

RESEARCH ARTICLE

Cucurbits and covenants: descriptions of alchemical vessels as religious spaces in early modern England

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Abstract

Alchemists in early modern England frequently described their vessels as religious spaces, drawing analogies between Christian belief and the alchemical *magnum opus*. Such analogies offered clues as to what an alchemist should expect to experience during their experimentation, helping to guide their work if read correctly. During the great religious turbulence during the Reformation, however, these visual and symbolic descriptors became unstable, being transmuted and transfigured according to the religious currents of the time. Thus, whilst such descriptors provided coded instructions for how such vessels should function and what visual tokens an alchemist could expect to see occurring within them, such analogies between vessels and religious spaces simultaneously demonstrate the many nuanced ways in which alchemists reacted and responded to Reformed theology. Focusing on two sites in particular, Christ's sepulchre and the tabernacle, this article draws on contemporary tracts, treatises and poems to argue that figurative and metaphorical descriptions drawing upon Christian sites can offer fresh insight into the relationship between alchemy and religion in this period.

Alchemical imagery in early modern Europe was deeply indebted to Christianity, drawing frequently upon Christian religious spaces or biblical tales to allegorically explore alchemical processes. Alchemical literature of this period produced or consumed by English audiences was, then, rich in religious iconography and thus provides a useful lens through which to explore the relationship between alchemy and religion at a time of doctrinal turbulence.

Despite the close relationship between alchemy and Christianity in Europe, few scholars have studied developments within alchemical study and practice in the context of one of the most seismic religious events of the time: the Reformation. However, as I have argued elsewhere, viewing alchemy in the context of religious reform offers fresh and important insights into the exegetical and methodological approaches employed by students and practitioners of the alchemical arts.¹ This is especially true of alchemical imagery, a source base rich in Christian iconography that lays bare the religious struggles of the time.

This article examines the uses of two religious sites to describe alchemical vessels, exploring what the various uses of these analogies can reveal about alchemical interactions with Reformed theology. By far the most common of these religious spaces appropriated in alchemical imagery was the sepulchre, the tomb in which Christ's body was placed following

¹ Zoe Screti, 'The relationship between religious reform and alchemy in England, 1450–1650', doctoral thesis, University of Birmingham, 2022.

his crucifixion, and the site of his subsequent Resurrection. Also popular, however, was the tabernacle, the portable site of worship constructed by Moses following his instruction on Mount Sinai for the Israelites. This article thus primarily focuses on these two most prominent religious spaces used in alchemical imagery, drawing upon a variety of sources, either produced by English alchemical authors between 1500 and 1700, or works translated into English and consumed by anglophone audiences during the same period. It begins by questioning why the sepulchre should hold such a prominent place within alchemical imagery, before exploring uses of the sepulchre within early modern alchemical treatises. It then considers uses of the tabernacle, comparing and contrasting these with uses of the sepulchre to demonstrate the many nuanced ways in which the religious landscape of early modern England influenced alchemical imagery.

Alchemy in the context of the English Reformation

Religion in the early modern period held a prominent place in English society and culture, shaping the rhythms of daily life, dictating social and moral values, and offering people a framework through which to comprehend the world around them.² As such, Christianity provided a fundamental world view that shaped and dictated all aspects of one's life. Unsurprisingly, therefore, Christianity likewise held a prominent position within alchemical study and practice, and this relationship between science and religion manifested in a multiplicity of ways; alchemists performed acts of worship and praise at the beginning and end of the alchemical work, religious doctrine directly influenced the parallels alchemists drew between their scientific work and Christian faith, and many alchemical practitioners explicitly believed that alchemical knowledge had been given to them as a gift from God, or *donum dei*.³

Of most pertinence to the present argument is the influence of Christian – and more specifically Reformed – doctrine on alchemical imagery. Whilst other sciences were emphasizing the literal meaning of Scripture, and thereby stripping their scientific works of 'signs and symbols of transcendental truths', as Peter Harrison has argued, alchemists upheld their reliance on symbolic imagery to visually and figuratively explain their scientific practices despite employing Protestant exegetical methodologies.⁴ Certainly, Reformers were calling for more literal interpretations of Scripture during this period, but, as Barbara Lewalski has argued, metaphors and similes remained an essential part of scriptural exegesis as they constituted 'a principal vehicle for uniting divine truth and the truths of human experience'.⁵ Indeed, as Martin Luther – a leading proponent of the Protestant Reformation – stated, Scripture contains plentiful 'metaphores and similitudes borrowed of nature, so that he that should take them out of the holy Byble, shoulde take therewith

² Caroline Bowden, Emily Vine and Tessa Whitehouse (eds.), *Religion and Life Cycles in Early Modern England*, Manchester: Manchester University Press, 2021; Elizabeth Clarke and Robert W. Daniel, *People and Piety: Protestant Devotional Identities in Early Modern England*, Manchester: Manchester University Press, 2020; Alec Ryrie and Natalie Mears (eds.), *Worship and the Parish Church in Early Modern Britain*, London: Routledge, 2013.

³ William R. Newman, *Gehennical Fire: The Lives of George Starkey, an American Alchemist in the Scientific Revolution*, Chicago: University of Chicago Press, 2003, pp. 98–9; Vladimir Karpenko, 'Alchemy as donum Dei', *Hyle* (1998) 4, pp. 63–80; Lawrence Principe, *The Secrets of Alchemy*, Chicago: University of Chicago Press, 2013, pp. 192–5, 199–200.

⁴ Peter Harrison, 'The Bible and the emergence of modern science', *Science and Christian Belief* (2006) 18, pp. 115–32, 116; Harrison, 'Miracles, early modern science, and rational religion', *Church History* (2006) 75, pp. 493–510, 500.

⁵ Barbara Kiefer Lewalski, *Protestant Poetics and the Seventeenth-Century Religious Lyric*, Princeton, NJ: Princeton University Press, 1979, p. 104. See also Brian Cummings, *The Literary Culture of the Reformation*, Oxford: Oxford University Press, 2002, pp. 15–53; Gavin L. Scheper, 'Reformation attitudes toward allegory and the song of songs', *PMLA* (1974) 89(3), pp. 551–62.

much light from it also'.⁶ The shift between approaches taken by pre- and post-Reformation alchemists in England was thus subtle but it is nevertheless an important distinction to note when considering alchemical imagery: allegorical interpretations that offered moral lessons were no longer popular amongst Reformed alchemists of the sixteenth and seventeenth centuries, but metaphors, similes and symbols upheld an important place in their exegesis of alchemical and biblical texts alike.

Purgatory or resurrection?

The doctrinal divisions between Protestantism and Catholicism, along with the many internal fractures within these two broader groups, wrought numerous changes in exegetical approaches, such as the shunning of allegory noted above, as well as manifold alterations to daily and practical worship.⁷ These divisions also altered the ways in which biblical imagery was used within alchemical treatises and recipes. This is especially true of the imagery of Christ's sepulchre, which emerged in the sixteenth and seventeenth centuries as a popular image within alchemical literature to explain the process of putrefaction. This image was rarely used by medieval alchemists, who instead found their analogies in the imagery of Purgatory. However, as a location not mentioned in the Bible, Reformers rejected notions of Purgatory, arguing that salvation could not be attained by the cleansing of one's sins in the 'in-between' place, but instead was predestined by God for his chosen elect. This outright rejection of Purgatory prompted the need for alchemists to find an alternative comparison to the process of putrefaction, giving rise to the use of Christ's sepulchre as an alchemical symbol.

It is perhaps useful to briefly outline here the debates surrounding Purgatory during the Reformation in order to demonstrate how and why Christ's sepulchre became the preferred metaphor employed by alchemists to describe putrefaction. Putrefaction is a stage of the *magnum opus* in which matter is mortified within a vessel, gently heated to encourage rotting and decay, and then regenerated via distillation. Indeed, arguably England's most famous medieval alchemist, George Ripley (c.1415–90), summarized the process as follows:

And Putrefaction may thus be defined, after philosophers sayings,
To be the slaying of bodies,
And in our compound a division of things three,
Leading forth into the corruption of killed bodies,
And after enabling them unto regeneration,
For things being in the earth, without doubt,
Be engendered of rotation in the heavens about.⁸

The parallels between putrefaction, the key component process of the first alchemical stage known as *nigredo*, or the black stage, and the transformations of Purgatory are thus clear; just as matter is mortified, fermented and revived, so too does the individual die and their soul experience torment in Purgatory before ascending in a purer state to Heaven.

⁶ Martin Luther, *An Exposition of Salomons Booke, called Ecclesiastes or the Preacher*, London, 1573, p. 8. All transcriptions within this article are diplomatic, and thus contain idiosyncrasies in spelling, grammar and punctuation.

⁷ Christopher Haigh, *English Reformations: Religion, Politics, and Society under the Tudors*, Oxford: Oxford University Press, 1993; Peter Marshall, *Heretics and Believers: A History of the English Reformation*, New Haven, CT: Yale University Press, 2017; Jonathan Willis, *Sin and Salvation in Reformation England*, London: Routledge, 2016.

⁸ George Ripley, 'The compound of alchemy', in Elias Ashmole (ed.), *Theatrum Chemicum Britannicum*, London, 1652, pp. 107–93, 148.

Catholics based their belief in Purgatory as a transitional phase on 2 Maccabees 12:42–5, a text which, though part of the Catholic biblical canon, was rejected by Protestants as apocryphal due to its being an abridgement of several works rather than a text produced by a single author who had received divine inspiration, and its extensive use of the Hebrew Bible to inform the Old Testament rather than the Latin Vulgate or Greek Septuagint.⁹ In this text, we see surviving relatives and friends praying for the souls of departed loved ones in the hopes that their sins may be forgiven – and thus their souls granted ascension into Heaven – and making offerings in the hope of rendering the same effect.¹⁰ This passage was used to confirm the existence of Purgatory, suggesting that human intervention on the part of those left behind could ease the passing of the deceased’s soul through suffering towards Heaven. For Protestant reformers such as Martin Luther, however, this added a third problem which aided in the relegation of Maccabees to apocrypha; Judas’ offerings seemed to set a precedent for the buying and selling of indulgences – a tradition in the medieval Catholic Church whereby individuals could pay to reduce the amount of punishment their soul would endure in Purgatory for their sins.¹¹ Indulgences, whilst sometimes used to fund charitable works, were open to much abuse and became a key point of discussion during the Reformation. Thus both the text of 2 Maccabees and the practices it condoned were shunned by Protestants as unfounded, and as this was the only scriptural reference made to a belief in a purgatorial state, this in turn led to a rejection of Purgatory. Daily practices were certainly harder to change, and many continued to pray for the souls of the dead, but doctrinally the Reformed sects eradicated Purgatory and instead argued that salvation could only be granted by God.

This doctrinal change thus posed a significant problem for alchemists who had long relied on Purgatory as a useful comparative to the process of putrefaction. The fifteenth-century alchemist known only as ‘Pearce the Black Monk’, for instance, noted that

In purgatorie shee must be doe
And haue ye paynes yt longeth thereto
tyll shee be brighter then the sonne
For then is all the maisterie wonne.¹²

Meanwhile, Pearce’s contemporary, George Ripley, made multiple references to Purgatory in his *Compound of Alchemy*, arguably one of the most popular medieval alchemical texts that circulated widely in manuscript form. He noted, for instance,

Lat the Woman to wash be bound,
Whych oftyn for faytnes wyll fall in a sound:

⁹ Lee Martin McDonald, *Forgotten Scriptures: The Selection and Rejection of Early Religious Writings*, Louisville, KY: Westminster John Knox Press, 2009, p. 81.

¹⁰ 2 Maccabees 12:41–6, New Catholic Bible. The passage reads, ‘And so they all praised the acts of the Lord, the just judge who reveals things that are hidden, and they turned to supplication, praying that the sin that had been committed might be completely blotted out ... Then he took up a collection from all of his soldiers, amounting to two thousand silver drachams, and sent it to Jerusalem to provide for an expiatory sacrifice. In doing this, he acted in a suitable and honourable way, guided by his belief in the resurrection. For if he had not expected those who had fallen to rise again, it would have been superfluous and foolish to pray for the dead. However, if he was focusing on the splendid reward reserved for those whose death was marked by godliness, his thought was holy and devout. Therefore, he had this expiatory sacrifice offered for the dead so that they might be delivered from their sin.’

¹¹ David A. deSilva, ‘Biblical theology and the apocrypha’, in Gerbern S. Oegema (ed.), *The Oxford Handbook of the Apocrypha*, Oxford: Oxford University Press, 2021, pp. 534–50; Peter Marshall, *Beliefs and the Dead in Reformation England*, Oxford: Oxford University Press, 2002, Chapter 2.

¹² British Library, Sloane MS 1842, ‘Extract from *Upon the Elixir*’, fol. 11v.

And dye at the last wyth her Chyldren all,
And go to Purgatory to purg ther fylth orygynall

and elsewhere:

For lyke as Sowles after paynys transytory
Be brought into paradyce where ever ys joyfull lyfe;
So shall our Stone after hys darknes in Purgatory ...
And passe from the darknes of Purgatory to lyght
Of paradyce.¹³

In each of these instances, three of many similar expositions, the process of putrefaction is likened to Purgatory, with mortified matter having to suffer transitory pains in order to attain the clarity and lightness that would enable their ascent into Heaven. If Purgatory did not exist, however, as the Reformers claimed, how could alchemists of the Protestant faith visually and figuratively describe the same process without drawing upon ‘popish’ ideas?

Uses of the sepulchre in early modern alchemical literature

A logical alternative, and one which gained rapid popularity, was the replacement of the imagery of Purgatory with that of Christ’s Resurrection. This shift consequently gave rise to comparisons between the alchemical vessel and Christ’s sepulchre, using the imagery of the sepulchre to set dress the alchemical transformation that occurred during putrefaction. Much like the cave in which Christ’s body was placed after his crucifixion, the alchemical vessel was to be filled with mortified matter and sealed until such matter was revived and purified: a darkness transitioning to light.

This comparison with the sepulchre had some precedence in the verses which formulate Ripley’s *Wheele*, or ‘Cœlum Philosophorum’, a fifteenth-century diagram designed to accompany George Ripley’s *Compound of Alchemy*.¹⁴ This allusion to the sepulchre, which sits in the outermost ring of the concentric circles that form the diagram, demonstrates the flexibility of alchemical imagery in the medieval period; both Christ’s tomb and Purgatory could represent the same process as the associated shifts from pain to clarity and darkness to light made them both well suited to describing processes of putrefaction and clarification. However, early modern editions of this work reveal the ways in which the text was reworked to suit changing religious tides.

Printed in London by Thomas Orwin in 1591 as part of the *Compound*, the transformative process is described as such:

As Christ our Sauour was tumulate,
After his passion and death on tree,
And after his bodie was glorificate,
Vprose indued with immortalitie,
So here our Stone buried after penaltie,
Vpriseth from darknes & colors variable
Appearing in the East with clearness incomparable.¹⁵

¹³ Ripley, *op. cit.* (8), pp. 149, 151.

¹⁴ Jennifer Rampling, ‘Depicting the medieval alchemical cosmos: George Ripley’s *Wheel of Inferior Astronomy*’, *Early Science and Medicine* (2013) 18(1–2), pp. 45–86.

¹⁵ George Ripley, *The Compound of Alchymy*, London, 1591, unnumbered page.

The term 'sepulchre' is not used explicitly here but Ripley nevertheless sets his simile in the context of Christ's entombment and Resurrection, with the philosophers' stone being 'buried after penaltie' like 'Christ our Sauior was tumulate'. What follows is a quasi-purgatorial process, with spirits losing the dross of their pains and woe in Paradise and becoming bright and crystalline. Yet the terminology of Purgatory, as one might expect in post-Reformation England, is notably absent:

Here the red man and his white wife
 Bee spoused with the spirite of life
 Into Paradice here we goe,
 There to be purged of paine and woe
 Here they passed their paines all,
 Exceeding in brightnes the christall
 From paradise they goe to heaven to woon
 Shinining brighter than doth the Sun

The red man and his wife suffer in their ascension to Paradise, but the scene of this painful transition is Paradise itself rather than Purgatory.

Sixty years later, in a reprint of the *Wheele* found in Elias Ashmole's 1652 compendium, *Theatrum Chemicum Britannicum*, the imagery of the sepulchre is brought to the fore with a series of variants made to the verse that make a more explicit reference to Christ's tomb. In this edition, the verse instead reads,

As Christ in tombe was tumulate
 After his passion and death on tree
 And after in body glorificate
 Vprose indewed with claritie
 Right so by Corporall penaltie
 The sonne eclipsed with colloures variable
 In the east upriseth in whitnes incomparable¹⁶

Additionally, the Ashmole version also makes a far more explicit reference to Purgatory, with further variants made to the next ring of the diagram:

Heere the red man to his white wife
 Beespoused with the spirit of lyfe
 Heere to purgatory must they goe
 There to be purged by paine and woe
 Heere they have passed their paines all
 And made resplendant as is christall
 Here to paradize they goe to wonne
 Brighter made then is the sonne.¹⁷

This dissonance is remarkable, revealing an effort on the part of the late sixteenth-century editor to erase reference to Purgatory from Ripley's text in response to the doctrinal sensitivities of the time. Though Ashmole was also writing in the post-Reformation period, his religious sentiments tended towards Anglicanism. According to Anglicans, the Church

¹⁶ George Ripley, 'Here followeth the Figure conteyning all the secrets of the Treatise both great & small', in Ashmole, op. cit. (8), p. 117.

¹⁷ Ripley, op. cit. (16), p. 117.

should be Reformed but in a way that aligned with the Henrician reforms rather than the more intensely Protestant reforms of his son, Edward VI, or of the recent Puritanical regime of Oliver Cromwell. This therefore allowed Ashmole a greater degree of freedom than his late sixteenth-century predecessor and, when combined with his antiquarian efforts, enabled him to publish references to Purgatory.

That Purgatory was intended to feature in the verses is perhaps evidenced in a manuscript edition of the work produced by Thomas Knyvet in around 1545, in which, for instance, the same section reads,

The [man] redd may to hys wyfe
ys ioyned wth the sp[iri]t of lyfe
Here to purgatorye must ye go¹⁸

This manuscript copy appears to have been based, as Rampling has identified, on a 1539 copy in the 'Liber Georgii Golde', now held by Trinity College, Cambridge, and it seems that Ashmole's edition was also based on this version.¹⁹ Whilst not contemporary with Ripley, these early manuscript copies were produced ahead of the height of the Reformation in England, with both the Golde edition and the Knyvet edition made during the Henrician period when, despite the break from Rome, English religion maintained a strongly Catholic bent. As such, there was little reason for them to remove references to Purgatory as this remained a widely accepted belief that was yet to be challenged with any great theological vigour. As a copy of these early versions, then, Ashmole's edition of the diagram signifies a return to pre-Reformation works, and thereby reinstates the references to Purgatory lacking in the 1591 version, produced at the height of the Reformation when the doctrine of Purgatory was very much a theological taboo.

The popularity of Riplean works in early modern England ensured that his texts were widely read and copied by alchemists, and the alternative of the sepulchre, a doctrinally more comfortable image in the late sixteenth and early seventeenth centuries, became more widespread as references to Purgatory dwindled. The use of the term 'sepulchre' to denote an alchemical vessel such as an aludel is exemplified in an anonymous alchemical treatise printed in London in 1673. Here, the author – bookseller William Cooper – paraphrases the German alchemist Heinrich Khunrath (1560–1605) and remarks,

In the interim, we account them happy, who by the help of art, are careful how they may wash this Philosophical Queen, and circulate the Catholick Virgin Earth, within a Magick, Physicall Christalline Artifice; Nay, as *Khunrade* saith, they alone shall see the Philosophers King crowned with all the colours of the world, and coming forth of his Bedchamber, a glassy Sepulchre, more then perfect in his external glorified fiery body, shining like a bright Carbuncle, or a compact, and Ponderous transparent Christal.²⁰

¹⁸ Cambridge University Library, MS Ff.2.23, fol. 32Ar.

¹⁹ Rampling, *op. cit.* (14), p. 73.

²⁰ Anonymous, *The Philosophical Epitaph of W.C. Esquire for a memento mori on his tomb-stone, with three hieroglyphical scutcheons and their philosophical motto's and explanation*, London, 1673, pp. 4-5; Heinrich Khunrath, *Von hylealischen das ist, pri-materialischen catholischen, oder allgemeinemx natürlichen*, Magdeburg, 1597, p. 237. Khunrath's original text read: 'zu ehren gesekten und mehr dann vollkommenheit erhabenem Himlischen Leibe) der Philosophen DREISINIGE erstlich WEISSE / (den die Philosophi ihre Lochter nennen) und hernacher eben gleich derseibe (nach mehrer gnugsamer fünstlicher Rechung) Sanguin ROIHE (welchen die Weisen ihren, ex Ovo Mundi, fünstisch ausgebrüteten SOHN und gefrönten könig nennen. klar / hellglanken de und Carfunckel-licht schimmeren de und scheinende / durchsichtige / in geringem Feuer Warflüssige unuerbrenliche und Salamandrischer art nach immertestendige / unzerstorliche'.

This phrasing is repeated a few pages later with the links to Christ's Resurrection made all the more apparent:

Thou shalt see the Stone of the Philosophers (our King) go forth of the bed-chamber of his Glassie Sepulchre, in his glorified body, like a Lord of Lords, from his Throne into this Theater of the World: That is to say, regenerated and more then perfect; a Shining Carbuncle; a most temperate splendour, whose most subtile and depurated parts are inseperably united into one.²¹

Cooper thus describes a transformative alchemical process in which matter will emerge from the vessel in a purer, more clarified state, and chooses to do so through the imagery of the Resurrection, positing the alchemical vessel as the sepulchre. This is a particularly useful example of these parallels, as the author makes it clear that they are talking about a tangible object here, the 'glassy Sepulchre', rather than a notional idea. This description immediately signifies that the author is describing a vessel such as a glass aludel or alembic, and thereby makes the correlation between the alchemical glassware actively used during experimentation and the sepulchre of Christ all the more explicit. Cooper thus fixes his imagery within the bounds of the more doctrinally acceptable Resurrection, forgoing more traditional references to Purgatory.

William Salmon (1644–1713), an iatrochemical physician and author of medical texts, made the comparative imagery of the sepulchre similarly tangible in his 1692 work titled *Medicina practica*. Here, Salmon notes,

These two are those which *Avicen* calls the *Armenian Dog*, and the *Corassere Bitch*, which being put together into the Vessel of the Sepulchre, do cruelly bite one another, and by their furious rage and mighty poison, never cease to contend, from the very moment that they seize on one another (if the cold hinder not) till both of them become all over bloody, in every part.²²

Here, the fierce battle between the male and female dogs – representing respectively sulphur and mercury – is set within the arena of 'the Vessel of the Sepulchre', making it clear that this is not merely a useful image of the imagination but rather a very real object that is key within the practical alchemical work just as it was in Cooper's text.

This tale of the two dogs is based on a similar tale from Figure V of Abraham Lamspring's *Triga chemica: de lapide philosophico tractatus tres*, alternatively known as the *Book of Lamspring*, translated into Latin by the French Protestant physician and alchemist Nicholas Barnaud Delphinus (1538–1604). It is this publication that provided the source material for Salmon in which the link between the sepulchre-cum-vessel, putrefaction and the Resurrection is made more explicit. In the tale of the battle, as told in the *Book of Lamspring*, the animals are then revived, or resurrected, in a purer form, with their opposing forces united in a superior being:

One kills the other,
And from them comes a great poison.
But when they are restored to life,
They are clearly shewn to be
The Great and Precious Medicine,
The most glorious Remedy upon earth,

²¹ Anonymous, op. cit. (20), p. 10.

²² William Salmon, *Medicina practica, or, Practical physick*, London, 1692, p. 547.

Which refreshes and restores the Sages,
Who render thanks to God, and do praise Him.²³

Here, the resulting product of the battle is described in Christ-like terms as a ‘glorious Remedy upon earth’ that could rejuvenate those who thanked and praised God. Just like the salvation that could be achieved by the predestined Elect, here the chemical matter could save and restore matter in need of purifying.

Though Salmon’s passage thus makes only a cursory nod to the Resurrection story through its use of the term ‘sepulchre’, tracing the genesis of this tale makes it possible to reveal the more implicit references to the sepulchre-cum-vessel as an object which directly parallels the religious space of Christ’s Resurrection. The setting of the sepulchre, a scene of transformation from death to eternal life, signifies this, as does the additional context gleaned from a reading of Delphinus, but Salmon also provides an additional clue here as to his specifically having putrefaction in mind when making a comparison to Christ’s sepulchre: he states that this battle can only continue so long as ‘the cold hinder not’, or, in other words, a continual heat be applied. This slow and continual heat was necessary for the stage of putrefaction as it facilitated the decomposition and fermentation of matter within the vessel.²⁴ Thus, once again, we have a physical alchemical vessel being imaginatively likened to the sepulchre in order to explain that it is a site of transformation in which darkness becomes light.

Similarly, in 1680, John Frederick Houpreght (seventeenth century) in an English translation of his *Aurifontina chymica* – coincidentally published by the aforementioned William Cooper – made a direct correlation between an alchemical vessel and the Sepulchre. He noted,

Take this Stone and put him in a well-closed clear Vessel, that thou mayst see his working; and when thou hast Water of Air, and Air of Fire, and Fire of Earth, then it is done, for the Spirit is departed from the Body, and leaveth the Body dead and black. But if the Sepulchre be well closed, he will come in again to the Body, and make him rise again to life, and then the Body and the Soul shall ever be together.²⁵

As with Salmon and Cooper, Houpreght here explicitly terms his vessel a sepulchre, and additionally states that the vessel should be clear (i.e. made of glass). In doing so, Houpreght again demonstrated the direct correlations being drawn between alchemical vessels and religious sites in the early modern period, with the vessel paralleling Christ’s sepulchre and needing to be well sealed in order to allow for the dead matter to be revived. As before, the sepulchre-cum-vessel is used with explicit reference to the process of putrefaction, as Houpreght notes that the reader-experimenter should expect to see the body lying dead and black in the vessel before the spirit spectacularly revives it. Additionally, just as Salmon gave practical advice about the need to apply a slow but continual heat to the vessel in order to expedite putrefaction, Houpreght also offers practical guidance for handling the alchemical vessel, or sepulchre, noting that the vessel should be well luted so as to aid the revivification and prevent the vitalizing spirit from escaping. This comment both aids the practising alchemist and simultaneously further evokes the biblical imagery of the stone sealing the entrance of Christ’s sepulchral cave.

²³ *Triga chemica: de lapide philosophica tractatus tres*, trans. Nicholas Barnaud Delphinus, Flanders, 1599, fig. V.

²⁴ Jennifer Rampling, *The Experimental Fire: The Invention of English Alchemy, 1300–1700*, Chicago: University of Chicago Press, 2020, p. 150.

²⁵ John Frederick Houpreght, *Aurifontina chymica, or, A collection of fourteen small treatises concerning the first matter of philosophers for the discovery of their (hitherto so much concealed) mercury*, London, 1680, p. 181.

In each of the three examples above, then, the sepulchre and the alchemical vessel become interchangeable: both are sites of transformation in which matter passes from death to glorious life, both needed to be well sealed in order for the transformation to take place, and both provided physical spaces in which spiritual change could occur. In this way, the vessel became a site of chemical transformation as much as the sepulchre was a sight of pneumological transformation.

The widespread use of the term ‘sepulchre’ to denote an alchemical vessel used during the process of putrefaction was a distinctly post-Reformation occurrence, suggesting that it was an authorial choice directly influenced by the need to find a comparatively useful image that was less doctrinally complicated than Purgatory. Though some medieval texts mentioned graves, these were devoid of any Christocentric connotations. For instance, Ripley, in his *Compound of Alchemy*, notes in his discussion of putrefaction that the vessel, or grave, should be a site of conception, rather than of spiritual transformation:

Bery ech on wyth other wythin ther Grave;
 Then equally a Marryage betwyxt them make
 To ly together six wekys; then lat them have
 Ther sede consevyd kyndly to norysh and save;
 From the ground of ther grave not rysing that while,
 Whych secret poynt doth many on begyle.²⁶

This imagery is echoed in Ripley’s *Wheele*, the accompanying diagram to the *Compound* discussed earlier, which sees the red man and his white wife maritally joined. Yet Ripley’s grave here is entirely dissimilar to the sepulchres of Cooper, Salmon and Houpreght, being devoid of any connections to the Resurrection, and instead being a place of marriage and conception. It is also unlike the sepulchral comparative drawn in the outer ring of his *Wheel*, in which the process of putrefaction is made akin to Christ’s Resurrection, with this grave in the *Compound* being more earthly than spiritually transformative. Indeed, as cited above, a spiritual transformation – either a literal chemical change, or a comparative immaterial one – does not occur in Ripley’s treatise during the stage of putrefaction until the matter passes through a purgatorial process. Thus the post-Reformation alchemical vessel-cum-sepulchre appears to have grown in popularity in direct response to altered doctrinal needs during the Reformation. Concurrent with trends to replace parallels to Purgatory with those to the Resurrection, then, the use of the sepulchre in early modern treatises denotes not only a clever use of Scripture to explain and encode alchemical ideas, but also a direct response from alchemists to doctrinal change.

Other alchemical authors referred less specifically to vessels or their materials, but nevertheless hinted at correlations between alchemical vessels and the site of Christ’s Resurrection in more implicit ways. Describing putrefaction in his alchemical poem, printed as *Admonitio de Pseudochymicis* in 1611, Thomas Rawlin compared the process of Christ’s rising from the sepulchre during the Resurrection to the alchemical process, remarking,

she is raise up
 Now dying as it were, and is recreated.
 Things bright and clear being so obtained.²⁷

²⁶ Ripley, op. cit. (8), p. 150.

²⁷ British Library, MS Sloane 3643, fol. 55.

Likewise, George Starkey (1627–65) noted in his posthumously printed 1694 treatise written under his pseudonym, Eirenaeus Philalethes,

Therefore these *black* and *stinking* Ashes, are not to be despised since in them the *Diadem* of our *King* is contained, and I tell you in all truth, that *whiteness* will never be had unless you make it *black*, for unless the *Body putrifies* it will remain without fruit ... Honour you therefore the Sepulchre of our *King*, for unless you do this, you shall never admire him coming from the East.²⁸

Born in America, the zealously Calvinist Starkey emigrated to England in 1650 and was thus writing with a distinctly Reformed mindset. Here, Starkey moves beyond mere comparisons with the Resurrection and also draws on Scripture concerning the Second Coming, notably Matthew 24:27. In this scriptural passage it is stated, ‘For as the lightning cometh out of the east, and shineth even unto the west; so shall also the coming of the Son of man be’, just as the glorified, pure matter would come from the East within the alchemical vessel. Thus Starkey both utilizes the imagery of the sepulchre and Resurrection as a metaphor for his alchemical vessel, and simultaneously extends the metaphor to additionally include an event of the utmost important to many zealous Protestants: the Second Coming. Whilst Starkey does not make a direct comparison to a physical vessel, his exposition nevertheless draws comparisons between an imagined one and Christ’s sepulchre.

Meanwhile, an English translation of Paracelsus’s (d. 1541) *Aurora*, published posthumously in London in 1659, again likened the alchemical vessel to a sepulchre without this vessel being a tangible object:

Here ’twas that his soul and spirit did first of all procure [or bring to pass] a perfect, true, and indissolvable union with his dead body in the Sepulchre, and by a most joyful and victorious resurrection and ascension to the heavens, was it exalted through our Lord Jesus Christ, to the right hand of his Father; *Mat. 28. Mark 16.*²⁹

Again, we see the alchemical process taking place within the sepulchre, with the religious setting providing the perfect analogy for the aludel in which putrefaction would occur. Once more, the comparison centres on the vessel being a site of transformation from death to life – a key component of putrefaction that neatly paralleled Christ’s Resurrection. Although Paracelsus remained nominally Catholic throughout his lifetime, many of his patrons and much of his audience were Reformed, including the leading Protestant reformer Johannes Oecolampadius (1482–1531), meaning that many of his alchemical writings bear witness to Reformed theology even if he himself did not personally subscribe to this way of thinking. Bruce Moran, for instance, has demonstrated that his work constitutes a blend of Catholic and Protestant sentiments, whilst Charles Webster suggested that Paracelsus deliberately employed Reformed rhetoric as he took his comparison to Martin Luther – Paracelsus was dubbed the ‘Luther of medicine’ – seriously.³⁰

To conclude this discussion of alchemical sepulchres, it may be of interest to explore an alchemical treatise which combined both the medieval alchemical grave descriptors

²⁸ Eirenaeus Philalethes, *Three tracts of the great medicine of philosophers for humane and metalline bodies*, London, 1694, pp. 127–8.

²⁹ Paracelsus, *Paracelsus his Aurora, & treasure of the philosophers*, London, 1659, p. 174.

³⁰ Bruce T. Moran, *Paracelsus: An Alchemical Life*, London: Reaktion Books, 2020; Charles Webster, ‘Paracelsus: medicine as popular protest’, in Andrew Cunningham and Ole Peter Grell (eds.), *Medicine and the Reformation*, London: Routledge, 2013, pp. 57–77.

used by the likes of Ripley and the more distinctly post-Reformation comparisons to the Christian sepulchre. Published in France in 1612, and later translated into English in 1624, *Nicholas Flammel, his exposition of the hieroglyphicall figures which he caused to bee painted vpon an arch in St. Innocents Church-yard* is an account supposedly written by the apocryphal French alchemist Nicolas Flamel (1330–1418). As no manuscript copy of this supposed fourteenth-century exposition survives which pre-dates the 1600s, scholars are in general agreement that the work was a seventeenth-century invention, and this supposition is supported by Pseudo-Flamel's use of the sepulchre to describe the transition from *nigredo* to *albedo* via putrefaction.³¹ Pseudo-Flamel describes one of the hieroglyphs as follows:

In a field of *Synople*, that is *greene*, are painted two men and one woman rising again, of the which one comes out of a Sepulchre, the other two out of the *Earth*, all three of colour exceeding *white* and *pure*, lifting their hands towards their eyes, & their eyes towards Heauen on high.³²

Whilst we cannot know for certain the religious persuasions of Pseudo-Flamel, this use of the sepulchre rather than a comparison to Purgatory indicates that they may have had Reformed tendencies, again hinting at this not having been a later print edition of an earlier fourteenth-century text.

It is clear that Pseudo-Flamel is describing putrefaction here, as he references two male substances and one female substance rising from the earth and the sepulchre to produce something white and pure. The gendering of these three individuals rising from the sepulchre, and Pseudo-Flamel's combination of the Ripleian grave of marriage and conception with Christian iconography, suggest that they may have been inspired by Ripley's *Compound*. Ripley suggested that for the stage of putrefaction one should produce a gum from citrine faeces, which should be dissolved in a menstruum referred to as 'dragon's blood' in order to transform it into a liquor dubbed the 'Green Lyon's blood'. Assuming that the citrine faeces is lead oxide produced from calcining sericon (red lead), the menstruum would then refer to vinegar (acetic acid), and the resulting blood of the green lion would thus be lead acetate.³³ Lead, associated with the planet Saturn, was considered a male-gendered substance, and thus this recipe requires two males: the initial lead oxide, and the resulting lead acetate. Meanwhile, the dubbing of vinegar as 'menstruum' makes this component distinctly female, introducing the single woman into the recipe. Thus Ripleian chemistry maps onto the gendering of the figures of this scene, whilst their partial emergence from the ground evokes the imagery of his marital grave as expressed in the *Compound*. However, Pseudo-Flamel nevertheless resorts to a comparison with Christ's sepulchre in order to encapsulate his vision of putrefaction rather than Purgatory, noting a transformation into a pure, white state which caused the figures to gaze up at Heaven. This may show the influence of Ripley's *Wheele*, and/or the now widely popular post-Reformation imagery of the sepulchre as a doctrinally sound replacement for the imagery of Purgatory.

To secure the potency of this analogy between the sepulchre and the alchemical vessel, Pseudo-Flamel concludes, 'All this is so clear, according to the explication of the *Resurrection* and future iudgement, that it may easily be fitted thereto.'³⁴ Thus, whilst drawing upon

³¹ Laurinda Dixon, 'Introduction', in *Nicholas Flamel: His Exposition of the Hieroglyphicall Figures (1624)*, London: Routledge, 2019, pp. xiii–lx, xiii.

³² Nicolas Flamel, *Nicholas Flammel, his exposition of the hieroglyphicall figures which he caused to bee painted vpon an arch in St. Innocents Church-yard, in Paris*, London, 1624, pp. 46–7.

³³ For an extensive analysis of the meaning of 'sericon' see Rampling, op. cit. (24).

³⁴ Flamel, op. cit. (32), pp. 46–7.

medieval chemistry and iconography, Pseudo-Flamel nevertheless also incorporates the imagery of Christ's sepulchre that grew to especial prominence in alchemical treatises after the Reformation, as demonstrated in the works of Cooper, Salmon and Houpreght.

In an attempt to eradicate the now doctrinally problematic Purgatory from their alchemical imagery, post-Reformation alchemists came to rely on correlations between their vessels and Christ's sepulchre when discussing putrefaction and the transition from *nigredo* to *albedo*. This shift consequently portrayed the vessel as a site of chemical-spiritual transformation that mirrored the pneumological-spiritual transformations of the sepulchre in which life was returned to a mortified substance, thereby converting it into a purer one. However, it was not only the vessels used by alchemists during putrefaction that experienced a transformation in comparative imagery in the post-Reformation period. Those involved in processes such as sublimation – in which a substance moves from solid to gas without first becoming liquid – were equally subject to revisions in the ways in which biblical analogies were drawn. As such, this article will now discuss how and why alchemists described their sublimatory vessels as tabernacles, again revealing the links between these approaches and Reformed doctrine.

Tabernacles during the Reformation

Unlike sepulchres, the widespread use of the tabernacle as a metaphor for an alchemical vessel was not a new phenomenon in the post-Reformation period as the imagery had been adopted by medieval alchemists too, again suggesting that the popularization of the sepulchre was a direct response to religious currents in early modern Europe which made Purgatory an undesirable comparative image; though it had been used by Ripley in his *Wheele* alongside the imagery of Purgatory, it was only when Purgatory became problematic that the imagery of the sepulchre became the prime comparative to putrefaction that was employed widely by alchemists in their treatises. Whereas the sepulchre was a useful alternative to Purgatory in the wake of its relegation to apocrypha, the tabernacle was comparatively unproblematic scripturally and was a site whose existence was not fundamentally contested.

The tabernacle features in the Book of Exodus, and was a tent that Moses was instructed to erect for the Israelites after his experience on Mount Sinai. It was designed to be a site of Jewish worship, and was, according to Exodus 40:34–5, a place in which God could reside on Earth:

Then the cloud covered the tent of meeting, and the glory of the Lord filled the tabernacle. And Moses was not able to enter the tent of meeting because the cloud settled on it, and the glory of the Lord filled the tabernacle.³⁵

This cloud thus transmuted the tent into a holy site, providing mankind with a means of engaging directly with God. The use of the imagery of the tabernacle within alchemical literature, a site so connected to Moses, was by no means an accident; whilst the tabernacle had neat parallels to alchemical processes, as shall be discussed, many also believed that Moses himself was an alchemist and thus their use of the image may also have encapsulated this belief.³⁶

In keeping with alchemy's fondness of the duality of imagery and language, the tabernacle had a multifarious nature by the early modern period which allowed for it to be

³⁵ Exodus 40:34–5, KJV.

³⁶ Raphael Patai, *Jewish Alchemists: A History and Source Book*, Princeton, NJ: Princeton University Press, 2014, pp. 30–40.

interpreted in two key ways. In the first instance, as has already been indicated, the term referred to the physical site of worship constructed by Moses in Exodus – the Old Covenant. Alternatively, the term referred to Christ’s sacrifice for mankind – the New Covenant. These two covenants would be divided further by the early modern period. In Reformed federal theology, there were two further covenants in existence: the Covenant of Works between mankind that was lost after the Fall, and the Covenant of Grace led by Christ. Whilst the Covenant of Works paralleled with first tabernacle, in which priests made daily sacrifices on behalf of mankind, the Covenant of Grace drew parallels instead with Christ’s sacrifice during the Crucifixion and Resurrection.³⁷ This division between the Covenant of Works and the Covenant of Grace was of great importance, and proved foundational in the framing of the 1646 Westminster Confession of Faith, a Reformed confession largely of a Calvinist bent.³⁸ Thus the tabernacle could, by the seventeenth century, either refer to the Covenant of the Works – relating to the physical space of the Mosaic tabernacle in which one could relate to God and demonstrate your faith – or to the Covenant of Grace – being a metaphorical space embodied in Christ in which the Elect received their salvation. In this way, the first interpretation of the tabernacle was inherently tied to soteriology, with the Old Covenant foreshadowing the New.

In the second instance, the tabernacle in the medieval, Catholic and some select Anglican and Lutheran churches refers to a box akin to a reliquary in which the sacrament is kept.³⁹ For Catholics who believe in transubstantiation, these church tabernacles literally contain the presence of Christ as the substances of the bread and wine are joined by the substances of the body and blood of Christ respectively. This parallels the supposed physical presence of God in the Mosaic tabernacle in Exodus 34–5. For Protestants, meanwhile, the church tabernacle did not contain Christ corporeally but rather spiritually; his physical body and blood were not intermingled with the bread and wine, but rather his spirit imbued them. This thus parallels the Covenant of Grace in which the tabernacle refers to Christ rather than the Mosaic tent. In either tradition, however, church tabernacles are significant items that denote the presence of Christ within the eucharist, just as Moses’ tabernacle denoted the presence of God on Earth. Thus, in this second interpretation, the tabernacle is expressly linked to notions of divine spirits and their presence on Earth.

The tabernacle as an image, site of worship and religious object was thus enduring as it had a scriptural basis that left its existence uncontested in a way that Purgatory did not, even if debates over its interpretation raged during the Reformation.⁴⁰ This enabled both medieval and early modern alchemists to draw upon the imagery of the tabernacle in their treatises to denote a particular vessel used in their experiments.

However, there are subtle differences between the use of this image in the pre- and post-Reformation periods, again hinting at the influence of Reformed theology in the imagery of alchemical texts. Whereas pre-Reformation texts largely used the imagery of the tabernacle to denote a spiritual conversion during sublimation – with the chemical conversion mirroring a pneumatological conversion – much as the iconography of Purgatory had done for putrefaction, in the post-Reformation period authors were instead

³⁷ J.V. Fesko, *The Covenant of Works: The Origins, Development, and Reception of the Doctrine*, Oxford: Oxford University Press, 2020; John von Rohr, *The Covenant of Grace in Puritan Thought*, Eugene, OR: Wipf & Stock, 2010; Hans Burger, Gert Kwakkel and Michael Mulder, ‘Introduction’, in Burger, Kwakkel and Mulder (eds.), *Covenant: A Vital Element of Reformed Theology. Biblical, Historical and Systematic–Theological Perspectives*, Brill: Leiden, 2021, pp. 1–20, 2.

³⁸ Burger, Kwakkel and Mulder, op. cit. (37), p. 6.

³⁹ Gary Macy, Ian Christopher Levy and Kristen van Ausdall (eds.), *A Companion to the Eucharist in the Middle Ages*, Leiden: Brill, 2012, pp. 464–5.

⁴⁰ See, for instance, G.R. Evans, *Problems of Authority in the Reformation Debates*, Cambridge: Cambridge University Press, 1992, p. 171.

concerned with the imbuing of matter with divine and celestial forces. This transition is reflective of the ideologies of the Old and New Covenants. In the Old Covenant, God instructed Moses to build the tabernacle so that the Israelites might be forgiven of their sins and instructed in His laws. In this sense, then, the site of the tabernacle becomes one of spiritual conversion. In the New Covenant, meanwhile, Holy law is internalized by the Elect and energized by the spirit of God, reflecting the post-Reformation focus on vitalizing divine and/or celestial forces within the tabernacle. This New Covenant was of the utmost importance for key Reformers such as Martin Luther, who claimed that the New Covenant was not a reworking of the Mosaic, Old, one, but rather that the Old Covenant had ceased to exist, thereby emphasizing its newness.⁴¹ Thus, in altering their use of the tabernacle, post-Reformation alchemists were again reacting to contemporary theological change.

Uses of the tabernacle in alchemical imagery

In the 'Fiftieth Dictum' of the *Turba Philosophorum*, a text which circulated widely in manuscript form in medieval England, we find a discussion between two characters: Pandolphus, posited as the alchemical master, and Belus, posited as the alchemical student. Pandolphus tells Belus,

The philosophers have ordered that quicksilver should be taken out of Cambar [cinnabar], and albeit they spoke truly, yet in these words there is a little ambiguity, the obscurity of which I will remove. See then that the quicksilver is sublimed in tabernacles, and extract the same from Cambar.⁴²

Here, the tabernacles are being used to refer to multiple alchemical vessels in which quicksilver should be sublimed. Using other alchemical recipes circulating in this period, it is possible to deduce that these tabernacles referred to aludels – pear-shaped vessels, usually made of glass or earthenware, that were open at both ends to enable them to be stacked on top of one another.⁴³ This stacking allowed the aludels to act as a condenser during sublimation, an alchemical process in which matter passes directly from a solid to a gas state without first becoming liquid, before once again returning to a solid state (usually in the form of crystals). As the author tells us, this sublimatory process – which follows putrefaction, congelation and cibation – results in a product of startling whiteness, 'devoid of shadow and blackness', that signifies the transition from *nigredo* to *albedo*.

If we consider this process allegorically, the alchemical matter has gone through a period of death, in which it was revived to crystalline clarity during putrefaction, and then solidified during the subsequent processes of congelation and cibation. Sublimation, then, takes this transformation further, removing matter from its corporeal shackles and transforming it into a spiritual entity, much as the Israelites were converted to God's holy laws. The imagery of the tabernacle therefore aligns with Old Covenant theology, comparing a process of spiritual conversion to that of chemical change during sublimation.

Similar notions were conveyed by George Ripley in the fifteenth century. In his *Wheele*, an exploration of the *magnum opus* represented as a series of adjoining concentric circles often found at the end of his alchemical treatise titled *The Compound of Alchemy*, it is stated,

⁴¹ Martin Luther, 'On the bondage of the will', in *Career of the Reformer III: Luther's Works* (ed. Philip S. Watson and Helmut T. Lehmann), Philadelphia: Fortress, 1972, pp. 258–9.

⁴² Anonymous, *The Turba Philosophorum; Or, Assembly of the Sages, Called Also the Book of Truth in the Art and the Third Pythagorical Synod* (ed. Arthur Edward Waite), London, 1896, p. 151.

⁴³ See, for instance, Bodleian Library, MS Ashmole 759, fol. 42.

In the Sunne he put his tabernacle,
 Sunne and moone blessed be ye.
 The flouds went awaie in the drith.
 Sol converted into darkness, and Lvna into blood.⁴⁴

Here Ripley draws upon Psalm 19, a psalm well known to medieval audiences as it was to be read at Prime every Saturday. As the Canon of Bridlington in Yorkshire, this assumption of knowledge would have been especially true of Ripley. The psalm reads,

The heavens declare the glory of God; and the firmament sheweth his handywork.
 Day unto day uttereth speech, and night unto night sheweth knowledge.
 There is no speech nor language, where their voice is not heard.
 Their line is gone out through all the earth, and their words to the end of the world.
 In them hath he set a tabernacle for the sun,
 Which is as a bridegroom coming out of his chamber, and rejoiceth as a strong man
 to run a race.
 His going forth is from the end of the heaven, and his circuit unto the ends of it: and
 there is nothing hid from the heat thereof.
 The law of the LORD is perfect, converting the soul: the testimony of the LORD is sure,
 making wise the simple.
 The statutes of the LORD are right, rejoicing the heart: the commandment of the LORD
 is pure, enlightening the eyes.
 The fear of the LORD is clean, enduring for ever: the judgments of the LORD are true
 and righteous altogether.
 More to be desired are they than gold, yea, than much fine gold: sweeter also than
 honey and the honeycomb.
 Moreover by them is thy servant warned: and in keeping of them there is great reward.
 Who can understand his errors? cleanse thou me from secret faults.
 Keep back thy servant also from presumptuous sins; let them not have dominion over
 me: then shall I be upright, and I shall be innocent from the great transgression.
 Let the words of my mouth, and the meditation of my heart, be acceptable in thy
 sight, O LORD, my strength, and my redeemer.⁴⁵

This psalm is designed to praise God for his creation, and explores matters which could be interpreted as having alchemical parallels and Old Covenant overtones. Such matters include the conversion of the soul, the cleansing of sins and treasure greater than gold. Indeed, it would be possible to read the psalm in its entirety as an alchemical allegory: the alchemist begins from a place of divine wisdom, conducts a chemical wedding in their vessel, and from this produces the hermaphrodite child. The child's corporeality is transmuted by the cleansing of their sins and their transition to a spiritual state, resulting in a prize more desirable than gold. If we follow this alchemical reading, then the alchemical vessel, or tabernacle, is used to enact the chemical wedding – a process in which two substances of opposite qualities (one hot and dry like the sun, the other cold and moist like the moon) are married together to produce a substance containing all four qualities, the philosophers' stone, often dubbed the hermaphrodite child to denote the conjunction of the sun and moon.⁴⁶

⁴⁴ Ripley, op. cit. (16), unnumbered page.

⁴⁵ Psalm 19, KJV.

⁴⁶ Kathleen P. Long, 'Odd bodies: reviewing corporeal difference in early modern alchemy' in Long (ed.), *Gender and Scientific Discourse in Early Modern Culture*, Farnham: Ashgate, 2010, pp. 63–86.

It is probable that Ripley had just such an interpretation in mind. He makes specific reference to both the sun and the moon, for instance, and suggests that each takes on their counterpart's qualities in a process of their union: the sun becomes dark, whilst the moon gains the heat of blood. This reference to blood is suggestive of the blood sacrifices performed by high priests in the Mosaic tabernacle, and also of the sacrifice of the moon for the hermaphrodite child, such as that depicted in a sixteenth-century copy of *Rosarium Philosophorum* housed today at the University of Glasgow.⁴⁷ For Ripley, then, just as it is in the *Turba Philosophorum*, the vessel-cum-tabernacle is responsible for the spiritual transition of matter to a purer state. However, for Ripley, this transformation is not restricted to sublimation and the transition from *nigredo* to *albedo*, but instead concerns the transition from *albedo* to *rubedo*, the final 'red' stage in which the philosophers' stone was produced. As a site of sacrifice and transformation, then, the tabernacle provides the perfect analogy for Ripley's alchemical vessel, and fits into the Old Covenant theology of the pre-Reformation church.

Fourteenth-century alchemist John Dastin (1300–34) likewise drew on Psalm 19 to discuss the alchemical transition from *nigredo* to *albedo* through sublimation occurring within the vessel-cum-tabernacle. In his *Dreame*, Dastin noted,

His Heavenly helth death may not assayle,
 He dreadeth noe venome, nor needeth no treacle,
 Winde Tempest ne Wether against him may prevaile,
 Soe high in Heaven is his Tabernacle,
 In Erth he worketh many a miracle:
 He cureth Lepers and fetcheth home Fugitive,
 And to gouty Eyne giveth a cleere Spectacle:
 Them to goe that lame were all their lief.⁴⁸

In the voice of a mother describing her Christ-like son, Dastin describes the alchemical vessel as a protective, heavenly tabernacle, and uses the tabernacle-cum-vessel as the scene for the three alchemical stages of *nigredo*, *albedo* and *rubedo*. He first mentions venom and 'treacle', a common *Deckname* for a medicinal antidote called theriac which was produced by a long period of fermenting between thirty-five and seventy ingredients.⁴⁹ This mortification through poisoning, followed by the fermentation of the theriac, and its eventual remedial effects may refer to the transition between *nigredo* and *albedo* through processes of putrefaction, fermentation and sublimation. The next line is further suggestive of the processes of sublimation and distillation, featuring windy tempests – akin to the shift from solid to gas during sublimation – and weather, presumably rain, reminiscent of the drawing off of distilled substances. The latter half of this verse then seems to signify the transition to *rubedo*, with the Christ-like son, a metaphor for the alchemical substance residing in the vessel, enacting miracles. The curing of diseases that features here is, for instance, reminiscent of the supposed qualities of the philosophers' stone and elixir of life. Thus Dastin draws upon the imagery of Psalm 19 to construct a tabernacle vessel in which the *magnum opus* can take place, and, by invoking Old Covenant theology in this way creates a direct comparison between chemical change and spiritual conversion in which matter has been elevated to a higher degree, again aligning with Old Testament thought.

⁴⁷ University of Glasgow Special Collections, Sp. Coll. MS Ferguson 210, 'The Rosarium Philosophorum'.

⁴⁸ John Dastin, 'The Worke of John Dastin', in Ashmole, op. cit. (8), pp. 257–68, 263.

⁴⁹ Robert Leigh (ed.), *On Theriac to Piso, Attributed to Galen: A Critical Edition with Translation and Commentary*, Leiden: Brill, 2016.

Correlations between alchemical vessels-cum-tabernacles and Psalm 19 continued into the early modern period – as did the associated use of the tabernacle-vessel in sublimation – but the focus of the imagery shifted away from descriptions of chymical spirits as akin to pneumological spirits towards notions of celestial vital forces. This seems to parallel the New Covenant theology popularized by Reformers, in which holy law is internalized and the Elect are energized through the spirit of God. One of the leading proponents of this revised focus was the English philosopher and Paracelsian physician Robert Fludd (1574–1637). In his *Mosaicall philosophy* (1659), Fludd mentions both Psalm 19 and the term ‘tabernacle’ numerous times, though arguably most explicitly on page 94:

Posuit Deus tabernaculum suum in sole, He put his tabernacle in the sun: Whereby it is evident, that it was the pleasure of God, the Creator of all things, that this vessel should be rich and abundant in his Spirit, that from it, being placed in the center, heart, diapason, or perfect point of the world, it might by its virtuous harmony and life, order and govern the animall course, and temporal disposition, of generable and corruptible things on the earth, in the seas, and catholic sublunary element, namely, the universall aire, which as it is the vehicle of life in every sublunary thing, so also it is necessary to consider, that the aire is animated and inspired by it, as the higher angelicall natures receive their light and being from the Creator, before whose face they are always present. I do not say, that the Sun giveth life, but the increated virtue in the Sun, which hath elected the palace of the Sun for his treasure-house, or cabinet of virtue. And therefore it is said, that *Sol est gloriae Domini, seu virtutis & essentiae divinae, plenus; The sun is full of the glory, and divine virtue of the Lord.*⁵⁰

Whilst careful to confirm that the sun itself was not the giver of life (a role preserved for God alone) but rather that it conveyed divine and vitalizing rays from God, Fludd nevertheless takes Psalm 19 to build a philosophical approach in which the tabernacle becomes a site of revitalization, rather than of spiritual transformation.

This Fluddian approach, itself Neoplatonic in nature, was adopted by other alchemical writers of the period. In his 1692 *Medicina Practica*, for instance, chemical physician William Salmon makes several references to tabernacles, including the following: ‘Take then this very thing it self, and very gently elevate it in its tabernacle, till all the moisture is consumed, so as no more will ascend, this sublimed Matter keep carefully for your use.’⁵¹ Continuing this treatise, Salmon explicitly names the vessel he had previously dubbed the ‘tabernacle’: ‘Take then the Foeces, which remain in the bottom of the Cucurbit, and keep them, for they are the crown [and rejoicing] of the Heart.’⁵² For Salmon, then, it was the cucurbit rather than the aludel that was the vessel he alluded to when using the allegory of the tabernacle. The cucurbit, however, formed part of a traditional set of distilling apparatus known as the alembic and thus could function in a similar way to a series of aludels, again linking the tabernacle to processes of sublimation.

Salmon’s phrasing here is suggestive of a Reformed approach to the tabernacle described in Psalm 19, however, as he makes reference to the remnants of sublimation being the ‘crown’ and the rejoicing of the ‘heart’. Both of these correlate to Fludd’s notions of the Psalmic tabernacle representing Christ in the form of the Word, emitting vitalizing energy through sunbeams that animated corporeal matter on Earth, just as the word of God animated the soul. The First Crown, or the Crown of Thorns, for instance, was notably worn by Christ, and the heart was the organ associated with the sun as both were the givers of

⁵⁰ Robert Fludd, *Mosaicall philosophy grounded upon the essential truth, or eternal sapience*, London, 1659, p. 94.

⁵¹ Salmon, op. cit. (22), p. 282.

⁵² Salmon, op. cit. (22), p. 282.

vital force (one microcosmically, the other macrocosmically). Thus the collation of these terms alongside a reference to the tabernacle hints at a Reformed New Covenant approach in which the tabernacle was taken as an allegory for the spirit of God, rather than a sign of his presence upon Earth, corporeal or otherwise.

The same is true of the Westphalian alchemist Otto Tachenius (1610–80), whose alchemical work was posthumously translated into English by one ‘J.W.’ and published in London in 1690. In his work, Tachenius remarks,

And as the Sun in the Firmament of Heaven, is judged by Wise Men, to be incorruptible, constant, and perpetual, and by its Author is endowed with so many Embellishments, that Himself is said to have placed his *Tabernacle* in it; for which cause it is called the *Form of Forms*, or the *Acid of Acids* (though it be not acknowledged for such by the Vulgar, as neither is Gold), or the *Universal Form*, which in the work of generation infuses all Natural Forms, and the seeds of all things into which disposed matter; for every individual thing hath hidden in it a spark of this *Light* of Nature, or Acid, whose Beams do Occultly influence the Seed with an Active and Moving Vertue.⁵³

Again, we see the tabernacle used in a Fluddian manner to discuss the role of celestial forces in generation; just as the sun is perpetual and incorruptible – itself a metaphor for Christ as the word of God – so too is there an inherent and pure vital force in matter which can be infused through the process of generation within the alchemical vessel. This is a more strictly vitalist interpretation than Fludd’s, dealing as it does with inherent forces that have agency, and thus Tachenius’s exploration, whilst drawing upon the imagery of Psalm 19, also incorporates leading contemporary scientific theory.⁵⁴

We see similar uses of the tabernacle as a site of vivification in Gideon Harvey’s (c.1636–1700) *Archeologia philosophica nova*, published in London in 1663. As before, Harvey explicitly correlates the tabernacle with ideas of vivification, noting:

By virtue of the Seventh Division Man was created, and formed out of the most exalted Quintessence of the purest coagulation of Earth, animated through Benigne vivifying Beams of the Sun, after which a (*Mens, sive Spiritus, sive Lux Rationalis*) a Mind, or a rational spirit, or Light was inspired or infused from God into this most sublime Tabernacle.⁵⁵

At its most basic level, this passage refers to the creation of Adam from mud (‘coagulation of Earth’), and God’s breathing of life into his human form. In this light, the ‘most sublime Tabernacle’ is therefore not the Mosaic one but rather a reference to the human body. However, as with many alchemical treatises of the time, the creation story of Genesis is used as an alchemical narrative in which God is portrayed as the master alchemist creating the world through a series of chemical processes.⁵⁶ Preceding this passage, for instance, the creation is described in elemental terms, with the visual aspects of each stage – such as

⁵³ Otto Tachenius, *Otto Tachenius his Hippocrates chymicus discovering the ancient foundation of the late viperine sale with his Clavis thereunto annexed translated by J.W.*, London, 1690, p. 4.

⁵⁴ Charles T. Wolfe, ‘Vitalism in early modern medical and philosophical thought’, in Dana Jalobeanu and Charles T. Wolfe (eds.), *Encyclopedia of Early Modern Philosophy and the Sciences*, Cham: Springer, 2020, pp. 1–20.

⁵⁵ Gideon Harvey, *Archeologia philosophica nova, or, New principles of philosophy containing philosophy in general, metaphysics or ontology, dynamology or a discourse of power, religio philosophii or natural theology, physics or natural philosophy*, London, 1663, p. 76.

⁵⁶ Peter J. Forshaw, ‘Vitriolic reactions: orthodox response to the alchemical exegesis of genesis’, in Peter J. Forshaw and Kevin Killeen (eds.), *The Word and the World: Biblical Exegesis and Early Modern Science*, Basingstoke: Palgrave Macmillan, 2007, pp. 111–36.

colours – explained. The use of visual and elemental descriptors here hints at the passage being designed to be read alchemically, especially given the alchemical fondness for ‘tokens’ which provided alchemists with sensory signifiers of their experimental success.⁵⁷ This suggestion is made all the more apparent when considering the terminology adopted by Harvey; in His creationary process, God’s actions are described in explicitly chemical ways. We see him perform, for instance, ‘coagulation’, ‘generation’, ‘multipli[cation]’, ‘incorporation’, ‘elaboration’ ‘purification’ and ‘exaltation’.⁵⁸ In a typically alchemical manner, then, Harvey’s text appears on the surface to be a religious exposition but conceals a hidden alchemical reading that the alchemically adept could infer.

Harvey’s use of the term ‘tabernacle’ is interesting here as it refers to the first Covenant between God and Adam that was surrendered at the Fall, rather than the Old Covenant of the Mosaic tabernacle, or the New Covenant of Christ’s Grace. Despite this unorthodox correlation, however, the function of the tabernacle aligns with other contemporary Reformed usages of the term; earthy matter is coagulated with the quintessence, vivifying and sublimating that matter until it reaches a purer state. In other words, the quintessence purifies earthy matter (putrefaction, *nigredo*) to produce the white stone (sublimation, *albedo*), which is then vivified and infused with the spirit of gold (projection, *rubedo*). The matter is not revived, but rather imbued with a perfecting spirit just as the Elect were vitalized by the spirit of God.

Thus, whilst medieval authors tended to focus on notions of spiritual conversion, likening this to the process of sublimation, early modern authors instead used the imagery of the tabernacle to discuss vitalizing celestial forces and their role in chemical transformations in a Neoplatonic manner, reflecting the emergence of New Covenant theology alongside a broader scientific and philosophical exploration of the role of celestial bodies in vitalizing terrestrial ones.⁵⁹ Reformed theology was thus demonstrably influencing the ways in which alchemical authors used the symbology of the tabernacle, much as it had been responsible for the rising popularity of the sepulchre as a visual replacement for Purgatory. Often concerned with the latter *albedo* and *rubedo* stages of the *magnum opus*, the use of the tabernacle in the early modern period became a means of explaining the influence of divine energy in purifying and vivifying matter in order for it to attain perfection, drawing upon the ideas set out in Psalm 19 and, in some instances, Neoplatonic ideas of vitalism that were attaining popularity in the sciences more widely.

Conclusion

This article set out to demonstrate that an analysis of the use of religious spaces as analogies for alchemical vessels can be revealing of the ways in which Reformed theology shaped alchemical imagery in the early modern period. In the first instance, it has considered the use of Christ’s sepulchre as an allegory for the vessel in which processes of putrefaction would occur, arguing that the rising popularity of this image correlates with a reduction in the alternative use of the imagery of Purgatory in line with Reformed tendencies. The second half of this article has considered the changing uses of the imagery of tabernacles to depict the vessels in which sublimation and perfection would occur, arguing that whereas medieval alchemists were concerned with spiritual conversion in reflection of Old

⁵⁷ Rampling, op. cit. (24).

⁵⁸ Harvey, op. cit. (55), pp. 74–6.

⁵⁹ Betty Jo Teeter Dobbs, *Alchemical Death and Resurrection: The Significance of Alchemy in the Age of Newton. A Lecture Sponsored by the Smithsonian Institution Libraries in Conjunction with the Washington Collegium for the Humanities Lecture Series Death and the Afterlife in Art and Literature, Presented at the Smithsonian Institution, February 16, 1988*, Washington, DC: Smithsonian Institution Libraries, 1990, p. 8; Liana Saif, *The Arabic Influences on Early Modern Occult Philosophy*, New York: Palgrave Macmillan, 2015, pp. 31–4.

Covenant theology, Reformed early modern alchemists were instead concerned with vivifying celestial and divine influences typical of New Covenant theology, drawing upon Psalm 19 to reposition the image within a distinctly Reformed context.

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