A number of recent studies have explored the fluidity of the boundaries between medical, religious, and magical therapies in Classical antiquity, but the implications of this interplay have yet to be fully investigated. In this paper, I would like to pursue reflections on these interactions. I will more specifically focus on the notion of sphragis (seal), common to both practices, and explore the double meaning of the word which casts light on an important aspect of the cultural context of magical gems and could elucidate one of their operating modes.

Material evidence of the relationship between ancient magic and medicine is manifold. On the one hand, medical instruments may show divine or magical devices ensuring the success of the practitioner. Besides Asclepios, the figure of Heracles is common. His presence is partly explained by his fame for his courage and endurance, partly by his competence as alexikakos, ‘evil’s averter’, partly by the genealogy of Hippocrates. Some believed that Hippocrates was descended from Asclepios through his father, and from Heracles through his mother. An apocryphal letter to Artaxerxes compares Hippocrates, who defeats ‘wild’ and ‘bestial’ diseases, with Heracles, the champion of dangerous animals. Divinised, Hippocrates allegedly received in Greece the same honours as Heracles and Asclepios. Roman period coins from Cos depict on the obverse a seated Hippocrates, inscribed with his name, and on the reverse the bust of Heracles holding a club. It is thus no surprise to find allusions to Heracles on medical instruments, especially on items used for painful operations requiring great skill; some handles of surgical knives from Pompeii depict his bust, the knotty handles of embryo hooks and needles for cataract couching imitate the hero’s club, whereas retractor heads and ox-bile, 24g each; these are rubbed together and taken up in dry wine.

The double meaning of the word sphragis throws an interesting light on the nature and function of healing stones, pointing to other possible connections between medical and magical therapies. Sphragis usually designates a seal ring or stamp. Physicians also had stamps: oculists used to impress solid sticks of eye ointments with a stamp, usually made of greenish-black steatite, carved with a text, cut in reverse, on the flat face of each edge. The content of the inscription provides the name of the person who probably invented the salve, the name of an affliction, and the name of the salve for its treatment, sometimes adding how to use it.

The word sphragis also has another meaning for practitioners: it denotes the result of stamping, namely not just the impression of the stamp, but the remedy itself. A sphragis is thus a stamped pill, called in Greek trochischos, in Latin pastillus. In the reign of Tiberius, Celsus describes the famous sphragis or pill of Polyidus, perhaps named after the legendary seer and healer Polyidus:

But the pastil of Polyidus called the ‘seal’, sphragis autem nominatur, is by far the most celebrated. It contains split alum 4.66g, blacking 8g, myrrh 20g, lign aloes the same, pomegranate heads and ox-bile, 24g each; these are rubbed together and taken up in dry wine.
Similarly, the physician Galen uses sphragis as a synonym for collyrium (eye-salve): ‘For inflamed eyelids, apply a collyrium mixed with water, that some call a sphragis’.23 An oculist stamp from Reims in France confirms that the word sphragis could designate a remedy: it names the impressed dried salve stick not collyrium, as expected, but sphragis in Latin transliteration, demonstrating that the Greek term was well understood in 2nd–3rd century AD Roman Gaul:24

D galli (s)fragis ad aspritudinem.  
D galli (s)fragis ad impetum (l)ippritt (udinis)

Sphragis of Decimus Gallus Sestus for trachoma
Sphragis of Decimus Gallus Sestus at the onset of inflammation

**Terra Lemnia**

The analogy between stamped pills and stone gems extends far beyond the common use of the word sphragis. Like gems, pills could bear pictures, some of them being very similar to those found on medical magical gems. The most famous, and the most ancient, sphragis of classical antiquity was sealed clay, made of earth collected on the island of Lemnos in northeastern Greece. Lemnian earth was highly reputed as an antidote with wide-ranging healing properties, from eye-diseases to stomach pains and the bites of venomous animals. The pill was characterised by its reddish colour – and by a stamped image. Pliny defines the earth as a red ochre, *rubrica Lemnia*:

> In medicine it is a substance ranked very high. Used as a liniment round the eyes it relieves defluxions and pains, and checks the discharge from eye-tumours; it is given in vinegar as a draught in cases of vomiting or spitting blood. It is also taken as a draught for troubles of the spleen and kidneys and for excessive menstruation; and likewise as a remedy for poisons and snake bites and the sting of sea serpents; hence it is in common use for all antidotes. 25

Many ancient authors discuss the healing qualities of Lemnian earth that could also reduce inflammations, heal up recent and external, and imprints upon them the seal of Artemis [the goat]; then again she dries these in the shade till they are absolutely free from moisture [...]. This then becomes what all physicians know as the Lemnian Seal.25

Galen was intrigued by the description of Dioscorides:

> The priestess collects [the earth], to the accompaniment of some local ceremony, no animal being sacrificed, but wheat and barley being given back to the land in exchange. She then takes it to the city, mixes it with water so as to make moist mud, shakes this violently and then allows it to stand [...]. She takes small portions and imprints upon them the seal of Artemis [the goat]; then again she stings these in the shade till they are absolutely free from moisture [...]. This then becomes what all physicians know as the Lemnian Seal.25

On the spot, the enigma was soon solved: ‘All who heard this question of mine laughed’.25 No goat’s blood was added, the red colour was natural. As we know thanks to Hallas and Photos-Jones, it is due to the presence of haematite. A book providing a respected medical authority was brought to Galen:

> I got a book from one of them, written by a former native, in which all the uses of the Lemnian earth were set forth. Therefore I had no hesitation myself in testing the medicine, and I took away twenty thousand seals.26

Galen then goes on describing the astringent and dessicative action of Lemnian earth on animal bites, ulcers, persistent pains and swellings, and explains how to employ the seals for external and internal use. They had to be dissolved in a liquid, such as vinegar, wine, or oxymel, until it has a mud-like consistency, ‘like these pastilles (trochisci) which are made in various ways’.27 Mixed with vinegar it was applied to a wound. As an antidote against poisoning, it had to be drunk, added to a special preparation. The long-lasting fame of Lemnian clay, used as a kind of panacea, extended beyond antiquity. In post-medieval and modern times, it was no longer collected by the priestess of Artemis, but blessed by the church.28
expression *pauson*, 'stop, put an end to', which could refer to
the bleeding stopped by the power of haematite, or to the relief
of any pain. The formula *pauson ponon* occurs on other medical
gems, such as a haematite gem from the Skoluda collection
addressing Chnoubis *‘PAUSON PONON TOU STOMACHOU’ (Pl. 4).*

The choice of the stone carved with the goat is not a
coincidence: haematite, or 'bloodstone', was credited with
qualities very similar to those of Lemnian earth. It was highly
reputed as a blood-stauncher; it could also cure eye diseases
and venomous bites, says the *Orphic Lapidary.*

Dioscorides has a similar description, arguing that:

> It has properties that are astringent, that warm somewhat, that
thin, and that wipe off scars and roughness in the eyes with honey.
With a woman's milk it is good for opthalmia, for rents, and for
bloodshot eyes.

The manner of using it provides another parallel between
haematite stone and Lemnian clay. Like Lemnian pills, it was
advised to drink the stone broken and mixed with a liquid, such
as water, or applied with other ingredients, such as honey or
human milk. This procedure explains why a large number of
haematite gems are found broken: they were taken as a
medicine, as were other stones with medical properties, but in
lesser quantities. In a medical context, brittleness was even
regarded as a quality for haematites. Dioscorides thus asserts that:

> Haematite is of excellent quality when it breaks easily as if of its
own accord and when it is hard, uniformly strong, and free of any
dirt or veins.

In sum, the picture on Lemnian seals has a revealing parallel
on a magical medical gem. The stone in the Seyrig collection
could be identified as a kind of Lemnian seal, not impressed,
but carved with a she-goat, not in red clay, but in a stone with
similar qualities. Did gem carvers intend to imitate the
famous clay pill? They may have followed the more general
custom of stamping precious medical products.

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**Medical sphragides**

How widespread were medical *sphragides*, apart from the
Lemnian one, and do other magical gems look like them? A
number of remedies with pictures can be traced, some
presenting images also found on magical gems.

Galen reports a remedy from a lost treatise of Asclepiades
the Younger (1st century AD): 'The yellow remedy of Antigonos,
called little lion because it was printed with the image of a
lion.' In the same treatise, Asclepiades also mentions a crown
seal, *korakinê sphragis*, a remedy good for mouth or throat
troubles; the name may refer to its black colour or to the
image of a crown. Another example occurs in a 1st-century AD
Egyptian papyrus where Servilius explains to Nemesion, a
wealthy man from Philadelphia, that he bought for him a
'stone' (*litharion*) of silphium, printed with the image of
Harpocrates; a very common iconographic type on magical
gems. In the same period, the Pliny the Elder tells us that:

> 'Now indeed men also are beginning to wear on their fingers
Harpocrates and figures of Egyptian deities.'

Remedies prepared in a magical context could also be
stamped, like normal drugs, with an image, but this time
explicitly magical. One of the Greek *Magical Papyri* offers a
description of the preparation of a *collyrium* made of animal
and plant material (field mouse, dappled goat, dog-faced
baboon, ibis, river crab, moon beetle, wormwood, and a clove
of garlic), duly stamped, like regular remedies, but with a ring
bearing the image of Hecate and a magical name:

> Blend with vinegar. Make pills, *kollaria*, and stamp them with a
completely iron ring, completely tempered, with a Hecate and the
name Barzou Pherba.

Apart from solid sticks of salve, containers of precious
medicine were also impressed with an image certifying its
authenticity, such as the famous *lykion* pots, miniature jars
around 2–3cm high, containing a much valued liquid extracted
from a shrub from the buckthorn family, originally from Lycia
in Asia Minor. The most ancient jars seem to be as early as the
3rd or 2nd century BC and are stamped with the word *'lykion*',
ocasionally with the name of the druggist or owner,
sometimes also with the head of Asclepios with or without a
radiating diadem. The label proved that the druggist was
selling the genuine product, an alleged wonder drug, effective
as an astringent, good against opthalmic inflammation,
ulcerations, and bleeding.

The image of Asclepios and Hygieia impressed on a pot
found in Aquincum (Pl. 5) could indicate that the vessel was...
The word *sphragis* occurs not only on regular medical stamped pills or *collyria*, but is carved on magical gems. We find it on the well-known 4th–5th century AD series of so-called ‘Solomon’ gems. The type depicts on one side a horseman, often labelled ‘Solomon’, spearing a prostrate female figure (Pl. 8a). The reverse usually bears the inscription *sphragis theou*, ‘Seal of God’ (Pl. 8b). The motif of the rider may derive from Horus stabbing a crocodile personifying evil, or the hunting emperor struck on coins, though Solomon is not in military costume. The device is nearly always carved on haematite, a choice so far unclear.

The expression *sphragis theou* is traditionally interpreted as referring to the magic seal-ring which Solomon received from Iahweh to repel the vampire-like demons assaulting him during the construction of the Temple of Jerusalem. The gems are usually explained as depicting how Solomon masters a female demon harmful to women and children, present in all Mediterranean folklores. Different names are proposed for the woman, such as Gello, Gylou, or Abyzou.

The role of Solomon, however, was not limited to women and children’s protection; as Spier points out, he controlled all evils. Thus, the reverse of a haematite in the British Museum is carved with the inscription *stomachou* designating his power over pains of the belly (Pl. 9b), which fits well with the haematite’s potency for or against internal bleeding, like Lemnian earth.

The double meaning of the word *sphragis* introduces a new reading of the ‘Solomon’ series which could explain the preference for haematites: *sphragis theou* could also mean ‘the medicine of god’. ‘Solomon’ haematites are often found broken, most likely because they were used as a drug, as we saw above. One may guess that, like pills, the broken part of the gem was pulverized and drunk mixed with a liquid.

It may be noted that the iconography of the horseman subduing the female demon appears when the figure of Heracles mastering the lion disappears. Solomon seems to have taken over the capacity of the hero. Like Heracles, who controlled the roaming of the womb (compared with a wild animal), variants depict Solomon with the *hystera* formula. Solomon had power over all diseases inflicted by demons, including the fear of poisoning, mastered by haematites, like the red Lemnian earth.

Unfortunately, it is so fragmentary that no conclusion can be drawn, but it is interesting to note that the image was made with a gem, perhaps magical, as the type exists, as on a dark brown agate from the British Museum (Pl. 6a) showing Chnoubis on the reverse (Pl. 6b).

Two gems demonstrate the intertwining between medical and magical *sphragides*. A deep orange carnelian gem, carved with a retrograde inscription, was thus used as a stamp to mark a *collyrium* for the eyes (Pl. 7). The inscription is short, but typical of *collyrium* stamps: *HEROPHIL/ OPOBALSAMVM*. The name Herophilus may designate the druggist who invented the salve. It is also the name of the famous Alexandrian physician who worked on the anatomy of the eye and carried out the first dissection of the eye. The druggist may have attributed the salve to him in order to increase the fame of its product, or a physician himself took the name of his famous predecessor. The second term, *opobalsamum* (*opobalsaminum*), is a well-attested drug from the balsam-tree efficacious against eye diseases.

Eyesight is central in the scene, carved with the image of Athena seated, looking at a tragic mask, as if it were an active *persona*. As M. Pardon-Labonnelie demonstrated, the image contains several references to the power of eyesight. First the eyes of Athena were reputed for their special colour, *glaukos*, greenish-blue, but also, according to Plutarch and Pausanias, she saved Lycurgus from losing a wounded eye. Lycurgus in return introduced in Sparta the cult of Athena *Ophthalmis* or *Oplitetis*.

A round jasper from Wroxeter with a name and a prescription, but no image, provides another example of a gem-like (or pill-like?) stamp for dried salve sticks.
Conclusion
In conclusion, I suggest that magical medical gems could be conceived as sphyragides, that is, as stone remedies. The practice of carving this category of gems with images can be understood in the light of the custom of stamping costly medical drugs. For both medical and magical sphyragides, the image certified the authenticity and quality of the medicine. It also increased the value of the gems, as we should not forget that medical gems without any device did also exist. Carved medical gems were luxury products as were precious stamped products. A chronological coincidence is worth noting: references to stamped remedies begin in the Hellenistic period and intensify with trade and exportation in the early Empire, when magical gems with a specific iconography develop.1 The emergence of both genres may be interrelated. Stone and clay pills may also have had a similar destiny: manufactured in one place, sold or used by itinerant practitioners in another.

Notes
6 Celsus De medicina 5.20.2 (trans. W.G. Spencer, Loeb Classical Library, Cambridge, MA, 1935). For further literary references to this sphyragis, see Marganne 2002 (n. 11), 537–8.
8 CIL XII 76; Voinot (n. 5), no. 158 ; Marganne 2002 (n. 11), 546.
11 Cassius Felix, De medicina 39.7 (Lemnias sfragitados) (ed. V. Rose, Venice, 1870).
12 Theodorus Priscianus, Euporistes 3.7.29 (Lemnias sfragitados) (ed. V. Rose, Leipzig, 1894); Mustio, Sorani Gynaeciorum uetus translatio Latino, 30.83 (sfragitada) (ed. V. Rose, Leipzig, 1882).
15 Ibid, 9.2 (12.174 K.); Brock (n. 22), 194.
17 The date is debated, between AD 162 and 167.
19 On Simple Drugs 9.2 (12.169–70 K. = Kühn [n. 13]); Brock (n. 22), 192.
20 Ibid, 9.2 (12.171 K.); Brock (n. 22), 192–3.
21 Ibid, 9.2 (12.173 K.); Brock (n. 22), 194.
22 Ibid, 9.2 (12.176 K.); Brock (n. 22), 195.
23 Hasluck (n. 16).
24 C. Bonner, ‘Amulets chiefly in the British Museum’, Hesperia 20 (1951), 301–45, at 342, no. 73 (not illustrated). I am very grateful to Atilio Mastrocinque for providing me with the image.
27 De materia medica (n. 20), 5.126.1.
28 Halleux and Schamp (n. 31): lapidaire orphique 21.645–76; kérynges lapidaires d’Orphée 22: Damigéron – Evax IX.
29 Some are also burnt, see Pliny, Nat. Hist. 37.139 (antagates); Michel (n. 1), 151.
30 De materia medica (n. 20), 5.126.1.
31 I leave aside the question of the choice of the goat as the seal of Artemis, and the healing properties of the animal, but it may be noted that the she-goat was much appreciated in medicine and magico-medical treatments: see Pliny, Nat. Hist. 28.130 on the properties of her milk.
32 R.J. Durling, A Dictionary of Medical Terms in Galen, Leiden, 1993, 219; Marganne 1997 (n. 11), 165. On magical gems, see Michel (n. 5), no. 253 (red Jasper with a lion in profile); no. 280 (yellow jasper...
Dasen

with a lion, inscribed ιωω; on the reverse a woman, inscribed pausia perhaps derived from pausion?.

38 Asclepiades ap. Galen, De compositione medicamentorum per genera 5.11 (13.826, 4-7 K. = Kühn [n. 13]); Marianne 1997 (n. 11), 166.


40 Michel (n. 5), no. 112 (dark green jasper with the child seated on a lotus flower, a hand to his mouth, the head crowned with the sun disc or the pschent).

41 Pliny, Nat. Hist. 33.41.


45 Michel (n. 5), no. 319; see also, A. Delatte and Ph. Derchain, Les intailles magiques gréco-égyptiennes, Paris, 1964, 179, no. 235.


48 On the drug, see Voinot (n. 5), 47–8, no. 87–8; Jackson (n. 10), 2240. For a similar inscription on a conventional stamp, see E. Esperandieu, ‘Recueil des cachets d’oculistes romains’, Revue archéologique 24 (1894), 58, no. 7: Herophil opob(alsamum); Pardon-Labonnelie (n. 10), 45.

49 Pardon-Labonnelie (n. 46).

50 Pausanias, Description of Greece (trans. W.H.S. Jones and H.A. Ormerod), Cambridge, MA, 1926, 3.18.2; Plutarch, Lycurgus 11. See also Pausanias, ibid., 2.2.4.2 (Athena oxyderkes).

51 Voinot (n. 5), no. 43. Two circular or cylindrical examples were also found in Enns and Ipswich: Voinot (n. 5), nos 216 and 247. I would like to thank Ralph Jackson for these references.


53 Bonner (n. 6), 210.


55 Spier (n. 52), 44.

56 Michel (n. 5), no. 447.


58 On Heracles and Omphale on magical gems, see V. Dasen, ‘Le secret d’Omphale’, Revue archéologique 46 (2008), 265–81. See for example the inscriptions of the hystera formula on a silver pendant in Spier (n. 52), 30, nos 15–24; 33, pls 2a–b, 3a.

59 See the bronze pendant with Solomon on one side and the Evil Eye attacked by animals on the other side: Bonner (n. 6), nos 298–303; Spier (n. 52), 62.

60 I note that inscriptions relating to the belly or stomach occur on all types of haematite gems. The image of the reaper, for example, may be inscribed with pepte (instead of schôn, ‘for the hips’) or stomachou: Michel (n. 5), no. 427. In the Orphic Lapidary 21.675-679, haematite also secures success and victory.

61 Taborelli (n. 16), 216–17.