Introduction

> No study abounds in the marvellous like that of metallurgy, and no other branch of science presents us at every turn with such totally unexpected, and in many cases inexplicable, results. The old idea of the transmutation of metals was, no doubt, induced by some of these, and is not merely an idle dream of the alchemist . . . Certain forms of lead and copper, pure though they be, oxidize with great rapidity in air . . . Ingots of tin . . . have fallen into powder; and many metals, including iron, on being released from an amalgam of mercury, are left in such an extraordinary state that they take fire . . . The presence of the vapour of iron shows that the metal is an important constituent of the sun and of most of the heavenly bodies.
>
> (*Ironwork*)[1]

Metallurgy is a science of extraordinary wonder and unpredictability, closely associated with the sun and the 'heavenly bodies' even at the turn of the twentieth century when the above study was written.[2] The transformation of base substances dug out of the bowels of the earth into metal of value, of dull blackness into a spectrum of colour and polished brightness through fire and chemical reactions, is magical and captivating. It is not surprising, therefore, that at certain periods in history the 'marvellous' metallic stuff that dreams are made of, together with the fiery craft of its transmutation, has taken a powerful grip on the cultural imagination; in Western Europe the Renaissance was one of these, the nineteenth century another.

Such times allow the apprehension of a metallic-mineral mind in which ores retrieved from the deep, dark seams of unconsciousness can be brought to light, purified and burnished and in which fusions of opposites can occur with chemical happenings that produce radically new things. The Renaissance associated this with divine inspiration, while the Romantic period spoke of genius. As Esther Leslie's *Synthetic Worlds* so perceptively describes, at these dynamic moments productive synergies occur between previously separated and antithetical areas of experience:

> [A 'mineral'] consciousness was present in nineteenth-century Germany, when an arc was made between a subjective and romantically accented study of nature and significant technical and scientific discoveries. The Romantic . . . philosophy of nature . . . presupposed dynamism, dialectic, animated nature and empathy between humans and nature . . . In such a cosmos, magical exchanges occur between humans and minerals, spirits and matter, poles and forces. In such a vision all is alive . . . subject to change and movement . . . nature is an animated unity.[3]

In the nineteenth century, as in the Renaissance, this was a poetic, philosophic and scientific synergy in which humans, nature and the cosmos were one thing – a mystical unity. As a cultural theorist of modernity, Leslie positions Marx, Engels, Walter Benjamin and Theodore Adorno in the foreground of an unravelling tale of 'chemical–poetic encounters' prompted by Goethe and the German mystics, but for those of us who work in earlier centuries the story must emphasize the particular fusions of beliefs and discourses that began under the aegis of Marsilio Ficino and Pico della Mirandola in the fifteenth-century Florentine academy and which reached a high-water mark in England in the middle of the seventeenth century.[4]

My book traces the development of alchemical–aesthetic interactions through the Renaissance, demonstrating that at least by the time his 1609 volume of poetry was published, Shakespeare subscribed to a powerfully transformative chemical vision in which working the 'metal'/'mettle' of the mind had strangely literal, uncanny, as well as important theosophical implications. Indeed, it is significant that 'metal' as a substance and 'mettle' as 'a quality of disposition or temperament' were not distinguished by spelling in this period.[5] Donne alluded to divine 'metal' work in his sermons, as on Easter Monday 1622: 'God can work in all metals and transmute all metals: he can make . . . a Superstitious Christian a sincere Christian; a Papist a Protestant.'[6] Indeed, the famous line 'Batter my heart, three person'd God' is charged with such metalwork meaning.[7] Speaking of the Psalms he declared that in the production of 'all Metricall compositions . . . the whole frame of the poem is a beating out of a piece of gold'.[8] In this scheme, God is the 'maker' par excellence, purifying souls by holy alchemy and – as we shall see – late sixteenth-century poetic treatises urged earthly makers to imitate the divine example, particularly taking note of David's Psalms and Solomon's *Song of Songs*.

Shakespeare engages overtly with the discourse of alchemical soul work and making in lines such as Henry V's 'There is some soul of goodness in things evil, / Would men observingly distil it out' (IV. i. 4–5) and more seriously playfully in Sonnet 114:

> Or whether shall I say mine eye saith true,
> And that your love taught it this alchemy?
> To make of monsters, and things indigest,
> Such cherubins as your sweet self resemble. (Sonnet 114)[9]

Granted, alchemy was (and remains today) a perfect metaphor for talking about the operations of the transforming imagination. However, as this book demonstrates, in a culture that was increasingly construing the mind and body in chemical terms, these lines are freighted with more than simply metaphorical import. This 1605 passage from a medical text describing the potential for purification and thus transmutation of the metallic 'little world' of man is illuminating: 'In man (which is a little world) there lye hidde the mynes of imperfect metals, from whence so many diseases do growe, which by a good faithful and skilful Phisitian must be brought to Gold and Silver, that is to say, unto perfect purification' (Thomas Tymme, *Chymicall Physicke*).[10]

In fact, alchemical language pervades Shakespeare's sonnets, but because we no longer imagine ourselves in this way, and are unfamiliar with chemistry's archaic lexicon, we tend to dismiss such gems as 'Pluck the keen teeth from the fierce tiger's jaws, / And burn the long-lived phoenix in her blood' (Sonnet 19) as richly imagistic but probably devoid of significance beyond rhetorical flourish. For understandable reasons Shakespeare's modern editors tend to glide past, leaving unglossed, baffling phrases such as 'blunt thou the lion's paws' and the oddly vampiric, 'Thou art the grave where buried love doth live, / Hung with the trophies of my lovers gone' (Sonnet 31).[11] Similarly, as we shall see, Shakespeare's choice of the analogy of the 'dyer's hand' in relation to the craft of poetry emerges as far from random when we learn that George Ripley, one of the most important alchemical writers published in the late sixteenth century, declared 'At the dyers craft you may learne this science.'[12] Even the eerie, frequently remarked upon, burgeoning 'babe' (Sonnets 60, 115, 126, for example) – 'this stillborn, ancient babe' in Joel Fineman's words – who wanes and grows becomes explicable in the alchemical context.[13] Indeed, the extent to which the linked discourses of metallurgy and alchemy had penetrated the understanding of the creative making mind by the turn of the seventeenth century has been seriously neglected by Shakespearean scholars and Renaissance studies more generally. My book occupies this inviting intellectual space.

Most critics would agree that *Shake-speares Sonnets* and their surreal companion piece in the 1609 quarto, *A Lovers Complaint*,[14] together

constitute a rich tapestry of rhetorical play and textual allusion about Renaissance love in all its guises. The majority would be perplexed, however, by my hypothesis that a significant and colourful strand of this, hitherto unravelled, is spiritual alchemy: a 'deep brained' activity aimed at purifying and ordering the malleable mineral mind through meditation on love, memory work and intense imagination.[15] Indeed, as we shall see throughout this book, Shakespeare's sonnets often strive to blur distinctions between secular and spiritual domains, refusing binaries. Thus, for example, memory images of the lovely boy ('Mine eye hath played the painter, and hath stelled / Thy beauty's form in table of my heart', Sonnet 24), and working the mind by meditation on them ('then begins a journey in my head / To work my mind', Sonnet 27) during 'sessions of sweet silent thought' (Sonnet 30), constitute a 'zealous pilgrimage' (Sonnet 27) which has the potential to be spiritually uplifting. 'Sweet love remembered' can transport the poet 'from sullen earth' to sing 'hymns at heaven's gate' (Sonnet 29). Such spiritual 'wealth' is worth more than that of 'kings' and restores 'losses' (Sonnets 29, 30): it has soul-regenerating effects. This intense headwork is given pronounced alchemical expression in the strangely gothic Sonnet 31 alluded to above, which contains the extraordinary image of a 'grave' (symbolic of the contemplating mind in alchemy) whose epicentre is the beloved, 'hung' with accumulated memory seals of 'precious friends' now deceased – 'the trophies of my lovers gone' (Sonnets 30 and 31). This is serious play at its most profound. As the following chapters explicate in detail, the soul's renewal through a repetitive process of memory work and meditation is symbolized by the growing 'babe' of love, whose eerie haunting of the sonnets perplexes critics, as Fineman's words above suggest. The triumphant moment of spiritual alchemy is the rebirth of the soul with heightened powers of perception, the key symbols of which are the philosopher's child and the phoenix.

This book demonstrates, therefore, how a recognizable process of soul regeneration, construed as essential to inspired poetic making and dependent upon divine as well as secular love, is inscribed in these interlinked poems, accounting for some of their most cryptic lines, odd obsessions (with 'time' and 'store', for example), their 'aggressive impatience, intensity, and concentration', 'sustained momentum', and urgency of tone.[16] It therefore proposes a new understanding of Shakespeare's 1609 volume of poetry – of both *Shake-speares Sonnets* and *A Lovers Complaint*. In its concluding chapter, it sheds a little more light on that other mysterious Shakespearean concoction, 'Let the bird of loudest lay' (or 'The Phoenix and Turtle') suggesting that here, as in his other works, we

can locate a turn-of-the-seventeenth-century 'chymical' poetics of religious toleration. Along the way too, though far more allusively, it illuminates how thinking alchemically, and thus transformatively, played an important part in the English Renaissance's wider ferment of creativity.[17] Here my insights are supported by eminent intellectual historians such as Paulo Rossi, Charles Webster and Allen G. Debus, who have long been stressing the crucial role of alchemy and mystical science in the apocalyptic and millennial mentalities associated with the rise of experimental science in the seventeenth century.[18]

Shakespeare's sonnets have a marked tendency to produce antithetical critical responses. One major scholarly dividing line, for example, is whether or not Shakespeare ordered his sonnet collection himself and saw the 1609 quarto through the press; related to this – and currently very topical – is *A Lovers Complaint* a foreign interloper inserted by a roguish publisher (yet with Shakespeare's name printed at the top of its first page) or Shakespeare's own, rather perplexing creation?[19] The majority of recent editors including Katherine Duncan-Jones, Colin Burrow, John Kerrigan and Helen Vendler have argued in favour of the volume being organized by Shakespeare prior to publication – although many of the sonnets were obviously written and circulated among his 'private friends' far earlier – and that, bearing so many resemblances (in terms of style, themes and diction) to the late plays, especially *Cymbeline*, the conjoined *Complaint* is most likely to be by Shakespeare too.[20] My book provides new evidence to support the latter view: the allegory of alchemical process woven so dexterously throughout the 1609 poems strongly suggests that Shakespeare exercised considerable control over the first edition, and it is reasonable to assume that he would have desired his volume of ground-breaking lyrics about love and the process of poetic making to leave the press 'in his owne name'.[21] If the 1609 text was pirated or corrupted he surely would have objected and countered with his own volume. As far as we know he remained remarkably silent.

But there are other very pronounced critical binaries that might be productively mediated by an understanding of alchemy. The author of *Bawdy and Soul* (2003) notes, for example, that recent work, drawn to the sexual implications of the lovely boy sonnets, has tended to divide between readings 'exclusively along homosexual lines' and 'strictly platonic' alternatives.[22] Equally, there are frequent adamant assertions that Shakespeare is not a Neoplatonist – presumably because he is too preoccupied with material bodies and sex.[23] Such assessments construe Neoplatonism along

scholastic Petrarchan lines: as the unconsummated desire of a male subject for a rather remote, beautiful female object; desire that should lead upwards to the divine. But what if Shakespeare was involved, in the manner of John Donne, in redrawing the creative lines of Petrarchanism ('Love must not be, but take a body too', in 'Aire and Angels', line 10, p. 22)? As we shall see, theosophical alchemy's central thrust was, in fact, to unite all contraries and thus to eradicate troubling binaries. After all, in their own way Neoplatonism and early Petrarchan poetry had radically recast Platonism to avoid Christian embarrassment about love between men. Philosophical and religious movements are 'contingent constructions' responsive to cultural currents; they are not set in stone.[24]

Less divisive are the debates about the orthodox religious content of the sonnets. With few exceptions, critical opinion over the past few decades has seemed remarkably united in finding Shakespeare's sonnets 'strikingly secular' (Richard Strier), 'explicitly and insistently secular' (Duncan-Jones), 'without mediation or qualification of any Christian kind' (Douglas Trevor).[25] However, Heather Dubrow finds that 'some of the poems resemble an internalized meditation' and Helen Vendler, too, describes the 1609 poems as 'inward, meditative and lyrical' but emphasizes that the 'speaker of Shakespeare's sonnets scorns the consolations of Christianity – an afterlife in heaven for himself, a Christian resurrection of his body after death . . . The sonnets stand as the record of a mind working out positions without the help of any pantheon or any systematic doctrine.'[26]

Nonetheless, Vendler provides us with a characteristically brilliant reading of the sonnet that most critics regard as a religious interloper in a secular sequence – Sonnet 124 – in terms of Platonic form. Indeed, assessments of the sonnets as un-Christian leave us with a pronounced problem: how do we then explain the liturgical prayer (even The Lord's Prayer in Sonnet 108) and biblical echoes that pervade the sonnets and which Vendler, Duncan-Jones and Kerrigan (to name but three influential editors) have been so astute at detecting and glossing? Of course, secular work can absorb biblical echoes without becoming religious. However, Shakespeare's sonnets seem to go beyond this: as has been recently foregrounded, several of Shakespeare's sonnets appear to dialogue with the Geneva Bible marginalia – annotations that were meant for private religious meditation.[27] And then there are those constant allusions to the Trinity – 'In this change is my invention spent, / Three themes in one, which wondrous scope affords' – which at times merge with the Platonic insistence on 'Fair, kind and true' (Sonnet 105). The overriding impulse has been to read such incursions into

extreme secularity ironically – wicked Will is simply 'trafficking in words' and being shockingly blasphemous.[28]

Although broadly adhering to this view, Thomas Roche's voluminous and erudite study, *Petrarch and the English Sonnet Sequences*, injects a note of caution: 'we have not yet learned the rules of the game . . . and we still need to know more about the meaning of individual words. Historical criticism has foundered in the cul-de-sac of biography without adequate sociological or religious information or interest.'[29] In addition he, like Alastair Fowler, is convinced that a divine mathematics pervades the sonnet sequence, but while Roche reads this as intentional irony Fowler is notably less convinced, recalling C. S. Lewis's view that 'the greatest of the sonnets are written from a region in which love abandons all claims and flows into charity'.[30] Is it conceivable that Shakespeare would have expended so much intellectual energy devising and inscribing a highly complex divine geometry into his sequence simply to be outrageously blasphemous? This does not square with the mentality of the poet that we uncover in his other works. But editorial accounts that simply dismiss the numerology in the sequence as critical fantasy – 'ingenious eyes can see a lot in numbers' – fail to satisfy, too, because the reader is then left wondering why the sonnets themselves draw attention to their number-play, even giving instructions:[31]

> In things of great receipt with ease we prove
> Among a number one is reckoned none.
> Then in the number let me pass untold,
> Though in thy store's account I one must be. (Sonnet 136, 7–10)

Why is 'one . . . none' and why on earth should we count Sonnet 136 out? What is 'thy store's account'? Again, reading alchemically offers insights: as we shall see, divine geometry was an integral part of the alchemical *opus* or 'work'.

Shakespeare may be playing games with us but equally we critics play games and take liberties with Shakespeare's enigmatic sonnets, as James Schiffer foregrounds: 'what is obvious to one serious critic is not to another. Each uses internal evidence to support his reading, and each is highly persuasive. All that is missing in their strong analyses is the admission that their theories are built in speculation rather than fact.' Schiffer makes a timely and welcome plea for 'agnostic tolerance' and the eschewing of 'dogmatism'.[32] In 1961 the Oxford scholar J. B. Leishman gave book-length voice to an issue that for him was puzzling in the extreme and which he, for one, was not prepared to resolve by merely papering over the critical cracks: 'Although Shakespeare never employs Platonic or transcendental language

one cannot but feel that his love immeasurably transcends its immediate object . . . Behind many . . . of his great affirmations one is aware of an immense weight of conquered negation, but who can say precisely what it was that he had to overcome?'[33]

He found the 'religiousness' of so many of Shakespeare's expressions of love comparable only with the religious poetry of Donne, Herbert and Vaughan and he recalled how Herbert had 'dwelt on the possibility and desirability of writing a kind of religious love poetry'. He concluded, 'we should be content to regard [Shakespeare's] . . . whole collection, especially those addressed to the friend', as being, like Herbert's *The Temple*, 'a picture of many spiritual conflicts', of many 'trials and testings of Shakespeare's love and faith', and as a reflection of his 'inner weather' over a period of perhaps as much as ten years.[34] Only this could account for the tone and substance of sonnets like 'Poor soul, the centre of my sinful earth' (Sonnet 146) and 'If my dear love were but the child of state' (Sonnet 124). Thus for Leishman the 1609 poems both eschewed transcendental language and were deeply religious. In fact, if we refuse selective readings that block out obstacles to a coherent vision, the constant drawing together of antitheses (like biblical echoes and erotic desire) in Shakespeare's sonnets (antithesis is their major figure as Vendler foregrounds) inevitably produces paradoxes that modern readers find unsettling and perplexing.[35] What on earth was the bard up to merging religion with sex?

There is, I suggest, another way of encountering this apparent critical bind. It involves trying to find out more 'about the rules of the game' (as Roche phrased it) and its lexicon around 1600; investigating what 'Neoplatonism' might have meant to Shakespeare and his 'private friends';[36] and probing the particular philosophic-aesthetic climate that gave birth to the 1609 volume. As Kerrigan suggests, 'Shakespeare's audience had a framework for reading it' – one that we have lost.[37] My book, historicized and interdisciplinary in its approach, attempts to reconstruct this aspect of the mentality of Shakespeare and his contemporaries. It argues that, while being seriously playful throughout, the literal surface meanings of the sonnets and *Complaint* are designed to lead the uninitiated astray while an alchemical allegory inscribes alternative or additional meanings. A contemporary *Lexicon of Alchemy* (1612) is helpful here:

> Language: In the writings of Hermetic science, the Philosophers never express the true significance of their thought in the vulgar tongue, and *they must not be interpreted according to the literal sense of the expression*. The sense which is presented

on the surface is not the true sense. They discourse in enigmas, metaphors, allegories, fables, similitudes, and each philosopher adapts them after his own manner. (Martin Rulandus, *A Lexicon of Alchemy*, 1612, my emphasis)[38]

As an elite theosophical language that prized its coterie exclusivity, Hermetic alchemy spoke in enigmas, metaphors, allegories, and fables – this was serious play for a charmed circle of initiates. But for the modern reader the problem of understanding is compounded by alchemy's archaic language – by its virtually dead sign system. It is small wonder in this context that such an astute decoder of language as Inga-Stina Ewbank finds it necessary to observe that 'it is not so much that Shakespeare lacks a language for the self as that contemporary critical language cannot get a purchase on the Sonnets'.[39] She finds Joel Fineman's sophisticated Lacanian reading of the sonnets' 'new poetics of the person' (which asks 'is Shakespeare Freudian?') anachronistic and therefore unconvincing.[40] Religion and the soul are, indeed, remarkably absent from Fineman's brilliant discussion of subjectivity in the sonnets.

It would seem that our modern theoretical vocabularies are not quite up to the task of unravelling all the fascinating dimensions of the early modern psyche. My book will demonstrate how the lost lexicon of late sixteenth-century European alchemy, with its pronounced discourse of love and soul work, and its explicit sexual symbolism, facilitated Shakespeare's inscription of an interior drama of a desiring mind involved in poetic creation. Its synthesizing philosophy prompted him also continually to unite contraries – crucially, to draw down the spirit into embodied subjects that have sex. I would like to suggest that where we, peering through our post-Cartesian precision lenses (and firmly ensconced behind modern disciplinary fences) find troubling divisions and incompatible binaries, Shakespeare's 'private friends', reading through blurred alchemical spectacles (and striving for unity), undoubtedly encountered productive fusion. They saw and read differently and relished the interpretive challenge of enigmas. Indeed, 'darke sayings' and 'Parables' were closely linked to divine teaching in this period. As Michael Schoenfeldt has pointed out, John Donne articulated at length in a sermon 'his admiration for Jesus' particularly strategic use of such obscurity':

when it is said, *They were astonished at his Doctrine, for his word with Power* [Luke 4.32], they refer that to this manner of teaching, that hee astonished them with these reserved and darke sayings, and by the subsequent interpretation thereof, gained a reverend estimation amongst them . . . For those Parables, and

comparisons of a remote signification, were calld by the Jews, *Potestates*, Powers, Powerfull insinuations. (*Sermons*, vol. VII, pp. 315–16)[41]

Contextualized studies such as this one, which has even required the reclamation of a lost lexicon, certainly do not emerge out of the ether, and my book is heavily indebted on nearly every page to Lyndy Abraham's magnificent *Dictionary of Alchemical Imagery* (1998). It is also informed by her pioneering examination of poetic alchemy in *Marvell and Alchemy* (1990) and that of Charles Nicholl in *The Chemical Theatre* (1980) and Stanton J. Linden in *Darke Hierogliphicks* (1996) and *Mystical Metal of Gold* (2007). John S. Mebane's *Renaissance Magic and the Return of the Golden Age* (1989) has been a treasure trove of knowledge, as has Stanton J. Linden's *The Alchemy Reader* (2003) and the publications of the intellectual historian, Charles Webster.[42] The debt of all of us to the extraordinary research of Dame Frances Yates into the humanism of the Florentine and Parisian academies and the Neoplatonic, Hermetic contexts of literary production in late sixteenth-century Europe almost goes without saying. Although Yates' formidable scholarship has been much critiqued over recent decades (not always positively), its intellectual range and insights remain astonishing.[43] Her work on Shakespeare's late plays, Nicholl's and Linden's on *King Lear* (as well as Jonson, Donne and Herbert), and Mebane's on *The Tempest*, has reassured me that I am certainly not alone in finding alchemy in Shakespeare but the discovery of a significant alchemical thread woven throughout the 1609 quarto is my own.[44]

This is a particularly timely moment to re-engage with the debates surrounding the culture of Renaissance alchemy spearheaded by Yates in the 1960s and 70s. Over recent decades considerable advances have been made by intellectual and cultural historians and historians of science into the understanding of the alchemical mindset and the role of esoteric mysticism in the rise of experimental science in the seventeenth century.[45] The revelation that several leading mathematicians and scientists of the period including figures such as Newton and Boyle were keen alchemists has reshaped the contours of the way in which the story of the scientific revolution can be told.[46] The past two decades, too, have seen important reassessments of a key figure in the history of English alchemy, John Dee (culminating in 2009 in a major conference to mark the quartercentenary of Dee's death), with this noted practitioner emerging less in his former guise as a maverick magus and conjuror of angels and more as one of the most original yet pragmatically minded thinkers of his day.[47] Along with John Dee, alchemy and its close associate natural magic increasingly wear