When we first encounter Friar Lawrence, a minor but significant character in Romeo and Juliet, we overhear his soliloquy on the nature of the medicinal plants he is about to gather. Friar Lawrence has arisen at dawn to collect a basket of "baleful weeds and precious-juic'd flowers" (II,ii.8) while the dew is still upon them. This suggests that the plants in question are those under the rulership of the moon and the more malefic planets and stars. For the dawn is the wrong time for solar herbs to be gathered. Plants whose vital properties are found in their essential oils must be collected after the sun has thoroughly dried out the moisture of the night and raised the metabolic level of the aerial parts of the plant to its highest point, whereas lunar and Saturnine herbs are best culled, as Friar Lawrence says, before the day is advanced to cheer, and vital qualities such as darkness, cold, and dampness are in evidence(1).

Such plants are potent, but disturbing. They make the boundary between life and its extinction, what is and what is not, appear to waver, as we see when Juliet drinks the vial of distilled liquor the Friar prepares for her, and falls into a trance indistinguishable from death. Friar Lawrence moralises on the plants ambiguity:

The earth that's matre's mother is her tomb:
What is her burying grave, that is her womb,
And from her womb children of divers kind
We sucking on her natural bosom find:
Many for virtues excellent,
None but for some, and yet all different.
O mickle is the powerful grace that lies
In plants, herbs, stones, and their true Qualities:
For nought so vile that on the earth doth live
But to the earth some special good doth give,
Nor aught so good but, strained from that fair use,
Revolts from true birth, stumbling on abuse (II.ii.9-20).

Not only can the virtues of plants be misapplied to do harm, and, conversely, their death-dealing powers channelled into the service of life (for instance by using a poisonous plant in a minute dose, so that it functions as a soporific, or strong metabolic stimulant), but a single plant may contain within itself both positive and negative aspects:

Within the infant rind of this weak flower,
poison hath residence and medicine power:
For this, being smelt, with that part cheers each part,
Being tasted, stays all senses with the heart" (23-26).

Just as Friar Lawrence scrutinises his herbs with a clear awareness of their double nature, of the relativity and contextuality of their identity, so Shakespeare variously comments throughout his plays on midwives, paternity, magic, disease, health and medical practitioners. Perhaps this constellation of ideas and images illuminates Shakespeare's own inner world and its psychological preoccupations, more certainly, it points to disputes which were by no means merely emotional or ideological, but materially grounded in the lengthy struggle for the legally and regally sanctioned control of medicine, including the fiercely-contested field of gynaecology and obstetrics, in the Elizabethan, Jacobean and Carolingian periods. Midwifery and magic are beyond the scope of this paper, but I hope to show how in Romeo
and Juliet. Macbeth and Pericles. Shakespeare signals his awareness of the contemporary dispute over medical authority. The pensive Friar Lawrence, communing with Nature, the seedy urban apothecary who sells illicit substances over the counter, the venal and useless doctor of physic who observes lady Macbeth's nocturnal disturbance; and Lord Cerimon of Ephesus, each represent a different attitude towards the nature and function of medical knowledge.

The period 1580-1680 was particularly important in shaping modern English medicine, and a striking group of rival claimants contended for legitimacy. A herbalism based on traditional texts, some dating from the Classical period, was still the most common therapeutic mode, along with cupping, bleeding, and a system of heat application not unlike the Chinese use of moxibustion, and this traditional form of practice had many adherents. Paracelsus, however, whose writings became influential in England as well in the rest of Europe, had refused to lecture in the customary Latin at Basle University, and his public burning of the texts of Galen and Avicenna announced a new era of chemical medicine. William Clowes, one of the best of the barber-surgeons, was experimenting on battle-fields with ways to heal gunpowder burns and the gross physical mutilations caused by the weaponry of the period. The Chamberlens were radically altering not only the experience but the meaning of childbirth by means of their newly-invented forceps. The week of Shakespeare's death, William Harvey, physician to King James I, was proving to the College of physicians his theory of blood circulation and demanding greater access to corpses for anatomy demonstrations, hitherto greatly restricted by the church; whilst Nicholas Culpeper, a seventeenth-century "barefoot doctor" born in 1616, resisted the professionalisation of medicine on principle: he was struggling to educate the common people in the uses of such weeds, flowers and common substances.
as grew wild along the riverbank, or could be found in back yards, believing that everyone should know how to treat him- or herself, so as to avoid depending on the swindling "experts" who cheated poor and rich alike, particularly during the recurrent outbreaks of plague. Throughout this period, the Royal College of physicians was directing a battery of tactics against midwives, barber-surgeons and apothecaries, relentlessly seeking to limit their authority and restrict their practices. An increasing number of new regulations and licences defined with some precision those aspects of the English public's body which could be treated by a particular category of medical practitioner, and in almost every case, the new statutes and licences favoured the physicians. It was determined, for instance, that apothecaries could dispense medical drugs, but no longer diagnose or prescribe - a rule which removed their independence and rendered their profession subsidiary to that of the physician(3).

The portrait of the apothecary in Romeo and Juliet illustrates the success of these strategies: Romeo describes him as a gothic figure akin to Wordsworth's leech-gatherer in his poverty, but without the leech-gatherer's patient simplicity: the apothecary is clad "In tatter'd weeds... Culling of simples.

Meagre were his looks;
Sharp misery had worn him to the bones;
And in his needy shop a tortoise hung,
An alligator stuffed, and other skins
Of ill-shaped fishes; and about his shelves
A beggarly account of empty boxes,
Green earthen pots, bladders, and musty seeds,
Remnants of packthread, and old cakes of roses,
Were thinly scatter'd to make up a show.
Noting this penury, to myself I said:
"An if a man did need a poison now,
whose sale is present death in Mantua,
Here lives a caitiff wretch would sell it him."
(V.i. 39-52)

Friar Lawrence, in contrast, represents the older type of spiritually - oriented botanizing clergyman in direct line of descent from the medical monks who administered public health care in the mediaeval period. By an Act dated 1511, the Church in England had been empowered to grant licences to practise medicine, but by the time Shakespeare was launched upon his dramatic career, the rival qualifying bodies, the college of physicians founded in 1518, and the company of Barber-Surgeons, established as two separate guilds in the fifteen century but united in 1540, were rapidly superceding the religious healers both in training and in reputation.

In Romeo and Juliet. Friar Lawrence's well-meant meddling issues from a man whose priorities are ethical, whose view of the natural world is that it reflects and teaches the philosophical wisdom which allows humanity to turn its thoughts to God : ironically, the plan set in motion by his unworldly optimism is thwarted by an outbreak of plague, one of the most violent manifestations of disorder the human body can endure. The figure of the apothecary stands at the other pole : his use of natural substances has no spiritual overtones but is entirely dictated by economics. English apothecaries were in fact obliged to live precariously and for a long time were refused any significant status. They had no charter at all until 1607, and then it was shared by the grocers - hence, perhaps, Shakespeare's allusion to "packthread", and the gallimaufry of strange objects with which the apothecary tries to attract attention and deck out his impoverished stall. The physicians were authorised to inspect the apothecaries stock at any time for " evil and fawty stuffe". and Bullein's sixteenth-century The Book of Compoundes and the Apothecaries Rules directed the profession to be mindful that the office of the apothecary " is onely to be
the physicians Coke (i.e. cook) "... In the circumstances, it is hardly surprising if some apothecaries traded in illegal compounds as a way of capitalising on their knowledge\(^4\). The notorious poisoning of Sir Thomas Overbury in the Tower of London, although instigated by Robert Carr and Frances Howard, and substantially aided by a corrupt jailer and other minor functionaries, was carried out using toxic compounds supplied by an apothecary's trainee. Romeo's address to the Mantuan apothecary is, then, perfectly topical: "... Famine is in thy cheeks / ... / Contempt and begging hangs upon thy back. / The world is not thy friend, nor the world's law: / The world affords no law to make thee rich" (v.ii. 68-73).

The doctor of physic, unlike his rivals, was a person in good social standing, Latin-speaking and well-educated, frequently at a European university. Shakespeare's son-in-law, John Hall (who was only eleven years younger than Shakespeare), had a substantial provincial practice in and around Stratford-upon-Avon. His patients included the Earl of Warwick, and throughout his life Hall enjoyed a considerable degree of prosperity, despite the fact that no one quite seemed to know where his medical degree had been taken. But physicians who practised in the capital were able to earn vast sums from their wealthy clientele: Sir Theodore de Mayerne, for example, who specialised in treating the English and European nobility, left a fortune of £140,000 when he died in 1654\(^5\). (William Harvey's annual stipend from St. Bartholomew's Hospital, in contrast, was £33.6s.8d, although he received a further £300 per annum as the consultant physician of King Charles I.)

In Macbeth, we witness the doctor of physic's procedure as he meets his patient for the first time: first he questions the serving-woman about Lady Macbeth's behaviour, then he watches her himself, commenting and gathering more information as he does so, and finally he begins his case notes: "I will set down what comes from
her, to satisfy my remembrance the more strongly "
(V.i.26-7). Before long, however, he realises that Lady
Macbeth needs a confessor, not a physician. All he can
recommend is that "all means of annoyance" be removed
from her and that she should not be left alone (64-65).

His encounter with Macbeth is more challenging, as the
beleaguered king asks for a "sweet, oblivious antidote"
(V.iii.43) which will relieve the troubled mind and heart.
Accepting his Limitations, the doctor replies "Therein the
patient must minister to himself" (45). Macbeth's sturdy
rejoinder, "Throw physic to the dogs, I'll none of it ") (46),
is followed by a more metaphysical petition to the doctor,
which uses the language of diagnostics and heroic
treatment to figure a remedy for Macbeth's political
difficulties: "Cast / The water of my land, find her
disease, / And purge it to a sound and pristine health...
what rhubarb, senna or what purgative drug, / Would scout
these English hence? " (50-56). The examination of urine
was an important tool in a doctor's assessment of his
patient's condition, and drastic bowel cleansing was
regarded as an essential preliminary to more specific
treatment. The doctor's closing words indicate some regret
that the desire of making money has led him into danger :
"Were I from Dunsinane away and clear / Profit again
should hardly draw me here"(61-62).

A rather more noble physician features in Pericles. Lord
Cerimon has a successful practice at Ephesus, but unlike
the more grasping members of his profession, he has
"pour'd forth / ... charity" (III.i.43-44) upon the needy. He
claims that knowledge, not approbation or the desire of
wealth, is his goal, and to that end he has

Studied physic, through which secret art,
By turning over authorities, I have,
Together with my practice, made familiar
To me and to my aid the blest infusions
That dwells in vegetives, in metals, stones;  
And can speak of the disturbances  
That nature works, and of her cures (III.ii.32-38).

Cerimos's description suggests that, like Hall he has assembled elements from different schools of thought and combined them in accordance with the results of empirical experiment. Hall's Select Observations on English Bodies (excerpted after his death from casebooks written in Latin and Published in translation in 1657) cites a list of authorities which place him firmly outside the hermetic tradition. His father, Dr. William Hall, had trained with the famous astrologer-physician Jerome Cardan, who believed that the origin of life on earth was connected with the stars, and whose lively mind ranged over a wild array of philosophical notions as well as producing practical suggestions such as a method for teaching the blind to read(6). It is significant that William Hall left his medical texts to his son, but those on astrology, astronomy and alchemy went to one of his friends. John Hall did use herbal remedies, in daunting quantities and combinations, but he also resorted to other tactics, including hot boluses, the use of Paracelsian compounds, and the insertion of the patient's feet into a freshly-Killed pigeon. According to his casebook, these remedies met with success. Similarly, when Cerimon is confronted with the apparently lifeless body of Thaisa, he resorts to an aggressive holistic strategy which includes applying heat: Using a vial of concentrate either to be poured into Thaisa's mouth, or rubbed on her skin; and playing "rough and woeful music" to arouse her (v.ii.88). Pericles earlier invocation of Lucina, the ancient goddess of childbirth, had been in vain: prayer did not suffice to speed his wife's labour pangs or prevent her from sinking into unconsciousness. Cerimos's confident secular authority, on the other hand, vanquishes insensibility. Thus compelled, "Nature awakes" (III.ii.92), and Thaisa is resurrected,
fulfilling Cerimon's boast that "Virtue and cunning ... (make) a man a god" by bestowing upon him the immortality of renown (III.ii.27-31).

Ben Jonson, launching for the next four centuries the notion that Shakespeare was not for an age but for all time, pointed to his universality. In this paper I hope I have shown that Shakespeare was also an engaged witness of the exhilarating and competitive world of Elizabethan and Jacobean England.
NOTES

(1) "Yin" is a descriptive word from Chinese herbal medicine denoting characteristics traditionally associated with the feminine, such as dark, cold, lunar, moist, receptive etc. It is perhaps anachronistic to use it here, but it is a convenient short-hand for accurately grouping qualities which would otherwise have to be accounted for in considerable detail according to Renaissance beliefs about planetary qualities and the theory of humours, and such detail is not at all relevant to this essay.

(2) See Leaney, Passim.

(3) See Leaney, and Doran, Passim.

(4) Leaney, p.173.

(5) See "Medicine and Health in Shakespeare's England" (exhibition notes).

(6) Joseph. introduction.

BIBLIOGRAPHY


