudian emperor's life is often and uncritically retold. Thus Agrippina's poisoned mushrooms have become proverbial through the writings of Pliny, Juvenal[2] and others. Historical evidence surrounding the circumstances of his death is, however, vague, contradictory, and open to alternative explanations. In the present note I shall argue for the simplest of these: that the emperor Claudius died after having ingested – either through criminal intent, or by sheer accident – the most poisonous of mushrooms, *Amanita phalloides* or Death Cap.

Claudius, emperor of Rome, died on the 13 October A.D. 54. The circumstances surrounding his death were recorded for posterity by three ancient writers, Tacitus, Suetonius and Cassius Dio. All three men were born after the events in question (Dio, a century later than the other two), and their sources are unknown to us.

How did Claudius die? Tacitus the historian[3] tells a complicated and sinister tale of crime and conspiracy, in which the emperor's wife Agrippina, a woman named Locusta who was expert in the concoction of poisons, the eunuch Halotus who was the emperor's food taster, and even Xenophon, the court physician, are implicated. In Book 12 of the *Annales*, Tacitus recounts a series of events, some factual in that they occurred out in the open, and others not observable by many, since they took place in secret. At the same time he describes the motivation of the protagonists, their thoughts, their fears, their hopes and hidden intrigues. This, as well as any attribution of guilt, may be subject to the writer's interpretation, rather more like gossip than historical fact. By setting aside these interpretations and separating fact from rumour in Tacitus' account, one can deduce the following sequence of events leading up to the announcement of the emperor's death.

Some time before 13 October there was a family dinner at which mushrooms were served with a surprising absence of any dramatic effect. 'Nec vim medicaminis statim intellectam, socordiane an Claudii vinolentia.'[4] Later, the emperor fell ill. We do not actually know this since Tacitus' narrative becomes very spare and staccato at this point, but we can surmise that the emperor was sick since Tacitus tells us that he seemed to have recovered after emptying his stomach or intestines, '... simul soluta alvus subvenisse videbatur.'

[1] Plin. *H.N.* 22.46.

[2]
Vilibus ancipites fungi ponentur amicis,
Boletus domino: sed qualem Claudius edit
Ante illum uxoris, post quem nil amplius edit. (Juvenal, *Sat.* 5.146–8)

and again,

Minus ergo nocens erit Agrippinae
Boletus: siquidem unius praecordia pressit
Ille senis, tremulumque caput descendere iussit
In coelum, et longa manantia labra saliva. (*Sat.* 6.620–3)

[3] Tacitus, *Ann.* 12.66–9. Tacitus was born A.D. 56/57 and probably wrote the *Annales* in the years A.D. 116–18.

[4] Ibid. 67.

The next statement of interest is that the doctor, Xenophon, was called, and that he tried to make the emperor vomit with a feather. If Claudius had recovered as Tacitus suggests, then there was no need for the doctor or the feather. The doctor must have been summoned because the patient began to feel ill again.

As time passed, the situation seems to have become serious: the senate was summoned, prayers were offered by priests and by the consuls. This suggests a considerable amount of time, maybe even days passing, during which encouraging announcements were made from time to time by the emperor's household concerning his condition, probably adding to the multitude of rumours in the streets. During this time Claudius lay covered with blankets and poultices, '... cum iam exanimis vestibus et fomentis obtegeretur ...' says Tacitus[5]. Since most of the imperial retinue would have seen the emperor prostrate in bed, the latter part of the historian's sentence is undoubtedly factual. The 'exanimis', however, looks suspiciously like an interpretation on the part of Tacitus the author. When did Claudius become 'exanimis', i.e. breathless or lifeless? Tacitus conveys the opinion that Claudius was dead long before his death was officially announced.

Another ancient writer who gave a detailed and colourful account of the life and death of the emperor Claudius was Suetonius, Tacitus' younger contemporary.[6] In writing about the events and circumstances leading to the death of Claudius, Suetonius the biographer is much more cautious in his interpretations and attributions than Tacitus the historian. 'Et veneno quidem occisum convenit; ubi autem et per quem dato, discrepat.'[7] He suggests two possible occasions during which the emperor could have eaten the poisoned mushrooms: either when he banqueted with the priests in the citadel or when he dined on mushrooms with his family. He could have received the poison either from Halotus the eunuch, his food taster, or from Agrippina, his wife. But more importantly, we also learn from Suetonius that the emperor was inordinately fond of mushrooms and that he was a glutton at all times and in all places: '... cibi vinique quocumque et tempore et loco appetentissimus, cognoscens quondam in Augusti foro ictusque nidore prandii, quod in proxima Martis aede Saliis apparabantur, deserto tribunali ad sacerdotes unaque decubuit.'[8] Even more significant may be the fact that Claudius was quite fond of little snacks. Suetonius reports an occasion when, during a debate in the curia, the emperor exclaimed with passion: 'Rogo vos, quis potest sine offula vivere?'[9]

As to the sequence of events following the poisoning, Suetonius again quotes various and contradictory reports, some claiming death that same night, others giving an account similar to Tacitus', i.e. Claudius' drunken stupor at the end of the family dinner and the subsequent vomiting and relief. At this point Suetonius, like Tacitus, suggests a second poisoning in order to explain what may have seemed strange to both writers, the second bout of illness following relief and apparent recovery. Suetonius speculates about the possible ways in which the new poison could have been administered. But unlike Tacitus, he does not mention the doctor, nor does he accuse anyone directly.

Again, one gets the impression of a longish period of time between the beginning of the illness and the announcement of the emperor's death. During this time prayers were offered for his health and actors were even called for his entertainment. Suetonius, like Tacitus, believed that these things were part of an effort to keep the death a secret until all the arrangements had been made for Nero's succession.

[5] Ibid. 68.
[6] Suetonius (born *c.* A.D. 70), *Lives of the Caesars*, Book 5.
[7] Ibid. 5.44.
[8] Ibid. 5.33.
[9] Ibid. 5.40.

A good century later, Cassius Dio wrote his Roman History.[10] The death of Claudius is told by Dio in a short and straightforward manner, unambiguously and without the benefit of doubt. Lucusta, the same 'nuper veneficii damnata' mentioned by Tacitus, reappears in Dio and provides the poison which Agrippina puts into 'a vegetable called mushroom'. The empress herself eats some of the mushrooms, but gives the poisoned one to her husband. At the end of the meal Claudius, overcome by strong drink as often happened, was carried away to bed. According to Dio, Claudius died the same night, the night of 13 October.[11]

Why is it that all of these authors claim that mushrooms, Claudius' favourite food, were instrumental in his death, and why do they insist that the poison was put into an otherwise harmless vegetable by human hands?[12] Could they not have simply assumed that he ate, or was given to eat, a poisonous mushroom? The answer to these questions has to be considered in the light of ancient Roman mushroom lore. The Romans considered fungi an expensive delicacy, fit for the table of the rich. They were also well aware that eating mushrooms could kill. Pliny describes how eating them at a banquet had carried off entire households along with their guests.[13] But they only connected the poisoning with the fungus in cases where symptoms of violent illness appeared *soon after ingestion.* This illness manifested itself in severe vomiting and diarrhoea, running its course till the patient recovered or died. Claudius' illness, however, followed a different and unusual course of events. It may be accepted as fact since the sources all agree on it, that the emperor's last meal included mushrooms. But the ensuing events were not those that usually followed the eating of bad mushrooms. He did not get sick soon after eating, and when he later became ill, he was the only one afflicted. Furthermore, his apparent recovery and renewed illness would have appeared most uncommon for mushroom poisoning. These facts must have suggested foul play to those who, not knowing much about the varieties of toxic fungi, looked back on these events later, especially from the perspective of Nero's bloody reign.

Fungi as food and medicine appear in the works of many ancient Greek and Roman writers, who were well aware that while some mushrooms 'impart a sweet taste to sauces', others may be dangerous to eat.[14] Their suggestions concerning ways to discriminate between edible and poisonous mushrooms had no basis in fact. Much of this fictitious mushroom lore had been passed on by one ancient authority to the next and repeated uncritically. The unfounded belief, for instance, that fungi growing around rusty nails or rotten rags, or near serpents' holes, are poisonous, appears in a Greek poem about 200 years before the same belief is expressed by Celsus and Pliny.[15] While he repeated many of the superstitions and fanciful ideas of his age concerning the nature and use of fungi, Pliny the Elder is the only ancient author who gave a sufficiently good description[16] of the famous 'boletus' of the Romans to enable

[10] Dio, Cassius (born *c.* A.D. 163/4), Epitome of Book 61. [11] Ibid. 61.34.

[12] It is not my purpose in this paper to argue for Agrippina's guilt or innocence in the death of Claudius. She may or may not have given him the mushroom. It is, however, a curious fact that the same topos, i.e. the ambitious woman ready to poison her husband so that her son may rule, was used by Tacitus only a few pages earlier in the *Annales*, in the case of Livia, Augustus and Tiberius. Many historians tend to view Livia's guilt with scepticism, whereas Agrippina's is accepted without question. [13] Plin. *H.N.* 22.47.

[14] W. Houghton, 'Notices of Fungi in Greek and Latin Authors', *Annals and Magazine of Natural History* 5.15 (1885), 22–49; J. Ramsbottom, *Poisonous Fungi* (London, 1945), pp. 18–23; J. Ramsbottom, *Mushrooms and Toadstools* (London, 1960), pp. 31–44.

[15] Nicander, *Alexipharmaca* 521–36.

[16] ... vulvam enim terra ob hoc prius gignit, ipsum postea in vulva, ceu in ovo est luteum. nec tunicae minor gratia in cibo infantis boleti. rumpitur haec primo nascente, mox increscente in pediculi corpus absumitur, rarum umquam geminis ex uno pede. origo prima causaque e limo

near-certain identification of the species by mycologists today: the 'boletus' so beloved by Claudius, belongs to the genus Amanita (*Amanita caesarea*). (The 'suillus', another frequently mentioned Roman fungus, can be identified as the *Boletus edulis* of modern classification.[17])

The genus Amanita contains some widely sought-after edible species, but it also contains the most merciless killer: *A. phalloides*. Even today, this species is responsible for 95 percent of all deaths attributed to the eating of fungi by Europeans. Many kinds of wild mushrooms are toxic, causing mild to severe gastrointestinal distress, dizziness, and hallucinations *shortly after* ingestion. These symptoms may end in death, but more often in recovery. The symptoms of *A. phalloides* poisoning, however, are characteristic and almost always lead to a slow and terrible death. Contrary to the effects of other poisonous mushrooms, no discomfort is felt for quite some time. There is a symptom-free incubation period lasting 10 to 15 hours, during which time the mushrooms are completely digested and the toxins absorbed into the bloodstream. This long latent period, characteristic of Amanita poisoning, has always made the association of the ensuing illness with the eating of this particular mushroom difficult, especially if there were one or more intervening meals (and most especially if those meals included other mushrooms). This latent period is followed by sudden and intense abdominal pains, vomiting, diarrhoea, a drop in blood pressure and cold sweats. Despite the intensity of this phase, the patient usually recovers quite rapidly and enters a second symptom-free period lasting a few hours to a few days, during which time the only complaint is general weakness; the patient may even feel euphoric. However, this quiescent stage is misleading: the symptoms recur even more intensely. The liver and kidneys rapidly degenerate, delirium is followed by apathy, a coma, then general collapse and death. In most lethal cases death occurs three to 10 days after ingestion, depending upon the resistance of the victim and the amount of fungus absorbed. It is estimated that less than one whole mushroom (about 20–50 grams) can easily kill a man.

In addition, the Amanita family including both *A. caesarea* (the 'boletus' of the gluttons) and *A. phalloides*, is common in Europe, including Italy. *A. phalloides* grows under both hardwood trees and conifers, in wooded land at the edge of pastures. It shares its habitat with other varieties of edible fungi. Its season is early autumn, after the first rains. The mushroom varies greatly in colour and size and is easily mistaken for the harmless variety, even by experienced collectors; it is also rumoured to have a pleasant taste.

How then does this relate to Claudius' death? Poisoning by the mushroom *A. phalloides* fits the sequence of events described above, based on statements gleaned from Tacitus and Suetonius. Some time before 13 October, in the year of Asinius Marcellus and Acilius Aviola's consulship, the emperor Claudius ate some mushrooms of the genus Amanitae which were then in season, one of which at least

et acescente suco madentis terrae aut radicis fere glandiferae, initioque spuma lentior, dein corpus membranae simile, mox partus, ut diximus. illa pernicialia quae probandi alea! si caligaris clavus ferrive aliqua robigo aut panni marcor adfuit nascenti, omnem ilico sucum alienum saporemque in venenum concoquit. deprehendisse qui nisi agrestes possunt atque qui colligunt ipsi? alia vitia ne hi quidem, si serpentis caverna iuxta fuerit, si patescentem primo adhalaverit, capaci venenorum cognatione ad virus accipiendum. itaque caveri conveniat prius quam se condant serpentes (Plin. *H.N.* 22.46).

[17] For biological, chemical and clinical aspects of the genus Amanitae see Ramsbottom, op. cit.; W. Litten, 'The Most Poisonous Mushrooms', *Scientific American* 232 (1975), 90–101; B. H. Runuach and E. Saltzmann, *Mushroom Poisoning: Diagnosis and Treatment* (Florida, 1978).

must have been a specimen of *A. phalloides*. Both the edible and lethal members of this family of fungi are abundant in late September and early October. Exactly when and where he ate the mushroom which became his executioner, is unknown. Being a confessed glutton, he may have eaten it anywhere at any time of the day as the 'offula' or snack of which he was so fond, or at the official meal with the priests on the citadel, or at home at the family dinner. But, if he did indeed become ill the night of the family dinner at which mushrooms were served, and if he alone of his household, including his wife and his food taster, was afflicted, chances are that he did not ingest the killer mushroom at that same meal: the symptoms take *at least* 10 hours to appear, and all who had tested even small amounts of the same dish would also have been poisoned.

When the symptoms finally did appear, they were characteristic of Amanita poisoning: Claudius fell ill but then apparently recovered after emptying his stomach. The recovery was, however, short-lived. The pains recurred with more severity. The doctor was sent for: he came and did what any well-meaning medic would have done upon seeing his patient in acute gastric distress; he tried to make him regurgitate. For Amanita poisoning, however, this treatment comes much too late. Tacitus' accusation against the doctor Xenophon of having taken part in the murder plot by administering a second dose of poison to his imperial patient, may simply reveal an age-old aristocratic Roman prejudice against Greek physicians. The idea of a second poisoning may also have stemmed from a lack of awareness of the way in which Amanita toxins operate: the emperor was seen to have recovered from a violent bout with poison. Some time later, he was seen to suffer another, even more serious attack. This would have seemed mysterious to those who were not familiar with the effects of the Amanita toxins. The mystery could easily have been solved by postulating a second dose of poison.

If Claudius ate *A. phalloides* there was no need for a second poisoning. The first and only dose would have done the job, the disease following its characteristic course: a gradual deterioration of the patient's condition while suffering periods of excruciating pain interspersed with short reprieves. The emperor's body had to be wrapped in blankets because of the cold sweat and uncontrollable shivering that comes with extreme dehydration and loss of blood pressure. During periods of lessened pain or of feverish delirium Claudius may even have called out for those comic actors that Suetonius mentions doubtingly, or they may have been called to rouse him from deepening apathy. As the patient's decline accelerated, the need for an orderly succession became urgent. As our sources claim, the senate was summoned and the army's cooperation secured while the emperor fell into a coma and died.

Claudius may have left this world at a highly convenient time for Nero and his mother, but he died of mushroom poisoning, exactly as Nero claimed when he said that his father Claudius became a god after eating 'the food of the gods', θεῶν βρῶμα mushrooms.[18] Moreover, the poison was put into the mushroom he ate by Nature and not by human hands. The subtle taste and soft texture of mushrooms steamed or cooked in olive oil or wine – as Roman cooks usually prepared them[19] – do not make it an efficient vehicle for the delivery of deadly poisons, unless mass murder of all those who partake of the dish is attempted.[20]

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[18] Dio, op. cit. 35.

[19] M. E. Milham (ed.), *De Re Coquinaria* (Leipzig, 1969); J. Edwards, *Roman Cookery* (Washington, 1986).

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