

Old Recipes, New Practice? The Latin Adaptations of the Hippocratic *Gynaecological Treatises*

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Summary. There were two main gynaecological traditions in the early Middle Ages: the Soranic and Hippocratic traditions. This article focuses on the latter tradition, which was based on the translations into Latin of the Greek treatises *Diseases of Women I* and *II*. These translations, referred to here as *Latin Diseases of Women* and *On the Diverse Afflictions of Women*, contain a wealth of recipes, which are examined in detail. I ask whether recipes that had been first written down in the fifth century BC could still form the basis of gynaecological practice in the Middle Ages, and whether the act of translation transformed medical practice.

Keywords: gynaecology; recipes; Hippocratic; medieval; translation

Scholars have identified two literary gynaecological traditions competing for supremacy in western Europe during the early Middle Ages: the Hippocratic and the Soranic traditions, named respectively after Hippocrates (fifth century BC) and Soranus (turn of the first and second century AD).¹ The Soranic tradition was most successful until the end of the twelfth century AD, when it came into competition with texts produced at Salerno, and in particular the 'Trotula' ensemble.² Soranus' *Gynaecology*, built upon Methodist principles (namely, that the diseased body presents one of two possible states: 'flux' or 'stricture'), rejected many tenets of Hippocratic gynaecology, such as the idea that menstruation and sexual activity were beneficial to women's health, or that the womb could move around the body. This work was translated/adapted into Latin several times: Theodorus Priscianus' third book of *Recipes Easily Prepared*, written in North Africa in the fourth or fifth century, and devoted to women's conditions, was based on Soranus' work; Caelius Aurelianus (North Africa, fl. c. 420) latinised Soranus' gynaecological writings; and Muscio (dates and origin uncertain) composed his *Genecia* by simplifying Soranus' work so that it would become understandable to midwives.³ This latter book was particularly successful, being copied and adapted multiple times until the end of the twelfth century.

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¹See Green 2001, p. 15. For biographical information on all ancient authors mentioned here, see Keyser and Irby-Massie 2008.

²On the Soranic tradition, see Hanson and Green 1994; Flemming 2000, pp. 228-46; Nutton 2004, chapter 13. On the Trotula texts, see Green 2001.

³Muscio is generally assumed to be an African, writing in the sixth century AD, although there is no evidence to support this assumption; see Hanson and Green 1994, p. 1046. See also Maire in Dasen (ed.) 2004; King 2007, introduction. For a more complete list of adaptations of Soranus in Latin, see Green

By comparison, the Latin Hippocratic gynaecological tradition did not fare so well. It consisted of the translations/adaptations of the Hippocratic *Aphorisms* relevant to women, as well as that of the two main Hippocratic gynaecological texts: *Diseases of Women I* and *II*.⁴ The translations of these two treatises on women's diseases, and more particularly their recipes, are the subject of this article. Whilst the language of these translations has been studied by several scholars, the question of how they were used has been relatively neglected.⁵ It is generally assumed that these texts are school manuals, produced at the end of the fifth or beginning of the sixth century either in North Africa or in Ravenna (North Italy), the two centres of medical teaching at the time.⁶ However, one wonders whether this teaching was put into practice.

This question is important because the two adaptations here studied contain a large number of recipes and, texts that are by nature practical. In her overview of medieval medicine, Katharine Park rightly points out that the practical orientation of a text does not necessarily lead to its actually being used.⁷ How does one assess whether a recipe-book was used? Admittedly, this is a difficult question, and sometimes the answer must vary not only from one text to the other, but also from one manuscript containing that text to the other. Unfortunately, there are in the manuscripts consulted for this article no stains indicating that readers had concocted potions with the books in their hands.⁸ Rather one has to look for more subtle signs that a text was (or at least could have been) used. Such signs include the use of marginal annotations and clauses such as 'tried and tested', and traces of manipulation of the text (compilation, abbreviation).⁹ The state of language also needs to be taken into account: would it have been understandable? Are ingredient names so corrupted that they would have been incomprehensible? Finally, one must consider whether the recipe adheres to theoretical principles that were understood at the time?

In this article, after a brief introduction to the texts studied, I examine in detail a series of Latin recipes which are, whenever possible, set against their Greek counterparts.¹⁰ The percentage of recipes presented is very small (less than one per cent), but my aim is to point out ways in which the act of translating transformed pharmacological material, and whether these transformations may have influenced practice. For each recipe examined, I attempt to assess whether it could have been used, and if so, in which context. In

1985, pp. 134-40; Hanson and Green 1994, pp. 1042-61.

⁴Although these works had been attributed to Hippocrates since antiquity, it is unlikely that Hippocrates himself wrote them. The Hippocratic Corpus contains other gynaecological treatises (for example, *Barren Women* and *Superfetation*) which were not rendered into Latin. For a comparison of the gynaecological material contained in the Latin translations of, on the one hand, the *Aphorisms*, and on the other hand, *Diseases of Women I* and *II*, see Vázquez Buján in Sabbah (ed.) 1984.

⁵For linguistic studies, see Mazzini in Lasserre and Mudry (eds) 1983; Mazzini 1985; Vázquez Buján in Sabbah (ed.) 1984.

⁶For Italian origins, see Mazzini and Flammini 1983, pp. 45-6; Mazzini in Mazzini and Fusco (eds)

1985, pp. 68-70. For African origins, see Vázquez Buján 1986, p. 60; Opsomer 1989, p. xxxv. Green 2001, p. 15, mentions both Italy and North Africa as possible centres of translation.

⁷Park in Wear (ed.) 1992, p. 66.

⁸All manuscripts mentioned were consulted, with the exception of National Library of Russia (hereafter NLR), St Petersburg, MS F.v.VI 3, for which I had to rely on the transcriptions of Brütisch 1922 and Egert 1936.

⁹For traces of manipulation of the text, see Green 1985, p. 202. For state of language and theoretical principles, see Green 2001, pp. 14-15.

¹⁰Discrepancies between Latin and Greek texts similar to those examined here were uncovered by Langslow in his study of the 'Latin Alexander'. See Langslow 2006.

conclusion, I question the use of the label ‘Hippocratic’ to refer to both translations, and suggest that behind the recipes there was a pharmacological practice whose stability is striking.

Origin and Progeny of the Texts

The Greek treatises *Diseases of Women I* and *II* (abbreviated as *DW*) have a similar structure: they are constituted of descriptions of gynaecological diseases and their treatments, followed by long recipe lists.¹¹ *Diseases of Women I* is devoted to women’s reproductive life. Following some theoretical remarks on the differences between men and women, it describes gynaecological ailments in a chronological order: from menstruation, to conception, pregnancy, childbirth, and post-partum complications. These chapters describing individual ailments are followed by recipe catalogues, arranged according to the same chronological principle, from menstruation to birth. *Diseases of Women II* contains descriptions of female diseases, roughly divided into three parts: fluxes, womb movements, and other uterine afflictions. Catalogues of recipes to treat these ailments are found at the end of the treatise. These two treatises share the same conception of female physiology: women are characterised by their spongy flesh, which leads them to absorb more fluid from their diet than men. As a result, women retain too much blood, thus causing an imbalance. In order to rid her body of this excess blood, the Hippocratic woman must either menstruate or get pregnant. If this fails to happen, she must use medications that cause her to bleed. Another important aspect of Hippocratic physiology is the belief that the womb moves around the body in search of moisture when it gets too dry (because of a lack of semen or blood).¹²

Diseases of Women I and *II* were ‘translated’—or better, ‘adapted’—into Latin in the sixth century AD, probably in Ravenna or in North Africa. *Diseases of Women I* may have been translated in full at some point, but we only know a partial translation of this text, here referred to as *Latin Diseases of Women* (abbreviated as *LDW*).¹³ This text had a limited distribution both from a geographical and chronological point of view: it is preserved only in two French manuscripts dating to the ninth century AD. It is known mainly through Paris, Bibliothèque Nationale de France, MS lat. 11219 (fols. 212ra-221rb), a manuscript probably produced at the monastery of St Denis, which contains 41 different medical texts, including several other ‘Hippocratic’ texts, and several

¹¹The only edition of *Diseases of Women I* and *II* remains Littré 1853 (hereafter abbreviated as L8). Studies of these texts include Dean-Jones 1994 and King 1998. Hanson 1975 has translated into English several chapters of *DW I*.

¹²On the wandering womb, see King 1998, chapter 11. In the Hellenistic period, Herophilus discovered uterine ligaments, which made major movements of the womb impossible. Yet not all medical authors rejected the theory of the wandering womb (Aretaeus in the second century AD did not reject it), and those who did, such as Soranus and Galen, retained some therapies developed for the wandering womb, simply reinterpreting them so

that they would fit their theory. See Green 1985, pp. 50-2. It should be noted, however, that the gynaecology of Muscio reintroduced the notion of womb movement to the chest. See King 1998, p. 236.

¹³*LDW* corresponds to chapters 1 and 7-38 of our Greek text. *LDW* has been edited by Mazzini and Flammini 1983 and by Vázquez Buján 1986; Gensemann 1982, pp. 48-55, gives a transcription of the text of Bibliothèque Nationale de France (hereafter BNF), lat. 11219; Walter 1935 and Egert 1936 reproduce the text of NLR, F.v.VI 3. Mazzini and Flammini 1983, p. 9, have given the title *De Conceptu* to this text (see below).

other gynaecological texts.¹⁴ Fragments of *LDW* are also preserved in St Petersburg, National Library of Russia, MS F.v.VI 3 (fols. 8ra-8vb), a manuscript probably produced at the monastery of Corbie, which contains ten medical texts, including six anonymous gynaecological works.¹⁵

Latin Diseases of Women starts with a prologue praising Hippocrates' role in gynaecology (quoted below), followed by a theoretical introduction to women's physiology (with an insistence on blood and on women's *infirmities*), then moves on to the subject of womb movements and other uterine ailments, followed by difficulties in conceiving, difficulties during pregnancy, childbirth and afterwards. Thus, the order in which matters are presented in *LDW* is the same as in the Greek original.¹⁶ The Latin adaptation of *Diseases of Women II* is here conventionally referred to as *On the Diverse Afflictions of Women* (abbreviated as *DAW*).¹⁷ It differs more strongly from the Greek text. *DAW* is found in full in two manuscripts: St Petersburg, National Library of Russia, MS F.v.VI 3 and London, British Library, Sloane MS 475.¹⁸ This latter manuscript is constituted of two parts, both probably produced in the British Isles and containing medical texts: the first (fols. 1-124) dates from the twelfth century AD; the second (fols. 125-231, which includes our text, fols. 166r-209r) is from the eleventh century, and is written in several hands.¹⁹

In both manuscripts, the text is introduced by a table of contents listing 94 items. A fragment of this table of contents is also found on the last folio (fol. 120v) of a twelfth-century French medical manuscript: London, British Library, Harley MS 4977.²⁰ Despite this table of contents, the structure of *DAW* is rather difficult to discern. It starts with a series of recipes which do not have the exact equivalent in the Greek *Diseases of Women II*, followed by chapters on flux, womb movements, and other uterine afflictions. The treatise ends, as it started, with recipes that do not have exact equivalents in the original Greek. Although, as suggested by Green, this text 'takes into consideration questions of etiology, diagnosis, and prognosis', there is relatively little theory when compared to the Greek original, this text being characterised by its practical nature.²¹

¹⁴For a description of the manuscript, see Beccaria 1956, pp. 166-73; Vázquez Buján in Mazzini and Fusco (eds) 1985; Vázquez Buján 1986, pp. 63-82; Wickersheimer 1966, pp. 112-23.

¹⁵The fragment of *LDW* corresponds to the end of chapter 10, chapter 11, and the first sentence of chapter 12 of our Greek text. See Beccaria 1956, pp. 399-402, for a description of the manuscript.

¹⁶See Mazzini and Flammini 1983, p. 49, for a table of correspondences.

¹⁷Latin: *De diversis causis mulierum*. This title is based on Brüttsch's interpretation of the first words of the text in the St Petersburg MS, namely '... *versis causis mulierum*', which he postulated to mean '*De diversis causis mulierum*'. However, in British Library (hereafter BL), Sloane 475 (fol. 168v), the treatise opens with the following words: '*Potio ualde ad uniuersas causas mulierum*'. See Brüttsch 1922, p. 12; Green 1985, p. 180.

¹⁸This text has not been edited yet, but Brüttsch 1922 is a transcription of the St Petersburg MS. Beccaria 1956, p. 258; Beccaria 1959, p. 43; Hanson 1975, p. 569; and Kibre 1985, p. 188, have noted the fact that the Sloane and St Petersburg MSS contain the same text, although the text ends earlier in Sloane. See also Green 2000a, p. 11. For this article, I have provided my own proto-edition, by combining the transcription of Brüttsch with my reading of Sloane.

¹⁹For a description of the manuscript, see Beccaria 1956, pp. 255-9; Hunt 1990, p. 82; Gameson 1999, p. 121; Liuzza 2001, pp. 225-7. Green 2000a, p. 11, suggests the manuscript comes from Brittany

²⁰For a description of this manuscript see: <http://www.bl.uk/catalogues/manuscripts/HITS0001.ASP?VPath=html/74825.htm&Search=Harley.+4977&Highlight=F> (accessed on 7 August 2009).

²¹Green 1985, p. 146.

In addition, a tract entitled *On Suffocation or Strangury of Women*, has passages in common with *On the Diverse Afflictions of Women*, rearranged in a different order.²² This text is found in Bibliotheca Civica Bertoliana, Vicenza, MS 287 (fols. 146r-150v), a manuscript, probably of Italian origin, dating from the first half of the thirteenth century, which contains several other gynaecological treatises.²³ Thus *DAW* enjoyed a slightly larger distribution than that of *LDW*, both from a chronological (up to the thirteenth century, compared to the ninth century for *LDW*) and a geographical point of view.

It should also be noted that three other texts found in the St Petersburg manuscript may derive from our Greek *Diseases of Women II: On the Afflictions of Women; On the Female Affliction*; and *On Womanly Matters*.²⁴ These are short collections of recipes, which bear similarities to the recipes of the Hippocratic Corpus. Monica Green suggests that *Diseases of Women II* was translated twice.²⁵ However, I have been unable to find exact equivalents between these texts and *DW2*. *On the Female Affliction* went on to be used by the compiler of the *Liber de sinthomatibus mulierum*, one of the texts integrated into the Trotula ensemble.²⁶

All the treatises mentioned here are found in manuscripts that contain clusters of gynaecological writings. This indicates that the 'medical *literati*' of the early Middle Ages had some interest in gynaecology, whether they put this into practice or not.²⁷ It is interesting to note that, unlike the translations of Soranus (in particular that of Muscio), neither *LDW* nor *DAW* purports to be addressed to midwives.²⁸ In addition, at least two manuscripts described here (Paris and St Petersburg) come from monasteries, that is, male houses. Park believes that it is 'unlikely ... that the various gynaecological works from this period argue for a flourishing monastic practice in midwifery'.²⁹ Green, on the other hand, suggests that although it is unlikely that monks themselves treated women, they may have advised women on their ailments. She writes:

[T]his image of monks passively copying gynaecological literature simply 'because it was there' is not only simplistic; it is also insufficient to explain the existence of so much gynaecological literature, especially its variety of form.³⁰

Although female healers may have been responsible for women's health in the Middle Ages, the Latin adaptations of Hippocratic gynaecological texts, like many other medieval documents, indicates an interest in gynaecological and obstetrical matters on the part of male readers.

I now turn to the recipes contained in our two Latin texts to assess whether they may have served as a basis for practice.³¹

²²Latin: *Ad offocationem uel stranguriam mulieris*.

²³See Green 2000a, p. 3.

²⁴Latin: *de causas [sic] feminarum; de muliebria causa; de muliebria [sic]*. See Green 2000a, p. 18. For a transcription of these three texts, see Egert 1936.

²⁵Green 2001, p. 15. See also Green 2000a, p. 18.

²⁶See Green 1996, p. 130; Green 2008, p. 49.

²⁷See Green 2001, p. 17.

²⁸See Green 2000b; Green 2008, pp. 34-6.

²⁹Park in Wear (ed.) 1992, p. 66.

³⁰Green 1985, p. 202. See also Green 1987, p. 310; Green 1989, pp. 459-60; Green 2001, p. 16.

³¹I have examined some of this material in Totelin 2009, chapter 7, in a more philological fashion.

A Study of the Recipes

Some of the Latin recipes recorded in *On the Diverse Afflictions of Women* or *Latin Diseases of Women* are exact equivalents to the Greek Hippocratic recipes. For instance, Table 1 shows a recipe from *DAW* (right column), recommended in case of displacement of the womb to the side, which is a word-for-word translation of Hippocratic material (left column).³²

The only difference between these two versions lies in the fact that the Greek text specifies that the seeds of peony should be black, whereas the Latin does not record this detail. Cantharides (blister beetles) appear in many gynaecological remedies of the Hippocratic Corpus: they are most commonly used in emmenagogue pessaries, but they also appear in drinks, as in the case of the remedy examined.³³ Cantharides went on to be listed in numerous early medieval recipes, as is shown in the *Index de la pharmacopée du Ier au Xe siècle* compiled by Carmélia Opsomer.³⁴ This ingredient, like all the others in this recipe, would have been easily available throughout Europe in antiquity and the Middle Ages.

Latin recipes that are the exact equivalents of Greek recipes are the exception rather than the rule. Latin recipes usually differ from Greek recipes in one way or another; at times the differences are slight, but in other cases, the meaning of the recipe is affected deeply by the variations between the two languages. Some Latin recipes have fewer ingredients than their Greek equivalents, as in the case of a recipe against uterine suffocation from *On the Diverse Afflictions of Women* (Table 2, right column), which has fewer ingredients than the preserved Greek equivalent (Table 2, left column). It should be noted that this recipe appears in full only in the St Petersburg MS—in Sloane, the text breaks off after '*cuminum*', as we shall see later.

The Latin recipe does not have brimstone. It is impossible to tell whether this ingredient was already missing in the Greek manuscript used for the translation; whether it 'went missing' at the moment of translation; or whether it disappeared at a later stage of this text's transmission (this remark is valid for all the recipes studied in this article). The absence of brimstone is probably a simple copyist's mistake, but it slightly affects the meaning of the recipe. The principle of this remedy is that of scent therapy.³⁵ The womb causes suffocation, probably because it has moved up in the body; to call it

Table 1. A Recipe for Displacement of the Womb

Greek recipe: <i>Diseases of Women</i> 2.135 (L.8, p. 306)	Latin recipe: <i>On the Diverse Afflictions of Women</i> 36 (Brütsch 1922, p. 31; Sloane, fol. 184v)
Four cantharides, without wings, legs and head, and five black seeds of peony, eggs of cuttlefish and a little seed of parsley; give to drink in wine.	Afterwards, four cantharides without legs, wings and head, and five seeds of peony, eggs of cuttlefish, a little parsley; you will give all these to drink in wine.

³²The original texts are offered at the end of this article.

³³For example, *DW* 1.74 (L.8.158-60).

³⁴Opsomer 1989, p. 136 (s.v. *cantharis*).

³⁵See Byl 1989.

Table 2. A Recipe for Uterine Suffocation

Greek recipe: <i>Diseases of Women</i> 2. 201 (L8, p. 384)	Latin recipe: <i>On the Diverse Afflictions of Women</i> 54 (Brütsch 1922, p. 39; Sloane, fol. 191v)
When the womb causes suffocation ... Give castoreum, fleabane and water of rue, Ethiopian cumin, seed of radish, brimstone and myrrh. [Place] ill-smelling substances to the nose, and sweet-smelling ones to the womb.	Suffocation of the womb, that is, strangury ... Similarly: castoreum, nut (?), cumin, seed of radish, myrrh; crush all these in water in which rue has boiled; cool down and drink. Place ill-smelling substances to the nose and fumigate sweet-smelling substances to the lower parts.

back to its place, one must apply ill-smelling substances to the nose to repel it, and apply (or fumigate) sweet-smelling substances to the vagina to attract it. A drink must also be provided, which combines both pleasant (rue, myrrh, cumin) and unpleasant smells (fleabane, castoreum and brimstone). Without brimstone, the smell of the drink must have become relatively more pleasant.

Another difference between the Greek and the Latin recipe lies in the fact that the Latin is more detailed with regard to the instruction on how to prepare the remedy. It has 'filled in' the gaps in the Greek recipe: it indicates that rue has to be boiled in water (instead of simply listing 'rue water'); it stipulates that the remedy must cool down; and most importantly it specifies that the remedy must be drunk. Finally, the ways in which ingredient names are rendered in Latin in this recipe calls for some comments, as they lead us on to the question of product availability. The Greek word '*konyzan*' (fleabane) is rendered by the Latin word *nucleum*, as is also the case at DAW 31.³⁶ '*Nucleum*', however, usually refers to nuts or fruit pips, not to fleabane.³⁷ The usual Latin word for fleabane was *conyza*, a simple transliteration of the Greek.³⁸ Helen King suggests that substitutions of ingredients were made according to the availability of ingredients at that period.³⁹ However, we may not be dealing with ingredient substitution here, since fleabane (*Inula* spp. L.) is unlikely to have been difficult to find, as it is native in much of Europe.⁴⁰ I believe the word '*nucleum*' is used here because DAW prefers employing Latin terms rather than Greek ones, even if they had been used by Latin authors for centuries.

Whereas fleabane was readily available, one may wonder whether ingredients such as castoreum (a substance which the ancients believed to be produced by the beaver's testes) and the exotic oleo-gum myrrh, both listed in our recipe, were available throughout Europe in the Middle Ages. Such exotic or rare ingredients are commonly listed in the Greek Hippocratic recipes; they transform simple recipes into objects of conspicuous consumption.⁴¹ These ingredients also appear in numerous medieval recipes, as Opsomer's research on early medieval pharmacology has shown.⁴² However, as Jerry Stannard has

³⁶DAW 31: Brütsch 1922, p. 28; BL, Sloane, fol. 182r.

See Diepgen 1933, p. 229.

³⁷André 1956, pp. 220-1.

³⁸André 1956, p. 100.

³⁹King 1998, p. 238. See also Eamon 1994, p. 28.

⁴⁰See Bown 2002, p. 243.

⁴¹On the use of exotic ingredients in Hippocratic gynaecology, see Totelin 2009, chapter 4.

⁴²Opsomer 1989, pp. 156-60 (s.v. *castoreum*) and 471-80 (s.v. *myrrha*).

Table 3. A Remedy to Help Conception

Greek recipe: <i>Diseases of Women</i> 1.19 (L8, p. 384)	Latin recipe: <i>Latin Diseases of Women</i> 14 (Mazzini and Flammini 1983, p. 65, slightly modified)
If she does not conceive for a long time: when the menses appear, on the third or fourth day, crush alum, soak with perfume, sponge up with wool and apply; let her have it for three days.	If she does not conceive for a long time: when the menses appear, on the third or fourth day, crush alum, mix it with neat wine, iris perfume with must; apply and keep for three days.

pointed out, references to exotic ingredients in early medieval texts do not necessarily mean that these products were available in western Europe.⁴³ On the other hand, it should be noted that, instead of ‘Ethiopian cumin’ (referring to *Nigella sativa* L.), the Latin simply has cumin. *DAW* rarely uses geographical epithets, such as ‘Ethiopian’ and ‘Egyptian’, which appear regularly in the original Greek and in *LDW*.⁴⁴ These epithets, in addition to differentiating between plant species, made the recipes more impressive. Thus our Latin translation waters down the exotic and flamboyant aspects of the original Greek recipe. Other Latin recipes have more ingredients than the recipes preserved in Greek, as in the case of a remedy to help conception (Table 3, right column), whose Latin version has two more ingredients than in Greek (Table 3, left column).

The Greek recipe has alum and perfume, to be applied in wool as a pessary. The Latin recipe, on the other hand has alum (*stipteria*), neat wine (*merum*), iris perfume (*hirinum*) and must (*sapa*), but has no mention of wool.⁴⁵ The Latin word ‘*merum*’ seems to be a simple transliteration of the Greek word ‘*myron*’ (perfume). This transliteration affects the meaning of the recipe, especially since the Hippocratics advised women to drink weak—not strong, neat wine—before conception.⁴⁶ Thus, the altered Latin recipe seems to go against Hippocratic principles. Another interesting feature of this recipe is the use of the Latin word ‘*stipteria*’, again a simple transliteration of the Greek to designate alum. Although the word ‘*stipteria*’ (or its orthographical variants) was used in Latin, the preferred word for alum was ‘*alumen*’.⁴⁷ This use of Graecisms or simple transliterations from the Greek is a prominent characteristic of *Latin Diseases of Women*. Another example is the use of the words ‘*anthos calcu*’ in chapter 15 to designate flower of copper.⁴⁸ Again, this is a simple transliteration from the Greek; the usual name in Latin was *flos aeris*, although the word *calcantum* (or similar) was also used.⁴⁹ In this respect, *LDW* differs from *DAW*, which as we have seen in the case of the word ‘*nucleum*’ prefers using Latin terms rather than Greek words, even if they would have been understood by cultured readers.

⁴³Stannard 1973, p. 50.

⁴⁴See also *DAW* 26 (Brütsch 1922, p. 25; BL, Sloane 475, fol. 179v) where the word ‘Ethiopian’ (found in the original *DW* 2.192 [L8, p. 372, l. 13]) is not translated.

⁴⁵Mazzini and Flammini 1983, p. 65, amend to sin<ap>e, but I prefer the reading offered by Vázquez Buján 1986, p. 113.

⁴⁶See Totelin 2007, p. 534, for references.

⁴⁷See Opsomer 1989, pp. 44-7 (s.v. *alumen*) and 744-6 (s.v. *stipteria*). See also Goltz 1972, p. 204.

⁴⁸*LDW* 15 (Mazzini and Flammini 1983, p. 65) = *DW* 1.20 (L8, p. 58). See Mazzini and Flammini 1983, p. 20-1, for other examples of Graecisms in *LDW*.

⁴⁹See Goltz 1972, p. 134 and index; Opsomer 1989, pp. 26-7 (s.v. *aeris-flos*).

On the other hand, *LDW* uses glosses to explain Greek botanical terms, for instance:

gligesidis parte media, herba est quam alii pionia dicunt: the middle part of *gligesidis*, the herb which others call peony.

semen dauci, (id est sementia pastenaci): seed of *daucus*, that is, seed of parsnip.⁵⁰

This information indicates that the translator (or a commentator) had knowledge of plant names in both Greek and Latin. It should be noted that the words in the main clause (for example, *semen dauci*) are not indicated as being Greek, nor are the words in the relative clause (for example, *sementia pastenaci*) indicated as being Latin.⁵¹ This type of gloss, which helped to cut through the confusion of a non-standardised system of botanical appellations, is not used in *DAW*, which tends to use more 'mainstream' Latin plant names.⁵²

The changes in the recipes we have examined so far, although they modify the meaning of the therapies to a certain extent, remain relatively minor. The changes are far from minor in the example in Table 4, where the boundaries between recipes have shifted. The first Greek recipe (G1) (left column, Table 4) is a recipe against tumours forming in the womb during childbirth, but also includes, as a parenthesis, a recipe for a child's cough, including linseed, egg and roasted sesame (G1a). The second Greek recipe is a remedy against thrush occurring during labour (G2). The Latin (right column, Table 4), on the other hand, has a recipe to combat tumours in the womb (L1) and a recipe for a child's cough (L2), but no recipe against thrush. In addition, there are small differences between the Latin and the Greek recipes: L2 replaces 'flour' with 'a little salt', and adds ox-tongue (*bubula*). Egg, which is listed in G1a, has disappeared from the Latin version. All the ingredients listed in the recipes, Greek and Latin, would have been readily available in medieval Europe.

How could such a shift of boundaries be possible? In antiquity and well into the early Middle Ages, scribes used the *scriptio continua*, that is writing without blank spaces between words, and rarely used signs marking the end of a sentence and the beginning of another.⁵³ In the case of catalogues of recipes, however, it was essential to indicate the boundaries of each item. For this purpose, the ancients had a series of devices: verbal separators (for example, use of conjunctions) or visual separators (use of a blank space between two recipes, indentation).⁵⁴ In the example examined, the Greek text uses a conjunction ('or') to separate the first recipe from those preceding it, and a conditional sentence ('If the genitals grow ulcers during childbirth') to introduce the second recipe. Introductory clauses of this type were often indicated in a different ink (rubricated) in medieval manuscripts. These rubrics were not necessarily written at the same time as the rest of the text. One may hypothesise that, at some point in the transmission of this text, a scribe forgot to copy the conditional clause examined here. At a later stage,

⁵⁰Both glosses: *LDW* 28 (Mazzini and Flammini 1983, p. 73). For a list of such glosses, see Mazzini and Flammini 1983, pp. 36-7; Vázquez Buján 1986, pp. 36-40. On glosses in medieval recipes see, for example, Eamon 1994, p. 28; Langslow 2006, p. 27.

⁵¹On Greek terms in relative clauses in medical works, see Langslow 2000, p. 80ff.

⁵²On the other hand, *DAW* uses glosses to explain some technical terms.

⁵³Hanson in Andorlini (ed.) 1997, p. 126.

⁵⁴See Hanson in Andorlini (ed.) 1997a, p. 128; Hanson in Most (ed.) 1997b, p. 302; Totelin 2009, chapter 6.

someone attempted to make sense of the corrupted text by altering the concluding clause of the recipe from 'smear over the genitals and inject with water of myrtles' to 'you will anoint the palate, and cleanse the lips with myrtle decoction'.

It was not unusual in antiquity to include advice on how to treat children in gynaecological texts: *Diseases of Women I* contains a few remedies for children's diseases (*DW1.92*), albeit in a section that is indicated as apocryphal (*notha*) in some Greek manuscripts.⁵⁵ Soranus' *Gynaecology* also included some chapters on the care of common infants' ailments.⁵⁶ Yet these sections on children's care are usually clearly separated from the gynaecological chapters. It should be noted that a cough figures prominently among the children's diseases discussed in ancient medical texts. *Diseases of Women 1.92* contains two recipes for cough. Interestingly, the second includes an egg, roasted sesame and salt. Egg and roasted sesame are both included in G1a, whilst sesame and salt are found in L2. Soranus also includes a recipe for children's coughs, including *inter alia*, linseed (found in G1a) and roasted almonds (found in L2).⁵⁷ Thus, apart from ox-tongue and marrow, all the ingredients listed in G1a and L2 seem to have been commonly used in the treatment of coughs in children. Why, in *DW* and *LDW*, is a recipe for a childhood cough included in a chapter on vaginal swellings and thrush? As in English, both vaginal and oral thrushes were designated by the same word (*aphtha*) in Greek and Latin. Oral thrush is a common disease in children. It was a topic covered in a series of ancient medical treatises: for instance in the Hippocratic *Aphorisms*; in Celsus' *On Medicine*; and in Soranus' *Gynaecology*.⁵⁸ In the Hippocratic *Aphorisms*, thrush is listed among the most common diseases in babies, alongside vomiting and sleeplessness. The association of a recipe for thrush and a recipe for a childhood cough becomes therefore less surprising.

Table 4. Recipes for Swellings of the Womb, Thrush and Children's Cough

Greek recipes: <i>Diseases of Women</i> 1.34 (L8, pp. 80-2)	Latin recipes: <i>Latin Diseases of Women</i> 28 (Mazzini and Flammini 1983, p. 73)
<p>When uterine swellings occur, during birth or after birth, do not use astringents as doctors do ...</p> <p>G1. Or two or three twigs of myrtle, Ethiopian cumin, root of peony, or G1a. linseed similarly, which coughing children take by mouth with the white of an egg cooked and with roasted sesame.</p> <p>G2. If the genitals grow thrush during childbirth, crush almonds and bull marrow, boil in water, add a little flour; smear over the genitals and inject with water of myrtles.</p>	<p>If swelling occurs in the womb at the time of childbirth, in labour or after labour, we must not use astringents, which other doctors use ...</p> <p>L1. Another. Two or three twigs of myrtle, Ethiopian cumin, roots of peony, linseed; you will give <these> to drink similarly in wine.</p> <p>L2. If a child coughs, you will give roasted sesame with crushed almonds, marrow and ox-tongue boiled; you will give these with a little salt and you will anoint his palate, and cleanse his lips with myrtle decoction.</p>

⁵⁵See Hanson 1971, p. 129.

⁵⁶*Gynaecology* 2.49-57 (Ilberg 1927, pp. 87-93). On the treatment of children in the Hippocratic Corpus, see Bertier in Potter *et al.* (eds) 1990.

⁵⁷*Gynaecology* 2.54 (Ilberg 1927, p. 91).

⁵⁸*Aph.* 3.24 (Jones 1931, p. 130). Celsus, *On Medicine* 2.1.18. Soranus, *Gynaecology* 2.51 (Ilberg 1927, p. 51).

Hippocratic and 'Non-Hippocratic' Traditions

Although the Latin and Greek recipes just examined differ quite strongly, one can still establish some textual links between them. I would now like to turn my attention to the numerous recipes in *DAW* which do not have exact equivalents in the Greek Hippocratic collections of recipes as we know them. These recipes are concentrated at the beginning and at the end of *DAW*, but can also be found at the heart of the treatise, as in the following example:

Pessary for the womb, if it is turned outwards: dried rose, rind of the pomegranate, of each 6 ounces, acacia, 1 ounce, oak gall, 3 drachms; crush these all together with wine.⁵⁹

All the ingredients listed here figure in the Hippocratic Corpus, but never all together. The combination of pomegranate and oak gall appears several times in the Greek text, but not in pessary recipes, and not in recipes for a prolapsed uterus.⁶⁰ The presence of additional material in *DAW* indicates that this text is better described as a compilation than as a translation *stricto sensu* of the Greek *Diseases of Women II*.⁶¹ Adding material to a recipe collection was by no means an extraordinary practice in late antiquity and the early Middle Ages. The so-called 'Michigan Medical Codex', a fourth-century Greek pharmacological codex, offers an excellent example of such compilatory activity. The owner of the papyrus added, in his own hand, recipes in the bottom margins of the codex, thus doubling the number of recipes that a scribe had originally copied.⁶² Among those recipes originally copied, one can find recipes that are also known through the writings of Galen (second century AD), Oribasius (fourth century AD), Aetius (sixth century AD), and Paul of Aegina (seventh century AD).

Like the owner of the Michigan Codex, the compiler of *DAW* too had access to written non-Hippocratic sources. This hypothesis is confirmed by the presence, in chapter 54, of a recipe attributed to Oribasius, the only named authority in the treatise: 'Similarly Oribasius tried marsh mallow boiled with fenugreek in cataplasm for the uterus; it soothes the uterine suffocation.'⁶³ The combination of mallow and fenugreek in the treatment of womb ailments does appear in Oribasius' *Books to Eunapius*, written in Greek in the fourth century AD.⁶⁴ The 'non-Hippocratic' material in *DAW* may have been transmitted together with a Greek version of *Diseases of Women II*; added by the translator himself; or later adjoined to the Latin translation. One may also suggest, but unfortunately not prove, that, in addition to written sources, the compiler/s of *DAW* had access to oral knowledge, which he/they wrote down.

Another way in which the text of *DAW* differs from the Greek *Diseases of Women II* is in its use of what Claire Jones calls 'efficacy phrases', namely formulae that indicate that a remedy has been tried (*expertum est*) and tested (*probatum est*).⁶⁵ Interestingly, there is

⁵⁹*DAW* 22 (Brütsch 1922, p. 24; BL, Sloane, fol. 179r): *Pisarium ad matricem, si foris versat: rosa sicca, maligranate cortice ana unc. VI, agazia unc., I, gallas dragm., III; haec omnia teres cum uino.*

⁶⁰See, for example, *DW* 80 (L8, p. 200); 117 (L8, p. 252).

⁶¹Langslow 2006, p. 24, makes similar comments about the 'Latin Alexander'.

⁶²Youtie 1996, with introduction by Hanson.

⁶³*DAW* 54 (Brütsch 1922, p. 39; BL, Sloane, fol. 191v): *Item Uribasius probat altea, fenogreco coctas, in cataplasma uteris; suffocationem matricis sedat.* See Diepgen 1933, p. 229. Oribasius is also the only authority listed in *On the Female Affliction*. See Egert 1936, chapter 16, p. 26.

⁶⁴4.112.1-3 (Raeder 1926, pp. 487-8). On the Latin Oribasius, see Mørland 1932.

⁶⁵Jones 1998. See, for example, *DAW* 1 (Brütsch 1922, p. 12; BL, Sloane, fol. 168v): tested drink (*pocio*)

only one example of a formula indicating that a remedy has been approved by tradition in the Greek Hippocratic Corpus: it reads 'you would not find anything better' and is found at the end of a recipe for an expulsive.⁶⁶ On the other hand, formulae indicating that a remedy had been tried or used are common in the pharmacological writings of Galen, who relies heavily on the works of pharmacologists active in the first and second century AD.⁶⁷ Such formulae can be added to a recipe at any point of its transmission. In the case of *DAW*, they may already have been found in the Greek manuscript used by the translator; they may have been added at the moment of translation; or one century or two after that. In the surviving manuscripts of *DAW*, the efficacy phrases are embedded within the text, written in the same hand as the remainder of the recipes; here we are not dealing with marginal or interlinear inscriptions.

The phrases '*expertum est*' or '*probatum est*' do not carry the modern implications attached to the notions of experimentation and proof, but rather indicate that the remedies marked in this way had, at some point, attracted the attention of a reader, who had tried them out.⁶⁸ These formulae show that 'old' remedies could find a use several centuries after they had first been written down. That gynaecological practices could span a period well over a millennium has been discovered by Christopher Faraone and Ann Hanson.⁶⁹ Faraone traces the transmission of an exorcism for the wandering womb through five texts (dating from the first century BC or AD to at least the seventh century AD), written in Greek, Latin and Aramaic. Three of these texts are inscribed on amulets; that is, on artefacts that were designed to be carried on the body. Ann Hanson, for her part, interprets an amulet dating to the third or fourth century AD, and bearing the inscription 'Onto your little feet', as an *okytokion* (a means to speed up childbirth), and links it to recipes for *okytokia* present in the Hippocratic gynaecological treatises.

Thus, the presence of efficacy formulae in *DAW*, read in conjunction with the evidence presented by Faraone and Hanson, may suggest that behind texts there was some actual gynaecological practice, whose stability over the course of time is rather impressive. However, at the time when our manuscripts were copied, efficacy formulae had simply become part of the text to be transcribed—a part as prone to corruption as others, as an example will show. The reader will remember that the recipe with castoreum against suffocation of the womb (*DAW* 54) only appears in full in the St Petersburg MS. In Sloane, one can read the following text:

Fol. 191v. *Item castoreo, nucleum, cuminum* 192r. *sucos terendo omnia commisces, cum lana calida suppone. Expertum medicamentum est.*

Similarly: castoreum, fleabane, cumin, juices [?]; crush and mix them all. Apply with warm wool. Tested remedy.

The copyist of Sloane (or his model) has forgotten to copy between the words '*cuminum*' and '*sucos*' what, in the St Petersburg MS, corresponds approximately to one column of text, and has therefore created a recipe that makes very little sense from a medical point

probata); 22 (Brütsch 1922, p. 24; BL, Sloane, fol. 179r); this pessary is most useful (*utilissimus pisarius est*); 34 (Brütsch 1922, p. 30; BL, Sloane, fol. 183v); this remedy has been tested (*expertum remedium est*).

⁶⁶*DW* 1.78 (L8, p. 178, ll. 12-14).

⁶⁷See Fabricius 1972, pp. 36-7, 174-9.

⁶⁸Eamon 1994, p. 55; Jones 1998, p. 203; Olsan 2003, p. 355.

⁶⁹Faraone 2003; Hanson in Dasen (ed.) 2004.

of view. His recipe has not been tried and tested, even though it claims to have been. *Latin Diseases of Women*, unlike *DAW*, does not employ this type of formula; its text sticks more closely to the Greek Hippocratic text. Another way in which *LDW* is more 'loyal' to the Hippocratic tradition than *DAW* is in the way it deals with the authority of Hippocrates. This observation leads me to question the use of the label 'Hippocratic' when dealing with *On the Diverse Afflictions of Women*.

Conclusion

The Latin translation of *Diseases of Women* is introduced by a prologue stressing the role of Hippocrates in the field of gynaecology:

Herald of truth and master who does not lie, as if made out of the seed of the gods, unique in the world, Hippocrates illuminated the art of medicine and provided good health to the human race. Not only did he surpass Asclepius, Sustratus, his grandfather Hippocrates, his father Heracleides, and many others, but he also provided human health to the female race, and talked about their cures because of women's weakness.⁷⁰

In this passage, Hippocrates is presented as a character of divine nature, someone who surpassed all his predecessors in the art of medicine. His benevolence even extended to the care of the 'female race'. This flowery prologue insures that the Hippocratic nature of what follows is not lost on the readers. *LDW* is also preceded in the Paris manuscript by a pseudepigraphical letter from Hippocrates to Mecenias (also known as *De natura generis humani*) listing three branches of medicine (the study of conception; the study of the internal organs; the study of the human substance). Augusto Beccaria argued that *LDW* is the first part of the programme set out in the letter to Mecenias.⁷¹ However, Vázquez Buján has shown that the transmission of the letter and that of *LDW* are independent (the letter is known from at least 35 manuscripts).⁷² Nevertheless, in the Paris MS, the letter and the prologue to *LDW* work together to present Hippocrates as an authority in the related fields of gynaecology and embryology.

On the other hand, *On the Diverse Afflictions of Women*, as we have it, does not contain any mention of Hippocrates. In fact, the only name mentioned in this text is that of Oribasius, another authority in the field of gynaecology. Similarly, the recipes preserved in *On Suffocation or Strangury*, a shortened version of *DAW*, are completely anonymous. Identifying parallels between *Diseases of Women II* and *DAW* is relatively simple with the help of a computer, but the Hippocratic nature of some of its recipes had escaped scholars at the beginning of the twentieth century.⁷³ It is therefore more than probable that medieval readers were completely unaware that the remedies listed in *DAW* were 'Hippocratic'. Yet, it is *DAW*, not *LDW*, whose circulation was wider in the Middle Ages. Of course, the numbers of manuscript witnesses in either case are rather small (four in the case of *DAW*, and two in the case of *LDW*), but it must still be noted

⁷⁰*LDW*, Prologue (Mazzini and Flammini 1983, p. 53). I use standard orthography for the personal names in this passage. The Latin names are in fact highly corrupted.

⁷¹Beccaria 1959, p. 39. This led Mazzini and Flammini to entitle *LDW* 'De conceptu'. See Mazzini and Flammini 1983.

⁷²Vázquez Buján 1982; Vázquez Buján 1985. For a list of the manuscripts containing the letter of Mecenias to Hippocrates, see Opsomer and Halleux in Mazzini and Fusco (eds) 1985, pp. 341-3.

⁷³Brütsch 1922 failed to notice that *DAW* included material of a Hippocratic nature. This was discovered independently by Dieppen 1933 and Walter 1935.

that, whilst *LDW* ceased to be copied in the ninth century, *DAW* was still circulating in the thirteenth, albeit in a shortened form (*On Suffocation*). *DAW* testifies to the fact that gynaecological recipes did not need the authority of Hippocrates to be copied and reworked. The perceived value of this text must have lain somewhere else.

The main differences between *DAW* and *LDW* lie in the quality of the translation and in the importance attributed to theory. *LDW* is more theoretical than *DAW* and contains numerous Graecisms and infelicities of translation. Even though multilingual indices were available in the Middle Ages, the use of Greek words to designate ingredients must have somewhat limited the readership of this text.⁷⁴ It should be noted that the African medical authors mentioned at the beginning of this article (Vindicianus, Caelius Aurelianus and Muscio), like the compiler of *DAW*, preferred Latin terminologies rather than Greek, and always gave Latin equivalents to Greek words.⁷⁵

In addition, *Latin Diseases of Women* is more theoretical than *On the Diverse Afflictions of Women*. The former text would have suited a medical school, such as that of Ravenna, where the writings of the Great Masters (Hippocrates and Galen) were studied; but outside of such medical centres, medieval Europe seems to have favoured texts that contained little theory.⁷⁶ The text of Muscio, for instance, was 'stripped of its more theoretical elements'.⁷⁷ Similarly, *DAW* has been stripped off the more theoretical aspects that were present in the original Hippocratic Greek text. It appealed to Hippocratic principles, such as that of the wandering womb, but these principles seem to have been widely accepted in the Middle Ages. Thus *DAW* was a practical text, constituted almost exclusively of recipes.

In conclusion, *Latin Diseases of Women* and *On the Diverse Afflictions of Women* enjoyed different fates in the Middle Ages, the latter being relatively more successful than the former. However, both texts testify to the transmission of practical, pharmacological material over a linguistic boundary (from Greek to Latin), over an extended geographical area (Greece, Italy, North Africa?, France and England), and above all, over an extremely long period of time (from the fifth century BC to the thirteenth century AD). In the meantime, they found and lost their association with Hippocrates. The reworking of the gynaecological recipes here examined, through translation, compilation, abbreviation and the addition of efficacy formulae, may point to the existence of a gynaecological practice spanning a period well over a millennium. These hints of gynaecological practice are found in a tradition that makes no mention of midwives and other female healers, and was most likely directed at male readers.

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⁷⁴On glossaries, see Daems 1993. BL, Sloane contains such a glossary at fols. 143r-160r.

⁷⁶See Eamon 1994, p. 27; Langslow 2006, p. 31.

⁷⁷Green 2001, p. 16.

⁷⁵See Langslow 2000, p. 128.

Appendix

Original Texts for Tables 1-4

Table 1

DW 2.135 (L8, p. 306)

Κανθαρίδας τέσσαρας, άπτέρους και άποδας και άτερ κεφαλής, και γλυκυσίδης κόκκους πέντε τούς μέλανας και σηπίης ώά, και σελίνου σπέρμα όλίγον έν οίνω διδόνα πινειν.

DAW 36 (Brütsch, p. 31; Sloane, fol. 184v)

Postea cantarides IIII sine pedibus, pinnis et caput et glicisidis grana V et oua sepie, appie modice, haec omnia dabis in uino bibere.

Table 2

DW 2.201 (L8, p. 384)

Όταν ύστέρη πνίγη ... διδόνα δέ καστόριον και κόνουζαν και πηγάνου ύδωρ, κύμνον αιθιοπικόν, ραφάνου σπέρμα, θείον, σμύρνην· προς δέ τας ρίνας τά κάκοδμα, εϋδομα δέ ές τας ύστέρας·

DAW 54 (Brütsch, p. 39; Sloane, fol. 191v)

Offocatio matricis, id est stranguria ... Item castoreo, nuclio, cuminum, semen rafane, myrra, haec omnia teris in aqua, ubi ruta coxerit, colas et bibat. Male olida naribus inpone, bene olida inferiora loca suffumicabis.

Table 3

DW 19 (L8, p. 58)

Όν δέ διά πολλοϋ μή κϋσκηται τών καταμηνίων έπιφαινομένων, όταν ή τριταίη ή τεταρταίη, συπτηρήην λείην τρίσας, διείς μύρω, ειρίω άνασπογγίζων προστίθει, και έχέτω ήμέρας τρείς·

LDW 14 (Mazzini and Flammini 1983, p. 65, slightly modified)

Si per multum tempus non concepit, menstrua apparentes, tertio uel quarto die, stipteria tribulas, commisce merum, hirinum cum sapa et subponis et habeas per dies tres.

Table 4

DW 1.34 (L8, pp. 80-2)

Άσα δέ οιδήματα γίνεται ύστερικά έν τόκω ή έκ τόκου, οϋ χρή στύφειν, οία οι ιητροί ποιέουσιν ...

G1."Η μυρτιδάνου κλωνία δύο ή τρία, και κύμνον Αιθιοπικόν, γλυκυσίδης ρίζην, G1a ή λίνου σπέρμα όμοίως, ο και τά παιδιά βήσσοντα ψωμίζουσι ξην ώφ όπτω λεκίθω, ξην σησάμω πεφρυγμένω.

G2."Όν παιδοϋσα άφθα τά αιδοία, άμύγδαλα τρίσας και βοδς μυελόν έν ύδατι έψειν, και άλητον έμβαλών σμικρόν, διαχρίειν τά αιδοία, και διακλύζειν τω ύδατι τω άπό τών μύρτων.

LDW (Mazzini and Flammini 1983, p. 73, slightly modified)

Si tumores fiant in matrices tempore partus, in gemitu aut post gemitum, non debemus stipti<ri>as uti, quibus et alteri medici utuntur. L1. Aliud: myrtae ramusculus duo uel tria, cimum Etyopicum, glicisidis radices, semen de lino dabis similiter in uino bibere.

L2. *Nam si infans tussit, sisamum frictum dabis et cum amigdolas tritas et medulla et bubula cocta dabis cum modicum salis et perungues palatum eius et de labiis eius terge murt<e>a.*

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