

BEANS, FLEAWORT, AND THE BLOOD OF A HAMADRYAS BABOON: RECIPE INGREDIENTS IN GRECO-ROMAN MAGICAL MATERIALS

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"Nobody cares to search for herbs when confronted by hordes of doctors."¹

"Where their health is concerned, people have less faith if they understand what is written."²

"On behalf of the Senate and the 600 years of the Roman Republic, I feel I must speak out like this against the profession of medicine. ... At the same time I must counter the misguided notions of those laymen who consider nothing beneficial unless it costs the earth."³

The substances called for in the recipe sections of spells in the great handbooks of the Greek Magical Papyri are of four main types (among which there is a great deal of overlap).⁴ First, there are well-known medicinal plants with real pharmacological effects recognized by both ancient and modern medicine, such as nightshade, etc., which are used in ways roughly harmonious with their functions in ancient medicine. These identifiable, pharmacologically active substances have frequently been discussed, in the service of comparing the techniques of the papyri with contemporary Greek or Egyptian medical practices, either negatively or favorably, depending on the perspective of the critic. Their appearance in the papyri, for spells regarding health and disease, and for erotic spells, has been shown to be well in line with the medical and botanical knowledge and ideol-

¹ Pliny, NH XXV.16; trans. *Natural History, A Selection*, trans. John F. Healy (New York: Penguin Classics, 1991), 241.

² *ibid.*, 265.

³ *ibid.*, 267.

⁴ These types do not represent ancient categories. For the performance of PGM rituals, all of the substances of every type appear to have equal importance. The types are separated here because discussion of each of them raises different questions and methodological problems. This paper only addresses the fourth type.

ogy of antiquity,⁵ and as such they constitute perfectly “rational” and pragmatic approaches to the achievement of these specific results, in the context of ancient thinking.

Both the papyri and a broad range of ancient literary sources preserve information about specific techniques for the procurement of these materials. Of these, some are also pragmatic. Theophrastus, in the *Enquiry into Plants*, says it is a sensible and rational precaution to cut certain roots, particularly θασία, from downwind, and to first anoint the body with oil, blocking the root’s caustic fumes and juices from contact with the skin and nasal passages.⁶ But this advice is immediately followed in Theophrastus’ text by his criticism of other, more colorful practices which he considers “irrelevant” (ἐπίθετα),⁷ some of which reappear, much later, in PGM materials.⁸ In these practices, which include the planting of ‘replacement’ seeds, burying of cakes, and invocation to the plant,⁹ we see more than practicality and safety issues at work, but rather, a second category of ingredient employed by PGM rituals. This is the designated or consecrated plant, whose creation as an herb for a certain purpose is controlled by the rituals performed at its “birth,” when it is picked and effectively transformed into something else. For example, in PGM IV 3172-3208, a spell for producing a dream oracle, the practitioner needs three reeds (καλάμοι) which have been carefully prepared by a series of elevations, spinnings, repetitions of “magical names” and vowels (with different sequences for each of the three reeds), and direct address to the reeds: αἶρω σε, ἵνα μοι ὄνειροθανπτήσης—“I pick you to get a dream;” and αἶρω σε ἐπὶ ποιὰν πρᾶξιν—“I pick you for this

⁵ See especially John Scarborough, “The Pharmacology of Sacred Plants, Herbs and Roots,” in *Magika Hiera: Ancient Greek Magic and Religion*, ed. Christopher Faraone and Dirk Obbink (New York: Oxford, 1991), 138-74; Jerry Stannard, “Medicinal Plants and Folk Remedies in Pliny, *Historia Naturalis*,” *History and Philosophy of the Life Sciences* 4 (1982), 3-23.

⁶ *Enquiry*, 9.8.5-6. Similar precautions for handling thapsia are attested for this century, see Mrs. M. Grieve, *A Modern Herbal* (New York: Barnes & Noble Books, 1996; orig. 1931), 794.

⁷ *Enquiry*, 9.8.6-8.

⁸ e.g., PGM IV 286-95; 2967-3006; 3172-3208, al. For full discussion of gathering, preparation and consecration of plants for healing and other rituals, see A. Delatte, *Herbarius: Recherches sur le cérémonial usité chez les anciens pour la cueillette des simples et de plantes magiques*, 3rd ed., Brussels, 1961.

⁹ Possibly reflected in *Enquiry* 9.8.7, where Theophrastus says it is not unreasonable to “pray” while cutting certain plants.

specific purpose,¹⁰ the reeds' preparation is then completed by writing different magical names on each one. It is only after these preparations that the reeds are "ready," and the ritual can proceed. The reed is a very common plant and is clearly described by Theophrastus and other ancient herbalists, who ascribe to it no medicinal purpose. But in this ritual, the reed is not consumed,¹¹ and is therefore being used in a way that can have nothing to do with the plant's intrinsic qualities. Reeds are called for by several other PGM recipes, serving a variety of simple, ancillary functions: as a tool,¹² as a pen,¹³ and as a bed.¹⁴ Although the reed itself is not one of the elaborate, rare, and powerful substances that are associated with the stereotype "magic," its elaborate preparation in this spell makes it into something else, not just a reed, but a "power reed." As such, it becomes more special and therefore more rare than its fellow reeds that are unprepared; much as a simple cloth or vial of water can become much more religiously important to some believers through ritual consecration or contact with, e.g., a saint's tomb. Like such objects, the special reeds are indistinguishable from unprepared reeds, at least until the final stage of writing upon them.¹⁵

The third major category, which appears most often and most consistently, consists of substances that are almost always and everywhere part of the worship of the gods: aromatic gums and incenses, such as frankincense, myrrh, and storax, olive oil (for burning, steeping and anointing), wine, honey, etc. While the aromatic gums were

¹⁰ Although these texts use the language of "picking," the instructions call for the reeds to actually be picked before sunrise, with the invocations being recited "after sunset."

¹¹ In fact, even very pharmacologically active substances can fall into this category if they are not consumed, or are consumed in submicroscopic doses, as in the drinking of water into which words have been washed—the pharmacological power of the components of the ink in which the words were written is surely negligible.

¹² PGM IV 52-85, XXXVI 231-55, as a stick from which to suspend something; VII 186-90, for cutting off a gecko's foot.

¹³ PGM V 304-69; XXXVI 264-74—metal pens are much more common.

¹⁴ PDM xiv 117-49.

¹⁵ Other examples: PDM xiv 554-626, a large block of medical spells that use lengthy invocations to the substances themselves, especially oil, which are then applied to the patient; PGM I 42-195, a spell to gain "an assistant," the end of the text says that the assistant will bring "wild herbs" (190). These may be supposed to suggest weird substances, but they may just be common substances that are special because they come from the assistant. Also: PGM LXI 1-38 (159-96), which addresses olive oil both as itself and as the sweat of the Good Daimon.

for the most part imported from Asia, Ethiopia, India, and Arabia,¹⁶ and may therefore have been relatively more expensive than indigenous plants, their widespread use in both temple and domestic rituals throughout the entire Mediterranean world reflects well-traveled and long established trade routes supplying any number of local and urban incense or perfume sellers. Such items therefore, though “special,” would be readily available throughout the Mediterranean, and could be purchased openly and without great problem, except for their expense. Though they sometimes appear in PGM used in strange and unique ways, in general they are part of creating a pure and “religious” atmosphere for the welcoming of whatever gods or spirits the practitioner hoped to meet.

The fourth major type of ingredient called for in spell recipes is the relatively exotic substance with no ordinary role in the lives of temples or domestic shrines, which may or may not have any pharmacological effect in itself or in the way it is used. This is an extremely varied category, including everything from mule hairs, lizards, dung, etc., to magical material and the burial sites of murdered gladiators, etc. Because each substance appears infrequently in the corpus overall, most of them only once, it is very hard to get a sense of its use from repeated examples, as one can with, e.g., frankincense or myrrh. While some of them seem bizarre, many others are herbs, plants, animals and stones which are simply uncommon or are used in unusual ways. These problematic substances form the category of ingredients that, in both ancient literature and in modern popular imagining, is most closely associated with the stereotype of “magic.”

Discussion and analysis of these substances is complicated by several factors, including regional variation in names used for plants, animals and stones, and uncertainty about a shared vocabulary be-

¹⁶ Even though Ethiopia is technically close to Egypt, trade between the two countries was hampered by the Nile cataracts. Goods from Ethiopia therefore reached Egypt and the rest of the Mediterranean via the same ports and way-stations used for trade with Arabia Felix, India and the Far East. This contributes to confusion in ancient sources about the ultimate origin of many imported substances, which appear to come from, e.g., Arabia or Alexandria, because those places were important transfer or processing points. For discussion of this problem, see Steven E. Sidebotham, *Roman Economic Policy in the Erythra Thalassa, 30 BC-AD 217*. *Mnemosyne* Suppl. 91 (Leiden: Brill, 1986); Lionel Casson, *The Periplus Maris Erythraei* (Princeton, NJ: Princeton University Press, 1989), esp. 11-44; J. Innes Miller, *The Spice Trade of the Roman Empire 29 BC to AD 641* (Oxford: Oxford University Press, 1969).

tween botanical and medical writers and the language of everyday life.¹⁷

The spells themselves sometimes seem to be aware of the problem of uncertainty about the names of certain substances, and take steps to ensure that the proper substance is used. For example, PGM IV 475-829 requires an herb “called *kentritis*.”¹⁸ The text carefully describes this plant,¹⁹ and provides a test for its authenticity.²⁰ Other times, the anticipated problem seems to be linguistic. In the Demotic visionary spell PDM xiv 117-49, a recipe for an eye ointment calls for a certain plant whose name is written in Coptic, the only phrase in the spell to appear in Coptic other than magical names; the plant is then described and the reader is told which merchant in the marketplace would be likely to have it—the lupin or wreath seller.²¹ Elsewhere in PDM xiv a number of plants are listed with their names written both in Demotic and Greek²²—more on those later. Another motivation for this is the author or scribe’s awareness of one or more alternative manuscripts that give different names for particular substances.²³

Recipes also sometimes specify geographical sources for the required substances. For some purposes, it seems, it was important to have not only, e.g., figs, which grow in several places around the Mediterranean, but Karian figs.²⁴ These requirements may sometimes actually refer to the way a thing is made, and not necessarily its point of origin. For example, “Egyptian wine”²⁵ and “Mendesian wine”²⁶ are specified several times. This may connect to the require-

¹⁷ A further level of complication for the modern interpreter is introduced by criticisms of plant identifications in our primary resource, the *Greek Lexicon* of Liddel, Scott, and James: Scarborough, “Pharmacology,” n. 2 on p. 163; Richard J. Durling, *A Dictionary of Medical Terms in Galen* (Studies in Ancient Medicine 5; Leiden: Brill 1993), vii.

¹⁸ PGM IV 774.

¹⁹ PGM IV 800-811.

²⁰ Other examples: PDM xiv 395-427, describing the Anubis plant; PDM xiv 727-36, which goes into a long description of ivy.

²¹ The phrase appears in H.D. Betz, ed., *The Greek Magical Papyri in Translation, Including the Demotic Spells* (Vol. 1, Texts; 2nd ed., Chicago, 1986; later *GMP*), 203, as the “Greek Bean Plant,” though J. Johnson, the translator, notes that the words literally mean “eye of raven plant,” otherwise unknown (n. 95).

²² PDM xiv 886-96; 897-910; 920-29; 933-34; 940-52; 966-69.

²³ PGM I 247-62.

²⁴ PGM I 232-47; IV 3172-3208.

²⁵ PGM IV 2359-72; XIII 734-1077.

²⁶ PGM I 42-195; IV 475-829; IV 1275-1322; IV 2622-2707.

ment in PGM XIII²⁷ for wine “not mixed with seawater.” According to Pliny, the most popular wine of his day was in fact, flavored with seawater.²⁸ So, the requirement of Egyptian or Mendesian wine might be there to make a connection with the land of Egypt, but it also might simply reflect types of wines people know not to be salted. Other specifically Egyptian substances called for include onion,²⁹ Nile rush seeds,³⁰ and Egyptian acacia or acanthus seeds.³¹ But at least as many other recipes call for specifically named non-Egyptian ingredients, such as Italian κύπερος (galingale)—a kind of rush or reed,³² three mentions of Attic honey,³³ in contrast to probably dozens of occurrences of honey of unspecified type;³⁴ Cretan storax,³⁵ and even “Greek natron.”³⁶

The level of detail in the description of ingredients for recipes in PGM formularies is not consistent. While some spells may call vaguely for “seasonal flowers,”³⁷ or “every kind of perfume except frankincense,”³⁸ some are amazingly specific. PGM II 1-64 calls for, among many other things, the little nail of the right front foot of a black ram;³⁹ PGM IV 3086-3124 includes a phylactery to be written on the rib of either a young pig or of a black, scaly, castrated boar; PGM VII 462-66 is an erotic lamella which specifies that it should be inscribed with a copper nail from a shipwrecked vessel.⁴⁰ That these recipes are serious about emphasizing the importance of having ex-

²⁷ PGM XIII 1-343; 343-646; 646-734 (in which it is “Egyptian wine not mixed with seawater”).

²⁸ From Clazomenae; Lesbian wine is also salted; *Natural History* XIV 73.

²⁹ PGM IV 1331-89.

³⁰ PGM VII 490-504.

³¹ PGM XII 96-106: σπέρματος ἀκάνθης Αἰγυπτίας.

³² PGM IV 2441-2621.

³³ PGM I 1-42; III 424-66; VII 191-92.

³⁴ There is also a mention of Syrian honey in PDM xiv 701-5.

³⁵ PGM IV 2622-2707. Storax comes from a tree which Thph. associates with Syria, Media or India. There are several occurrences of storax with no geographical qualification.

³⁶ PGM XIII 343-646.

³⁷ PGM III 282-409; IV 296-466; 1716-1870; 2145-2240; XIII 734-1077, et al.

³⁸ PGM XII 270-350.

³⁹ ὄνοχα may also be a name for a kind of incense or a component of incense for the Jerusalem temple, ultimately of marine origin; Exod. 30:34. The level of detail in PGM II 1-64 may be there to avert any confusion with this substance—or it may reveal a compositional “layer” and a literal-minded scribe.

⁴⁰ There are many other such examples, but I have chosen these because they are relatively unambiguous—they do not appear in contexts that suggest “coded” or colloquial plant names.

actly these specific substances is, I think, indicated by the fact that the same spells are capable of being vague or “loose” about other substances. For example, PGM VII 186-190 calls for the severed right front foot of a tomb-inhabiting, blood eating gecko; a very specific description; but the practitioner is required to cut off the foot simply with a reed, a moderately to vaguely specific instruction (reed, but not type of reed). The same spell that calls for a copper nail from a shipwrecked vessel refers to magical material so vaguely that we cannot tell whether it comes from the victim or the practitioner; etc., etc.

In all of these instances where the texts provide descriptive information or a variety of names for a substance, the effect is to clarify and further specify what it is, not to code or obscure it. When a single spell expresses itself generally about some substances, and very specifically about others, the choice of one over the other is an important indication that the author of the text (or the seller of the spell or the spell book) seriously intends the use of that particular substance, and intends to create the impression—whether he himself believes it or not—that *only* that substance will bring the desired effect.

Authors of these texts may have felt it important that only particular substances be used, but it is not always easy for the modern reader to know whether a variety of names refer to a single item, or whether several items are being denoted by the same name. The preserved magical handbooks do not use a consistent vocabulary for the description of ingredients, and this can lead to frustration and to real problems in the interpretation of a given spell text. For example, only two texts, PGM XIII 1-334 (22 and 228) and XXXVI 320-32 use a substance called ὄροβος, vetch or bean. In the first instance, the *Eighth Book of Moses*,⁴¹ the ὄροβος is clearly not an actual bean, but a bean-sized lump or ball the practitioner is supposed to make out of the seven incenses just named. This particular text does know a variety of manuscripts, and here cites one of them, which apparently calls these lumps of incense a “solar bean,” (ὄροβος ἡλιακός) and says it is good for every purpose. The main author (apparently) now returns and says that this ὄροβος refers to “The Egyptian Bean,” κύαμος

⁴¹ This particular text presents many problems of this kind. For example PGM XIII 734-1077, the “third version of the book,” calls for “navel of crocodile”. But the text immediately says “he means pondweed,” (ποταμογείτωνας); how then to interpret the requirement of κορκοδείλου ἀφοδεύματι in XIII 245-46, the “applications” section of the “first version” of the same book? And how then do we interpret the other appearance of ποταμογείτωνας (PGM IV 1275-1322)?

Αιγύπτιος, a term he apparently expects to be more familiar—as incense—than ὄροβος ἡλιακός. Since both times the word ὄροβος appears in PGM XIII it is specifically connected with these incenses, its meaning is relatively unambiguous in that text. In the second instance, from PGM XXXVI 320-32 (a contraceptive recipe), ὀρόβοι are “taken” (not made), steeped inside the genitals of a menstruating woman, then extracted and fed to a frog which is released alive; the rest of the spell lists many other animal and botanical ingredients that are gathered and worn in a fawnskin amulet. Are the ὀρόβοι here to be literally understood as “vetch seeds,” or are they the same lumps of blended incense, appearing here with no key, possibly because the author or scribe felt this to be obvious? In his discussion of this recipe in *Magika Hiera*, John Scarborough takes them as literal vetch seeds, since they, along with henbane, are the only pharmaceutically active substances in the recipe.⁴² It is important to note, however, that the henbane is only in the amulet bag, and that the ὀρόβοι, though coming into contact with a woman’s body through “steeping,” are not consumed by her; moreover, since the language of the spell may suggest a male contraceptive (“the only one in the world”) rather than a female one,⁴³ the ὀρόβοι are removed even further from physical—or pharmaceutical—contact with the beneficiary of the spell. The other directions in the recipe are not determinative, as these uncomfortable procedures could be carried out with either real vetch seeds or incense balls.⁴⁴ The question is one of context: whether the term should be interpreted in terms of another PGM recipe, or simply in terms of ancient botany and modern pharmacology. With these infrequently-occurring ingredients, there is usually little to guide this decision, but it has an enormous effect on the evaluation of the nature of a text, the social world it presumes, and the kind of activity it describes.

Identification and interpretation of PGM substances is hindered even further by the small section of so-called Priestly Interpretations

⁴² Scarborough, “Pharmacology,” 158.

⁴³ Seeds are required in the number of years “you” wish to remain sterile, subject modified by ἀσύνληπτος; but you then let “her” steep them. Whether it is a male or female contraceptive depends on how one takes the ambiguous phrase βρεξάτω αὐτὰ εἰς τὴν φύσιν ἑαυτῆς.

⁴⁴ Although both vetch and incenses would probably ultimately be toxic for the frog, it is not clear how much more irritating incenses would be to the woman. It should be noted that this spell is preceded and followed by spells clearly involving myrrh, one of the incenses. For spells to appear in handbooks in small groups sharing substances is not uncommon.

of Substances, that appears at the end of the Greek section of PGM XII,⁴⁵ and by two lines of PGM XIII,⁴⁶ that appear to reveal a whole “underworld” of equivalent ingredients for items called for in PGM recipes. PGM XII 401-44 presents itself as ἐρμηνεύματα ... μεθρημνευμένα, “translated interpretations,” a key to false and misleading names used by holy scribes in temples to hide the real substances they used in their rituals. This introduction, correctly recognizing that many ancient Egyptian monuments are covered in holy texts, claims that those who inscribed them have used this code technique “because of the curiosity of the masses” (διὰ τὴν τῶν πολλῶν περιεργίαν), who presumably might try to go home and perform the rituals independently. Note that this method will not prevent anyone from actually “performing magic,”⁴⁷ but only from getting any result, due to use of improper and ineffective ingredients.⁴⁸

This particular text “de-codes” only one and possibly two substances that are actually called for in PGM recipes, so in itself it confuses the issue in relatively few cases. The troubling possibility that it introduces, however, is that there were several or many such lists or correspondences, and that those who collected these texts or performed these rituals deliberately coded the substances they used, either to protect the world in the event of the book falling into the wrong hands, or to impress and demand higher prices from anyone who might be purchasing a spell and its required ingredients (or both).⁴⁹ People would probably be willing to pay more for a bottle

⁴⁵ PGM XII 401-44.

⁴⁶ PGM XIII 166-7.

⁴⁷ *GMP* 167; trans. H.D. Betz (the list portion is trans. by John Scarborough).

⁴⁸ This introduction appears to assume that the texts inscribed on Egyptian statues of the gods include recipes in addition to hymns or prayers to those deities, or chronicles of the leaders who set them up. It also seems to assume that hieroglyphic script was legible to “the masses” at some point in history, which is not likely. The issue of literacy in Egypt, in all of its languages and scripts, is an enormous one; see Roger S. Bagnall, *Egypt in Late Antiquity* (Princeton, NJ: Princeton University Press, 1993), 230-60; J.D. Ray, “Literacy and Language in Egypt in the Late and Persian Periods,” in *Literacy and Power in the Ancient World*, ed. Alan K. Bowman and Greg Woolf (Cambridge: Cambridge University Press, 1994), 51-66.

⁴⁹ Scarborough’s assumption, that these were simply “divine names given to ordinary herbs ... names taken for granted by priests, scribes, and probably the common people ...” (“Pharmacology,” 159-60) is contradicted by the absence of any of these names from PGM materials, with the four exceptions discussed below. His analogy is to the complicated incense κῶφι, but in the case of the Priestly Interpretations, the definitions/recipes are clearly not to complex preparations, but to single items. Scarborough here is apparently trying to make the text work two opposite ways—as both deliberate hiding, and as regional dialect variation.

labeled “navel of male crocodile” than one labeled plain old “river-side weeds;”⁵⁰ but PGM XIII 1065 says that these are the same thing. If any substance called for beyond the most common ingredients must be suspected of hiding the name of a simple plant or herb, then the possibility of gleaned certain kinds of information about social and geographical location, cultural context, expense, and the commercial and religious transactions represented by these texts is seriously undermined. It may ultimately prove impossible to derive information of this kind from PGM materials, but before the attempt is abandoned, a reconsideration and methodological analysis of this problematic text is in order.

These Priestly Interpretations have formed part of the recent effort in scholarship to understand PGM materials in the context of the rich variety of religious attitudes and practices of Greco-Roman antiquity, rather than as freakish or “degenerated” examples of either bad science or of exploitative charlatans on the fringes of a religiously empty world. Many excellent studies have appeared showing the strong connections between elements of PGM materials and other texts and traditions traditionally considered more “normative:” Greco-Roman mystery religions, ancient Near Eastern practices, early Jewish visionary literature, Christian Gnosticism, and especially, ancient Egyptian and Greco-Egyptian temple practices. These studies have surveyed deities, ideas, and linguistic features, as well as the substances, animals and objects in these texts that reflect one or another of these other traditions. Wax,⁵¹ lamps that have not been painted red,⁵² mice,⁵³ lizards,⁵⁴ the techniques of herb gathering, etc., have all been related to the functioning and symbolism of Egyptian temple life. Through this work our understanding of these materials has so far passed the prejudices and stereotypes of earlier scholarship that even the use of the term “magic” to describe them has become problem-

⁵⁰ see above, n. 41.

⁵¹ Robert K. Ritner, *The Mechanics of Ancient Egyptian Magical Practice*, SAOC 54 (Chicago: The Oriental Institute, 1993), *passim*; Maarten J. Raven, “Wax in Egyptian Magic and Symbolism,” *OMRO* LXIV (1983), 7-47.

⁵² Ritner, *Mechanics*, 144-50.

⁵³ W.R. Dawson, “The Mouse in Egyptian and Later Medicine,” *JEA* 10 (1924), 83-86.

⁵⁴ Arthur Darby Nock, “The Lizard in Magic and Religion,” in *Essays on Religion in the Ancient World*, vol. 1, ed. Zeph Stewart (Oxford: Oxford University Press, 1972), 271-6.

atic.⁵⁵ The Priestly Interpretations allow PGM materials to seem even more “normal,” in the sense that fewer recipe ingredients, once “interpreted,” resemble the caricature of magic or witchcraft represented in ancient literary sources, where nefarious old women haunt graveyards and slaughterhouses; and more of them resemble ingredients used in so-called rational medicine and in temple observances. This, however, diminishes the fact that items which appear elsewhere can sometimes be used in PGM in ways very different from temple life or rational medicine! It may be possible that in the effort to exorcise this unhelpful caricature from modern scholarship, an “over-correction” has occurred which may obscure something particular about PGM materials, especially recipes, and may interpret it away through use of a text that, on close scrutiny, itself presents huge problems in interpretation.

The text in question begins in column 12 of the papyrus. Both the list and the introduction are indented with relation to the previous spell, but in line with the magic names that are part of the erotic insomnia spell 376-96, indented to accommodate a figure. The list itself continues into column 13, which it fills completely, bringing the scribe to his next exemplar, the Demotic text that begins in column 14. This may indicate that the list, its introduction, or both, were loose at the time of copying and that the scribe of PGM XII has combined them.⁵⁶ The change to a new language (Demotic) and to a new text at the top of col. 14 is an even stronger indication that at some point in transmission, the Priestly Interpretations were either loose or appeared at the end of the Greek formulary that is contained in the first 13 columns of PGM XII. The ends of manuscripts are of course notorious “grandmother’s attics” where all sorts of things are likely to turn up. This text may not really pertain to the formulary that precedes it; in fact, the introduction may not even pertain to the list.

⁵⁵ These studies have contributed greatly to the contextual understanding of the papyri themselves, as well as to the scholarly repertoire of ways of thinking about religion. However, methodologically we are once again skating pretty close to the boards of the “clear light that shone o’er Greece/Rome”—because Greek and Roman cultures are only “borrowers” of strange religious elements, which actually derive from, i.e., standard Egyptian temple practice or from immigrants living in their lands.

⁵⁶ Or, the combination of loose leaves may have occurred earlier, and the scribe of PGM XII simply re-produces the line lengths and breaks from his exemplar exactly.

The introduction's claim that the interpretations have been compiled from "many copies" may be borne out by the chaos we find in the list that follows, which at some level of transmission prior to its reproduction in PGM XII may have been put together from loose leaves or fragments of varying sizes assembled in random order. The list itself is in two parallel columns, the left hand column for the most part giving bizarre and impossible-seeming substances, all body parts, fluids, or other products from humans, animals, insects and deities; and the right hand column, the supposed interpretations, listing for the most part simple plants and herbs. There is no discernible pattern to the organization of the pairs, though chunks of column B seem to preserve a very rough sort of Greek alphabetical order: 414-423 or possibly 424; 433-440, taking *κανθάρου* and *κάρδια* as the lemmata for lines 437 and 438; and 441-444 are the most noticeable examples. The preservation of this order at some level of copying may account for the complete lack of order in column A.⁵⁷

Column A, the "substances requiring explanation," consists of physical material from both mortal and immortal beings. The mortal beings, snake, ibis, *χοιρογρύλλος*, baboon, crocodile, lion, human being, pig, physician, eagle, an Egyptian type of goose,⁵⁸ bull, and falcon, are, with the exception of *χοιρογρύλλος*,⁵⁹ clearly identifiable creatures, many of which (crocodiles, bulls, baboons, falcons, ibis) had religious importance for Egyptian temples, and were embalmed and entombed in or around them.⁶⁰ The divine beings, Hephaistos, Hermes, Ares, Hestia, Kronos, Helios, Herakles, an unspecified Titan in the singular, and Ammon, are, with the exception of the last, named by Greek names, but several of them are well-known equiva-

⁵⁷ I have spent a fair amount of time trying to discern either linguistic or thematic patterns that would explain the order in which the pairs appear, or would suggest an alternative order in which they may originally have appeared. Other than the vaguely alphabetic chunks in col. B, the list appears to be in random order.

⁵⁸ The *χηναλωπηξ*, which is, according to LSJ, a specifically Egyptian variety of goose.

⁵⁹ *χοιρογρύλλος* is an extremely rare word, appearing, apparently, only here and in Biblical and related texts, where it translates (in LXX Lev 11:4-6) the Hebrew "shafan," which is itself a rare word of uncertain meaning, which became the famous "rock badger," because the shafan is among rocks in Ps. 104:18. Both components of *χοιρογρύλλος* are words for pig or piglet. In the Priestly Interpretations, PGM XII 412, it is the only example of a term that is a translation of itself (*σίμα χοιρογρύλλου* ... *ἀληθὺς χοιρογρύλλου*), a strong indication that the compiler of the equivalencies himself did not know what it was.

⁶⁰ Alan K. Bowman, *Egypt After the Pharaohs: 332BC-AD642* (Berkeley: University of California Press, 1986), 172-4.

lent names for important Egyptian gods frequently addressed in the papyri, especially Hermes (Thoth), and Helios (Ra). Some of the animals mentioned are particularly associated with some of these deities, for example, the baboon with Hermes-Thoth, etc. The Egyptian flavor of this list is very evident. But it is important to remember that these are the substances being *explained away*—their presence in this part of the list marks them specifically as false names and unnecessary items.

Only one of these items, αἷμα κυνοκεφάλου, is clearly called for elsewhere in PGM materials. The κυνοκέφαλος appears in various invocations and descriptions of gods and apparitions,⁶¹ is used several times as a shape for a figure in wax,⁶² and provides a model language for the pronunciation of certain vowels and words.⁶³ There are, however, only four direct requests for it as an ingredient in recipes, and of these, only one is unambiguous. The dung and magical material of the κυνοκέφαλος are required by the two related erotic slander spells involving Selene, PGM IV 2441-2621 and 2622-2707; and its blood and heart are required by PGM XIII 316 and 1067 (these two are also related since they are variants of the same text, the *Eighth Book of Moses*). The slander spells call for the dung and magical material specifically, but in each case, the poetic invocation selections of the spell claim that not the practitioner, but the blasphemous victim, is using these substances in improper and evil rites. They therefore function as examples of something that the goddess would feel that it is horrible to use, and this is supposed to make her like the victim less and the practitioner more. These two examples are rare in that simpler variations of the blasphemous, god-angering substances in the slander poems are in fact actually called for in the recipe sections that come later in the texts; but except for that they fall into a subcategory of truly bizarre and actually fictional substances, such as the pierced vagina of a black sphinx,⁶⁴ which appear only in incantations and not in actual recipes.⁶⁵

⁶¹ PGM IV 1003, 1687; VII 782; VIII 10, 29; its birth as a result of sacrilege, in Selene slander spells: IV 2600; 2663; part of a vision: XIII 154f, 464f.

⁶² PGM IV 3139; VIII 53.

⁶³ PGM IV 1006f; V 27; XIII 84, 596.

⁶⁴ PGM IV 2310.

⁶⁵ Some examples: PGM III 494-611; IV 94-153, IV 2241-2358, IV 2622-2707; V 213-303; VII 222-49, 643-51; VIII 1-63, VIII 64-110; PDM xiv 554-62 (mentions blood of black dog in prayer, but doesn't call for it), PDM xiv 636-60 (sun is called scarab of lapis lazuli, but actually scarab of Mars -a real bug—is used; plain wine is used, but addressed as blood of a wild boar from Syria).

PGM XIII 316 clearly and specifically calls for αἶμα κυνοκεφάλου as a recipe ingredient for one of the long series of “applications” that follow the first version of the *Eighth Book of Moses*, this one for sending dreams. The practitioner must write the dream he wants to send on hieratic papyrus with myrrh ink and baboon’s blood, then roll up the papyrus and use it as a wick. Myrrh and the blood are both required, but specified separately. At the end of the third version of the *Eighth Book of Moses*, a shorter series of applications includes one for opening doors that calls for a baboon’s heart, but here, in the same passage that “interprets” crocodile navel as riverweeds, the heart is immediately interpreted by a parenthetical phrase which makes it equivalent to myrrh or perfume of lilies, or both.⁶⁶ This last reference then does not parallel 316, since there myrrh and baboon material are called for separately, and therefore are probably not the same thing.

Other references in PGM materials make clear that related words, κυνοκεφαλίδιον and κυνοκεφάλιον⁶⁷ are in fact words for plants. Four spells call for these plants,⁶⁸ a fairly high number in this particular category. The words are attested as plant names in other ancient literature, though mostly through scholia that say it is equivalent to some other plant; the LSJ entries actually describe these other plants. The lexicographical situation for these words is incredibly complicated, but the main point is that there is no apparent mysterious secret about κυνοκεφάλιον and related words representing plants. No authority lists ἄννηθος, dill, as one of the correspondences as the Priestly Interpretations do. Of these testimonies, only Pliny discusses a religious role (he calls it a magical role) for the plant.⁶⁹ He claims to have heard from Apion the Grammarian, notorious resident of Egypt, that the herb *cynocephalia* is known in Egypt as *osiritis*, and is believed to be a source of divination and a protection against black magic.⁷⁰ There are no calls for any plant *osiritis* in PGM, and the word is not attested in other ancient literature, although the lexicographical situation there is also tortuous. The main point is that Pliny

⁶⁶ PGM XIII 1066: λαβὼν ... ὡν κανθάρου καὶ κυνοκεφάλου καρδίαν (ζμύρναν λέγει, κρίνινον μύρον) ... It is unclear whether the parenthesis refers to both items, or provides two possible “translations” for the one item that immediately precedes it.

⁶⁷ This form is also used for the shape of the wax figure in PGM VIII 53.

⁶⁸ κυνοκεφάλιον (GMP trans. “calf-snout plant”); PGM III 479 (visionary); V 198 (thief catching), 372 (visionary); κυνοκεφαλίδιον (GMP trans. “snapdragon”); VII 620 (invisibility and erotic).

⁶⁹ *Natural History* xxx.18.

⁷⁰ But if you pull it up with bare hands, you will die.

knows the name *cynocephalia* as a fairly common plant name, with a variant in Egypt; again, it is not dill or like dill.

There is one other substance in the “to-be-explained” category that may be called for in PGM materials. This is γόνος Ἡλίου in line 433. Although the form is different, the word ἡλιογονον, written in Greek, appears in the Demotic handbook PDM xiv, the London-Leiden papyrus,⁷¹ written along with some other notes in column 1 of the verso.⁷² This section of PDM xiv contains several “clumps” of definitions of stones and plants,⁷³ separated by other notes and short prescriptions. ἡλιογονον and σεληνογονον are followed by the pretty unambiguous statement, “these are herbs.” This list is not presented as secret, but rather simply appears to provide the Greek names of herbs, possibly so that the practitioner can shop for them. ἡλιογονον and σεληνογονον appear also in PGM III 332, where an unfortunate text break makes it unclear whether the two terms are independent herbs, or descriptive terms modifying single-stemmed wormwood.⁷⁴

The introduction to the Priestly Correspondences certainly creates the impression that the substances needing interpretation are frequently mentioned in holy texts that are prominently displayed, the conditions that necessitate “coding” in the first place. The point of all this detail above is to demonstrate that the substances in column A are not in fact called for, except for the one and possibly two exception/s, which are terms already openly known to be plants. This again highlights the mis-match between what the introduction claims it will do and the list that follows it.

The “de-coded” column B includes, out of a list of 37, several substances that are clearly called for elsewhere in PGM as actual recipe ingredients. Five ingredients are unambiguous: βδέλλα is mentioned several times,⁷⁵ and ἀρτεμισία is very common.⁷⁶ γάλα

⁷¹ Edition, transliteration, and translation: F. Ll. Griffith and Herbert Thompson, *The Leyden Papyrus: An Egyptian Magical Book* (New York: Dover Publications, 1974 [orig. 1904]).

⁷² This section of PDM xiv is not included in Preisendanz, who only includes the three Greek invocations from the ms. They were translated (by J. Johnson) and included in GMP xiv, lines 886 -1227.

⁷³ PDM xiv 886-96, 897-910, 920-29, 933-34, 940-52, 966-69.

⁷⁴ The terms are not elsewhere used to describe wormwood.

⁷⁵ Though not as “a leech,” as Scarborough translates in *GMP*, 167, but as a form of incense or aromatic gum; PGM I 262-347; IV 1275-1322; 1716-1870; VII 429-58; al.

⁷⁶ Though it is usually modified by some kind of adjective. ἀρτεμισία alone is requested in PGM I 232-47; II 1-64; IV 1275-1322; VII 993-1009, al.

συκαμίνης,⁷⁷ ἀρτεμισίας κάρδια,⁷⁸ κεδρίας,⁷⁹ and ὠν κανθάρου⁸⁰ each appear only once. Four further terms may appear, in rather different forms. σελεγβει possibly represents the Demotic “chelkbei,” which also appears at PGM V 70-95.⁸¹ ἀκανθίνας Αἰγύπτιας appears as a component of Typhonian ink.⁸² The καλαβώτος also appears elsewhere in PGM,⁸³ though in those three places it is not specifically the blood that is used. PDM xiv requires the practitioner to use his own semen in an erotic concoction; this may be an example of ἀνθρώπου γόνος, but this is a specific call for the practitioner’s magical material, not a general recipe ingredient as in the Priestly interpretations.

As I mentioned, there is another sequence of identifications on the verso of PDM xiv. After the ἡλιογονον and σεληνογονον discussed earlier, this text discusses five plants,⁸⁴ three of which, in different order and with different spellings, appear at the end of the list of interpretations. This may reflect a common source for these two tiny portions of text; if so, once again, the “version” in PDM xiv is not decoding secrets, but is simply giving the Greek names of the plants and some brief descriptions of them.

As with the left-hand column, therefore, we see that the purpose of the introduction is not carried forward by the items in the right-hand list. The introduction claims to reveal de-coded names of substances whose use is meant to be secret, but what it does reveal is a list of things that are clearly called for any number of times quite openly, under these supposedly de-coded names. The list provides explanation where explanation is not needed, and provides mystification

⁷⁷ also in PGM VII 222-49; a variation in PGM VIII 64-110.

⁷⁸ also in PGM II 232-47.

⁷⁹ a variation in PGM XII 121-43.

⁸⁰ also in PGM XIII 734-1077. ὠν κανθάρου appears in the same section of PGM XIII (1066) in which navel of crocodile and heart of baboon are also interpreted. Depending on how the parenthetical phrase is taken, ὠν κανθάρου may itself be translated by “myrrh.”

⁸¹ Griffith and Thompson identified the chelkbei as *trigonella foenumgraecum*, which they then translated as “wild garlic.” This botanical name, though, actually represents fenugreek, which was still used for medicinal purposes in Cairo, under the name “helba,” in this century.

⁸² PGM XII 98.

⁸³ PGM VII 186 (foot); 628 (whole—drowned in lily oil); LXI 40-50 (whole). There’s a strange series of connections here—baboon blood = gecko blood; gecko appears in VII 628 drowned in lily oil; lily oil may “translate” baboon heart in XIII 1066.

⁸⁴ Four, if we identify χρυσόσπερμον with κρινανθεμον, as John Scarborough appears to do by translating both terms as “houseleek” in GMP—though he does not discuss the issue.

rather than clarity. These points may collectively suggest that the introduction and the list do not belong together, that the list “interprets” substances from a formulary that is lost, or that it does not interpret PGM-style materials at all, but belongs in a quite different context, one that remains unknown.

So, what is this text, who created it, what is it doing in PGM XII, and how literally should we take it in the interpretation of PGM recipes? One approach is to focus upon what the text actually accomplishes. If the pairs are read from left to right, in the order that its interpreters have usually followed, it has the effect of “de-Egyptianizing” the materials required for the performance of these rituals. While the majority of items in the left-hand column appear to reflect or require an Egyptian setting, almost none of those in the right-hand column do. Although most of the items there would probably be available in Egypt, they would be equally available almost anywhere around the Mediterranean, especially as Roman rule progressed. In fact, in at least one case, the “buckthorn” or *πάμνος* in line 411, the substance suggests Greece, specifically Attica, much more than Egypt.⁸⁵ From this perspective, the correspondences, if taken seriously, actually would tend to dis-empower Egyptian priests, rather than to assert their importance. This of course is an exactly opposite effect than the introduction to the list intends, which is to locate the origin of recipes and practices in Egyptian temples, and the keys to ritual power in the hands of the temple priests and scribes. It is not impossible that the list’s original context is not to be found in Egypt, and that it ended up there—and in PGM XII—through some fluke of travel or trade. It may reflect Greco-Roman appropriation of Egyptian texts and rituals taking place outside of Egypt, with the substitutions of plants for the other items taking place as a way to perform rituals independent of the tradition in which they originated.⁸⁶ If this could be demonstrated, it would provide an interesting—and unusual—opportunity to study *Greco-Roman* input into the tradition that came to be known as “magic.” Unfortunately, because the list as we see it today is in a very garbled state, with both the pairs

⁸⁵ *πάμνος* does appear also in PGM III 512, not as a recipe ingredient, but as part of a lengthy descriptive invocation to Helios, which goes through several different hours, each one of which associates the god with a particular tree, animal and stone.

⁸⁶ Another possibility is that the list presents compromises used by Egyptian priests operating in locations outside of Egypt—in this case, it would indeed be a secret, private document!! But the fact that our copy of this list does come from Egypt tends to undercut this idea.

and the actual correspondences open to question, analysis of the conceptual relationships between the two columns cannot really progress very far. Additionally, this view fails to explain the fact that column A materials are not in fact usually called for in such rituals—the substitutions are not needed.

There is another, opposite situation in which the list would in fact do what the introduction says it will do. If the columns as we see them are actually intended to be read from right to left, or even if by some scribal mischance they have been accidentally reversed, then the effect of the text as a whole would indeed be to reveal a mystery: that the apparent plants and other simple ingredients of PGM materials are in fact incredibly rare and powerful substances that the average person would not be able to obtain, but that he or she might assume to be available to Egyptian priests through their work in temples and at the necropoleis of so many of the animals named in column A. Such a set of correspondences would have the effect of making it impossible for the un-careful masses denigrated by the text's introduction to achieve any result in their ritual performances, unless they were carried out through the "power-brokerage" of Egyptian priests, who would stand to benefit considerably, certainly in prestige and possibly financially as well, if they were involved in distributing little packages that, despite their innocuous labels, were believed by their purchasers to contain, e.g., Hestia's blood. By this I do not mean to suggest that Egyptian priests actually believed that they were using the bodily fluids of deities and sacred animals. Rather, this could be seen as an example of the kind of deliberate "bizarrefication" recently discussed by David Frankfurter⁸⁷ as "stereotype appropriation:" the alteration of Egyptian temple practices to meet the expectation of a Greco-Roman "marketplace" which wanted its Egyptians using weird animal parts and deities' bodily fluids, not homely items such as dill, chamomile, and turnips.⁸⁸ This possibility is interesting, and requires further research and thought.

Whichever of these directions further interpretation takes, this text does not provide a reliable guide to the understanding of PGM substances, and should not be used as a paradigm for hypothesizing a wide variety of interpretative substitutions. Although I do not doubt

⁸⁷ David Frankfurter, *Religion in Roman Egypt: Assimilation and Resistance* (Princeton, NJ: Princeton University Press, 1998); 224-37.

⁸⁸ This kind of exoticism is also the explanation used by Brashear for the increasing use of *voces magicae* etc. in the papyri from the 1st through the 3rd centuries; William Brashear, "The Greek Magical Papyri: An Introduction and Survey; Annotated Bibliography (1928-1994), *ANRW* II.18.5, esp. 3429-3438.

that ritual practitioners occasionally faced emergency situations that led to substitutions on an ad-hoc basis, in cases where such exigencies are foreseen, the suggested substitutions are as close as possible to the original ingredient,⁸⁹ not a radical change from a body part to a simple plant—or the reverse. The best guides to interpretation of PGM recipe ingredients are the numerous other instances of texts specifying their substances carefully, by color, season, merchant; and by dialect, language or synonym. In the majority of these cases, except for the Priestly Interpretations and the two lines of PGM XIII discussed above, it is clear that these synonyms and descriptions are not a license for substitution, and that common plants cannot be assumed to lie behind the requirements for rare and unusual substances in the PGM handbooks. This being the case, it should be possible through further study to more firmly identify some of these substances, and, through the evaluation of their rarity and expense, begin to locate recipes and spells more clearly in specific social and geographical contexts.

⁸⁹ For example, PGM V 54-69 requires water from a shipwreck, but allows the substitution of water from a sunken rowboat if no shipwrecks are available. It does not suggest the substitution of, e.g., parsley, etc.