



THE UNIVERSITY *of* EDINBURGH

This thesis has been submitted in fulfilment of the requirements for a postgraduate degree (e. g. PhD, MPhil, DClinPsychol) at the University of Edinburgh. Please note the following terms and conditions of use:

- This work is protected by copyright and other intellectual property rights, which are retained by the thesis author, unless otherwise stated.
- A copy can be downloaded for personal non-commercial research or study, without prior permission or charge.
- This thesis cannot be reproduced or quoted extensively from without first obtaining permission in writing from the author.
- The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.
- When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

**A Practical Magic:
Material and Visual Culture in the Fashioning of John Dee's Occult Identity (1527-1609)**

Volume I: Text

Madeleine Reynolds

MPhil

History of Art

The University of Edinburgh

2024

Abstract

This dissertation uses material culture methodologies to examine the self-fashioning of Dr John Dee (1527-1609), a renaissance mathematician, philosopher, and court intellectual, who gained the patronage of the Tudor elite and of European royalty. In addition to his academic endeavours, Dee was also known for his magus-like persona, which often acted as a hindrance to the advancement of his scholarly career. Though he died in isolation, rejected from the court of Elizabeth I, and from that of her successor, James I, Dee's historical legacy of magic, alchemy, and mystery inspired seventeenth-century antiquaries, bibliophiles and scholars to locate and study his immense collection of books, manuscripts, and objects in an attempt to understand the workings of his personal philosophy. This work propelled him into the popular imagination as the archetype of the renaissance magician, a reputation that defined his image until the scholarly reconstruction of his life and career in the twentieth century.

Scholarship surrounding Dee has been primarily dependent on text, relying on his written works, diaries, and marginalia, as well as his collection of books and manuscripts to assess his self-fashioning. This thesis builds on that work, although it also brings material culture and materiality to the analysis of Dee's public persona. My research highlights how Dee employed material languages to promote history, tradition, and prophecy as the foundations of his authority. Through these tools, he underlined his legitimacy and credibility, countering or deterring claims made against him for conjuring. The dissertation is comprised of two chapters focusing on objects made, designed, or acquired by Dee. The first chapter considers a genealogical roll of his own making containing his family tree, and the second analyses a larger collection of ritual objects used in his divinations. I argue that Dee manipulated the 'memory effects' of these emotional objects, through his creation, staging, and performances with them.¹ In fact, Dee strove to 'stimulat[e] the consciousness of the past' by evoking nostalgia, creating a sense of familiarity and trust in his complex and often enigmatic persona.²

¹ Katrina Schlunke, "Memory and materiality," *Memory Studies*, vol. 6 (2013): 253, <https://doi.org/10.1177/1750698013482864>.

² Margaret Aston, "English Ruins and English History: The Dissolution and the Sense of the Past," *Journal of the Warburg and Courtauld Institutes*, no. 36 (1973): 231, <https://doi.org/10.2307/751164>.

Lay Summary

John Dee (1527-1609) was an English scholar who served the Tudor court and royal elites in Europe, offering both academic services, as well as those that could be described as 'occult'. Occult practices involved the occurrence of supernatural phenomena that defied the laws of nature, and could not typically be explained through reason or observation. In the early modern time period, these practices included astrology, alchemy, and other beliefs categorised as 'magical'. Though Dee was well-regarded for his intellectual abilities, his occult interests often hindered the advancement of his career, and thus, he died in isolation, excluded from the courts of Elizabeth I and her successor, James I. Despite the circumstances of his death, Dee's objects and texts, especially those associated with his occult studies, were widely sought after by collectors and scholars in the seventeenth century. This legacy of magic and mystery propelled him into the popular imagination as the representative example of a renaissance magus, a reputation which defined his image until the scholarly reconstruction of his life and career in the twentieth century.

Many of the studies surrounding Dee's work have been based on texts, including the manuscripts and books he collected, as well as his own personal writings. These have been the primary sources for examining Dee's construction of his public identity. This dissertation builds on that research, but incorporates material sources into the analysis of his identity construction, highlighting how he used objects, made or acquired by him, to promote history, tradition, and prophecy as the foundations of his authority. Using these tools, Dee underlined his credibility in order to deter or refute claims made against his character for his magical practices. This dissertation comprises two chapters. The first chapter considers Dee's genealogical tree, recorded on a scroll of his own making, and the second analyses the collection of objects he used to stage ritual performances. I argue that Dee used objects to embody memory, employing the materiality of these things to manipulate his audience's emotions, and evoke nostalgic feelings, promoting a sense of familiarity and trust in his complex persona.

Contents

Abstract	2
Lay Summary	3
List of Figures	5
Acknowledgements	7
Introduction: The Material and Visual Identity of Dr John Dee	8
Chapter 1: Prophecy and Apocalypse in Dee's Pedigree Roll	31
Chapter 2: Staging Identity: Dee's Tools of Ritual Divination	65
Conclusion: Dee's Legacy Examined	109
Bibliography	115

List of figures

The figures can be found in the accompanying document.

Figure 1.1 Pieter Bruegel the Elder, engraved by Philips Galle, *The Alchemist*, 1558, print, 26.72.29, © The Metropolitan Museum of Art, New York.

Figure 1.2 John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1, © British Library, London.

Figure 1.3 Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. The earliest date of ancestry on the scroll, 542 A.D., and the names, Uter Pendraco rex (King Uther Pendragon) and his son, Arturus Rex (King Arthur). Contains Dee's reference to Geoffrey of Monmouth with the inscription 'Galf.Mon.', © British Library, London.

Figure 1.4 Roger Cooke, Confirmation of arms and grant of a crest to John Dee, 1576. CA record Ms B.EDN/77, © College of Arms, London.

Figure 1.5. Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. Cadwaladr's Coat of Arms, © British Library, London.

Figure 1.6. Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. Figure of John Dee, pointing at his hieroglyph, © British Library, London.

Figure 1.7. John Dee, *Monas Hieroglyphica*. Willem Silvius, Antwerp, 1564, BF1680.D3 1564. Heraldic illustration from last page, © Cardiff University, Cardiff.

Figure 1.8. John Dee, "Mathematicall Praeface" to *The Elements of Geometrie of the Most Ancient Philosopher Euclide of Megara*, tr. Sir Henry Billingsly. John Daye, London, 1570. Shelfmark O.7.43. The triangle, the symbol for the Greek letter, Delta, or 'D', a signature used by Dee, © Chetham's Library, Manchester.

Figure 1.9. Roger Cooke, Genealogy of Queen Elizabeth I, 1567, King's MS 396. Miniature of Rollo, Duke of Normandy, f. 4v, © British Library, London.

Figure 1.10. Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. Athelstan's Coat of Arms, © British Library, London.

Figure 1.11. Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. William the Conqueror's Coat of Arms, © British Library, London.

Figure 1.12. Section of John Dee, *Genealogical roll of the descent of John Dee ... showing his kinship with the Sovereigns of the House of Tudor*, 16th century, parchment roll, Cotton Ch XIV 1. Dee's Coat of Arms, © British Library, London.

Figure 1.13. Anonymous/British School, *Portrait of John Dee*, 1594, oil on canvas, WA1898.18, © Ashmolean Museum, Oxford.

Figure 2.1. 'Crystal ball', 17th century, 5.2 cm (diameter), SLCups.232., © British Museum, London.

Figure 2.2. 'John Dee's crystal', 1582, 8.4 cm x 4.1 cm x 1.1 cm, A127915, © Science Museum, London.

Figure 2.3. 'Magical mirror,' 14th – 16th c. 18.4 x 1.3 x 22 cm, 1966, 1001.1., © British Museum, London.

Figure 2.4. 'Claude glass believed to be John Dee's scrying mirror', undated, 2.1 cm x 13.2 cm x 13.2 cm, A127914, © Science Museum, London.

Figure 2.5. The deity 'Itzpapalotl' wearing an obsidian mirror on her back, from Arthur A. Joyce, Andrew G. Workinger, Byron Hamann, Peter Kroefges, Maxine Oland, and Stacie M. King, "Lord 8 Deer 'Jaguar Claw' and the Land of the Sky: The Archaeology and History of Tututepec." *Latin American Antiquity* 15, no. 3 (2004): 291.

Figure 2.6. Marginalia by Dee of the 'stone in the frame', MS Sloane 3188, fol. 8r, from Silke Ackermann and Louise Devoy, "'The Lord of the smoking mirror': Objects associated with John Dee in the British Museum." *Studies in History and Philosophy of Science Part A*, Volume 43, Issue 3, (2012): 539-549.

Figure 2.7. 'Magical disc', late 16th - late 17th c., 8.8 cm (diameter), 1942, 0506.1., © British Museum, London.

Figure 2.8. 'Magical disc,' 23.2 cm (diameter), late 16th c., 1838, 1232.90.a. The largest of the three wax discs owned by the British Museum, © British Museum, London.

Figure 2.9. 'Marble copy of John Dee's Holy Table', late 17th c., 3.5 cm x 46.5 cm x 60.2 cm, Inv.15449, © History of Science Museum, Oxford.

Acknowledgments

Thank you to my supervisors, whose guidance and collaboration on this dissertation have improved me as a writer, researcher, and historian. Dr Catriona Murray generously gave me her time, offering rigorous discussion and encouragement throughout the process. I am grateful to her for sticking by me and helping me see this project through. Prof. Carol Richardson's knowledge and feedback has bettered this dissertation and brought substance to my writing.

I am grateful to the College of Arts, Humanities, and Social Sciences, Edinburgh College of Art, Funds for Women Graduates, and The British Society for the History of Science for helping to fund this project. Many thanks also to the staff at various institutions where I accessed resources, primarily the Bodleian Libraries and the British Library.

Finally, I am fortunate to be surrounded by brilliant friends and the most supportive family. Thank you to Anna Myers for the daily morning phone calls. I was lucky to call you my colleague for the last four years, but I am even luckier to call you my friend. Thanks to Georgia Vullingsh, whose advice grounded me and whose enthusiasm for history inspired me. I am forever thankful to Kate and Quinn, my best friends, for making me laugh and cheering me on. Thank you also to my dearest pals, Sarah, Emma, Katie, Jade, and Adam for keeping me sane.

To my Grammy, thank you for being proud of me, and to my mom and dad, thank you for sharing with me your love of books, for teaching me to work hard, and for encouraging me to take adventures. And to Joshua, thanks a million for the many cups of tea and all the magic.

Introduction: The Material and Visual Identity of Dr John Dee (1527-1609)

'In those darke times astrologer, mathematician, and conjurer, were accounted the same thing,' wrote the antiquary, John Aubrey (1626-1697) in his biography of the Oxford mathematician, Thomas Allen (1542-1632).³ Allen, who was known for the astrological skills he often used to the advantage of his rich and royal patrons, namely Elizabeth I and his employer, Robert Dudley, Earl of Leicester, was not unlike other early modern scholars, called philosophers at that time, who often experienced personal and professional setbacks for their craft as much, or more than, it benefited them.⁴ The prototype of the Elizabethan philosopher who suffered for his 'art' is John Dee (1527-1609), a court intellectual who also obtained patronage for his alchemical work from Elizabeth I and other members of the Tudor elite, as well as European rulers, like Emperor Rudolf II of Bohemia. Described by William Sherman as a 'representative of late Renaissance "encyclopaedism", Dee 'plowed a virtually boundless field of knowledge [including] astrology, medicine, theology, and law', though even this list falls short of covering all his interests and endeavours.⁵ His best-known pursuit, however, by both his contemporaries and modern academics, is alchemy, an area of study often met with suspicion and distrust by those who did not understand it or believe in its rumoured abilities to create gold or the 'Elixir of Life', commonly known as the Philosopher's Stone.

Claims against Dee originated in 1547, which he remembers in his text, *The Compendious Rehearsall of John Dee His Dutifull Declaration, and Proof of the Course and Race of His Studious Lyfe* (1592). While it was written to remind Elizabeth I of his service to the crown, *The Compendious Rehearsall* had a secondary purpose of acting as a chronology of Dee's scholarly career over a period of fifty years, beginning in 1542 when his father, Rowland Dee, a mercer in Henry VIII's court, sent him to the University of Cambridge. It was during Dee's time as a newly appointed Fellow of Trinity College that he created a flying

³ John Aubrey, *Brief Lives*, ed. Oliver Lawson Dick (David R. Godine Publisher, 1999): 5. Allen and Dee were likely acquaintances through their employers. Allen is also noted to have had access to and used, on occasion, Dee's library and scientific equipment. See György E. Szönyi. "John Dee, an Elizabethan Magus and his links with Central Europe," *Angol Filológiai Tanulmányok / Hungarian Studies in English*, no. 13 (1980): 74, <http://www.jstor.org/stable/41273770>.

⁴ Michael Foster, "Thomas Allen (1540-1632), Gloucester Hall and the Survival of Catholicism in Post-Reformation Oxford," *Oxoniensia*, no. 46 (1981): 99-128, <https://www.oxoniensia.org/volumes/1981/foster.pdf>.

⁵ William H. Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance* (University of Massachusetts Press, 1995), xi.

beetle – a mechanical automaton – for a production of the Greek comedy, *Aristophanes*. He notes that there ‘vaine reports’ spread about how he constructed it, though he had previously explained in his *Mathematicall Praeface* to the first English translation of Euclid’s *Elements* (1570) that the beetle was a product of pulleys and mirrors used to create an illusion that it was flying, a technique he learned from classical treatises.⁶ This early example of ‘mathematical magic’ cast an unfortunate pall over his name and left him vulnerable to further accusations, which caught up with him in 1555, when Dee cast the horoscopes of Queen Mary I and Princess Elizabeth. Accused by George Ferrers and John Prideaux, Dee was tried on counts of magic and conspiring ‘by enchantments’ to harm Mary I – though he was released into the custody of Edmund Bonner, then the Bishop of London, for a religious inquiry, and later cleared of all charges, his reputation did not fully recover.⁷

Dee’s later attempts at scrying, divination, and his continued alchemical interest in the Philosopher’s Stone once again required that he defend himself from the perceived assassination of his character. In his *Compendious Rehearsall* Dee wrote to Elizabeth to detail the ‘intolerable extremitie of the injuries and indignities’ he endured, including the destruction of his library and laboratories in 1585 by those who believed his studies to be occult activities.⁸ Dee’s final call for vindication came in his 1604 petition to the newly crowned King of England, James I:

So it may please your Sacred majestie [...] in your owne royall preference [...] to cause your [...] Servant, to be tryed and cleared of the horrible and damnable [...] most grievous and dammageable Schlaunder [...] Namely, That he is, or hath bin a Conjuror, or Caller, or Invocator of devils.⁹

Dee’s plea went unanswered, and he died in 1609 in obscurity at the home of John Pontois (1565-1624) in London. Dee left a legacy of magic, alchemy, and mystery that

⁶ John Dee, “The Compendious Rehearsal, etc.” in *John Dee’s Diary, Catalogue of Manuscripts and Selected Letters*, ed. James Orchard Halliwell, James Crossley, John Eglinton Bailey, and M. R. James. Cambridge Library Collection - British and Irish History, 15th & 16th Centuries (Cambridge University Press, 2013): 5-6, <https://doi.org/10.1017/CBO9781139245791.007>; Glyn Parry, *The Arch-Conjuror of England: John Dee* (Yale University Press, 2011), 12.

⁷ Julian R. Roberts, “Dee, John (1527–1609), mathematician, astrologer, and antiquary,” *Oxford Dictionary of National Biography*. 23 Sep. 2004: 3, <https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-7418>.

⁸ Dee, “The Compendious Rehearsal, etc.,” 3.

⁹ John Dee, “To the Kings most excellent Maiestie,” in the digital collection, *Early English Books Online*, University of Michigan Library Digital Collections, <https://name.umdl.umich.edu/A20027.0001.001>.

motivated seventeenth-century scholars, antiquaries, and bibliophiles alike to chase down his immense collection of books, manuscripts, and objects in an attempt to understand the workings of his personal philosophy. This propelled him into the popular imagination as the archetype of the Renaissance magician, a reputation that defined his work until the scholarly reconstruction of his life and career in the twentieth-century.

The restoration of Dee's life provides a nuanced glimpse into the social and cultural structures of belief in early modern England and Europe as being particularly concerned with occult ideas, setting the scene for Dee's career. Scholarship surrounding him, discussed in the next section, has been primarily dependent on text, relying on written works, diaries, and marginalia, as well as his collection of books and manuscripts to assess his identity. This dissertation builds on that work, but it brings material culture and materiality to the analysis of Dee's self-fashioning. Placing his artifacts at the centre of contemporary Tudor scholarship, this research highlights Dee's use of specific conventions embodied in objects by means of which he employed his grasp of history, tradition, and prophecy as tool for achieving authority and credibility, so as to counter or deter claims made against him for conjuring and magic. These add to the textual narrative of Dee by examining the way in which the emotional effect of his experiences and his audience's experiences were remembered or enacted by these things, further enhancing our understanding of the material world as 'affective' through a society's interactions with it.

This dissertation is comprised of two chapters, or case studies, concerning objects made, designed, or acquired by Dee: the first chapter considers a genealogical roll of his own making containing his family tree, and the second analyses a larger collection of ritual objects used in his divinations. My focus on the material enables me to argue that Dee identified these objects as things capable of embodying shared cultural memory and engendering familiarity, thereby promoting him as the steward of certain emotions through his creation, staging, and performances with them. Using both the visual and material properties of these things, Dee strove to 'stimulat[e] the consciousness of the past' by evoking certain emotional responses, specifically nostalgia, as a cornerstone for creating his persona as a legitimate court scholar.¹⁰

¹⁰ Aston, "English Ruins and English History," 231.

The following introduction provides a historiographical framework of Dee's career and his occult philosophy, as well as an overview of methodological approaches to material culture, memory, and emotions to situate my dissertation within existing scholarship.

Dee and the Magical Landscape of Early Modern England and Europe

Dee's sensationalised reputation as a Renaissance magus often overlooks his education and accomplishments in a variety of subjects. He attended St. John's College, Cambridge, and studied under John Cheke, a prominent academic and Greek scholar, credited with tutoring, most famously, Edward VI, as well as William Cecil, later Lord Burghley, chief treasurer to Elizabeth I.¹¹ Dee's time at Cambridge would be the beginning of his associations with the influential elite in England, some of whom would serve as benefactors for his work. Cecil, for example, was a patron of alchemy, both for personal gain and for the benefit of the state.¹² Though Dee often called upon Elizabeth for monetary support, it was Cecil, her most powerful advisor, who held the purse strings.

For three years, Dee studied 'logick' as well as the 'good artes and sciences', and in May of 1547, after finishing his Bachelor of Arts degree, Dee left for Europe to 'speake and confer with some learned men... chiefly mathematicians.'¹³ He returned to England later that year with several astronomical and cartographical devices as well as a burgeoning interest in the natural world, writing in his diary that he used these devices:

... to make observations (very many to the houre and minute) of the heavenly influences and operations actual in this elementall portion of the world. Of which sort I made some thousands in the yeares following.¹⁴

Dee's amassed intellectual footprint is briefly summarised in this statement, making reference to his career of observing the effect that 'heavenly influences' have on the natural, 'elementall portion' of the world. While these 'heavenly influences' certainly include astronomy, and the 'elementall portion' covers the natural elements – earth, fire,

¹¹ Sherman, *John Dee*, 5.

¹² The Lansdowne manuscripts in the British Museum contain letters written to Cecil, offering different remedies for his issues with gout. Some of these suggestions were alchemical in nature. See W. S. C. Copeman, "The Gout of William Cecil- First Lord Burghley (1520–98)," *Medical History* 1, no. 3 (1957): 262–64, <https://doi.org/10.1017/S0025727300021323>.

¹³ Dee, "The Compendious Rehearsal, etc.," 4–6. Dee mentions several men by name, including Gemma Frisius, Gerard Mercator, Johannes Gaspar á Mircia, and Antonius Gogava, all of whom were associated with University of Louvain.

¹⁴ Dee, "The Compendious Rehearsal, etc.," 5.

water, air – it is also likely that Dee is referring to his ambition to understand the natural world through experiences beyond the realm of human science.¹⁵ In fact, ‘heavenly influences’ could comprise Dee’s astrological interests, which encompassed his belief that the stars and planets enacted celestial influence over both the individual and phenomena, and certainly suggest that his spiritual curiosities were present in his studies from the very beginning.¹⁶

As the ontological lines demarcating the landscape of sixteenth-and-seventeenth-century scholarship were not yet fully formed, the sciences, as they are referred to today, whether they be human or natural, were often grouped under the early modern umbrella term of ‘natural philosophy’, which was the study of nature and its observable occurrences.¹⁷ Dee’s proclivity for mathematics is what clarified his methodological point of departure for scientific inquiry, whether he was pursuing alchemical, cartographical, medical, or astrological interests throughout his career.¹⁸ It is important to note that Elizabethan mathematics were more broadly applied than the discipline today. While Arithmetic and Geometry were recognised as the fundamental branches of mathematics, the subject also extended to include any area of knowledge that relied on the same

¹⁵ Dee’s writing was often multi-layered. A simple understanding of ‘elemental’ does include the four elements – earth, water, air, and fire – and Dee likely intends this as one interpretation of his words. However, Dee was an avid reader of Paracelsus (1493-1541), a Swiss physician, whose concept of the four elements understood them ‘not as simple bodies possessing fixed combinations of qualities but as ‘matrices’... in which all objects are generated and dwell... [and which] form an environment [for] physical bodies.’ See Graham Reese, “Frances Bacon’s Semi-Paracelsian Cosmology,” *Ambix: The Journal of the Society for the History of Alchemy and Chemistry*, 22:2 (1975): 82-83, <https://doi.org/10.1179/amb.1975.22.3.161>. This concept derived from Paracelsus’ own analysis of the Biblical account of Creation which maintained that the world was built on ‘the trinity’ of mercury, sulphur, and salt which ‘form everything that lies in the four elements.’ See Reese, “Frances Bacon’s Semi-Paracelsian Cosmology,” 83. This trinity appears in alchemical processes to create the Philosopher’s Stone and the symbols for each are present in Dee’s own hieroglyphic monad. For more on Dee’s Paracelsianism, see György E. Szönyi, “Paracelsus, Scrying, and the *Lingua Adamica*,” in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 207-229, https://doi.org/10.1007/1-4020-4246-9_11.

¹⁶ Richard Dunn, “John Dee and Astrology in Elizabeth England,” in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 92, https://doi.org/10.1007/1-4020-4246-9_5.

¹⁷ Ann Blair, “Natural Philosophy,” in *The Cambridge History of Science*, eds. Katharine Park and Lorraine Daston (Cambridge University Press, 2006): 365-66, <https://doi.org/10.1017/CHOL9780521572446.018>.

¹⁸ Though the term ‘science’ can be seen as anachronistic, it was an emerging term used in the sixteenth century to describe smaller subject areas in the realm of natural philosophy, like alchemy, mathematics, or metallurgy. While the title of ‘natural philosophy’ might better describe the academic interests of learned gentlemen and scholars, ‘science’ is more broadly inclusive of the work of Dee did throughout his career.

foundational principles of numbers and figures, such as music or astronomy.¹⁹ Dee defines mathematics in his own words in his *Mathematicall Praeface* as:

commonly and generally reckoned under the name of Geometrie [which includes] Astronomie, Musike, Cosmographie, Astrologie, Statike, Anthropographie... Architecture, Navigation, Thaumaturgike and Archemastrie.²⁰

The last of these branches, Archemastrie, is defined by Dee as ‘the art of bringing to actual experience sensible, all worthy conclusions, by all the Artes Mathematicall purposed: and by true Naturall philosophie, concluded.’²¹ By this, Dee refers to early ideas of the empirical method by which experience, observation, and sensation are used to gain knowledge. This definition summarises Dee’s belief that mathematics was the theoretical underpinning through which sensory experiences and conclusions about the natural world, and the influences that acted upon it, could be understood. Moreover, Dee’s definition suggests his belief that these branches of knowledge are all sub-disciplines of mathematics, therefore, his various interests are not separate, but linked through this shared reliance on mathematical principles.

Though this definition stresses mathematical competence as necessary to a variety of different disciplines, instead of allowing Dee the freedom to enact a mathematical approach to studying the natural world, the broad associations meant that any account of strange or inexplicable events could be explained or classified as what Dee called ‘Thaumaturgike’, or mathematical magic. Magic, the act or ability to use supernatural powers to influence the natural world, was part of the broader category of sixteenth-century occult sciences, which believed in the existence of mystical, or unnatural forces that defied reason or observation. Peter Zetterberg notes that the rhetoric to describe mathematical subjects, like Arithmetic and Geometry, was often reverential or spectacular, rather than explanatory. As such, mathematical creations of automata, optical illusion, engines, machinery, and other mechanical marvels, meant that the ‘magic’ itself was often observed and recorded, but not the means by which it came to be.²² It was from these

¹⁹ Peter J. Zetterberg, “The Mistaking of ‘the Mathematicks’ for Magic in Tudor and Stuart England,” *The Sixteenth Century Journal* 11, no. 1 (1980): 86–87, <https://doi.org/10.2307/2539477>.

²⁰ Allen G. Debus, *Introduction to John Dee: The Mathematicall Praeface to the Elements of Geometry of Euclid of Megara* (1570) (Science History Publications, 1975), sig. Aiiij^r.

²¹ Zetterberg, “The Mistaking,” 87.

²² Zetterberg, “The Mistaking,” 94.

instances that early modern mathematics became associated with magic and the occult. This connection would prove detrimental for Dee because he built his entire practice of natural philosophy on a mathematical foundation.

On the one hand, Dee's expertise in a wide range of subjects – especially alchemy, history, and cartography – gained him patronage and the attention of the ruling elite, advancing his social position. Conversely, Dee's alchemical interests and later, his divinatory curiosity, often provoked a negative response. Alchemy might have been seen as a pseudo-science, unsuccessful in its purpose of creating gold or the Philosopher's Stone, or, worse, it was regarded as an occult pursuit.²³ When Dee died in March of 1609, he was poor and alone. He had given up his Mortlake estate in 1607, taking with him what he could of his collection of texts and objects. His final pleas for patronage from European royalty were ignored, and his elite connections in England had amounted to nothing. In the matter of Dee's life, and how he would be remembered, it seemed like the constant shift in political circumstances had gotten the better of him, either condemning him for his occult pursuits, or propping up 'magicians' more ostentatious or more cunning than he was.²⁴

The century following Dee's death was kinder to his legacy than the circumstances of his passing might have predicted. In fact, the very same activities that saw Dee accused of conjuring and magic are those that generated people's interest in him after he died. Jennifer Rampling and Vittoria Feola both write on the collectors and historians who 'scrambled' to collect Dee's books and objects, chief among them Elias Ashmole and Robert Cotton.²⁵ Rampling writes that Dee's lasting reputation as a conjuror was due in part to collectors like Cotton, whose interest in Dee's books and manuscripts made possible the publication and creation of occult-centric material, like the gold disc belonging to the British Library and some early texts about Dee. For example, Meric Casaubon's *A True and Faithful Relation of what passed for many yeeres Between Dr. John Dee... and some Spirits* (1659), the first full-length biography of Dee published after his death – in which his divinatory activities served as a cautionary tale of a man led astray by demonic spirits – was transcribed from texts in

²³ Bruce Janacek, *Alchemical Belief: Occultism in the Religious Culture of Early Modern England* (The Pennsylvania State University 2011), 9-10.

²⁴ Glyn Parry, *The Arch-Conjuror of England: John Dee* (Yale University Press, 2011), 271-272.

²⁵ Vittoria Feola, "Elias Ashmole's collections and views about John Dee," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 530-538, <https://doi.org/10.1016/j.shpsa.2011.12.011>; Jennifer M. Rampling, "John Dee and the sciences: early modern networks of knowledge," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 432-436, <https://doi.org/10.1016/j.shpsa.2011.12.001>.

Cotton's collection. Cotton also had in his possession the *Libri mysteriorum*, now in the British Library, which contains Dee's so-called angel diaries.²⁶ Rampling notes that, 'Modern presentations of Dee might have looked very different had the *Tyrocinium mathematicum* been spared rather than the *Libri*, or had anything survived of Dee's great collection of scientific instruments.'²⁷ By this Rampling means that the objects and texts that did survive seemed primarily indicative of Dee's magical interests, rather than his broader studies in history, mathematics, and navigation.

Though the eighteenth century was populated by other natural philosophers with interests similar to Dee, namely Isaac Newton and Robert Boyle, the intellectual progress of the Enlightenment period fore-fronted new processes for making knowledge, with this 'modern science' being guided by rationalism. This is not to say that occult or magical lines of inquiry completely disappeared, and with them, their practitioners, rather that they were relegated to the realm of proto-science, side-lining the contributions of early modern philosophers whose achievements could not be qualified in this new system. Dee re-emerged in the twentieth-century first under the purview of historians of science, who worked to "'recover" [him] from the oblivion of his reputation as an occultist, and reinstate him as a "progressive" Renaissance scientist.'²⁸ Historian Charlotte Fell-Smith's 1909 biography *John Dee* was the first work which tried to bring parallel the ideas of magic and science in Renaissance England and Europe. However, she leaned heavily on his interests in astrology and alchemy as the foundations of his scholarly legacy, putting to the side his more straight-forward academic pursuits.²⁹ This created a space for Francis Johnson's follow-up, *Astronomical Thought in Renaissance England: A Study of the English Scientific Writings from 1500-1645* (1937). Johnson approached Dee from the other side of his persona – by this, I mean that early historians divided Dee's career into two distinct professions, one as a 'scientist' and one as a magus – prioritising Dee's contributions as strictly scientific in nature. Johnson even goes so far as to say that Dee's 'unrestrained

²⁶ Rampling, "John Dee and the sciences," 435. The *Libri mysteriorum* is comprised in the British Library manuscript Sloane 3188. The Casaubon text is a transcription of British Library MSS Cotton Appendix XLVI, part I and II.

²⁷ Rampling, "John Dee and the sciences," 435. The *Tyrocinium mathematicum* is a lost mathematical treatise on geometry, written by Dee around 1560.

²⁸ Stephen Clucas, "Introduction: Intellectual History and the Identity of John Dee" in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 1, https://doi.org/10.1007/1-4020-4246-9_1.

²⁹ Charlotte Fell-Smith, *John Dee* (Constable & Company Ltd, 1909).

optimism concerning the possibilities of natural science', which turned him toward occult hobbies later in life, 'made him a dupe of [a] charlatan' and 'obscur[ed] his real merit as a scientist.'³⁰ This attitude toward Dee's magical practices disregarded them as intellectual aberration. As such, these two helpful, but partial, accounts of Dee's life and career continued to perpetuate the idea of him as a contradictory character, separate from, rather than a part of, the social and cultural landscape of sixteenth-century England and Europe.

Further developments in the historiography of the occult, magic, and early modern science generated a turning point in the rehabilitation of Dee's life, yielding a collection of works by I.R.F. Calder, Peter J. French, and the acclaimed Renaissance historian, Frances Yates. These scholars – Calder worked under, and French closely beside Yates at the Warburg Institute, London – cast Dee as the principal example of a Renaissance magus, a view nicknamed the 'Warburg interpretation' by Nicholas H. Clulee.³¹ These works include Calder's thesis, "John Dee studied as an English Neoplatonist" (1952) supervised by Yates; *Giordano Bruno and the Hermetic Tradition* (1964) and "The Hermetic Tradition in Renaissance Science" (1967) written by Yates; and Peter French's book, *John Dee: The World of the Elizabethan Magus* (1972). Yates published several other texts fundamental to the development of occult studies in the early modern time period, including *The Rosicrucian Enlightenment* (1972) and *The Occult Philosophy in the Elizabethan Age* (1979), which placed the origins of modern Western science within the bounds of Renaissance occult studies, seeing the advance of scientific thought in the seventeenth century as positively impacted by the esoteric work of Dee and his contemporaries. Yates' understanding of occult studies as inherent to the development of scientific thought, rather than separate from, or acting as a hindrance to it, was helpful in building the broader background of Dee's interests.

The 'Warburg interpretation', also known as the 'Yatesian' summation of Dee, became the most popular version of his persona. However, various publications refuted her view of the Hermetic tradition as too singular, contesting her thesis that 'Renaissance philosophy was the intermediate ancestor' of modern science, and minimising Dee's

³⁰ Francis R. Johnson, *Astronomical Thought in Renaissance England: A Study of the English Scientific Writings from 1500-1645* (Johns Hopkins Press, 1937), 135-136.

³¹ Nicholas H. Clulee, "Dee's Natural Philosophy Revisited" in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 25, https://doi.org/10.1007/1-4020-4246-9_2.

contribution to the subject overall.³² The ‘master narrative’ of science, which set out to historicise scientific thought as a progressive movement, starts with Copernicus and concludes with the Scientific Revolution, culminating in the work of Isaac Newton. To be included in this version of the chronicle of scientific history would define Dee as a scientist, in the same way Newton and Boyle are considered scientists, a designation made impossible by the interdisciplinarity central to Dee’s work, and indeed common in the philosophy of other early-modern scholars like him.

Nicholas H. Clulee’s *John Dee’s Natural Philosophy: Between Magic, Science and Religion*, published in 1988, was the first to situate (rather than separate) Dee’s magical persona within the entire body of his work, providing historiographical context for his intellectual development throughout his career by individually assessing each of his major writings. Clulee’s method does not remove Dee from the ‘master narrative’ of the development science, rather he removed the pressure of this narrative to be able to contain, or explain all of Dee’s activities. Instead, Clulee adopted the ‘contextualist approach’, coined by John Schuster, which ‘focus[es] on the contingencies of the process of change in natural philosophy and the sciences’ instead of privileging the work of certain seventeenth-century ‘heroes’, like Newton, as the only example of scientific progression.³³

More recently, scholars like Deborah Harkness, Jennifer Rampling, Glyn Parry, and William Sherman have contributed major studies to the conversation concerning Dee, his intellectual life, and his place in the history of early modern natural philosophy and science. Sherman’s 1999 book, *John Dee: The Politics of Reading and Writing in the English Renaissance*, looks at Dee’s activities as a court ‘intelligencer’, concentrating first on Dee’s accumulation of knowledge through reading, and then the construction of his writing, highlighting Dee’s ‘neglected’ works on calendar reformation and navigation, as well as his marginalia.³⁴ Sherman often references the work of Julian Roberts and Andrew G. Watson whose *John Dee’s Library Catalogue* (1990) is the fundamental study of his collection of manuscripts and books.³⁵ Parry’s *The Arch-Conjuror of England* (2011) follows Sherman’s lead by placing Dee at the centre of court-life in Tudor England, avoiding outdated ideas of

³² Clulee, “Dee’s Natural Philosophy Revisited,” 24-25.

³³ Clulee, “Dee’s Natural Philosophy Revisited,” 25.

³⁴ William H. Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance* (University of Massachusetts Press: Amherst, 1995).

³⁵ Julian R. Roberts and A.G. Watson, *John Dee’s Library Catalogue* (The Bibliographical Society, 1990.)

Dee as an ‘austere magician, remote, shunned and feared.’³⁶ Parry argues that Dee’s position in society was something that was gained by way of his occult philosophy, rather than impeded by it, which he accomplishes by discussing Dee’s most famous contemporaries’ own application of magic, including Elizabeth I and William Cecil’s personal interests in the Philosopher’s Stone. Alchemical concepts, such as the ‘Elixir of Life’, transmutation, and major actors in the history of English alchemy are contained in Rampling’s *The Experimental Fire: Inventing English Alchemy, 1300–1700* (2020). Her text is both a history of the philosophical components of alchemy, as well as a study of ‘alchemical reading’ by which practitioners acquired and/or disseminated knowledge across a variety of mediums, though Rampling focusses mostly on texts. She uses the term ‘alchemical philosopher’ to categorise Dee, describing him as a ‘reader-practitioner whose interests are neither wholly scholarly nor wholly grounded in craft, but who is presumed to have acquired special insight into the making of the philosophers’ stone.’³⁷

Harkness’ *John Dee’s Conversation with Angels: Cabbala, Alchemy, and the End of Nature* (1999) sheds light on the most confusing part of Dee’s career, namely his alchemical and divinatory practices, which she argues to be a continuation of his intellectual agenda, rather than scholarly eclecticism.³⁸ In “Shows in the Showstone: A Theatre of Alchemy and Apocalypse in the Angel Conversations of John Dee” (1996) Harkness brings together the symbology present in alchemical narratives with Elizabethan theatre practices in Dee’s spirit diaries, uncovering his ties to cultural and religious life during that time period, and further contextualising his divinations as a tool by which he communicated his complex ideas of nature and the divine in a more approachable manner.³⁹ Her assessment of Dee’s most complicated, and therefore, misunderstood, pursuit, is the highest point of methodological succession in terms of how this dissertation understands Dee’s self-fashioning. Harkness sees the social and cultural factors that impacted Dee’s worldview as a way to frame his occult agenda, simultaneously illuminating the inherently ‘magical’ landscape of

³⁶ Glyn Parry, *The Arch-Conjuror of England: John Dee* (Yale University Press, 2011): x.

³⁷ Jennifer M. Rampling, *The Experimental Fire: Inventing English Alchemy, 1300-1700* (The University of Chicago Press, 2020), 24.

³⁸ Deborah E. Harkness, *John Dee’s Conversations with Angels: Cabala, Alchemy, and the End of Nature*, (Cambridge University Press, 1999).

³⁹ Deborah E. Harkness, “Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9),” *Renaissance Quarterly* 49, no. 4 (1996): <https://doi.org/10.2307/2862959>.

Renaissance philosophy that Dee attempted to navigate and contribute to. Referring to the angel conversations, she writes, 'Far from being the isolated products of a brilliant – though erratic – mind, the conversations emerge instead as cultural artifacts deeply immersed in their own time.'⁴⁰ This is particularly relevant to my dissertation, which sees certain artifacts belonging to Dee as objects of self-expression, especially when examined in relation to the construction of his persona which was formulated in response to the shifting political and religious dynamics present in Reformation England and in Europe.

It is clear from the above discussion that Dee, his writings, his extensive collection of books and manuscripts, and his long career as a philosopher-magus is of major and continuing interest to historians of a variety of disciplines. However, these studies rely almost exclusively on text – those written or collected by him – as the primary medium by which to consider his identity, his occult philosophy, and his place in the histories of the sixteenth-century world. This dissertation turns to material culture studies to extend the discourse surrounding the making of Dee's identity, extrapolating the research of a variety of scholars who work on the affective capabilities of material objects and materiality in order to evaluate the things Dee employed to enable his enquiries. The material study in this dissertation is supported by Dee's texts, as his writings were often the basis for recording the design or intended function of some of his items. This was common in both scientific and occult practice. The process and results of scientific experiments, which, in Dee's case, could be his alchemical pursuits, were often written down, and also required certain equipment.⁴¹ Similarly, ritual performances were almost always furnished with and facilitated by a mixture of text, spoken word, and material supports, or 'props'. This assemblage of objects, actions, and text combined to assist in the transmission of Dee's persona to his audiences.

Central to the examination of Dee's material culture in this dissertation is the understanding that his things are emotionally powerful. The link between material culture and affect study has been explored by scholars like John Kieschnick. His work, "Material

⁴⁰ Harkness, "Shows in the Showstone," 711.

⁴¹ For more on the relationship between the organisation of scientific knowledge, book culture, and the impact of print on this type of literature, see Stephen Clucas, "John Dee, Alchemy, and Print Culture," *Ambix* vol. 64, issue 2 (2017): 107–114, <https://doi.org/10.1080/00026980.2017.1356632> and Anke Timmermann, "Alchemical Poetry and Academia: Manuscripts as Chronicles of Scholarly Enquiry," in *Verse and Transmutation* (Brill, 2013): 143-172, <https://doi.org/10.1163/9789004254831>.

Culture" (2009), focusses primarily on emotions and material culture as they intersect with religion, positing that the lack of studies on religious material culture is a result of Protestant theology, which sees the material as an unnecessary interference in devotional practice.⁴² Kieschnick breaks his work down into four parts: objects as 'triggers for emotion'; the manipulation of emotions and careful cultivation of emotional states in religious spaces; the attribution of feelings to objects; and, briefly, domestic items and routine religious objects in the household.⁴³ Kieschnick's work provides a broad context for Dee's use of emotionally powerful objects, particularly his ritual divination objects which access the memory of a form of devotional expression no longer permitted following the religious changes in Reformation England and Europe. Kieschnick's likening of objects to 'lubricant' in the 'complex and ever-changing mechanism' that is early modern social and cultural procedures can also speak to the emotional efficacy of Dee's genealogical scroll, which he used to generate feelings of familiarity and nostalgia, or a yearning for the past, through the act of remembering.⁴⁴ Kieschnick means that objects like Dee's roll were used to bring the incongruent elements of his reputation – his persona of occult practitioner and the famed ancestral lineage he claimed to be part of – together more seamlessly. The act of remembering facilitated the emotions and feelings associated with nostalgia, which were then attributed to the object which triggered the memory. Thus, the emotions are a by-product of the interactions, or the relationships between objects and people. Jane Bennett refers this 'curious ability of inanimate things to animate, to act, to produce effects dramatic and subtle' as 'Thing-Power.'⁴⁵ The particular 'Thing-Power' of Dee's material culture is, to quote Kieschnick, in their ability to 'provide a crucial link between emotions and ideology [and] religion and politics.'⁴⁶ Dee's objects were a tangible manifestation of invisible, internal phenomena, like emotions and belief. Their physical, visible form continuously enacted memory, and associated emotions, like nostalgia, at both an individual and collective level.

⁴² John Kieschnick, "Material Culture," in *The Oxford Handbook of Religion and Emotion*, ed. John Corrigan (Oxford University Press, 2008): 223–238, <https://doi.org/10.1093/oxfordhb/9780195170214.003.0013>.

⁴³ Kieschnick, "Material Culture," 226-227.

⁴⁴ Kieschnick, "Material Culture," 231.

⁴⁵ Jane Bennett, *Vibrant Matter: A Political Ecology of Things* (Duke University Press, 2010): 6, <https://www.paradigmtrilogy.com/assets/documents/issue-02/jane-banette--vibrant-matter.pdf>.

⁴⁶ Kieschnick, "Material Culture," 231.

Stephanie Downes, Sally Holloway, and Sarah Randles, in their edited collection of essays, *Feeling Things: Objects and Emotions Through History* (2018), expand on Kieschnick and Bennett's work, providing distinct examples of how these internal sensations are embodied in tangible, material things, and in turn, how these objects and their materiality have the power to produce, facilitate, and regulate intangible sensory experiences. This 'transmutation from emotion to thing', and vice versa, as a process was familiar to Dee and spoke to his broader participation in the scientific tradition, but also to his own history with the practices of the Catholic Church, and the central role objects played in those religious performances.⁴⁷ In the wake of the destruction wrought by the Reformation and English iconoclasm, the power of Dee's objects is in their capacity to act as physical 'metaphors' for memories and emotions associated with past spiritual or sentimental experiences.⁴⁸

Within this context, a 'metaphor' is defined by Elizabeth Hallam and Jenny Hockey as 'a way of proceeding from the known to the unknown.'⁴⁹ Dee's intellectual agenda was complicated, layered with different strains of philosophical, Hermetic, religious, and alchemical inquiry. Thus, his performance of his ideas, which were integral to his self-fashioning as a scholar, had to be accessible to his audience in order to convey his message. To do this, Dee employed his knowledge of history, and emotion, specifically nostalgia, and embodied them in objects, using them as tools to present himself as a recognisable character in the continuation of national narrative, and encourage his audiences to reflect on the past in a positive way. This engendered a sense of familiarity in his persona which he hoped would answer for the more difficult, or arcane elements of his self-expression. Dee's use of props strengthened his emotional appeal, as 'embodied, sensory memory... was made more effective through emotional associations.'⁵⁰ In this way, Dee's objects, or metaphors, serve as a device through which Dee could 'dra[w] together disparate aspects of past and present experience.'⁵¹ Furthermore, memories that were enacted or represented materially were not so stringent in terms of directly imitating or accurately recalling a

⁴⁷ Helen M. Hickey, "Capturing Christ's Tears: La Sainte Larme in Medieval and Early Modern France," in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford Academic, 2018): 71, <https://doi.org/10.1093/oso/9780198802648.003.0005>.

⁴⁸ Elizabeth Hallam and Jenny Hockey, "Figuring Memory: Metaphors, Bodies, and Material Objects," in *Death, Memory and Material Culture*, 1st ed. (Routledge, 2011): 23-26, <https://doi.org/10.4324/9781003085164>.

⁴⁹ Hallam, "Figuring Memory," 23.

⁵⁰ Hallam, "Figuring Memory," 30.

⁵¹ Hallam, "Figuring Memory," 27.

memory, rather ‘they recalled past experiences in ways that entailed the mobilisation of emotion and imagination.’⁵² It is here that Dee situated himself, at the crossroads of memory, emotion, lived experience, and imagined histories. He employed his objects as repositories in which to contain and transmit these feelings and ideas in a comprehensible format.

My work contributes to the ongoing discussion of affect studies, though it recognises the difficulty in historically scrutinising emotions. Hilary Davidson, in her article on emotion and material culture studies, writes that: ‘Emotions are always underway. We never finish feeling something or could identify an emotion as being in a final and fixed state.’⁵³ So, while the emotional measure of historiographical studies is hard to critically analyse, (for example, how or by what metric can historians gage affective response? How should researchers balance objectivity, or the technical elements of their work, with the interpretive side of historical study?) objects like Dee’s offer some physical evidence of the influence of emotions to create or necessitate material, and as well, the power of that material to embody and act as proxies for the emotional lives of those who used and interacted with them.

Material Culture, Emotions, and Memory

Despite the abundance of objects in museums, and their eminent place in disciplines like archaeology, text, until recently, has dominated historical research and discussion as ‘the most informative sourc[e]; everything else is merely illustrative or supplementary.’⁵⁴ My dissertation privileges objects as the primary avenue for historical research, applying material culture methodologies to diversify our understanding of Dee’s identity and intellectual life. The shift toward objects started with anthropologists like Arjun Appadurai and Igor Kopytoff who argued that the ‘social life’ of objects is distinct from the people who make, own, or come into contact with them.⁵⁵ Appadurai and Kopytoff are succeeded by

⁵² Hallam, “Figuring Memory,” 31.

⁵³ Hilary Davidson, “Grave Emotions: Textiles and Clothing from Nineteenth-Century London Cemeteries,” *Textile*, vol. 14, issue 2 (2016): 240, 10.1080/14759756.2016.1139383.

⁵⁴ Leora Auslander, “Beyond Words,” *The American Historical Review* 110, no. 4 (2005): 1015, <https://doi.org/10.1086/ahr.110.4.1015>.

⁵⁵ Arjun, Appadurai, ed., *The Social Life of Things: Commodities in Cultural Perspective* (Cambridge University Press, 1986). See also Igor Kopytoff, “The Cultural Biography of Things: Commoditization as Process,” in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai (Cambridge University Press, 1986), 64-92.

Alfred Gell in *Art and Agency* (1997), who made a case for an ‘anthropology of art.’ Gell’s perspective argued for an “‘action”-centred approach to art’, which eschewed the symbolic for ‘agency, intention, causation, result, and transformation’, and focused on the ‘practical mediatory role of art objects in the social process, rather than... the interpretation of objects “as if” they were texts.’⁵⁶

Ian Hodder further defines this concept, breaking the agency of an object in two parts as, first, an ‘intentional action’ which recognises the ‘intentionality of an actor before or within an act’ and secondly, as ‘the ascription of intentionality to an act by participants or observers.’⁵⁷ This concept of objects with meaningful social lives is important to material culture studies, defined by Jules Prown in his 1982 article “Mind in Matter” as ‘the study through artifacts of beliefs... of a particular community or society at a given time.’⁵⁸ The broad nature of this definition, and its interdisciplinary nature has long attracted scholars from an array of subjects, including archaeology and art history, anthropology, English literature, and history of science. Prown further explains his definition of material culture studies, writing that objects which are ‘made or modified by man reflect, consciously or unconsciously, directly or indirectly, the beliefs of the individuals who made, commissioned, purchased, or used them, and by extension the beliefs of the larger society to which they belong.’⁵⁹ From this definition, this research sees Dee’s design, creation, and acquisition of emotionally charged objects as instruments through which he staged a carefully crafted identity. My dissertation incorporates memory and emotion studies to complement Prown’s research, further framing Dee’s objects as things which enact emotional responses.

The scholarly work of Margaret Aston, Katrina Schlunke, and Susan Stewart has been exceptionally helpful in framing not only emotion, but what kind of emotion can be elicited by the act of remembering, and how these experiences can be materially embodied.

Downes, Holloway, and Randles’ *Feeling Things: Objects and Emotions through History* provides the most current cross-disciplinary work of examining objects and emotions as inextricably linked, despite previous designations of objects as inanimate and therefore

⁵⁶ Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford University Press, 1998).

⁵⁷ Ian Hodder, “The “Social” in Archaeological Theory: An Historical and Contemporary Perspective” in *A Companion to Social Archaeology*, eds. L. Meskell and R.W. Preucel (Blackwell Publishing, 2007), 32-33.

⁵⁸ Jules Prown, “Mind in Matter: An Introduction to Material Culture Theory and Method,” *Winterthur Portfolio* 17, no. 1 (1982): 1, <http://www.jstor.org/stable/1180761>.

⁵⁹ Prown, “Mind in Matter,” 1-2.

lacking in sensorial or emotional capacities. Downes, et al. write about the different perspectives uncovered in casting objects as emotional things, for example, ‘objects [can] become mediators in emotional transactions between humans, rather than wholly independent agents.’⁶⁰ This provides a starting point for discussing difficult objects, specifically Dee’s divination items. My research situates them alongside other ritual objects – especially as Dee is collecting and creating these things throughout the iconoclasm of the Protestant Reformation – and sees their emotional agency as similar to that of religious objects. More than producing emotion, Dee’s objects embody them, giving the intangible a material form. In Michael Haldrup’s article “Souvenirs: Magical objects in everyday life” he writes about the materialisation of tourist culture, by which trinkets purchased abroad are brought home and displayed in domestic spaces, encapsulating in them distant places in one’s home environment. Hence, the souvenir is ‘performing a “magic” role in bringing distant, faraway places into the orbit of people’s ordinary lives.’⁶¹ Though Dee’s objects, and his use of them, do not fit this case study exactly, the idea is useful. Dee’s objects perform magic by bringing the past to the fore and allowing him power over history (his genealogy roll) and they recall past memories, especially shared religious experiences which had declined in Reformation England (his divination objects).

Shared memory is explored in Katrina Schlunke’s theory of ‘memory effects’ which argues that ‘memory is an “effect” produced through and with materiality, rather than something only produced by a human-centred consciousness.’⁶² Schlunke writes that memory, when understood materially, is something that is continuously enacted, and thus, the materiality of “memory effects” provides... a more telling idea of why memory constantly exceeds any easy division between individual and collective and between the unconscious and conscious.’⁶³ Dee’s performances with these objects elicit memories that are both individual and shared, and if his performances hit the right note, he could be included in the emotional experience of his audiences. His success would be marked by the association of these positive feelings with himself, in which the ‘quasi-social relationship’

⁶⁰ Stephanie Downes, Sally Holloway, and Sarah Randles, “A Feeling for Things, Past and Present” in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford University Press, 2018): 9, <https://doi.org/10.1093/oso/9780198802648.003.0002>.

⁶¹ Michael Haldrup, “Souvenirs: Magical objects in everyday life,” *Emotion, Space and Society*, vol. 22 (2017): 53, <https://doi.org/10.1016/j.emospa.2016.12.004>.

⁶² Schlunke, “Memory and materiality,” 253.

⁶³ Schlunke “Memory and materiality,” 253.

that these people formed with his objects during his performance, could be transferred to him.⁶⁴ Emotions as ‘human sociality’ has been explored at length by Oliver J.T. Harris and Tim Flohr Sørensen who remark on the experience of emotion as something that is not individual, but can be experienced by many people at the same time, making emotions ‘no less cultural and no less private than beliefs.’⁶⁵ They do note that while emotion has to be experienced viscerally, the individual might not be aware of it internally until after the sensation passes.

Emotion as a term for what Dee’s objects trigger is too broad, but Aston and Stewart, as well as Jennifer Kitson and Kevin McHugh have written extensively on longing, nostalgia, and the materialisation of these emotions. Nostalgia is both something to be experienced, as well as an emotion one can feel. Broadly defined, it is a sentimental longing for the past, while the specific emotion ascribed to it is, by one definition, ‘a positively toned evocation of a lived past.’⁶⁶ Longing, according to Stewart, is, simply, ‘a yearning desire.’⁶⁷ Stewart, like Haldrup, uses the souvenir as a type of object to explore emotions, commenting on its ability to ‘contract the world in order to expand the personal.’⁶⁸ Again, while none of Dee’s objects are souvenirs in the traditional sense, they do operate similarly, representing either an unknown place (by this I refer to the ‘exotic’ origins of his New World obsidian mirror, as well as the liminal space some of these objects created which were inhabited by angels in divinatory sessions) or a remembered place, or a moment in time, no longer accessible to his audiences. Stewart also writes about the collection as a device to explore longing, noting that ‘the collection marks... the place where history is transformed into space, into property.’⁶⁹ This commodification, and further, the control of history, encapsulated in objects and used to the betterment of Dee’s self-fashioning is implicit in his acquisition and performances with his things.

⁶⁴ Bjørnar Olsen, “Material Culture after Text: Re-membering Things,” *Norwegian Archaeological Review* 36, issue 2 (2003): 94, <https://doi.org/10.1080/00293650310000650>.

⁶⁵ Oliver J.T. Harris and Tim Flohr Sørensen, “Rethinking Emotion and Material Culture,” *Archaeological Dialogues* 17, issue 2 (2010): 149–150, <https://doi.org/10.1017/S1380203810000206>.

⁶⁶ Constantine Sedikides and Tim Wildschut, “Nostalgia across cultures,” *Journal of Pacific Rim Psychology*, vol. 16 (2022): 2, <https://doi.org/10.1177/18344909221091649>.

⁶⁷ Susan Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Johns Hopkins University Press, 1984): ix.

⁶⁸ Stewart, *On Longing*, xii.

⁶⁹ Stewart, *On Longing*, xii.

Dee's intention to transport his audience to places (physical or otherwise) outside the confines of his performance space was not a novel approach to capturing his viewers' attention. Harkness' article, "Shows in the Showstone", mentioned previously, makes a case for Dee's interest in Elizabethan theatre, noting certain visual elements, special effects, and dramatic techniques present throughout his angel diaries which point to some knowledge of public playhouses and theatrical productions.⁷⁰ David McInnis also discusses his idea of the power of transportive performance, called 'mind-travelling', in his book on early modern voyage drama.⁷¹ McInnis discusses the imaginative element of playgoing as a collective experience distributed across a variety of participants, like the playwright and the player, of which Dee, in his performances, was both, as well as the stage technologies, like the set and the props, the physical environment of the theatre or performance space, and the playgoers themselves. In this way, the theatrical experience, McInnis argues, is a 'joint act of meaning-creation between the spectator and the player.'⁷² McInnis also references the work of Evelyn B. Tribble, whose theory of Distributed Cognition argues that cognition is not 'a solitary mental activity' but an 'activity undertaken in social settings', provides a theoretical framework to further situate Dee's use of nostalgia and, more broadly, emotions, within a 'social and environmental context rather than limiting cognitive activity to an individual's physical body.'⁷³ Ultimately, the theatrical experience was a collaborative one, relying on both the imagination of the playgoer and the aptitude of the players to stage a pleasurable drama. This collective experience foregrounds Dee's own performances, both with his genealogical scroll, which is a material staging of cultural narratives, like prophecy and apocalypse, and with his ritual objects in divinatory sessions. These divinations were predicated upon the premise that nostalgia, and its associated emotions, like longing, are, comparable Tribble's theory of cognition, not a solitary act, but a shared activity among his audiences.

Kitson and McHugh frame nostalgia as a tool to be mobilised. Their examples are specific to the twentieth century, but the premise of nostalgia as a tool for control is

⁷⁰ Deborah E. Harkness, "Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9)," *Renaissance Quarterly* 49, no. 4 (1996).

⁷¹ David McInnis, "Introduction" in *Mind-Travelling and Voyage Drama in Early Modern England*, *Early Modern Literature in History* (Palgrave Macmillan, 2013): 2, <https://doi.org/10.1057/9781137035363>.

⁷² McInnis, "Introduction," 2.

⁷³ David McInnis, "The Wings of Active Thought" in *Mind-Travelling and Voyage Drama in Early Modern England*, *Early Modern Literature in History* (Palgrave Macmillan, 2013): 44.

pertinent to my dissertation, especially as it pertains to their theory of ‘enchantment’, which, when articulated as a physical sensation, is described as being mesmerised, or transfixed in a pleasurable sensory experience beyond one’s control, similar to being charmed.⁷⁴ This was Dee’s true use of magic – utilising his objects, he forged a link between his things and cultural memories, accessing and promoting the feelings of his audience, and then benefitting from the by-product of their experience with emotionally charged artifacts.

Nostalgia and longing were not new to Dee – they were common forms of expression, especially in the antiquarian convention to which Dee’s interest and activities closely ascribe. Antiquarianism, the early modern study of the past, did not actually exist in Dee’s lifetime – the word itself was not used until 1761, long after Dee had died – but similar activities were described as the ‘study of antiquities’ by Dee’s colleague, the historian, William Camden (1551-1623).⁷⁵ Harriet Lyon places nostalgia and antiquarianism alongside one another as a way in which these actors could make sense of the past, especially in the wake of the material losses and other destruction caused by the Protestant Reformation, noting historical activities as both a product of, and an outlet for, nostalgia in the sixteenth-century. She echoes Aston’s formative study of this phenomenon, which sees this combination of ‘sentiment and scholarship’ as the impetus behind the connection between material and emotional connections to the past.⁷⁶ Lyon also discusses the nostalgic nature of the work of several of Dee’s colleagues, specifically John Stow (1524/25-1605) and William Camden, highlighting the tenuous balance these men observed in preserving history, and admiring it, but never longing too much for the pre-Reformation past.⁷⁷ Interestingly, the privileging of the past as a place to seek authority is reminiscent of Dee’s own experience with the scientific tradition, which echoed these traditional conventions of historical study. Alchemy, and other esoteric practices, also often looked to past adepts as teachers for modern students.⁷⁸ While scholars may have previously regarded Dee’s

⁷⁴ Jennifer Kitson and Kevin McHugh, “Historic enchantments – materializing nostalgia,” *Cultural Geographies*, vol. 22, issue 3 (2015): 487-508, <https://www.jstor.org/stable/26168663>.

⁷⁵ Kelsey Jackson Williams, “Antiquarianism: A Reinterpretation,” *Erudition and the Republic of Letters*, vol. 2, issue 1 (2017): 66, <https://doi.org/10.1163/24055069-00201002>. Williams provides both a history of early-modern English antiquarianism and a reassessment of its current place in early modern studies.

⁷⁶ Harriet Lyon, “Re-Thinking Nostalgic Antiquarianism: Time, Space, and the English Reformation,” *The Seventeenth Century* 37, issue 5 (2022): 758, <https://doi.org/10.1080/0268117X.2022.2074874>. See also Aston, “English Ruins and English History,” 231-255.

⁷⁷ Lyon, “Re-thinking Nostalgic Antiquarianism,” 759.

⁷⁸ Jennifer M. Rampling, “Reading Alchemically: Guides to ‘Philosophical’ Practice in Early Modern England,” *BJHS Themes* 5 (2020): 58-59, <https://doi.org/10.1017/bjt.2020.3>.

academic activities as separate from his alchemical, or otherwise esoteric, practices, similar historiographical traditions and epistemological lines of inquiry between both fields highlight the continuity of Dee's methods for developing precedent and establishing authority, no matter the subject of study.

Finally, returning to John Aubrey, his experience and cataloguing of the ruins outside Wiltshire in 1649, now called Avebury, a prehistoric stone circle, is seen as a defining moment in the history of archaeology, as well as in the development of antiquarianism. Aubrey's interest in the physical materials of the ruins brings to the fore the antiquarian methodology which, like material culture studies, defers to physical objects and materials as the primary source of knowledge for understanding the past. Crystal Lake, in *Artifacts*, summarises one of Aubrey's quotes from his *Monumenta Britannica* (c.1665-1693), which highlights the antiquarian approach, in that 'old objects should be allowed to "speak" or "give evidence for themselves."' ⁷⁹ This framing of Dee's antiquarian activities is not to suggest that everything he did was motivated by nostalgia or longing, rather to further explore Aston's claim that there was 'a very prominent strand of enquiry shaped by this blend of emotion, memory, and scholarship.'⁸⁰ Dee's harnessing of nostalgia and memory, embodied in physical objects, as tools to 'enchant' his audiences, sees emotion as a social experience, distributed collectively among those who came in contact with his things. This presents new ways to think about the value of objects in an emotional capacity, especially those with cultural contexts that are otherwise difficult to understand because the original purpose behind their creation is unclear. Examining the relational values of Dee's objects leads toward an appreciation for and a recognition of complex systems of belief and also considers the role of material culture and materiality in these systems as paramount to their construction.

Chapter Progression

The first chapter centres on Dee's self-made pedigree scroll, a manuscript stretching over six feet in length outlining the ancestral tree of the Dee family, held in the Cotton Collection at the British Library (Cotton Ch XIV 1). The chapter sees the scroll as a self-

⁷⁹ Crystal B. Lake, *Artifacts: How We Think and Write about Found Objects* (Johns Hopkins University Press, 2020): 2.

⁸⁰ Lyon, "Re-Thinking Nostalgic Antiquarianism," 769.

portrait in its entirety, considering Dee's self-fashioning and his application of Tudor England's dynastic and prophetic traditions, specifically the use of Arthurian imperial precedent in the place of verifiable evidence. The scroll is representative of Dee's antiquarian tendencies, and foregrounds his use of nostalgia as a rhetorical device to insert himself in national, historical narratives that would be beneficial to his public persona.

The second chapter works to integrate the second half of Dee's career into the rest of his intellectual agenda, building upon the work of William Sherman, Deborah Harkness, and Nicholas H. Clulee. It focusses on a programme of ritual divination objects which includes several mirrors and crystals, as well as engraved wax discs, a golden amulet, and a table/altar. The chapter positions these things alongside objects of similar materiality and function, as Dee did in his efforts to promote associations between his ritual items and recognisable objects. By creating associations between memory and nostalgia and his objects, his things became tools of emotional manipulation, whereby their emotional response to his objects transferred to him. Kitson and McHugh's definition of nostalgia, as 'an enchantment with distance' that is unable to be crossed, is affective, increasing the intensity of a person's relationship to the things – both human and non-human – which allow them to feel as if that distance could be bridged.⁸¹ In this way, Dee's material objects embody responses that are immaterial, sensual, and emotional, rather than rational, taking advantage of the powers of enchantment and feelings of wonder to subdue his audience's intellect.

This dissertation's contribution to the discussion of John Dee's self-fashioning is centred in its examination of material objects. The framework of this dissertation places objects at the core of emotional experiences, investigating the ways in which material culture and materiality have been used to access, promote, alter, and embody feelings throughout history. The analysis of these objects adds to the construction of Dee's fully-formed persona as a Renaissance scholar, rather than the partial view of him as an alchemical-magus, suggesting the power of things to inform the experiences and identities of those they come into contact with. This research also aims to expand the dynamic scientific landscape of Elizabethan England and Europe as one that was furnished with all manner of magical belief and material, shedding light on material culture as a shared

⁸¹ Kitson and McHugh, "Historic enchantments," 491.

method of inquiry between the seemingly disparate fields of occultism, 'science', and history.

Chapter I: Prophecy and Apocalypse in Dee's Pedigree Roll

Sixteenth-and-seventeenth-century occult practices occupied the space between legitimate and illegitimate forms of belief and knowledge making. Deriving from the Latin word 'occultus', which means hidden or secret, a variety of practices based on esoteric knowledge with connections to magic, or other supernatural phenomena, developed alongside mainstream inquiries into the study of the natural world.¹ The mysterious sub-categories of occult science, which included natural magic, astrology, and alchemy, both fascinated and frightened the general public, and the occult's purported connections to unnatural, evil, or demonic activity made society wary of its practitioners.² Dee was known by his contemporaries primarily for alchemical activities, which had connections to applied sciences like medicine and metallurgy, and to broader mystical traditions like Hermeticism and Cabbalism. Some associations, such as metallic transmutation and rumours of an elusive substance, known as the Philosopher's Stone, more readily characterised Dee's interest in the subject. The obscure elements of this strand of alchemy, and its perceived ability to tamper with or control the natural world, propagated suspicion and mistrust, resulting in a widespread negative typecast of alchemists, and occult practitioners more generally.³

Alchemy, and its companion discipline in chemical manipulation, chemistry, referred to as *alchymia* and *chymia* respectively, were used almost synonymously until the start of the seventeenth century, at which point tenuous distinctions began to appear between the two.⁴ *Alchymia* remained based in its attempts to transmute metals, combining 'manual craft techniques [with] elevated theoretical discourse' while *chymia* separated itself from alchemy first in name and then by attempting to ground itself in a more conventional scholastic framework, relying on a 'particulate conception of matter' and 'observation of

¹ Rachel White, "Early Modern Literature and the Occult." *Oxford Research Encyclopaedia of Literature*. 24 Feb. 2022. <https://oxfordre.com/literature/view/10.1093/acrefore/9780190201098.001.0001/acrefore-9780190201098-e-1318>.

² Richard Kieckhefer defines natural magic as 'the exploitation of "occult" powers within nature'. See Richard Kieckhefer, "Rethinking how to define magic," in *The Routledge History of Medieval Magic* (1st ed.), eds. Sophie Page and Catherine Rider (Routledge, 2019): 19, <https://doi.org/10.4324/9781315613192>.

³ The Philosopher's Stone was a rumoured by-product of metallic transmutation and was thought to be capable of healing bodily illness and prolonging life.

⁴ Jennifer Rampling, "From Alchemy to Chemistry," in *Brill's Encyclopaedia of the Neo-Latin World*, eds. Philip Ford, Jan Bloemendal, and Charles Fantazzi (Brill, 2014): 706-707, https://doi.org/10.1163/9789004271296_enlo_B9789004271012_0053.

phenomena.⁵ Despite the separation, Jennifer Rampling notes that contemporary critics still regarded them similarly, and continued to ‘challeng[e] philosophical and material claims of chemistry, as well as the perceived charlatanism, blasphemy, and the illiteracy of its practitioners.’⁶

In response, a variety of satirical material in England and in Europe was produced relating to the fraudulent reputation of alchemists. One example is illustrated by Dutch engraver, Philips Galle, after Pieter Bruegel the Elder’s 1558 illustration, *The Alchemist* (fig.1.1). This print emphasises the disorder and general unkemptness of an alchemist’s workspace and his person. Set in what appears to be a makeshift laboratory, equipment is scattered about the room. Cucurbits, alembics, and pots and pans, are strewn across every available surface, while a sieve and a bellows, as well as tongs, trowels, jars, and crucibles lay in various states of disuse. On the right side of the image, on a table constructed from an old door, one container holds ‘sulfer’. Behind it, there is a ‘keue’, or a keeve, a tool used in the process of extractive metallurgy, in which valuable metals are removed from their natural ores.⁷ An open flame pushes billowing smoke into the air, with several unattended concoctions being prepared in the crowded space.

Reading the print from left to right, the alchemist’s pursuit of gold presents as different examples of foolishness and greed, following the stages of his short-lived career. On the left, the first incarnation of the alchemist drops a gold coin into a crucible. With his other hand, he holds another crucible over a fire, suggesting that this is not the first time he has melted what little gold he did have in an attempt to make more. The alchemist in the middle of the engraving sits next to his wife, who holds her hand beneath a coin purse in vain, indicating that the family has run out of money. He pays her no attention, pumping a bellows over a pot holding several spilled containers, with one discarded beside it. On his head, he wears donkey ears, another nod to his stubborn persistence in attempting a futile task. In the background, the children run amok, one wearing an overturned cauldron on his head. The alchemist’s iteration on the right plays the role of the philosopher. Dressed in scholarly robes, he gestures at several texts, despite the lack of a listening audience. One of

⁵ Rampling, “From Alchemy,” 708.

⁶ Rampling, “From Alchemy,” 708.

⁷ R.W. Raymond, *The Glossary of Mining and Metallurgical Terms* (American Institute of Mining Engineers, 1881): 89.

the texts reads 'ALGHE MIST', a possible play on several Flemish words.⁸ Translations include 'all gemis' meaning 'all mixed' or 'alles mis' meaning 'everything wrong'. The pun mocks the convoluted list of alchemical steps that must be achieved to make gold and the alchemist's inability to interpret it. The background of the engraving shows the final consequences of the alchemist's journey – ruination and homelessness – as he and his family seek sanctuary at a hospital.⁹

Though Bruegel's alchemist is a parody, and serves as a cautionary, Aesopian-like tale of the ruin that comes from pursuing the craft, the occult sciences continued to attract an array of practitioners that ranged in background from artisans and physicians, to courtly scholars and monarchs. I provide the above engraving to highlight the cultural opinion of alchemists in order to offer an example of the very characterisation Dee tried to avoid throughout his career. The following chapter takes Dee's pedigree roll as a case study to examine his use of material language and his engagement with alchemical discourses in shaping a credible public reputation for himself. Dee exploited the antiquarian convention, which intertwined the sensation and feeling of nostalgia with scholarly enquiry, and was embodied in these objects he made or acquired. His utilisation of these things as tools, or props, in the performance of his persona, demonstrates the power of things as intermediaries in communicating or cultivating complicated identities. Leora Auslander, in her article "Beyond Words", uses the example of how one's clothing or home can '[locate] a person in society', noting that these objects and spaces are not a reflection of a person's social status, rather, they create this person's status.¹⁰ Applying this same premise to Dee's pedigree roll, this analysis sees his identity as created and perpetuated by the scroll and the affective capability it had on himself and audience, rather than just as a visual account of an historically significant family lineage.

Dee's objects – primarily his texts, which include his massive library and personal papers – have been studied in various contexts, and the majority of scholarship tends to detach the first part of Dee's career in England from his latter exploits in Europe.¹¹ He

⁸ Metropolitan Museum of Art and James Snyder. *The Renaissance in the North* (The Metropolitan Museum of Art, 1987): 79, <https://libmma.contentdm.oclc.org/digital/collection/p15324coll10/id/113373>.

⁹ Metropolitan Museum of Art, *The Renaissance*, 79.

¹⁰ Leora Auslander, "Beyond Words," *The American Historical Review* 110, no. 4 (2005): 1018, <https://doi.org/10.1086/ahr.110.4.1015>.

¹¹ See Peter French, *John Dee: The World of an Elizabethan Magus* (Routledge, 1972); Frances Yates, *The Occult Philosophy in the Elizabethan Age*, (1st ed.). (Routledge, 1979) and *The Rosicrucian Enlightenment*,

travelled to Poland in 1583, with his medium, Edward Kelly, at the behest of Polish nobleman, Albrecht Łaski, and remained abroad for six years, living in Cracow, Prague, and Trebon.¹² Because Dee's objects, specifically his tools of divination, are associated with the latter period of work, they are often approached through two different historiographical methodologies. One view sees him as a natural philosopher, and the other as a magus. This chapter contends that Dee's things are part of a single, unified programme of material and visual messaging, one which was born from similar epistemological traditions found in both scholarly modes of inquiry and in occult methods of study. These traditions employ historical narrative and collective memory as precedent to justify or establish authority, and utilise specific themes of prophecy and apocalypse as instruments to produce emotional effects.

This first chapter covers the 'The Mortlake Period' of Dee's life, from 1565 when he settled at his estate, to 1583, when he departed for Poland.¹³ It was the most consistently productive period of his life as his procurement of secure patronage came with the succession of Elizabeth I to the throne in 1558, and he received commissions for various tasks somewhat steadily. The chapter considers Dee's use of prophetic tradition as a rhetorical device to create an identity for himself that is based on a familiar quasi-historical narrative, and mould himself into the archetype of court alchemist. Relying on several texts from his library, particularly Geoffrey of Monmouth's *Historia regum Britanniae* (1136), and his self-authored pedigree scroll, Dee inserts himself in national myths of Tudor England, fashioning his public self after the Arthurian legend of Merlin, a famed ally of British kings and a pivotal figure in England's efforts to define its nationhood. Dee attempted to link himself to Merlin and other English alchemists to inherit their authority and their royal connections. The chapter also discusses the alchemical symbols, traditions, and narrative cycles that inform the language and imagery in Arthurian legend.

(Routledge, 1972); and György Szönyi, "John Dee and Early Modern Occult Philosophy," *Aries* 2, issue 1 (2002): 76-87, <https://doi.org/10.1163/157005902753647892>.

¹² Julian R. Roberts, "Dee, John (1527–1609), Mathematician, Astrologer, and Antiquary," *Oxford Dictionary of National Biography*. 23 Sep. 2004: 9-10, <https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-7418>.

¹³ Roberts, "Dee, John," 5.

Dee's Genealogy Scroll

The Cotton Collection at the British Library holds Dee's pedigree roll (Cotton Ch XIV 1), a manuscript stretching over six feet in length outlining the ancestral tree of the Dee family (fig.1.2). At first glance, the scroll prescribes to a typical genealogical diagram, decorated with the coats of arms of the families that make up Dee's lineage, with vertical lines of connected circles, each filled with the name of an ancestor, descending from densely grouped collections of circles at the top of the scroll. These groups comprise the oldest descendants to which Dee can claim relation. The top left and middle of the scroll have been lost due to damage, but the right side reaches back to the mythical King Arthur (fig.1.3). Though Dee did have children, his first being Arthur in 1579 – likely named after the king to which Dee claims distant familial descent – the family tree was not extended, ending with Dee's own birth in 1527. Pedigree rolls were tools of visual rhetoric, intended to illustrate family histories, for reasons of legitimacy and power conveyed through continuity.¹⁴ Dee's decision to forgo adding his children to the roll suggests then that Dee is the culmination of his genealogy, implied by the self-portrait at the end of the roll.

This document, made by Dee, is not dated, but was likely produced in the early 1570s.¹⁵ In Tarnya Cooper's book, *Citizen Portrait: Portrait Painting and the Urban Elite of Tudor and Jacobean England and Wales*, she dates the manuscript to 1577, though additional evidence indicates that a slightly earlier date for creation is more likely.¹⁶ While there is no firm evidence that this roll was displayed, Dee's library was fitted with reading equipment like cases and large tables, which would have provided a space for viewing a document of that size. Additionally, his library (the Bibliotheca Mortlacensis), also contained a large collection of charters, seals, and coats of arms kept in 'a great case or frame of boxes.'¹⁷ Though this may not include his own genealogy, it could provide an explanation for the four horizontal creases across the manuscript if it was stored in a small, rectangular frame or box, rather than rolled as it is kept today in the British Library.

¹⁴ Marie Turner, "Genealogies," in *Medieval Historical Writing: Britain and Ireland, 500–1500*, eds. Jennifer Jahner, Emily Steiner, and Elizabeth M. Tyler (Cambridge University Press, 2019): 84–100. doi:10.1017/9781316681299.006.

¹⁵ The self-portrait at end of the scroll can also be read as a mark of authorship. Additionally, the cursive script in the roundels, which is in Dee's hand, is the same hand used in the marginalia on the roll.

¹⁶ Tarnya Cooper, *Citizen Portrait: Portrait Painting and the Urban Elite of Tudor and Jacobean England and Wales* (Yale University Press, 2012): 160.

¹⁷ William H. Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance* (University of Massachusetts Press, 1995): 34.

Dee's scroll is indeed a reflection of his interest in history and the way in which genealogies were used to organise and share a form of knowledge. Beyond that, the impetus to create this manuscript is unclear, though attempting to uncover his motivation also assists with the issue of dating. The specific audience to which this type of material would have been most meaningful would have been Dee's scholarly peers, as well as those of elite status who had the power to validate it. While Dee came from relatively humble origins, his aim to associate himself with his social superiors was an economic decision, as they were more likely to patronise his work. Dee's interest in ancestry as a historical genre was in keeping with his work as a scholar and antiquarian. More broadly, the creation of genealogies reflected the wider interests of the monarchy and the nobility, whose histories were contained in these documents, and demonstrated the ways in which these men and women understood power, lineage, and their own status in relation to those of a similar pedigree to them.

Dee's genealogical activity could also speak to his autobiographical intentions, and his desire to externalise not only his family history but his introspective self – indeed, the inclusion of his self-portrait at the bottom of the roll could be viewed as a form of a signature, with which he authorises the information preceding it. The roll as a material prop is what allowed Dee to physically perform his family lineage, and convey and mould his social status more outwardly. Kathleen Lynch describes the act of creating autobiographical items as a way in which early modern individuals 'articulated personal convictions', which, in Dee's case may have been a strong motivator.¹⁸ As his authority as a scholar, and likewise, his personal reputation, was constantly under attack, his decision to create a tangible, visual record of his family history may have been self-legitimising. Though there is no record of it in his diaries, it is possible that Dee made this scroll for the purpose of a heraldic visitation in which his right to arms would have been assessed by a herald, or another government official. This right was usually determined through genealogical information. Sherman notes that during the Elizabethan time period, antiquarian documents pertaining to 'titles of the crown and nobility' often remained in private libraries like Dee's.¹⁹ Dee, in his *Compendious Rehearsal*, reflects upon those who visited Mortlake to

¹⁸ Kathleen Lynch, "Inscribing the Early Modern Self: The Materiality of Autobiography," in *A History of English Autobiography*, ed. Adam Smyth (Cambridge University Press, 2016): 69.

¹⁹ Sherman, *John Dee*, 34.

use his 'appendix' which contained a 'rare evidences' of Irish land territory, maps, land deeds, and the family histories of 'Welsh princes and noblemen', among other texts.²⁰ He lists 'her Majesties heralds, who saw them, and tooke some notes out of them', and 'the Clerks of the Records in the Tower [who] satt whole dayes at my house in Mortlake... gathering rarities to their liking out of them' as well as 'some antiquaries likewise had view of them.'²¹ While he may have originally intended the scroll for a heraldic visitation, his diaries are proof that his home at Mortlake, and his collections of texts and objects, were made accessible to a variety of visitors with social influence or valuable connections. His curation and creation of items, discussed further in due course, suggest they are integral pieces to the performance of his persona for an important audience of his fellow scholars and members of Elizabeth's court.

Dee's crest, or coat of arms, was granted to him by Roger Cooke, Clarenceux King of Arms, in 1576 (fig.1.4).²² There are similar iconographical elements found in Cooke's crest and Dee's scroll indicating that the information and imagery from the roll was shared with Cooke, likely during this visitation. Cooke's crest, for example, pays close attention to the Welsh lineage recorded in Dee's roll, incorporating 'A Lion seiant gardant... holding in his forepaw dexter a cross Cadawalladrine Asure' sitting on top of a knight's helmet and a 'Tetrehedre Argent, six sided Sable' (fig.1.4, fig.1.5).²³ Dee's emphasis on his Welshness would have been a particularly timely decision, bearing in mind the heightened interest in the Tudor connection to Welsh origins in the later years of Elizabeth's reign.²⁴

While Cooper's dating assumes that the information on Dee's scroll was born from Cooke's crest, further visual evidence from Dee's published works, *Monas Hieroglyphica* (1564) and his *Mathematicall Praeface* to Euclid's *Elements* (1570), dictates that the opposite is true – Cooke could have been familiar with certain elements of Dee's own iconography and self-designed crests and readily incorporated them into his designs. The

²⁰ John Dee, "The Compendious Rehearsal, etc.," in *John Dee's Diary, Catalogue of Manuscripts and Selected Letters*, ed. James Orchard Halliwell, James Crossley, John Eglington Bailey, and M. R. James. Cambridge Library Collection - British and Irish History, 15th & 16th Centuries (Cambridge University Press, 2013): 30, <https://doi.org/10.1017/CBO9781139245791.007>.

²¹ Dee, "The Compendious Rehearsal, etc.," 30.

²² Alistair Kwan, "John Dee's crest, and arms in his 'Mathematical Preface,'" *The Coat of Arms*, vol. 1, issue 209 (The Heraldry Society, 2005): 14.

²³ Kwan, "John Dee's Crest," 15.

²⁴ C.S.L. Davies, "Tudor: What's in a name?" *History* 97, issue 1 (2012): 31, <https://www.thinkinghistory.co.uk/ActivityBase/downloads/TudorSurpriseDavies.pdf>.

figure of Dee on the pedigree scroll points to a glyph he designed and first published in *Monas Hieroglyphica* (fig.1.6). The glyph is within an escutcheon, or shield, an essential feature of heraldic emblems. This same heraldic glyph is on the last page of the *Monas*, and some structural and design components are again present in Cooke's 1576 crest, specifically the engrailed border, as well as the layout of the crest (fig.1.7). While Cooke's design places England's golden lion atop the crest, Dee uses a woman, possibly Cleopatra the Alchemist or Maria the Jewess, indicated by the star in the figure's hand, as both women were believed to have been able to create the Philosopher's Stone.²⁵

Furthermore, in the opening line of his *Mathematicall Praeface*, Dee pays homage to 'Divine Plato', as the Master of Philosophers. Though the text seems to direct the reader to acknowledge the greatness of Plato, the decorated, ornamental woodcut 'D' does not allow the reader to do so without also acknowledging Dee himself (fig.1.8). In Alistair Kwan's article, 'John Dee's Crest, and Arms in his "Mathematical Praeface"', he details the many similarities between Dee's coat of arms and Cooke's crest, noting the same sejant lion, as well as the triangle represented by the two-sided pyramid in the crest.²⁶ Dee often signed his name with a triangle, as it stood for the Greek letter, Delta, shortened, obviously, to 'D'. It is notable that Dee did not use this triangle initial in his scroll, which implies Cooke may have seen Dee's *Mathematicall Praeface* when designing his crest, which was published six years before he granted Dee his coat of arms.

The creation of genealogies as a visual form of knowledge as the official format for cataloguing family histories was experiencing a resurgence in fifteenth-century and sixteenth-century England, especially among the gentry, due to several factors. The first is Richard III's designation of the College of Arms as the official heraldic authority in England and Wales. While heralds were not professional genealogists, their role in authorising the heraldry of the nobility required that they obtain the necessary genealogical information to lawfully authorise the granting of arms. From 1450 to 1687 at least '40 officers of arms of

²⁵ Johann Daniel Mylius' *Basillica Philosophica* (1617) Michael Maier's *Atalanta Fugiens* (1618) are two seventeenth century sources which depict Cleopatra and Maria the Jewess in emblems in which they are holding up a star. Though these examples are outside Dee's lifetime, he may have pulled this iconography from any text attributed to Maria that circulated in the early modern time period. See Matteo Martelli, "Maria's Practica in Early Modern Alchemy," in *Gendered Touch*, eds. Francesca Antonelli, Antonella Romano, and Paolo Savoia (Brill, 2022): 40-65, https://doi.org/10.1163/9789004512610_004. It is notable that Cleopatra the Alchemist is not the Egyptian Queen, though she is occasionally referred to as such, which means Dee could be asserting his loyalty to a different kind of queen.

²⁶ Kwan, "John Dee's Crest," 10.

the Herald's College in London made over 150 specially commissioned journeys into every county of England and Wales', with over half of these visits occurring before 1600.²⁷ These heraldic visits provided an array of other services beneficial to the crown, most of which supported the feudal system in place at that time, including census information for tax purposes, and controlling up-to-date accounts of feudal knights, local officials, and 'the identities and ages of any legitimate heirs of its tenants in chief.'²⁸ These heraldic visitations did not just yield important information for the state – they also generated material and visual recognition of the status of the gentry and legitimised their legacies, ensuring the continuity of a family's power through its inherited nature and enforcing a social hierarchy that would withstand the passing of time.

The evidence presented could mean that Cooke only constructed his arms from Dee's printed sources, negating any need for a heraldic visitation. However, though there was some early engagement with Dee's *Monas*, the material was not intended for mass consumption, and was mostly of interest to practicing alchemists and some seventeenth century chemists.²⁹ Likewise, while Dee's *Mathematicall Praeface* was popular in universities, the spiritual elements of the text were mostly of concern to a niche, occult readership.³⁰ If Cooke, who was neither an occult philosopher nor a university student, interacted with these texts, it is likely he did so during a visit with Dee. This does lend to the idea that Dee prepared his scroll to persuade Cooke of his eligibility for a coat of arms. Additionally, the Arthurian themes in Dee's scroll relate to his other projects at the time, all of which were published prior to Cooper's dating of the scroll, suggesting an earlier date for the object. Dee was working on several treatises in the early 1570s that advocated for England's expansion into the 'New World', citing Arthurian conquest and other historical sources as evidence. He also wrote on trade, national identity, and devised navigational

²⁷ Adrian Ailes, "The Development of the Herald's Visitations in England and Wales, 1450-1600," *The Coat of Arms*, vol. 5, issue 217 (The Heraldry Society, 2009): 7, <https://www.theheraldrysociety.com/wp-content/uploads/2019/10/CoA-217-Ailes-paper.pdf>.

²⁸ Ailes, "The Development of the Herald's Visitations," 8.

²⁹ Peter J. Forshaw, "The Early Alchemical Reception of John Dee's *Monas Hieroglyphica*," *Ambix* 52, issue 3 (2005): 247, 269, doi:10.1179/000269805X77772. While alchemists and chemists engaged with Dee's *Monas* in a variety of ways, the material was difficult to understand, especially for later seventeenth-century readers. Additionally, Forshaw notes that the *Monas* was not meant to garner a wide readership, as the alchemical knowledge within was intended for only the most skilled practitioners.

³⁰ Stephen Johnston, "The Identity of the Mathematical Practitioner in 16th-century England," in *Der "mathematicus": Zur Entwicklung und Bedeutung einer neuen Berufsgruppe in der Zeit Gerhard Mercators*, ed. Irmgrade Hantsche (Brockmeyer, 1996): 114.

charts. These projects include *Brytannicae reipublicae synopsis* (1570), *Brytanici imperii limites* (1576), and the *The Brytish Monarchy*, of which only one part, *the General and Rare Memorials Pertaining to the Perfect Art of Navigation* (1577), was ever printed.

Genealogies had long been included in other forms of visual and material culture, specifically in pageants, which were royal civic performances used to communicate certain political propaganda. Pageants were marked by the presence of a monarch, and enacted through an artistic program that included the building of temporary structures, scripted performances, painted sets, and elaborate costumes in a procession throughout the city in which it took place. C.E. McGee notes that often, these events brought together the elite, like royal visitors or courtiers, with the citizens of the town or city where the pageant was taking place, gathering them both literally and symbolically in ‘the unity of an audience.’³¹ This event equalised the social classes in their shared support for their monarch, if only briefly, and created a space in which the people of a town or city understood their relationship to their ruler physically.³² It was here that allusions to legendary British characters were most common as these performances often included acknowledgment of a sovereign’s right to rule, demonstrating that Dee’s decision to use prophetic genealogy as a tool for asserting his identity draws on a well-established public language.³³ These celebrated figures were largely derived from the historiographical tradition by which prophetic narrative was intertwined with – or sometimes used in place of – historical chronicle to establish England as a Protestant nation separate from the Catholic Church.³⁴

Historians and other ‘Tudor patriots’ like Dee turned to texts such as *Historia Regum Britanniae* which staged pseudo-historical content as truth.³⁵ Written by British cleric, Geoffrey of Monmouth, *Historia* situated England’s history within Trojan origins, tracing the

³¹ C. E. McGee, “Mysteries, Musters, and Masque: The Import(s) of Elizabethan Civic Entertainments,” in *The Progresses, Pageants, and Entertainments of Queen Elizabeth I*, eds. Jayne Elisabeth Archer, Elizabeth Goldring, and Sarah Knight (Oxford Academic, 2015): 108, <https://doi.org/10.1093/acprof:osobl/9780199673759.003.0006>.

³² McGee, “Mysteries, Musters, and Masque,” 108.

³³ David M. Bergeron, “Pageants, Politics, and Patrons,” *Medieval & Renaissance Drama in England* 6 (1993): 140, <http://www.jstor.org/stable/24321957>.

³⁴ Blaire Zeiders, “Conjuring History: The Premodern Origins and Post-Truth Legacy of John Dee’s *Brytanici Imperii Limites*,” *Journal of Medieval and Early Modern Studies*, vol. 49, issue 2 (2019): 381, <https://doi.org/10.1215/10829636-7506570>.

³⁵ Wendy Marcella Vander Velde, “How Kingdoms Were Forged: King Arthur, Queen Elizabeth, and the Assimilation of Self and Other in the New Ancient World,” PhD diss. (Boston University, 2014): 4, <https://hdl.handle.net/2144/15281>. Henceforth referred to as *Historia*.

founding of Britain back to Brutus, the grandson of Aeneas.³⁶ It covers the rise and fall of the Britons and their defeat of the Saxons as they battled each other for control of the territory that would later become England and Wales. *Historia* includes the legends of Cadwaladr, the celebrated Welsh king, as well as Vortigern and Uther Pendragon, and ends with legend of King Arthur.³⁷ Another outstanding character in *Historia* is Merlin, a composite figure originating from Welsh poetic tradition, who prophesied the Britons' victory over the Saxons, using the metaphor of a Red Dragon's (the Britons) destruction of a White Dragon (the Saxons).³⁸ *Historia* was used by Dee to '[connect] the House of Tudor to a 'Galfridian narrative... representing in Arthur's realm a thriving native civilisation independent of Catholic Rome.'³⁹ Blaire Zeiders writes that as the Tudor dynasty evolved, they began to recognise the power of using these fictional connections to further legitimise their position and validate land and maritime expansion. Foregoing exclusively historical genealogical connections – which only revealed a nation separate from classical civilisation and as such, without the prodigious characters and triumphant, prophetic themes central to Greek and Roman mythology – Elizabethan England sought to conquer its identity crisis.⁴⁰ Thus, new political rhetoric utilised myths and legend as much as accurate historical account.

The legend of King Arthur was heavily relied on by Henry VII, the first of the Tudors to use it to establish ancestral precedent, as his claim to the throne was otherwise weak. Claiming descent via his Welsh grandfather, Owen Tudor, believed to be a descendant of Arthur, Henry VII adopted the Red Dragon of Cadwaladr as a symbol to visually reinforce his connection to the ancient kings of Britain and 'the eventual triumph of Arthur's line.'⁴¹ Arthur's legend did not just provide English monarchs with an iconic genealogy, but 'many of the fifteenth and sixteenth-century legends claimed that Arthur would return to rule Britain once again' – some interpreted this literally, while others connected it to a 'resurgence of his bloodline.'⁴² This idea of perpetuity not only provided Henry VII and his

³⁶ Neil Wright, tr, *The History of the Kings of Britain: An Edition and Translation of the De Gestis Britonum (Historia Regum Britanniae)*, ed. Michael D. Reeve (Boydell & Brewer, 2007).

<http://www.jstor.org/stable/10.7722/j.ctt14brrjp>.

³⁷ Monmouth's Vortiger and Vortigern refer to the same character.

³⁸ Maud Burnett McInerney, "Riddling Words: the *Prophetiae Merlin*," in *A Companion to Geoffrey of Monmouth* (Brill, 2020): 129-152, https://doi.org/10.1163/9789004410398_006.

³⁹ Zeiders, "Conjuring History," 381-382. Geoffrey of Monmouth's Latin name is Galfridi Arturi Monemutensis, so 'Galfridian' is anything of or related to Geoffrey of Monmouth.

⁴⁰ Zeiders, "Conjuring History," 381.

⁴¹ Vander Velde, "How Kingdoms Were Forged," 6-7.

⁴² Vander Velde, "How Kingdoms Were Forged," 6-7.

bloodline with a past, but with the sense that the future was already set in stone. When Henry VII's first son was born he was christened Arthur (1486-1502), and was extolled as 'Arturus secundus.'⁴³ By doing this, Henry VII ensured that literally or figuratively, his subjects understood his reign as fulfilling this prophecy, ensuring his heir's uncontested right to the throne.

When Henry VII became king in 1486, he visited Worcester, one stop of many on his triumphant tour of the country. A pageant was supposed to take place to greet him, and though it never occurred, John Leland (1503-1552), a poet and antiquarian, wrote several sentences intended for a speech that was part of the performance:

Cadwaladrs Blodde lynyally descending,
 Longe hathe bee towlde of such a Prince coming,
 Wherfor Frenedes, if that I shal not lye,
 This same is the Fulfiller of the Profecye.⁴⁴

This public declaration of Henry VII's ancestry mimics the function of a scroll. It references Henry's British heritage and affirms his claim to the throne by recalling his ancestral connections. More importantly, it transfers the famous attributes of Cadwaladr to Henry, implying that Henry's rule, despite the violence that preceded it, was the fulfilment of a prophecy that would deliver England from the uncertainty of its past. This renewed need for reassurance concerning England's future, and the creation of genealogical rolls in response was due, in part, to the doubt caused by the dynastic rivalry between and within the houses of Lancaster and York.⁴⁵ Prince Arthur's pedigree roll, held by the College of Arms in London, reflects this uncertainty, asserting his British heritage by connecting him to John of Gaunt on his father's side, and to Edward IV and the Welsh king, Cadwaladr, on his mother's, predicating standard dynastic connections by seamlessly combining Yorkist and Lancastrian lines, over the incorporation of Arthurian or other prophetic legends.⁴⁶

Henry VII's descendants used Arthurian legend in different ways, with his successor, Henry VIII, relying on Arthur as figure to justify imperial claims, while Elizabeth used it first

⁴³ Robert Sherman Loomis, ed., *Arthurian Literature in the Middle Ages: A Collaborative History* (Oxford: Clarendon Press, 1959): 89.

⁴⁴ Sydney Anglo, "The 'British History' in Early Stuart Propaganda. With an Appendix of Manuscript Pedigrees of the Kings of England, Henry VI to Henry VIII," *Bulletin of the John Rylands Library* 44, issue 1 (1961): 17, <https://doi.org/10.7227/BJRL.44.1.2>.

⁴⁵ Anglo, "The 'British History,'" 21.

⁴⁶ Anglo, "The 'British History,'" 26. Prince Arthur's pedigree roll, MS Vincent 152, is held at the College of Arms, London.

to strengthen her claim to the throne.⁴⁷ Elizabeth's historically accurate genealogy was performed in a pageant in 1559, the day before her coronation, upon her entry to London, featuring scenes that 'depicted the uniting of the houses of York and Lancaster on a scaffold replete with red and white roses' as well as representations of her grandfather and grandmother, Elizabeth of York, and her own father, Henry VIII, and mother, Anne Boleyn, on a family tree with the figure of Elizabeth herself at the top.⁴⁸ Elizabeth's later incorporation of Arthurian legends into English national history, to refer back to Blaire Zeider's work, were due in part to the realisation that England, after its separation from the Catholic church, could no longer make a claim to the illustrious backstory of classical Rome.⁴⁹ These myths were played out in public performances for the elite, like tiltyard tournaments, an example being the Kenilworth Festivities which took place over nineteen days in July of 1575.⁵⁰ Jim Ellis examines the Arthurian themes of Kenilworth's tiltyard entertainment, paying particular attention to the way in which the spectacles merged with the landscape upon which it was staged, explaining Kenilworth as 'an attempt on a grand scale to invent a new social memory for England and install it in the consciousness of the court.'⁵¹

Ellis highlights the medieval elements of Kenilworth's architecture, including the trumpeters, which were 8-foot tall effigies behind which stood real trumpeters, suggested by George Gascoigne (c.1535-1577), an English poet and a chronicler of the event, to be symbolic of the men of that great height who lived in the time of King Arthur, creating the sense that Arthur and his servants were still residing at the castle.⁵² The performance continued with the Lady of the Lake, a mythical enchantress from the legend of Arthur, appearing to Elizabeth and recounting the castle's connections to Arthur and the Round Table, before leading the party across a tiltyard enclosed on both sides by water. It would have been dark at this point, and this path, Ellis notes, backlit by the candles and torchlight

⁴⁷ Jim Ellis, "Kenilworth, King Arthur, and the Memory of Empire," *English Literary Renaissance* 43, issue 1 (2013): 23, <http://www.jstor.org/stable/43607602>.

⁴⁸ Bergeron, "Pageants, Politics, and Patrons," 141.

⁴⁹ Zeiders, "Conjuring History," 381.

⁵⁰ Elizabeth Goldring, "Portraiture, Patronage, and the Progresses: Robert Dudley, Earl of Leicester, and the Kenilworth Festivities of 1575," in *The Progresses, Pageants, and Entertainments of Queen Elizabeth I*, eds. Jayne Elisabeth Archer, Elizabeth Goldring, and Sarah Knight (Oxford Academic, 2015): 163-188, <https://doi.org/10.1093/acprof:osobl/9780199673759.003.0009>.

⁵¹ Ellis, "Kenilworth," 4.

⁵² Ellis, "Kenilworth," 21.

from the castle, 'would have seemed like the passage into a different world, into the world of romance, like a crossing to the fairy island of Avalon.'⁵³ Over the following days, other pageants continued to link Elizabeth's reign to Arthurian myths, concretising England's legendary past, and therefore encouraging the idea that, under her rule, a similarly strong future was guaranteed. Most importantly, Ellis points out that the staging of these pageants in historic locations is not just a recitation of historical events, but rather 'a history enacted in service of national memory' in which the 'participants understand themselves to be occupying this history, in both a physical and a metaphorical way.'⁵⁴ Ellis' ideas recall McInnis' theory of 'mind-travelling', in which the imaginative elements of stage performances extend beyond the individual's own physical state to create a collective cognitive experience among the all playgoers.⁵⁵ Ellis, like McInnis, points out that the memory being formed from this performance is not of the pageant or drama itself, rather it is a 'manufactured' memory of a place, time, or, in the case of Kenilworth, of an empire, that they did not experience.⁵⁶ For Elizabeth, the use of Arthurian legend was not to facilitate the memory of the greatness of Arthur's kingdom, but to assert her central role in these narratives as prophetic evidence of her right to rule England, using Arthur's authority to invoke belief in her right to rule and her ability to do so as effectively as he did.

As this section has illustrated so far, Dee's interest in his pedigree and his creation of his own genealogical scroll fits into a historiographical trend which started in the fifteenth century and extended into the sixteenth and early seventeenth centuries. The physical form of the scroll itself is even typical. Though genealogies were sometimes in codex form, bureaucratic and legal information was still primarily recorded in roll format.⁵⁷ By Dee's time, the latter half of the sixteenth century, the material display and visual convention of pedigree information was dependent upon audience and the intended use of the scroll. For example, two genealogical pedigrees exist for Elizabeth I: King's MS 396, made by Robert

⁵³ Ellis, "Kenilworth," 22. Avalon was the island, first mentioned in Monmouth's *Historia*, where Arthur's famous weapon, the sword, Excalibur, was made, and where Arthur went to heal after he was wounded in battle.

⁵⁴ Ellis, "Kenilworth" 23.

⁵⁵ McInnis, "Introduction," 2.

⁵⁶ Ellis, "Kenilworth" 28.

⁵⁷ Peter Stallybrast, "Books and Scrolls: Navigating the Bible," in *Books and Readers in Early Modern England: Material Studies*, eds. Jennifer Andersen and Elizabeth Sauer (University of Pennsylvania Press, 2002): 43, <https://doi-org.eux.idm.oclc.org/10.9783/9780812204711.42>. Cadwaladr is also spelled *Cadwallader* or *Cadwalader*.

Cooke in 1567, kept in the British Library, and Edmund Brudenell's roll, commissioned between 1558 and 1560, which is held at Hatfield House in Hertfordshire. The information in King's MS 396 is displayed in parchment codex, while the Brudenell pedigree is a ninety-foot parchment scroll.

The British Library notes that King's MS 396 was possibly presented to Elizabeth I as a New Year's gift from Roger Cooke, Clarenceux of Arms.⁵⁸ Unlike the scroll, the narrative of this book is structured so that each page is constructed as an independent event that is conveyed episodically. Sonja Drimmer explains that 'phenomenologically, then, the motivation of this genealogy is neither gravitational nor natural, but indeterministic: the will of history, or the willingness of the reader-viewer to turn the page.'⁵⁹ This notion could have been personally attractive to Elizabeth, who would have liked the idea that her accession to the throne was predestined despite other contributing factors – each ruler, and each reader's turn from one page to the next, leads to her rule. The thematic elements of the pedigree support this, with Elizabeth's family history beginning with Rollo, Duke of Normandy, a verifiable historical starting point, as opposed to a pedigree that relies on legendary ancestors (fig.1.9).

Comparatively, the Brudenell roll flows vertically downward from seven roundels telling the story of the Book of Genesis and the creation of the world.⁶⁰ Adam and Eve's direct ancestral connection to Elizabeth implies that her rule was not just inevitable, but that it was divine. Later, the scroll incorporates figures from Galfridian mythology. Though there is no record of it having been presented to Elizabeth, the detailed creation of the scroll, as well as the content of the pedigree, suggests it was meant for display. Similar to her grandfather before her, whose right to rule was disputed following the Civil Wars between the Lancasters and the Yorks, due to the actions of her father, Elizabeth's own claim to the throne was questioned, so public presentation of her pedigree would make

⁵⁸ Robert Cooke, *Book of Arms of the Queen's Majesty's Progenitors*, 1567, London, British Library, King's MS 396.

⁵⁹ Sonja Drimmer, "Questionable Contexts: A Pedigree Book and Queen Elizabeth's Teeth," in *Scholars and Poets Talk about Queens*, eds. Carole Levin and Christine Stewart-Nuñez (Palgrave Macmillan, 2015): 212, https://link.springer.com/content/pdf/10.1057/9781137534903_20.pdf.

⁶⁰ Sara Trevisan, "Genealogy and Royal Representation: Edmund Brudenell's Pedigree Roll for Elizabeth I (1558–60)," *Huntington Library Quarterly* 81, issue 2 (2018): 261, <https://www.jstor.org/stable/90023623>.

sense, as she would have supported the traditions and conventions of the roll that provided her with lineal legitimacy.

Although the decision to display his pedigree in scroll format was not unusual, it is significant that of the two aforementioned technologies, Dee chose to adhere to typical modes of genealogical delineation. For a scholar who is often judged for his intellectual peculiarity, the traditional nature of this decision appears inconsistent. It could be that Dee liked the performative qualities of a large roll and the possibility of theatrically unfurling it for specific audiences, or alternatively, displaying it in his home library at Mortlake. When considering the Brudenell roll, the material length mimics the ancestral longevity of Elizabeth; thus, size of the object is directly equated to the history it conveys. The difficulties associated with viewing such a large roll would have impressed the viewer, thus adding to its spectacle, and creating a relationship between the immaterial aspects of the scroll and material space it was viewed in. In reconstructing Dee's heraldic visitation, it is possible that the material display of reading a six-foot pedigree scroll may have been visually impactful on Cooke, leading him to create associations between the physical size of Dee's roll and the pedigrees of other elite individuals to which he would have been exposed.

Alchemy, Authority, and Historical Precedent

Dee's pedigree roll is illustrative of his meticulous and complex approach to fashioning his public persona using English prophetic tradition to its full narrative extent. His timely application of this mythology to his own pedigree was authorised because of Elizabeth's personal stake in Arthurian narratives, which Dee extorted for his own gain. Other characters in the epic of King Arthur include the wizard-prophet, Merlin, who served Arthur's court. While Dee laboured under the negative archetype of 'alchemist-conjuror', the figure of Merlin was well-established in the English literary imagination as an ally to kings, and despite his supernatural powers, he was not regarded with distrust. Instead, his prophetic ability and knowledge often played a major role in Arthur's successes.⁶¹ Dee was hopeful that Elizabeth's authorisation of Arthurian mythology as a form of quasi-historical precedent would extend to other characters in the legend. If Dee could associate himself

⁶¹ Nicole Clifton, "Early Modern Readers of the Romance 'Of Arthour and of Merlin,'" *Arthuriana* 24, issue 2 (2014): 75, <http://www.jstor.org/stable/44697424>.

with the figure of prophet-sage, or even the advisor role that Merlin played in Arthur's court, he could discourage accusations against his character. His links with Merlin, who was seen as an adept, trustworthy magus, might extend those same qualities to him. In addition to Merlin, Dee asserts his connections to two real court alchemists, George Ripley and Thomas Norton, who served Edward IV, interlinking the histories of both real and imagined occult practitioners to benefit his own image.

Dee's use of England's national history – as it intertwines with Biblical eschatology and mythology – was motivated by several cultural and political considerations. To examine his participation in the prophetic tradition, the section will examine these factors: first, ideas of apocalyptic theology as it relates to the work of English historiographers during the Protestant Reformation and then the crown's own stake in the role that prophecy played in justifying imperial expansion and legitimising Elizabeth's claim to the throne.

Born under the rule of Henry VIII, Dee's early theological experiences were determined by the break from the Catholic Church. Henry VIII's son and successor, Edward VI, continued his father's programme of religious change, instituting Protestantism in England, a transformation halted by the accession of Mary I, who spent the majority of her short, five-year reign trying to reverse Protestant law and re-establish Catholicism as the state religion.⁶² Avihu Zakai writes that during this time, many exiled English Protestants converged on learning centres in Europe, where they joined a community of other historians and intellectuals, building the 'foundations of Protestant historiography.'⁶³

This Protestant historiography re-established God as the focal point of the religious experience and '...return[ed] to him His direct role within history.'⁶⁴ This, and the turbulent political and religious landscape of sixteenth-century England and Europe, foregrounded a cultural necessity for predicting the future, giving rise to a narrative structure that employed a literal reading of Scripture and observed divine prophecy in correlation with historical events.⁶⁵ Zakai goes on to note that, as 'secular profane history – the domain within which God's providence revealed itself through the fulfilment of prophecies – became integrally

⁶² Diarmaid MacCulloch, "The Church of England and International Protestantism, 1530–1570," in *The Oxford History of Anglicanism, Volume 1: Reformation and Identity c.1520-1662*, Oxford History Of Anglicanism, ed. Anthony Milton (Oxford Academic, 2017): 352, <https://doi.org/10.1093/acprof:oso/9780199639731.003.0017>.

⁶³ Avihu Zakai, "Reformation, History, and Eschatology in English Protestantism," *History and Theory* 26, issue 3 (1987): 302, <https://doi.org/10.2307/2505065>.

⁶⁴ Zakai, "Reformation," 302.

⁶⁵ Zakai, "Reformation," 303.

linked to sacred, ecclesiastical history... a knowledge of history [became] necessary for the understanding of prophecy.⁶⁶

German theologian, Philip Melanchthon (1497-1560), contemporary of the seminal reformer, Martin Luther (1483-1546), and primary author of the first major Protestant historiographical text, *Carion's Chronicle* (1532), wrote that 'God hath given us al maner of prophecyes... [so] that we shuld be warned when Christ must come, and when the ende of the world is to be loked for.'⁶⁷ Melanchthon believed that history was 'a succession of divinely predestined events', as did Luther, who held historical events up to prophecy, using the latter to predict and explain the former.⁶⁸ Though this was, at first, a mere meshing of real and interpretive events, it soon became a full erasure of the line between secular and sacred narratives.

In this, the Protestant Reformation became situated in history as the beginning of the end of the world, a feature of the fourth great monarchy, which was laid out and explained in the Book of Daniel, an Old Testament story of the prophet Daniel whose visions of the future dominate the latter chapters of the book.⁶⁹ It was frequently employed by many prominent Reformation historians, Melanchthon and Luther included. From this source material, reformers drew on one of Daniel's visions that described the four different empires which would supplant each other over time: Babylonia, Assyria, Persia, and Rome.⁷⁰ Both agreed, with slight interpretative differences, that the Reformation was occurring in the time of the Roman empire. Melanchthon believed that the Holy Roman Empire, under Charles V, was a continuation of the Roman Empire, but broken down into different kingdoms, though Luther was not fully clear on this.⁷¹ By this estimation then, the end of days was not far off, giving Protestant historiography, and by extension, the reform movement, a sense of apocalyptic importance. The premise of the four monarchies was common beyond the German Reformation, and English Protestant, George Joye (1495-1553), constructed a discourse on their work and the Book of Daniel, which was published in

⁶⁶ Zakai, "Reformation," 303.

⁶⁷ Zakai, "Reformation," 303.

⁶⁸ Zakai, "Reformation," 303.

⁶⁹ W. Stanford Reid, "The Four Monarchies of Daniel In Reformation Historiography," *Historical Reflections/Réflexions Historiques* 8, issue 1 (1981): 116, <http://www.jstor.org/stable/41298743>.

⁷⁰ Zakai, "Reformation," 303.

⁷¹ Reid, "The Four Monarchies," 116-117.

Geneva in 1545 and ‘probably smuggled into England for the comfort of the persecuted under both Henry VIII and Mary.’⁷²

In England, the writings of John Bale (1495-1563), John Foxe (1516-1587), and Thomas Brightman (1562-1607) established Protestant historiography.⁷³ They claimed that the Church of England had always been founded on apocalyptic eschatology, but the Catholic Church had overthrown it to achieve exclusive power, highlighting the struggle between the papacy and the English church and monarchy as central to English Protestant history to promote feelings of nationalism.⁷⁴ By removing the Catholic Church from its history, England was left with narrative breaks in its historical timeline and thus relied on prophecy, Biblical and mythological, to fill the gaps. The dissemination of Protestant historiography led to the widespread belief of this apocalyptic prophecy, and indeed, a cultural assimilation of prophecy as fact, so long as it was grounded in historical evidence.⁷⁵ Frightening though the end of days might have been, its roots in Biblical eschatology provided predictability in a time of otherwise great uncertainty.

Deborah Harkness connects Dee’s interest in alchemy to early modern apocalypticism noting that it ‘suggested’ a role for him and his natural philosophy in what many thought was going to be a new world.⁷⁶ Metaphorically, alchemy’s chemical processes mirrored the Biblical process of death, resurrection, and rebirth. H.J. Sheppard describes alchemy as:

the art of liberating parts of the Cosmos from temporal existence and achieving perfection which, for metals is gold, and for man, longevity, immortality, and finally, redemption. Material perfection was sought through the action of a preparation (Philosopher’s Stone for metals; Elixir of Life for humans), while spiritual ennoblement resulted from some form of inner revelation or other enlightenment.⁷⁷

⁷² Reid, “The Four Monarchies,” 117-118.

⁷³ Zakai, “Reformation,” 307.

⁷⁴ Zakai, “Reformation,” 307.

⁷⁵ Zakai, “Reformation,” 307.

⁷⁶ Harkness notes that many alchemical theorists related these apocalyptic beliefs to the material destruction and redemption of metals during the process of transmutation, and believed that like alchemical transformation ‘the redemption of humanity and the natural world [would] usher in the age of apocalyptic rebirth.’ See Deborah E. Harkness, “Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9).” *Renaissance Quarterly* 49, no. 4 (1996): 710, 729, <https://doi.org/10.2307/2862959>.

⁷⁷ Stanton J. Linden, “‘A Clew and a Labyrinth’: Backgrounds, Definitions, and Preliminaries,” in *Darke Hieroglyphicks: Alchemy in English Literature from Chaucer to the Restoration*, 1st ed. University Press of Kentucky, 1996: 11, <http://www.jstor.org/stable/j.ctt130hvpq.6>.

This definition of alchemy sheds light on the link between religion and natural philosophy and rationalises Dee's interest in an occult science. Sheppard's extended explanation says that alchemists believed themselves to be making deliberate 'alterations of duration in some linear timescale' by either 'shortening it (in the case of artificial production of metals), lengthening it (in the case of life-prolonging elixirs), or, in the case of redemption, removing the subject from time's sway entirely.'⁷⁸ This power over the temporal dimension finds commonalities with the work of Protestant historiographers, who pulled apocalypse and divine prophecy back from beyond time and placed it within the bounds of secular history. These temporal, material, apocalyptic, and redemptive themes draw alchemy, historiography, and prophecy together, naturally creating a space for Dee to fashion an identity that was able to carry such expansive ideas and philosophies. The integration of Biblical prophecy into the historical timeline also served as the foundation for the incorporation of secular prophecy, like those of Merlin and Arthur, into British narratives of the past, and foregrounded the creation of pseudohistorical genealogies, like Elizabeth's.

When Dee was called on by Elizabeth for his historical and navigational knowledge, he seized on the opportunity to weave together prophecy and history to please his patron and to elevate his own ancestral background by placing it within a developing national narrative. Elizabeth's interest in geographical expansion and 'maritime monarchy' facilitated Dee's 1578 text, *Brytanici Imperii Limites*, 'one of the first writings commissioned in Elizabethan England to justify the expansion of the British Empire.'⁷⁹ To vindicate the pursuit of imperial projects, Dee knew his research would have to be historically precedential, as 'this was the ultimate source of authority, both rhetorical and political.'⁸⁰ Choosing to rely heavily on Monmouth's *Historia* as his primary source material, Dee's *Limites* refutes claims that Monmouth's text is a false account of Arthur. Monmouth explained in his *Historia* that his book is a translation from a Welsh text (into Latin) given to him by the archdeacon of Oxford – this text has never been found, (and likely does not exist), though many historians,

⁷⁸ Linden, "A Clew and a Labyrinth," 11.

⁷⁹ Sherman, *John Dee*, 150, 126; Zeiders, "Conjuring History," 382. The manuscript of *Brytanici Imperii Limites*, is comprised in Add MS 59681 at the British Library. For more on the creation and compilation of the manuscript, *Brytanici Imperii Limites*, see Ken MacMillan, "John Dee's 'Brytanici Imperii Limites,'" *Huntington Library Quarterly* 64, issue 1/2 (2001): 151-159, <https://doi.org/10.2307/3817882>.

⁸⁰ Sherman, *John Dee*, 126.

like the aforementioned John Leland, maintain that though Monmouth may have exaggerated or fictionalised Arthur's life, 'if only they had access to Geoffrey's lost source, they would indeed be able to recount the true (unembellished) account of Arthur.'⁸¹ Leland's statement, echoed by Dee, places the blame on Monmouth's exaggerations, shifting speculation away from the legend of Arthur. Therefore, it is not Arthur, (and by extension, his descendants), who should be doubted or questioned, but 'ignorant and negligent copiers of written books... who have confounded the truth... and have made the truth itself be doubted.'⁸² After making his distaste for false evidence obvious, Dee was then able to utilise vague, or general references, to lost, or even fabricated texts, as it prescribed to the conventional antiquarian approach of relying on historical material. In laying this groundwork, he could assert that 'the British Empire should include all of the North Atlantic, half of North America, the entirety of the British Isles, and much of Scandinavia and the Iberian Peninsula' – this land, he argued, was Elizabeth's rightful claim, as a descendent of past British conquerors and kings.⁸³ This rhetoric, applied in *Limites* and in Dee's pedigree, affirms that 'when lacking hard evidence to the contrary, one can assume Arthurian imperial precedent.'⁸⁴ This assumption, however, was only sanctioned because of Elizabeth I's own stake in Arthurian prophecies, as they served as authoritative and legitimising elements in her pedigree and in the history of England. Dee could therefore convey his own familial connections by the same measure.

Dee's pedigree demonstrates his personal connection to many of the legendary characters in *Historia*, a source he references on the roll itself. One function of a pedigree scroll is the visual commemoration of a family's history. The act of remembrance, the definition of commemoration, is tied to this object. The scroll facilitates remembrance, just as the need for remembrance facilitated the making of the scroll. In Dee's scroll, where the information is fabricated, it does not so much act as a reminder of the deceased, but of the prophecies linked to those characters. Dee's connection to Arthur is not just about remembering him, but facilitating the continuity of his legend and the feelings associated with it. As mentioned previously, many sixteenth-and-seventeenth-century legends believed

⁸¹ Zeiders, "Conjuring History," 383.

⁸² Zeiders, "Conjuring History," 383.

⁸³ Zeiders, "Conjuring History," 382.

⁸⁴ Zeiders, "Conjuring History," 382.

that Arthur would return to rule Britain once again, either physically or through his bloodline. As Dee's pedigree ends with himself, he is portrayed as another culmination of Arthur's line. Through his connection to Arthurian myth, Dee established himself within prophetic narratives, suggesting that he is both a recognisable figure from history and an integral part of England's future.

Of the nine coats of arms on Dee's scroll and the accompanying text, this visual analysis focuses on the iconography and ancestry as it relates to central figures in Monmouth's *Historia* and Dee's own coat of arms, beginning at the top of the scroll. The earliest recorded date on the scroll is 542 AD. In amongst the many annotations and roundels are two well-known names: Uter Pendraco Rex (King Uther Pendragon) and Arturus Rex (King Arthur) (fig.1.3). Though this father and son were, arguably, two of Dee's most famous ancestors, his inclusion of them in his pedigree can be easily lost in the busy corner of the roll. This could be a tactic to make a viewer perform a closer inspection of the scroll, or it could be Dee's way of normalising his connection to them. Next to Uther's roundel is Igerna's, Arthur's mother, who had also had a child by Gorlois, Duke of Cornwall. Below Gorlois' square, Dee has inscribed in Latin, 'Galf. Mon Lib capi.' 'Galf. Mon' is an abbreviation for Geoffrey of Monmouth's name, Galfridi Arturi Monemutensis. Dee is citing Monmouth as his source for this genealogical information, once again referring to the antiquarian tradition of citing historical sources to bolster the believability of one's own work.

In the later books of *Historia*, Monmouth covers the legends of Uther and Arthur. Notably, the inclusion of every mythical character in Dee's pedigree are from the books following the *Prophecies of Merlin*, a section of *Historia* following book six. *Historia* introduces Merlin as a collaborative figure in the adventures of Uther and Arthur who is 'chosen to supply them with brains and advice.'⁸⁵ If Dee believed himself to be another version of Merlin, that may be the reason he began his ancestry with these two characters.

In the *Prophecies*, Merlin says to the evil King Vortiger:

Alas for the red dragon, its end is near. Its caves will be taken by the white dragon, which symbolises the Saxons whom you have summoned. The red represents the people of Britain, whom the white will oppress... the rivers in the valleys will run red

⁸⁵ Wright, tr. *The History of the Kings of Britain*, 172.

with blood. At last the oppressed will rise up and resist the foreigners' fury. The boar of Cornwall will lend his aid and trample the foreigners' necks beneath his feet.⁸⁶

This prophecy is straightforward. Vortiger and the Saxons would rule Britain until the boar of Cornwall defeated them. At the end of book eight, Uther dies and Arthur is crowned king, eventually leading the Britons to a definitive victory over the Saxons and 'restore[ing] lasting peace throughout the land.'⁸⁷ Arthur's fulfilment of the Merlinic prophecy has long since associated him with the title, the Boar of Cornwall.

The second coat of arms on the pedigree is associated with Cadwaladr, whose name appears in the crowned roundel above the blue blazon shield with the yellow cross (fig.1.5). Cadwaladr, son of Cadwallon, also noted on the scroll, is the basis of Monmouth's Cadualadrus, who is often regarded as the last king of the Britons and as the prophesied hero of the Welsh.⁸⁸ The fifth coat of arms – a shield divided into four quadrants with a regardant lion in the top right and bottom left, and an inverted triangle of three black boar heads against a white background in the top left and bottom right – belongs to 'Ethelstanus' named in the roundel above it (fig.1.10). Ethelstanus is King Athelstan, victor at the Battle of Brunanburh which saw him defeat an army of Danes and Scots.⁸⁹ Similar to *Historia*, the life of Athelstan was recorded and expanded with 'legendary episodes' by William of Malmesbury, a famous English historian from the twelfth century.⁹⁰ Dee's inclusion of Athelstan may be less of a reference to his actions, and more about emphasising the work of Malmesbury, a well-regarded historian, and a scholarly predecessor of Dee.

Farther down the scroll, beneath the sixth coat of arms is a roundel with the name Rufus, most likely referring to William Rufus, son and successor of William the Conqueror, with whom the coat of arms is associated (fig.1.11). The lion against the red background is within a golden border. In English heraldry, a border usually indicated illegitimacy, further verifying that this is the coat of arms of William the Conqueror, a bastard of Robert I of

⁸⁶ Wright, tr. *The History of the Kings of Britain*, 144.

⁸⁷ Wright, tr. *The History of the Kings of Britain*, 204.

⁸⁸ Ben Guy, "Geoffrey of Monmouth's Welsh Sources," in *A Companion to Geoffrey of Monmouth*, vol. 22, eds. J. B. Smith and G. Henley (Brill, 2020): 49, https://doi.org/10.1163/9789004410398_003.

⁸⁹ Patrizia Lendinara, "The Battle of Brunanbruh in later Histories and Romances," *Anglia: Journal of English Philology*, vol. 117, issue 2 (1999): 201-235, <https://doi-org.eux.idm.oclc.org/10.1515/angl.1999.117.2.201>.

⁹⁰ Lendinara, "The Battle," 201.

Normandy and his concubine.⁹¹ During the Battle of Hastings, William successfully invaded England and was named king in 1066. William's Norman conquest of Britain, as well as Cadwaladr's place as the deliverer of the Welsh, evokes similar themes of imperial victory and national destiny to the tales of Arthur and his father.

The presence of Cadwaladr, Athelstan, and William alongside Arthur and Uther furnish the prophetic narrative of Dee's scroll with verifiable historical figures. It also relates Dee to the real Tudor dynasty. Dee's balance of fact and fiction finds its final form in Dee's own coat of arms, which combines iconographical elements from some of the coats of arms analysed above (fig.1.12). The left side of Dee's shield is from William the Conqueror's coat of arms while the right is from Athelstan's. On the largest lion on the shield, there is a small, black crescent moon, a nod to the crescent moon that makes up the top half of Dee's glyph. The boar heads, though pulled from Athelstan's coat of arms, are also a visual connection to Arthur, the Boar of Cornwall. The combination of a Norman king and a Saxon king's coat of arms reflects the indisputable history of Britain. Dee's creation of his own coat of arms becomes even more interesting when understood alongside Hans Belting's statement that a coat of arms is 'inheritable and thus proof of a genealogy that was borne by the body.'⁹² Dee's coat of arms implies that he inherits not just the recognition or status of his own name, but a shared inheritance conceived from his connection to the Tudor dynasty. Furthermore, his genealogy was not born by his body, but from his participation in English prophetic tradition.

Returning to Monmouth's *Historia*, it is important to state that while Dee's pedigree asserts a familial relation to Arthur, this association suggested further connections to other Arthurian characters, like Ambrose Merlin, who lived during the time of Vortiger, 'king of the Britains' in the 5th century.⁹³ Merlin, a magician, prophet, and seer, is the central character of Monmouth's *Prophecies of Merlin*, which details his prophetic visions as they

⁹¹ David Bates, "William I [known as William the Conqueror] (1027/8–1087), king of England and duke of Normandy," *Oxford Dictionary of National Biography*. 23 Sep. 2004: 2, <https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-29448>.

⁹² Hans Belting, "The Coat of Arms and the Portrait: Two Media of the Body," in *An Anthropology of Images: Picture, Medium, Body* (Princeton University Press, 2022): 66, <https://doi-org.eux.idm.oclc.org/10.1515/9781400839780-004>.

⁹³ Charles Bowie Millican, "The First English Translation of the 'Prophecies of Merlin,'" *Studies in Philology* 28, no. 4 (1931): 720–29, <http://www.jstor.org/stable/4172130>. Millican's text uses the translation by Elias Ashmole whose version is based on the edition of *Prophecies* published in Frankfurt in 1608.

relate to the victory and expansion of the Britons. Merlin is a composite figure, inspired by ‘the boy-prophet Ambrosius from the *Historia Brittonum* (mid-9th century) and partly by the bardic Mryddin of Welsh tradition’ which appeared in writing as early as the 10th century, though Geoffrey’s version of Merlin is the most well-known of these characters.⁹⁴ The part in the structure of *Historia* where Monmouth relays Merlin’s prophecies is a point of interest. Until this book (the seventh), *Historia* had seemed like just that – a history of kings, proceeding chronologically through each reign. The *Prophecies* sudden appearance alters what was a linear timeline ‘transforming its focus from the (quasi-) historical past to the mystically glimpsed future.’⁹⁵ Monmouth’s version of Merlin predicts the entirety of *Historia*, a narrative choice that makes it seem as if Merlin is speaking through Geoffrey, creating a link between wizard and historian, and fact and fiction, that is almost imperceptible.⁹⁶ Merlin, whose *Prophecies* occur during the Arthurian portion of *Historia*, is not only Arthur’s magician, but his prophet, again suggesting that the importance of Merlin is not just based in his historical foundations, but also in his ability to interpret the future. By creating connections between himself and Merlin, Dee may have been trying to imply that his occult interests, most specifically his alchemical and divinatory practices, to be discussed further in chapter two, could serve a similar purpose to Merlin’s prophecies.

Maud McInerney notes that the most powerful aspect of *Historia*, and the character of Merlin, is the ‘indeterminacy’ by which the prophecies are open to vast interpretations.⁹⁷ This placed Monmouth in the ‘magisterial role’ by which he comes to resemble Merlin, controlling the historical narrative and acting as prophet of the future.⁹⁸ It is possible that Dee’s use of Arthurian precedent is inspired not by Monmouth’s text, but by the way Monmouth took on Merlinic qualities. As previously mentioned, Dee’s scroll cites Monmouth as a source, a way of linking himself to the *Historia* author. Though Dee was the first to suggest that issues with the believability of *Historia*’s Arthurian legend were a result of Monmouth’s exaggerations, Merlin and Monmouth’s connection, by which the wizard seemingly communicated through the historian across time, was a parallel Dee would have

⁹⁴ Maud Burnett McInerney, “Riddling Words: the *Prophetiae Merlin*,” In *A Companion to Geoffrey of Monmouth*, vol. 22, eds. J. B. Smith and G. Henley (Brill, 2020): 132-133. https://doi.org/10.1163/9789004410398_006.

⁹⁵ McInerney, “Riddling Words,” 133.

⁹⁶ McInerney, “Riddling Words,” 133.

⁹⁷ McInerney, “Riddling Words,” 151.

⁹⁸ McInerney, “Riddling Words,” 151.

found particularly attractive in his decision to reference Monmouth. Participating in the literary convention of referencing historical sources, like Athelstan and Malmesbury, and Merlin and Monmouth, insinuated Dee had a relationship to these characters, both real and legendary, allowing him to wear their authority as his own.

Merlin's *Prophecies* begin with Vortiger witnessing two dragons, 'one of which was white' and 'the other red', fighting each other with fire. The white dragon seemed to be on the verge of defeating the red dragon, chasing it to the edge of a lake, before the red dragon tried again to fight back. Vortiger asked Merlin to tell him what this fight could mean. Merlin's prophecy described the struggle of kings and tyrannists, these being the red and white dragons, a representation of the battle between Celtic Britons and the Saxons.⁹⁹ The presence of alchemical allegory is clear – the red and white of the dragons, the use of numerical symbols in the 'seven kings' and the '12 blessed', the imagery of the procreation of a 'Tree' upon the Tower of London, and the mention of a girl who '[understood] all Arts' and could make a 'curing a medicine' and left 'tracks of sulphur behind her.'¹⁰⁰ The prophecy also mentions various planets, like that of Venus and Mercury, before ending with a Lion who is regarded for the 'glint of gold' of his coat.¹⁰¹ This language is chemical in nature and alludes to the visual process of metallic transmutation that results in the Philosopher's Stone, which would have appeared to Dee's as an instance in which the alchemical cycle was representative of or foretelling historic prophecy.

Merlin had long been associated with alchemy, and his gaining of such knowledge was recorded in *Liber Merlin*, which detailed the knowledge given to him by the Arab alchemist, Rhases, his alchemical father.¹⁰² He appears in various texts throughout the fourteenth and fifteenth centuries, like Robert de Borron's *Book of Merlin* (c.1205), translated into English in 1450, as well as Sir Thomas Malory's *Morte d'Arthur* (1471).¹⁰³ In 1477, Thomas Norton, alchemist and gentlemen of Edward IV's privy chamber, referred to Merlin as a legitimate alchemical authority in his *Ordinal of Alchemy*, permanently transforming Merlin from a character in Welsh mythology into real figure in British

⁹⁹ Jonathan Hughes, "Politics and the Occult at the Court of Edward IV," *Princes and Princely Culture 1450-1650*, vol. 2, eds. Martin Gosman, Alasdair A. MacDonald, and Arjo J. Vanderjagt (Brill, 2005): 106, https://doi.org/10.1163/9789047404859_007.

¹⁰⁰ Wright, tr. *The History of the Kings of Britain*, 150-152.

¹⁰¹ Wright, tr. *The History of the Kings of Britain*, 158.

¹⁰² Hughes, "Politics and the Occult," 105.

¹⁰³ Hughes, "Politics and the Occult," 105.

history.¹⁰⁴ Merlin's life itself becomes recognised as the alchemical cycle. Jonathan Hughes writes:

Merlin was seen to be an unpredictable and powerful agent in the birth of Britain, like the volatile substance, mercury, in the gestation of the Philosopher's Stone. Like mercury, he was an elusive shapeshifter [and] an amoral reconciler of opposites, including good and evil.¹⁰⁵

The legends of Merlin's command of nature and his prophetic ability were no longer referred to as wizardry, but were now understood as alchemy. Another member of Edward IV's court was the renowned alchemist, George Ripley, who recycled imagery and details from Merlin's prophecies to interpret his own visions, using the red and white dragons in many of his texts.¹⁰⁶ Many of the visions of Ripley, Norton, and Merlin became national symbols, including the red and white roses of the houses of Lancaster and York, the Tudor rose, and the Welsh red dragon, forever linking images of the alchemical process to the rise of the British empire.¹⁰⁷ Merlin, by the fifteenth century, due in part to Norton and Ripley's legitimisation of him, had become an archetype for alchemical excellence and a singular example of an authority outside of the Church whose supernatural abilities were to be trusted, rather than feared.

For Dee, another function of the prophetic tradition was its integrative ability to bring together the real and imagined characters of English courts in a narrative that was self-supportive. Merlin, Ripley, and Norton epitomised alchemical success, and are representative examples of a long tradition by which kings took on alchemists in the role of advisor, including Roger Bacon and Henry III (1207-1272); John Dastin and Edward III (1312-1377); John Doubelay and Richard II (1367-1400); and John Whethamstead and Henry VI (1421-1471), who was also served by Ripley, before he died.¹⁰⁸ Dee used this tradition in the formation of himself as court alchemist through his continual references to this alchemist-advisor prototype in his texts and his pedigree. The extent of Dee's participation in this

¹⁰⁴ Hughes, "Politics and the Occult," 105.

¹⁰⁵ Hughes, "Politics and the Occult," 106.

¹⁰⁶ Hughes, "Politics and the Occult," 106. For more on the work of George Ripley, see Jennifer M. Rampling, "Transmission and Transmutation: George Ripley and the Place of English Alchemy in Early Modern Europe," *Early Science and Medicine* 17, issue 5 (2012): 477-499, <https://doi.org/10.1163/15733823-175000A2> and Jennifer M. Rampling, "The Catalogue of the Ripley Corpus: Alchemical Writings Attributed to George Ripley (d. ca. 1490)," *Ambix*, 57, issue 2 (2010): 125-201, <https://doi.org/10.1179/174582310X12719003720322>.

¹⁰⁷ Hughes, "Politics and the Occult," 98.

¹⁰⁸ Hughes, "Politics and the Occult," 99-100, 103-104.

activity, especially as it relates to his interest in Ripley, is covered at length by Jennifer Rampling in her article “John Dee and the alchemists: Practising and promoting English alchemy in the Holy Roman Empire”, which points to Dee’s earliest list of alchemical books from 1556 that he had read which listed titles by Ripley. Rampling also looks at Dee’s annotated copy of Ripley’s *Compound of Alchemy* from the sixteenth century, as well as some of Ripley’s prose works that Dee copied out.¹⁰⁹ These are just two examples of Dee’s reference of alchemical adepts in his own work, alongside his allusion to Merlin through his family connection to Arthur in his pedigree roll.

Inventing links to real, or fictitious, authoritative figures was a fixture of the alchemical tradition. Due to alchemy’s Islamic origins, it lacked the classical connections of other established fields of study, like mathematics, law, and astrology, and therefore struggled to find scholarly foothold in Christian Europe.¹¹⁰ Alchemists solved this issue in a number of ways. One tactic was to claim that known figures, whether they be Biblical in nature, or from other philosophical and sagacious backgrounds, were founding practitioners of alchemy. Another way involved the connection of these characters across manuscripts.

The primary way these figures were connected was through cross-referencing marginalia, which generated a dialogue between alchemical practitioners, readers, and later, historians and antiquarians, and because there was no unified alchemical corpus, this discourse was the leading method of knowledge transfer between alchemical masters and students of the craft.¹¹¹ Cross-referencing was extremely common in scholarly readings as the practice of adding referential annotations to texts ‘provided a network of, and map to, an ever-growing body of knowledge.’¹¹² Dee’s participation in this custom cannot be ignored, especially when considering his historiographical interests. His annotations ‘amount to an information processing system that cannot have been equalled by more than a handful of sixteenth-century readers.’¹¹³ Though the nature of his annotations varied by

¹⁰⁹ Jennifer M. Rampling, “John Dee and the alchemists: Practising and promoting English alchemy in the Holy Roman Empire,” *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 498, 500, <https://doi.org/10.1016/j.shpsa.2011.12.009>.

¹¹⁰ Jennifer M. Rampling, “Early Modern Alchemy,” In *Furnace and Fugue: A Digital Edition of Michael Maier’s “Atalanta fugiens” (1618) with Scholarly Commentary* (Charlottesville: University of Virginia Press, 2020). <https://doi.org/10.26300/bdp.ff.rampling>.

¹¹¹ Sherman, *John Dee*, 71.

¹¹² Sherman, *John Dee*, 71.

¹¹³ Sherman, *John Dee*, 80. Sherman notes that only one third of Dee’s printed books have been identified, but in his manuscript collection, of which the survival rate was much higher, annotated volumes outnumber those without annotations by three to one. See Sherman, *John Dee*, 223.

subject, his alchemical marginalia is littered with different inks and varying penmanship, meaning that Dee returned to his texts as his knowledge expanded. More relevantly, Dee's marginalia in these texts makes continuous cross-references to Thomas Norton and George Ripley, practitioners he often credited as preeminent authorities of the craft. His referral back to these figures illustrates that he was 'interested in establishing the lineage of alchemical authorities', not just for literary continuity and clarity, but also to '[relate] himself to their authority.'¹¹⁴

Like his scroll, Dee's marginalia had a specific audience. His library at his home in Mortlake was the largest, most comprehensive library in England during his lifetime. In direct opposition to Bruegel's lonely alchemist, Dee's workspace was used by a 'wide range of students, from craftsmen to statesmen', some of whom stayed for extended visits to be tutored by Dee.¹¹⁵ Though there is no reason to believe that Dee annotated his texts for the express purpose of impressing a reader-viewer, Dee would have anticipated that those who used the library would come across his extensive notes. While the act of inscribing marginalia into a manuscript or book might separate the writer from feelings of authorship, it is probable that readers of the marginalia viewed the inscriber as a co-author, or as another alchemical figure. In this way, Dee's marginalia resemble his use of prophetic themes by inserting him into the narrative of the text, in the same way his genealogy writes him into Tudor mythology. This can be seen in his pedigree roll which, outside of the circles connecting the most important members of his family tree, is covered in extensive annotations, which include information such as important battles, where or how someone died, children and relations, and jobs or titles. These notes were added over time, indicating that the pedigree was a working document. They extend to the outside of the roll as far as the physical document allows, and small paragraphs and short sentences are wedged vertically and horizontally in the spaces between the major circles, suggesting that even six feet of parchment is too small to contain Dee's history and connections. In this way, Dee's insertion of himself into England's national history not only elevated his pedigree, but it was an extension of the alchemical tradition to which he prescribed. Though genealogical work is different than alchemical practice, there are similarities in how information is synthesised and presented. Dee's continued recall of historical characters, real or fictitious, integrated

¹¹⁴ Sherman, *John Dee*, 90.

¹¹⁵ Sherman, *John Dee*, 39-40.

many forms of knowledge, histories, and experiences and then combined them, creating a singular, multi-layered persona. Dee was not just his current self, but a composite character of all of the practitioners and ancestors that came before him.

Dee uses this amalgamated character as a mnemonic device to facilitate memories of this figure as they relate to times in England's national narrative that were perceived as positive. Throughout this chapter, the discussion of Arthurian precedent as a tool to formulate a heroic past for England is integral to Dee's mission to fashion his persona within the bounds of this mythology. However, it is important to say that this use of Arthurian discourse was not an additional factor in England and its individual civilians' sense of Englishness, rather it made up for a lack of 'self-confidence' in England's existing national identity, especially on the world stage.¹¹⁶ Hilary Larkin describes England at this point as 'a puny upstart amongst more established powers with far greater resources. Her later global success was not predetermined. There were few laurels to rest upon.'¹¹⁷ Thus, England turned to the past, something Andrew R. Murphy calls 'Golden Age rhetoric', a phenomenon similar to nostalgia, or a longing for the past, but different in that it goes far back beyond the lifetime of the group of people in question.¹¹⁸ The appeal is not to relive or revisit one's own experiences, rather it is a 'link to a purer, and, in part, mythic past.'¹¹⁹

Dee's use of the Golden Age of King Arthur as device to stimulate or promote nostalgia is channelled through his antiquarian study, and is primarily embodied in his pedigree roll. The tendency to reflect on the past, often through the use of objects, was inherent to the antiquarian tradition, of which this chapter has illustrated Dee's participation. Antiquarianism was a way of responding to the past, restoring in the present material things, or immaterial virtues and values of a society that no longer existed. Different to historians, who constructed and made sense of historical narratives, antiquarians curated historical sources, focusing on the collection and conservation of antiquities so as to make history present in one's own time. John Aubrey compared antiquarianism to 'the Art of a Conjuror who makes those walke and appeare that have

¹¹⁶ Hilary Larkin, "Introduction," in *The Making of Englishmen: Debates on National Identity 1550-1650* (Brill, 2014): 4, https://doi.org/10.1163/9789004243873_002.

¹¹⁷ Larkin, "Introduction," 4.

¹¹⁸ Andrew R. Murphy, "Political Theory and Nostalgia: The Power of the Past in the History of Political Thought," in *Intimations of Nostalgia: Multidisciplinary Explorations of an Enduring Emotion*, ed. Michael Hviid Jacobsen (Bristol University Press, 2021): 73, <https://doi.org/10.46692/9781529214789.005>.

¹¹⁹ Murphy, "Political Theory," 73.

layen in their graves many hundreds of yeares.’¹²⁰ By Aubrey’s definition, antiquarians resurrected the past using historical study as a form of conjuration, or magic. Antiquarian activity, according to Margaret Aston, was particularly relevant in the sixteenth century as a response to physical and cultural destruction of the Protestant Reformation, and thus the underlying emotional elements were inherent to the practice.¹²¹

Angus Vine, quoting Peter Miller, describes antiquarianism as motivated in part by ‘the act of the imagination’, which ties this analysis back to the work of David McInnis and Jim Ellis, both of whom describe memory making as having imaginative components, since the memories made were not always specific to the individual’s own life.¹²² This broadened the engagement with England’s legendary past beyond the cognition of a single person, making both the act of remembering as well as the memory itself a shared experience. The invented memory of England’s Golden Age, of which Dee had placed himself at the centre, associated him with the building of this national identity, and suggested a function for him in England’s future that was similar to Merlin’s as the magus-advisor to the monarch.

Dee’s idea of a possible role for him in Elizabeth’s court is expressed in these undertones throughout the majority of the scroll, and the iconography and text, including the nine crests, names, dates, and descriptions of historical events, are standard visual and textual elements of pedigrees. However, the self-portrait of Dee and his heraldic hieroglyph are unusual additions (fig.1.6), and are the most overt examples of Dee’s wish to be recognised as a real-life version of Merlin. Miniature portraits or busts of people on pedigree rolls are not rare, (King’s MS 396 is one example of this), but the full-length figure of Dee alongside two very different coats of arms is. This miniature self-portrait of Dee is one of only two images painted of him during his lifetime, the second of which is an oil painting from 1594 (fig.1.13).¹²³ The 1594 painting shows Dee from his shoulders, wearing a black dress or robe, a pleated, white ruff around his neck, and a black, fitted cap on his head. His white hair and a beard indicate his older age as he would have been in his late sixties at that time. Dee’s bust is painted within an oval spandrel, and a red curtain in the

¹²⁰ John Aubrey, “An Essay Towards the Description of the North Division of Wiltshire,” in *Wiltshire: The Topographical Collections of John Aubrey*, ed. John Edward Jackson (The Wiltshire Archaeological and Natural History Society, 1862): 4. Contained in MS Aubrey 3 in the Bodleian Library, dated 1659-1694.

¹²¹ Margaret Aston, *Broken Idols of the English Reformation* (Oxford: Oxford University Press, 1988).

¹²² Angus Vine, “Introduction,” *In Defiance of Time: Antiquarian Writing in Early Modern England* (Oxford, 2010): 4, <https://doi.org/10.1093/acprof:oso/9780199566198.003.0001>.

¹²³ Ashmole likely received the painting as a gift from one of Dee’s children or grandchildren.

background is pulled to the right side of the portrait. Dee stares solemnly at the viewer. This staged image fits normal expectations of early modern English portraiture – faithful likeness of the subject, and a background or setting that emphasised or paid tribute to the reputation of the sitter. In the self-portrait, Dee’s figure is animated. Dressed in black robes and a scholar’s cap, his miniature holds a red book in one hand, and with the other, he gestures at his hieroglyphic monad using a calliper. His dress conveys his scholarly career, while the calliper makes reference to his cartographical work and role of maritime advisor to Elizabeth I. The book in his hands is probably the *Monas Hieroglyphica*, the text from which the symbol he is pointing at (his Hieroglyphic Monad) derives.

The scroll’s monad is a white symbol against the black background of the oval shield. The engrailment is similar to its predecessor from the last page of *Monas*, though without the extra ornamentation (fig.1.7). At the top of the cartouche, are the letters ‘I’ and ‘D’, the initials of the Latin spelling of Dee’s name, Ioannis Dee. The meaning of Dee’s symbol is multi-layered and ‘lends itself easily to digressive secondary interpretations of a numerological, cabbalistic, astrological, cosmological, or mathematical nature.’¹²⁴ Dee’s explanation of his symbol is divided into twenty-four theorems. Some deal with explaining the concept of the point, line, and the circle, while other sections outline the elemental, material, and planetary definitions vital to understanding the symbol. The *Monas*, Dee claims, is an effort to understand the ‘fundamental truths of natural science.’¹²⁵ The basis for the monad is the symbol of Mercury, which is the primary mineral used during metallic transformation alongside sulphur and salt. The three substances are referred to as the alchemical Ternary of ingredients.¹²⁶ Federico Cavallaro explains that, philosophically, the ‘magic Ternary’ was the body, spirit, and soul, or the ‘corpus, spiritus, and anima’; the ‘body’ or salt, is the ‘mineral and materials the alchemist begins with’; and the spirit and soul are the sulphur and mercury.¹²⁷

Dee’s animation of the symbol is further illustrated by his idea that the monad ‘posse[ed], hidden away in its innermost centre, a terrestrial body’ that would undergo a

¹²⁴ Federico Cavallaro, “The Alchemical Significance of John Dee’s *Monas Hieroglyphica*,” in *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 162, https://doi.org/10.1007/1-4020-4246-9_9.

¹²⁵ C. H. Josten, “A Translation of John Dee’s ‘*Monas Hieroglyphica*’ (Antwerp, 1564), with an Introduction and Annotations,” *Ambix* 12, issue 2-3 (1964): 117, doi:10.1179/000269864790223101.

¹²⁶ Cavallaro, “Alchemical Significance,” 162-163.

¹²⁷ Cavallaro, “Alchemical Significance,” 162-163.

‘metamorphosis’ when united with ‘a generative influence which is solar and lunar.’¹²⁸ In essence, the monad is a symbol of transformation, whether it be physical or spiritual. This idea, and Dee’s emphasis of it, encourages a more dynamic approach to reading Dee’s scroll in which engagement is not passive, but embodies the lived meaning of the symbol. Perhaps this is Dee’s own acknowledgment of his personal transformation, a process made possible by the prophetic conventions summarised in this chapter.

In keeping with the genealogical nature of the scroll, it is also helpful to think of Dee’s *Monas Hieroglyphica* as more than an obscure alchemical treatise, but as a textual legacy. Dee’s study of the Philosopher’s Stone meant that he was familiar with the concept of eternal life. He may have regarded his academic accomplishments as a way to ensure that he would live on indefinitely, even if he never achieved his goal of making the Stone. His miniature’s emphasis on his hieroglyphic coat of arms could be a subtle hint that his scholarly contributions were, metaphorically, the next line of descent on his pedigree. Hans Belting describes a coat of arms as ‘a body sign’, which does not identify the individual, but ‘the bearer of a familial or territorial genealogy’; he adds that coats of arms, like portraits, are visual intermediaries in the sense that they can take the place of the body, whose presence they extend in both time and space.¹²⁹ If this same idea of heraldic abstraction is applied to alchemical symbols, it can be argued that Dee’s hieroglyphic shield is an extension not of Dee’s physical body, but of a separate entity. This idea is corroborated by the prefatory letter in *Monas*, in which Dee offers the text, specifically, ‘The Hieroglyphic Monad’ to Maximilian II, referring to it as his ‘child’ that had been ‘conceived in London, yet born at Antwerp.’¹³⁰ Dee’s scroll, then, does not end with him, but continues with his alchemical child.

This chapter has examined Dee’s pedigree scroll as a material manifestation of his efforts to fashion an identity within the English national narrative. Beginning with an overview of Protestant historiography as it melded with real-life history, I argue that his interest in the manipulability of prophetic past and the apocalyptic future of England is part of his participation in the antiquarian tradition, which, during the sixteenth century, had certain emotional undertones that were helpful to Dee. These emotions, nostalgia and

¹²⁸ Josten, “A Translation of John Dee’s ‘Monas Hieroglyphica,’” 135-136.

¹²⁹ Belting, “The Coat of Arms,” 62-63.

¹³⁰ Josten, “A Translation of John Dee’s ‘Monas Hieroglyphica,’” 147.

longing, were largely a response to the political and religious upheaval of the Protestant Reformation, which resulted in widespread material loss in England, though Dee co-opted them for his own gain. Using Arthurian mythology, Dee valorised England's invented history by situating himself as the facilitator of emotional exchange which bridged the gap between the bygone era of England's invented 'Golden Age' and current times. To do this, Dee resurrected certain magical figures, including Thomas Norton, George Ripley, and the imaginary Merlin, putting himself forward as another iteration of these characters. The version of Dee that his pedigree presents is at once an historical figure, authenticated by his ties to familiar national narratives, as well as a symbol of England's future in which his occult practices can be used to serve the benefit of the empire.

Chapter II: Staging Identity: Dee's tools of ritual divination

On March 10, 1582, Edward Kelley, referred to in Dee's diary by his alias of Edward Talbot, came to visit Dee at his home in Mortlake, 'willing and desirous to see or shew some thing in spirituall practise.'¹ Dee, while making sure to distinguish between his own 'spirituall practise' and 'the vulgarly accownted Magik', did admit his desire to 'haue help in [his] philosophical studies through the Cumpany and information of the blessed Angels of God.'² In other words, having lost his previous scryer, Barnabas Saul, just two days prior, Dee was looking to fill the vacant role in order to pursue communication with angelic beings. A scryer, like Saul or Kelley, was a person capable of divining messages or visions by looking into a medium, such as a mirror or crystal ball. Upon Kelley's agreement, Dee 'hrowght furth to him, [his] stone in the frame.'³

This 'stone in the frame' is a reference to one of Dee's tools in a larger programme of divinatory objects that include a crystal ball, a gold pendant, several wax discs, and an obsidian mirror; a Claude glass and a crystal amulet; and a 'Holy Table', which are kept in the collections at the British Museum, the Science Museum, London, and the History of Science Museum in Oxford, respectively. There are conflicting academic opinions regarding the specific way these things were employed in Dee's conferences with angels. Their direct provenance, especially those artifacts belonging to the British Museum, is unverifiable. While aware of these uncertainties, this chapter considers more recent historiography which employs affective material culture as a tool to investigate these things. Leora Auslander's work, "Beyond Words" explains material culture as a lens through which objects, like the people who use them, are embodied and 'mortal, though their lifespans may be much longer or shorter than those of the people using them.'⁴ By Auslander's

¹ Christopher Whitby, "John Dee's Actions with Spirits (Volume 2): 22 December 1581 to 23 May 1583" 1st ed., (Routledge, 1988): 16.

² Whitby, "John Dee's Actions with Spirits," 16. The original manuscript containing Dee's early conversations with angels from 1581-1583, when Dee left England for Poland with Edward Kelley, is contained in Sloane MS 3188 in the British Library. Whitby's version is only the second transcription of this text. The first is by Elias Ashmole. The rest of Dee's angel conversations are in various manuscripts in the British Library (Sloane MS 3189, Sloane MS 3191, Add MS 36674) and the Bodleian Library (Ashmole MS 1790). Other copies of these conversations, transcribed by Elias Ashmole (Sloane MS 3677) in 1672 and Meric Casaubon in 1659, only include conversations from 1583 onward.

³ Whitby, "John Dee's Actions with Spirits," 16.

⁴ Leora Auslander, "Beyond Words," *The American Historical Review* 110, no. 4 (2005): 1015, <https://doi.org/10.1086/ahr.110.4.1015>.

definition, objects ‘not only are the product of history, they are also active agents in history. In their communicative, performative, emotive, and expressive capacities, they act, have effects in the world.’⁵ She uses the material culture of power as an example, writing, ‘Without the crown, orb, and sceptre... a monarch is not a monarch.’⁶

Powerful objects, specifically as agents of transformation, are explored in Alicia Marchant’s case study “Romancing the Stone: (E)motion and the Affective History of the Stone of Scone.”⁷ Marchant considers the emotional capabilities of the Stone, an especially interesting object in that, different to traditional inaugural objects, which are often made of precious or expensive materials, the materiality of the stone itself is unremarkable. If it were not integral to the making of British monarchs, who, by the act of touching the Stone (they sat on it during the ceremony), became installed as kings and queens, the Stone would be, simply, a piece of rock.⁸ The significance of the Stone is in its agency as a focal point of the kingship ritual. The exchange is two-fold: the ritual imbues the Stone with value, while the Stone gives the ritual power. Both require the other to enact their affective ability. The emotions generated in this exchange were ‘harnessed and actively used as a strategy to attract people.’⁹ Marchant’s article follows the Stone’s movement throughout its history, pointing out the affinity that different groups of people had for the Stone. The first mention of the Stone is at the coronation of Alexander III of Scotland in 1249 at Scone – here, for the Scots, the Stone became representative of their identity and their right to determine their own future. Emotionally, this object triggered collective feelings of devotion and pride. When Edward I took the Stone in 1296, and incorporated it into the coronation ceremonies of English kings, it became an object of emotional turmoil in which Edward I used the Stone to reduce the power conveyed in the kingship ritual, thereby diminishing the authority of Scotland as a nation.¹⁰

⁵ Auslander, “Beyond Words,” 1017.

⁶ Auslander, “Beyond Words,” 1017.

⁷ Alicia Marchant, “Romancing the Stone: (E)motion and the Affective History of the Stone of Scone,” in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford Academic, 2018): 192-208, <https://doi.org/10.1093/oso/9780198802648.003.0012>.

⁸ The Stone is first mentioned at the coronation of Alexander III of Scotland in 1249. Before this date, there are no historical records that mention the Stone, or how it was used in the kingship ritual. It was removed to Westminster Abbey by Edward I in 1296 and first used in the coronation ceremony of the English king, Edward II, in 1308. It was not permanently returned to Scotland until 1996. See Marchant, “Romancing the Stone,” 194, 199-201.

⁹ Marchant, “Romancing the Stone,” 203.

¹⁰ Marchant, “Romancing the Stone,” 194.

The staging of Dee's ritual objects as vital to the performance of his identity can be described as defined by the term 'atmosphere.' It has various definitions aside from its usage as a word to describe physical conditions in nature, though the hazy, foggy, and veil-like appearance of air associated with the word 'atmosphere' should not be separated from Dee's creation of atmosphere. Rather it lends to the idea that Dee meant to create an experience in which some of the senses were diminished, and others were heightened. Atmosphere is less ambiguously defined as 'the immediate human interaction with particular places' and as something that can be encountered in "everyday" language as 'ambience' or 'as a concept and experience of the *in-betweenness* of subject and object in which the emotional and sensory experience are central.'¹¹ This second explanation of atmosphere is perhaps the most useful in discussing how Dee constructed his divinations to appeal to the sensual, or emotional side of his audience, rather than their intellect or logic. A further definition of atmosphere, as it relates specifically to objects, is from Gernot Böhme, who argues that atmospheres can be characterised by the 'co-presence of subject and object' and the way in which the object makes its presence 'perceptible' or how it 'goes forth from itself.'¹² This idea of an object 'going forth from itself' asserts the agency of objects in the creation of atmosphere, in that they act upon, alter, or otherwise affect change on those who come into contact with them, as much as they are effected by those who make, use, or own them.

This framework serves as a point of departure for the following chapter which will evaluate how Dee employed emotionally powerful objects and created 'atmosphere' in the staging of his persona in order to actively shape or promote feelings of familiarity, longing, or sentimentality in his audiences. Dee's method of identity construction believed in the 'memory effects' of objects, by which memory could be materialised in objects and perpetually enacted, lessening the divide between the individual and the collective experience.¹³ Memories of devotional expression are contained in these powerful objects, and interactions with these things incited feelings of connection to past spiritual

¹¹ Mikkel Bille, Peter Bjerregaard, Tim Flohr Sørensen, "Staging atmospheres: Materiality, culture, and the texture of the in-between," *Emotion, Space and Society*, vol. 15 (2015): 32, <https://doi.org/10.1016/j.emospa.2014.11.002>.

¹² Gernot Böhme, "Atmosphere as the Fundamental Concept of a New Aesthetics," *Thesis Eleven*, vol. 36, issue 1 (1993): 121, <https://doi.org/10.1177/072551369303600107>.

¹³ Katrina Schlunke, "Memory and materiality," *Memory Studies*, vol. 6 (2013): 253-261, <https://doi.org/10.1177/1750698013482864>.

experiences, which was made more profound by the changes taking place in the practice of religious worship in Reformation England and Europe. Interactions with these things transferred the divine associations, and subsequent feelings, like reverence, awe, or longing for the familiar, or for the past, to the owner of and performer of these objects. The aftermath of these exchanges, Dee believed, could aid in deterring claims made against his character for conjuring and magic, by encouraging a response to his persona that was rooted in the belief that he and his work were born from shared traditions and experiences, and were therefore credible and trustworthy.

This chapter observes the provenance of Dee's tools, as well as their magical use, though it focusses primarily on the functional application and meanings of mirrors and crystals, as well as the material, decorative, and performative elements of purpose-made objects, like the engraved wax discs, golden amulet, and tables/altars. This examination places the objects into two groups: mirrors and crystal stones, and purpose-made ritual items. This grouping serves to create broader associations between these objects, and those similar to them, either in terms of emotional resonance, or appearance, or function. For example, Dee's obsidian mirror, an instrument discussed primarily for its role as a medium in scrying sessions, is analysed in the context of common mirrors, stressing commonalities in the material components and use of these things to suggest the ways Dee's audiences might have related to them, shedding light on his decisions to use them beyond just their immediate, or obvious purpose.

Going beyond the 'imagination of Dee', this research overcomes the mystery of his persona by materialising his identity, which is embodied and enacted by his performances with these objects, and in doing so, 'escape[s] the confines imposed by modern disciplinary boundaries and the established canon of scientific discourse.'¹⁴ Dee's varied interests and activities as an Elizabethan mathematician turned polymath have created issues for historians who seek to understand his place in the scientific convention. While his study of subjects including history and navigation were more commonplace for learned, university

¹⁴ James Orchard Halliwell, "Preface" in *The private diary of Dr. John Dee ... and the catalogue of his library of manuscripts, from the original manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge*, ed. James Orchard Halliwell (J.B. Nichols and Son, 1842): viii, https://web.english.upenn.edu/~cavitch/pdf-library/Dee_Private_Diary.pdf; Deborah E. Harkness, "Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9)," *Renaissance Quarterly* 49, no. 4 (1996): 711-712, <https://doi.org/10.2307/2862959>.

men, Dee's engagement with divination, alchemy, angelic communication, and elements of the Hermetic tradition have made him a difficult character to classify among both modern researchers and his contemporaries.¹⁵ Jennifer Rampling writes that his contribution to science, therefore, was considered marginal, until the 1960s and 1970s when scholars like Francis Yates and Peter French, cast Dee as a paradigm of the occult, placing his arcane pursuits at the centre of his biographies. Conversely, historians of various concentrations have focused on a single area of his mainstream interests – like his astrological or navigational services for Elizabeth – ignoring his dealings with magic altogether.¹⁶

The first full-length biography of Dee published after his death, *A True and Faithful Relation of what passed for many yeeres Between Dr. John Dee... and some Spirits* (1659), by Meric Casaubon, was a foundational text for the division of his career. Casaubon's preface to his translation of Dee's conversations separates Dee's early interests from his later angelic conferences, writing that 'for divers yeeres [Dee] had been an earnest sutor unto God in prayer for Wisdom' until he 'mistook false lying Spirits for Angels of Light.'¹⁷ Casaubon did not question if Dee's spiritual diaries were falsified imaginings, but he did question the origin of the spirits themselves, believing them to be from the 'Dive of Hell' and expressing sympathy that Dee would experience such 'dilusion'.¹⁸ Casaubon did not divide Dee's angelic conversations from his other subjects of study on the basis of their ontological differences, rather he categorised Dee's knowledge based on its source, claiming that Dee's earlier pursuits were facilitated by God while his latter activities were influenced by the Devil.¹⁹ This spiritual separation did give way to the development of modern fields of study, though the misunderstanding of Dee's career would persist until the restoration of his life and work by contemporary academics. These scholars, including Deborah Harkness, Jennifer

¹⁵ Jennifer M. Rampling, "John Dee and the sciences: early modern networks of knowledge," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 432-436, <https://doi.org/10.1016/j.shpsa.2011.12.001>.

¹⁶ Rampling, "John Dee and the sciences," 432.

¹⁷ Meric Casaubon, "A true & faithful relation of what passed for many yeeres between Dr. John Dee ... and some spirits tending ... to a general alteration of most states and kingdomes in the world : his private conferences with Rodolphe, Emperour of Germany, Stephen, K. of Poland, and divers other princes about it ... : as also the letters of sundry great men and princes ... to the said D. Dee / out of the original copy written with Dr. Dees own hand, kept in the library of Sir Tho. Cotton, Kt. Baronet ; with a preface confirming the reality (as to the point of spirits) of this relation ... by Meric Casaubon ..." In the digital collection, Early English Books Online, University of Michigan Library Digital Collections: <https://name.umdl.umich.edu/A37412.0001.001>.

¹⁸ Casaubon, "A true and faithful relation," preface.

¹⁹ Casaubon, "A true and faithful relation," preface. Casaubon points out that Dee did not know he was deluded and did not believe himself to be a conjuror.

Rampling, and William Sherman, have conducted numerous studies that integrate Dee's philosophy with his occult studies so as to avoid the polarising and problematic categorisations of 'magus' and 'scientist'.

Harkness, in her article "Shows in the Showstone" explains the contradictory nature of Dee's interests, suggesting that these inconsistencies are the root of the historiographic tradition by which Dee's angelic conversations are ignored or disregarded as 'intellectual irregularity.'²⁰ This treatment of Dee's communication with angels has resulted in the fragmentation of his career, separating the peculiarity of his angelic conversations from the rest of his natural philosophy. György Szönyi, for example, refers to the shift in Dee's interests as a 'strange turn' to the 'dark side' in which Dee pivoted from using human sciences in his research to 'bizarre magical practice.'²¹ This cerebral departure is often marked by Dee's physical departure for Poland in 1583 with Kelley. The subsequent years Dee spent in Europe, including brief stays in Prague and Trebon, were spent conducting these angelic conversations and practicing alchemy, a career path regarded as distinct from his days as a Trinity College mathematician and occasional astrological advisor to Elizabeth I. The view of this time period of Dee's career as academically aberrant has, by extension, condemned the objects he used in his divinatory practices to a similar fate, whereby they are not ignored, but anachronistically misunderstood as only magical or occult items. The British Museum, for example, following the lead of the Warburg School and Szönyi, explains the function of these 'things' under the heading 'Dr Dee's magic', a representative misinterpretation of the use and meaning of Dee's objects. By understanding them as quasi-scientific equipment used to conduct his occult enquiries, as well as props central to the staging of his persona, his things become more than tricks in a magic show. The objects become mediatory, concretising abstract or intangible ideas, memories, and feelings in a physical form for his audiences.

Dee's audiences for his occult work and divinations are sporadically mentioned in his diaries, though the majority of his conversations with angels took place between him and his scryer, the most well-known being Kelley, who worked with Dee from 1582, and later became a famous alchemist in his own right. When Dee did 'perform' for visitors at

²⁰ Harkness, "Shows in the Showstone," 712.

²¹ György E. Szönyi, "John Dee and Early Modern Occult Philosophy," *Aries* 2, issue 1 (2002): 77, <https://doi.org/10.1163/157005902753647892>.

Mortlake, for example, he took care to set up the physical environment of the room, which was often his small, private study. The exact staging of his props – that is the Holy Table, wax discs, obsidian mirror, and crystals – is never made fully clear by Dee in his angel diaries. However, Christopher Whitby, in his doctoral thesis, discusses at length the magical systems which influenced Dee and may have impacted the design of his performances.²² Silke Ackermann and Louise Devoy also reconstruct the use of some of Dee's items from the British Museum, cross referencing them against Dee's diaries.²³ The wax discs, which were inscribed with the 'Seal of God', were supposed to be placed beneath each leg of the Holy Table, while a larger seal was to be put in the table's centre, and upon that, a crystal showstone. A crystal was often also placed on a windowsill to reflect light.²⁴ The design of the obsidian mirror, with the hole at the top, suggests that the mirror could have been worn, either by Dee or his scribe. Several manuscripts, or 'magical books', which are now collected in the British Library's Sloane MS 3188, were also present at the scene, having been written by Dee as a result of other spirit conversations. These texts contain various invocations, enchantments, and translations of the angelic language. However, how these books were used in the divinations is unclear, though it is likely that they were kept on hand for reference if needed.²⁵

Like his genealogical roll, Dee's occult philosophies, material objects, and divinations were intended to be shared only with the learned elite, scholars, privileged acquaintances, and his royal connections, like Elizabeth and Rudolph II. Most of Dee's performances took place at Mortlake, where his collection of alchemical and magical texts and objects were also kept, most in publically accessible spaces. William Sherman traces more than twenty people who spent extended amounts of time at Mortlake in a scholarly capacity. Visitors were so frequent that in 1592, Dee referred to Mortlake as '*Mortlacensi Hospitali Philosophorum peregrinantium*' which translates to 'Mortlake Hospice for wandering Philosophers.'²⁶ Dee also advertised instructional classes in the 1560s and 70s on such

²² Christopher Whitby, "John Dee's Actions with Spirits (Volumes 1 and 2): 22 December 1581 to 23 May 1583," 1st ed. (Routledge, 1988).

²³ Silke Ackermann and Louise Devoy, "'The Lord of the smoking mirror': Objects associated with John Dee in the British Museum," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 540.

²⁴ Deborah E. Harkness, "Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9)," *Renaissance Quarterly* 49, no. 4 (1996): 707, <https://doi.org/10.2307/2862959>.

²⁵ Whitby, "John Dee's Actions with Spirits," 146.

²⁶ Sherman, *John Dee*, 39-40.

subjects as alchemy, astrology, and mathematics.²⁷ This group, of students and scholars, was one of Dee's audiences, who came into contact with his divinatory items, texts, and likely his earliest scrying sessions.

In his attempts to gain royal notice, Dee often cultivated relationships with influential advisors and those with close connections to the ruling elite. There is extensive correspondence between Cecil and Dee. In one instance, in 1563, Dee wrote to Cecil asking for money to continue his stay in Europe as he had found a manuscript which would allow him to converse with angelic spirits. Cecil supported his studies, which suggests Cecil's own attitude toward occult philosophy.²⁸ Dee spent the next year travelling from Zurich to Italy and later on, Bratislava and Antwerp, where he 'studied alchemical books and consulted alchemists.'²⁹ His adventures during this time yielded his early alchemical philosophy, which he titled *Monas Hieroglyphica* (1564). In Dee's later travels throughout Europe, Tadeus Hajek, personal physician and spiritual advisor to Rudolph, hosted Dee and Kelly in his home during their stay in Prague in 1584. They conducted angelic conversations in Hajek's study, where the walls were painted with alchemical diagrams.³⁰

Dee's earliest attempt to bring 'occult' practice to a royal audience was his completion of a horoscope that forecast the day Elizabeth would be crowned in 1558. His favourable vision of the day was rewarded (though barely).³¹ Dee also attempted to share his spiritual philosophies via his written texts. Both Elizabeth and Rudolph received copies of Dee's *Monas Hieroglyphica* (1564). Elizabeth, to whom Dee sent the *Monas* while in Antwerp in 1564, ignored accusations from scholars that his book was a form of conjuring, and invited Dee to discuss its contents upon his return to England later that year. Notably, though Dee's *Monas* laid out how the world could be reformed through the power of Philosopher's Stone, Elizabeth and her court were more interested in practical uses for alchemy, in which base metals could be transmuted into gold, thus solving England's currency crisis.³²

²⁷ Glyn Parry, "John Dee" in *The Occult World*, ed. Christopher Partridge (Routledge, 2014): 112-113.

²⁸ Glyn Parry, *The Arch Conjuror of England: John Dee* (Yale University Press, 2011): 50.

²⁹ Parry, *The Arch Conjuror of England*, 52.

³⁰ Parry, *The Arch Conjuror of England*, 180.

³¹ Parry, *The Arch Conjuror of England*, 49.

³² Parry, *The Arch Conjuror of England*, 69.

In 1575, Dee records in his diary that Elizabeth had come to Mortlake to see his divinatory items. However, Dee's first wife had just died, so Elizabeth refused to enter his home, so he brought his scrying mirror outside to show to her.³³ In 1584, while in Prague, Dee received his opportunity to share his work with Rudolph, who, on the day of Dee's interview, greeted him with his *Monas* to hand. Throughout the hour-long discussion, Dee, in front of the king and an audience of Rudolph's closest advisors, shared the records of his angelic conversations. It is likely that Dee carried with him a crystal showstone, as he offered Rudolph the opportunity to see a 'holy Vision' in the stone, though Rudolph declined.³⁴

The separation of Dee's career, starting with Causabon, and persisting in institutions like the British Museum, is an identifiable fissure from which to investigate Dee's objects as artifacts demonstrative of his efforts to self-fashion an authoritative persona for himself. Following the methodology of scholars like Harkness, Clulee, and Sherman, who turn away from the isolationist approach to Dee's intellectual agenda, this chapter seeks to situate his objects within the narrative of early modern rituals as it relates to the functional use, material composition, and spectacle associated with Dee's mirrors, crystal stones, and performance tools, or 'props'.

Dee as scholar and collector

This section discusses Dee's objects as products of collecting, using his *Compendious Rehearsal* as the foremost source for his intellectual impetus to begin accumulating his things. *The Compendious Rehearsall*, previously described in this dissertation as a timeline of Dee's career, also points to a massive volume of letters, historical documents, and texts, including Dee's personal library, and conveys his interest in the production and acquisition of objects, which he catalogues throughout. Similar to his angelic diaries, Dee often points out certain objects that he used for teaching, instruction, or for displaying to interested parties. In this way, the first chapter of *The Compendious Rehearsall*, written retrospectively, reveals the beginning stages of Dee's massive collection of objects and

³³ James Orchard Halliwell, *The private diary of Dr. John Dee ... and the catalogue of his library of manuscripts, from the original manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge*, ed. James Orchard Halliwell (J.B. Nichols and Son, 1842): 10, https://web.english.upenn.edu/~cavitch/pdf-library/Dee_Private_Diary.pdf.

³⁴ Parry, *The Arch Conjuror of England*, 182-183.

texts. While scholars have long assumed Dee's things were acquired for utilitarian purposes, he began collecting objects as a young student at Cambridge, before his occult interests fully took root in his intellectual practice. This shows that his initial collection of objects served as a way to accumulate, or manifest his knowledge in a material form.

It is important to state that Dee's trajectory as a respected scholar was successful to a point. He graduated from St John's College, Cambridge in 1547, where he followed a standard curriculum firmly entrenched in Aristotelian tradition, though Harkness notes that 'St John's differed from many Cambridge foundations in its emphasis on the study of mathematics.'³⁵ At Cambridge, there was an endowed mathematical lectureship from 1500, in which a lecturer would deliver four lessons per week on all branches of mathematics; this may have been slightly detrimental to the breadth of knowledge provided to students and differed to Oxford, which delivered three to four in-depth lectures on mathematics a year, each one focused on a single branch of mathematics.³⁶ Cambridge's daily incorporation of mathematics into the programme of studies led to some colleges' recruitment of dedicated lecturers, each an expert on a different mathematical area, though mathematics at this time was more broadly defined. St John's was one of these colleges, mandating incoming students to 'devote the first seven months of their university study to geometry and arithmetic' and a mathematician was designated as one of four examiners at the college.³⁷ This mathematically inclined curriculum sets Dee's Cambridge education apart from his Oxford contemporaries, and provides an explanation and source for his mathematical basis of philosophy which he took with him to Europe. It was there that his training in mathematics began to fit into an ever-developing intellectual landscape, parts of which fully relied on mathematics, encouraging Dee's curiosity into more avant-garde realms of scholarly interest.

The place of mathematics in university learning would have been especially important to Dee, as would the philosophical foundation that foregrounded it, evidenced by his best-known treatise, the *Mathematicall Praeface to Euclid's Elements* (1570). His *Praeface* laid out his ontological system of knowledge in which he organised mathematics

³⁵ Harkness, "Shows in the Showstone," 713.

³⁶ Mordechai Feingold, *The Mathematician's Apprenticeship: Science, Universities and Society in England 1560-1640* (Cambridge University Press, 1991): 31.

³⁷ Feingold, *The Mathematician's Apprentice*, 35-36.

on a metaphorical tree alongside the various arts and sciences. In this system, mathematics is the trunk of the tree, with the different areas of knowledge forming the many diverging branches – as such, exploration of nature and material substances, as well as supernatural and immaterial substances, are all connected through common mathematical principle. This unification allowed Dee to overcome conceptual boundaries through the common link of mathematics, and explains how he was able to accumulate and inquire into so many different areas of knowledge.

The Aristotelian tradition that underpinned Dee's degree was a fixture in sixteenth- and-seventeenth-century education. In both England and Europe, it answered the need for a philosophy that would provide a foundation for and an interconnectedness of knowledge of the natural world that incorporated both metaphysics and Christian theology by defining the study of the natural world as natural philosophy (physics) – the science of natural bodies, or substances – and contrasting it with mechanical physics (a branch of mixed mathematics), which dealt with actions that worked against or differently to the natures of things.³⁸ Aristotelian philosophy provided a framework for understanding matter – the physical basis of all things – and would foreground the teaching principles by which all university subjects during Dee's education were delivered. Though there were intellectual developments simultaneously occurring in Europe, which saw the spread of Italian naturalism and mechanical and chemical philosophies, as well as the rediscovery of Platonist and Neoplatonist texts, English universities remained strictly ingrained in Aristotelian foundations.³⁹ Of these developments, described as 'Renaissance anti-Aristotelianisms' by Daniel Garber, some – broadly categorised as the Pythagorean view – were based in a mathematical understanding of the world which 'thread[ed] its way through chymical, Platonist, and other views' and ranged from versions that were concerned with the 'large-scale structure of the cosmos' to 'detailed analysis of matter.'⁴⁰ Other anti-Aristotleianisms depended on 'chymistry' to understand the mechanics of the world, ideas of which were at once theoretical and practical, and included various applications, from transforming base metals, to elements of chemical engineering and chemical medicine, as well as a

³⁸ Daniel Garber, "Physics and Foundations," in *The Cambridge History of Science*, eds. Katharine Park and Lorraine Daston (Cambridge University Press, 2006): 26.

³⁹ Garber, "Physics and Foundations," 29, 33.

⁴⁰ Garber, "Physics and Foundations," 36.

comprehensive outlook in which chemistry was itself the genuine foundation of all natural philosophy.⁴¹

Dee's first trip to Europe made apparent that the unusual mathematical education afforded to him at St John's would provide him with an adequate platform with which to consider new ideas and meet like-minded individuals. His May 1547 visit 'beyond the seas' to the University of Louvain, was significant, and he writes of his meetings with mathematicians such as 'Gemma Frisius, Gerardus Mercator, Gaspar à Mirica, [and] Antonius Gogava' and upon his return to England, he brought with him an 'astronomer's staff of brass' made by Frisius, 'two great globes of Gerardus Mercator's making', and an 'astronomer's ring of brass.'⁴² He returned to Europe again, this time becoming a student at Louvain in 1548, where he remained for two years.

Dee's second, extended stay in Europe would further broaden his intellectual network, as he liaised with various noblemen who sought him out at Louvain on account of the 'good opinion conceived of [his] studies philosophicall and mathematicall' – he mentions aristocrats from the court of Emperor Charles V in Brussels as well as Federico II of Gonzaga (1500-1540), the Duke of Mantua, from Italy, and Don Luis de la Cerda, later the fifth Duke de Medinaceli (1544-1594), a courtier from Spain.⁴³ He also records the beginning of his friendship with Sir William Pickering (1516-1575), a knight in Elizabeth I's court. He taught Pickering 'logick, rhetoric, and arithmetick' and instructed him in the use of the 'astronomer's staff, the use of the astronomer's ringe, the astralabe, [and] in the use of both globes.'⁴⁴ Dee mentions visitors from Bohemia and Denmark, including Mathias Hacus, mathematician for the King of Denmark. His catalogue of international associates expanded

⁴¹ Garber, "Physics and Foundations," 30-31. The most notable scholar of this view was Theophrastus Bombastus von Hohenheim, known as Paracelsus (1493-1541), who bypassed Aristotelian views for empirical medicine founded on 'the tria prima' of salt, sulphur, and mercury from which everything was 'explicable chymically through combinations and transmutations of these three principles.' Paracelsus' name is on the list of early alchemical authors read by Dee in 1556, alongside George Ripley, Thomas Norton, Geber, and Ramon Lull. Though Dee's own alchemical interests were influenced by 'primarily medieval and Neoplatonic' sources, the number of duplicate books by Paracelsus in Dee's library catalogue suggests he would often loan these texts out. See Jennifer Rampling, "John Dee and the alchemists: Practising and promoting English alchemy in the Holy Roman Empire," *Studies in History and Philosophy of Science*, vol. 43, issue 3 (2012): 498-508, <https://doi.org/10.1016/j.shpsa.2011.12.009>.

⁴² John Dee, "The Compendious Rehearsal, etc.," in *John Dee's Diary, Catalogue of Manuscripts and Selected Letters*, ed. James Orchard Halliwell, James Crossley, John Eglinton Bailey, and M. R. James. Cambridge Library Collection - British and Irish History, 15th & 16th Centuries (Cambridge University Press, 2013): 5, <https://doi.org/10.1017/CBO9781139245791.007>.

⁴³ Dee, "The Compendious Rehearsal, etc.," 6.

⁴⁴ Dee, "The Compendious Rehearsal, etc.," 7.

further when he moved to the University of Paris and met a long list of prominent European scholars including Oronce Finé (1494-1555), Jacques Dubois (1478-1555), Antonio Mizauld (1510-1578), and Pierre de la Ramée (1515-1572), all academically influential in the fields of mathematics, logic, cartography, medicine.⁴⁵ The second chapter of Dee's *Compendious Rehearsall* also makes note of his correspondence throughout his life with scholars and students from many other 'universities, cities, and townes in Christendome' including 'Orleans, Collen, Haedelburg, Strasburg, Verona, Padua, Ferrara, Bonia, Urbino, [and] Roma' with letters ranging in date from 1547 to 1592.⁴⁶

The Compendious Rehearsall is evidence of Dee's interactions with both a foreign and domestic network of intellectual colleagues. The text represents the expansive timeline in which Dee forged these relationships and the extensive geographical area these connections covered. Spanning fifty years and several countries, Dee's exhaustive and long-standing interaction with the scholarly community establishes a timeline for the development of his natural philosophy that lends itself more to the assimilation of new-wave, European intellectualism than it does the stringent Aristotelian ideals from his three years as an undergraduate at Cambridge. Though he spent a majority of his life in England, his correspondence points to an international exchange of knowledge that never stopped, and his residence at Mortlake, where Dee often educated visiting students and colleagues from abroad, further suggests that his multinational networks followed him home.

Dee's first objects were probably gifted to him by Frisius and Mercator, including the two globes and two brass astronomical devices, mentioned previously. Later, he refers to his education of William Pickering by which Dee instructed him in the use of an astronomer's staff and an astrolabe, among other devices. In the cataloguing of his destroyed library, he lists other objects, including 'certaine rare and exquisitely made instruments mathematicall' like a quadrant and a ten-foot long cross-staff (Jacob's staff) as well as sea-compasses, a load stone, a watch-clock, and boxes of heraldry scrolls.⁴⁷ Dee's list is illustrative, making note of the specific frames or boxes designed to hold these things, as well as the maker of each object. His comment that these objects are both 'rare' and 'exquisitely made', points to his interest in the design, creation, and materiality of his things,

⁴⁵ Dee, "The Compendious Rehearsal, etc.," 8.

⁴⁶ Dee, "The Compendious Rehearsal, etc.," 8.

⁴⁷ Dee, "The Compendious Rehearsal, etc.," 28-29.

discouraging the idea that he only procured them for utilitarian purposes. Rather he appreciated the novelty and innovation of singularly made objects. His note of the object's creator implies his understanding of the power of things to assert or forge connections between individuals, for example, one object, listed by Dee as the 'theorick of the eighth spheare, the nynth and tenth, with an horizon and meridian of copper of Gerardus Mercator his owne making for me purposely' links him to the famous cartographer.⁴⁸ This encouraged the idea that Dee was a well-connected scholar who was accepted by his peers, and Mercator's creation of a device specifically for Dee could be seen as implicit endorsement of Dee's own cartographical work. The acquisition of objects begins quite early in Dee's life and, with both his own travels and his network of connections covering almost every major port city or intellectual centre in Europe, Dee was perfectly placed to procure a variety of objects from the outset of his career.

This opposes the assumption that Dee's ritual divination items had to have been acquired later in his life, either inspiring his divinatory interests, or facilitating them, as his interest in occult rituals took centre stage in his philosophical experiments. Glyn Parry observes that Dee also began collecting manuscripts on similar subject matters around this same time.⁴⁹ Following Dee's arrest for allegedly casting horoscopes about Mary I, he was released into the custody of Edmund Bonner (1500-1569), the Bishop of London. After clearing his name, Dee remained in Bonner's house as a friend, and began collecting what Parry calls 'occult' texts, which, by late 1555, amounted to several hundred books on everything from alchemy and divination to astronomy and geography.⁵⁰ He even petitioned Mary I to finance a royal library to house these texts and produce or copy those like them.

Dee's acquisition of objects from a young age point to his awareness that collecting objects was a way to make knowledge and store it, as well as showcase it to others – this, alongside his far-reaching system of international contacts, provides a clearer impression of Dee, one which sees his interest in prescribing to certain trends and fabricating an identity that would propel him into courtly spaces, securing him status, patronage, and positive recognition of his scholarly work. To be a collector was to adhere to a social practice that

⁴⁸ Dee, "The Compendious Rehearsal, etc.," 28. The 'theorick of the eight spheare, the ninth and tenth' could possibly refer to an astronomer's tool called the meridian circle.

⁴⁹ Glyn Parry, "John Dee." In *The Occult World*, 1st ed., ed. Christopher Partridge (Routledge, 2014): 110, <https://doi.org/10.4324/9781315745916>.

⁵⁰ Parry, "John Dee," 110.

indicated a person's rank, education, and connections, embodying an elite culture that was more intrinsically valuable than wealth could buy.⁵¹ Furthermore, his recognition of the ability of objects to exert influence on his social status speaks to his awareness of the power of objects to impact, change, or otherwise alter people's perceptions, or emotional states. This chapter examines Dee's programme of divination objects with this in mind, casting them – several mirrors, crystal stones, and purpose-made ritual objects – as embodiments of cultural exchange, knowledge transmission, and scholarly authority.

Glass and crystal: centre-pieces of the divinatory performance

This section examines the glass (both man-made and naturally occurring) and crystal items owned by or associated with Dee. The unique capabilities of these materials to reflect and refract light, reveal or obscure images, carry cultural concepts, and serve medicinal or magical purposes, made them central objects in Dee's collections and in his rituals. There are several crystals – one is a sphere made of rock crystal, and the other is a quartz crystal set in a metal frame – considered to have been owned by Dee, one in the British Museum, and another currently in the collection of the Science Museum, London (fig.2.1, fig.2.2). There are also two mirrors associated with Dee: the so-called 'magical mirror' in the British Museum and the 'Claude glass' at the Science Museum, London (fig.2.3, fig.2.4). These items were used in the divinations Dee performed in the late 1570s and 1580s. The purpose of these divinatory sessions was for Dee to communicate with angels concerning matters of his natural and supernatural philosophies. Dee's conversations with angelic beings concerned his own role in the apocalypse, an event characterised by 'divine revelations ending in final cataclysmic act.'⁵² These conversations were paramount to Dee's work at that time, and are thematically linked to his other ongoing projects. *Brytanici Imperii Limites* (1578), for example, like his pedigree role, utilises quasi-historical narratives and prophetic evidence to advance Elizabeth's imperial claims. While these other projects

⁵¹ Marjorie Swann, "Cultures of Collecting in Early Modern England," in *Curiosities and Texts: The Culture of Collecting in Early Modern England*. University of Pennsylvania Press, 2001: 18, <https://ebookcentral.proquest.com/lib/ed/detail.action?docID=3441534>.

⁵² Harkness, "Shows in the Showstone," 710. Harkness writes, 'Citing the decay of earth and the heavens, the reformation of the church, and strange natural occurrences made available to an increasingly literate public, commentators lamented the final days while clerics trumpeted the news the God's displeasure with human sin was reaching a dangerous level.'

reflected on England's past as a determinant of its future, Dee's divinations foretold of events that had yet to take place. These objects speak to a practical approach to research and experimentation, which required the use of instruments to enable and record findings. This would have been standard for Dee, whose adjacent work in alchemy, mathematics, and cartography required various instruments, like astrolabes, sundials, alembics, and cucurbits. It is likely that he regarded his divinatory tools as serving a similarly useful purpose as without them, it would have been impossible to facilitate angelic visitations.

However, as previously discussed, Dee's *Compendious Rehearsall* makes it clear that his attainment of particular objects was not purely functional, but also observed such elements as rarity, materiality, and provenance. His presence in courtly circles would have undoubtedly exposed him to the collections of the elite, including the Curiosity Cabinets of his royal patrons like Emperor Rudolph II (1552-1612), while his academic career would have granted him access to the laboratories of other scholars, which would have been furnished with any number of objects necessary to conduct their research.⁵³ These two motivations for collecting are combined in Dee's own approach to acquiring objects, and are exemplified in this section first by his mirrors and then his crystal stones. The final section will discuss his ritual objects which includes several wax discs and an altar.

The 'Claude glass mirror', as it is called by the London Science Museum, is 2.1 cm long by 13.2 cm wide, and 13.2 cm high. The object's weight is not provided, but it is small, with an accompanying leather case designed for travel. The Claude convex glass is known

⁵³ The word laboratory was not in common usage during Dee's lifetime, though when it was used, it carried chemical and alchemical connotations. Workshops and spaces for instrument-making, or venues for heat-based experiments, like alchemy, were not yet fully separate from domestic spaces. For more on the nature of workspaces and laboratories in the home, see Steven Shapin, "The House of Experiment in Seventeenth-Century England," *Isis* 79, issue 3 (1988): 373–404, <http://www.jstor.org/stable/234672>. The experimental environment of Dee's own household is closely examined in Deborah Harkness, "Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy," *Isis* 88, issue 2 (1997): 247–262, <https://doi.org/10.1086/383691>. Dee's own experience of 'laboratories' or seeing the materials and conducting of experiments would have also occurred in courtly spaces, in an instrument-maker's workshop, or in university settings. Rudolph II is known for hosting alchemical performances in his court. For more on the development of laboratories and workshops, see Sarah Lang, ed, *Alchemical Laboratories: Texts, Practices, Material Relics* (Graz University Library, 2023): <https://library-publishing.uni-graz.at/index.php/lp/catalog/download/56/394/928?inline=1>; Pamela H. Smith, "Laboratories," in *The Cambridge History of Science*, eds. Katharine Park, and Lorraine Daston. Cambridge University Press, 2006: 290-305, <https://doi.org/10.1017/CHOL9780521572446.014>; Ute Frietsch, "Alchemy and the Early Modern University: An Introduction," *Ambix* 68, issue 2-3 (2021): 119-34. doi:10.1080/00026980.2021.1936800; and Morgan Kelly and Cormac Ó Gráda, "Connecting the Scientific and Industrial Revolutions: The Role of Practical Mathematics," *The Journal of Economic History* 82, issue 3 (2022): 841-873, <https://doi.org/10.1017/S0022050722000250>.

for being a tool used by artists and painters in the seventeenth and eighteenth centuries for sketching and painting and was named after the artist Claude Lorrain (1600-1683), a French painter known for his landscapes.⁵⁴ Claude glasses had the effect of diminishing the visual elements of perspective and creating a monochromatic tonal palette, similar to Lorrain's style. They were designed to be used in reverse so that the artist would be painting or sketching based off what was reflected in the mirror behind them, rather than actually looking directly at the subject of their composition. Museum records show the object was previously owned by Lady Elizabeth Germain (1680-1769), a courtier and art collector, before passing to John Campbell, the 4th Duke of Argyll (c.1693-1770) and later Horace Walpole (1717-1797). In Dee's time, this mirror would have been referred to as convex glass, and it would have been easily attainable. Convex glass mirrors, like this object, were produced in Germany and Holland and imported into England from the fourteenth century, and were made of 'forest glass', which had a greenish-grey tint.⁵⁵ Unlike steel mirrors, convex glass did not oxidize, so it did not need to be polished. Still, though convex mirrors were fairly inexpensive, steel or silver mirrors remained more popular, likely due to the distortion of perspective caused by convex glass.⁵⁶ The illusion of the convex glass, in which people, objects, or landscapes appeared enlarged and farther away, would have been helpful for Kelley when scrying, as the distortion would allow him to describe the angels who appeared to him.

A similar line of provenance exists for the British Museum's mirror, which is believed to have somehow passed from Dee to Henry Mordaunt, 2nd Earl of Peterborough (1621-1697), then to Lady Elizabeth Germain, and again, to Horace Walpole later on, all via inheritance of the former's estate, or through direct sale. How either mirror passed from Dee's possession to Germain or Mordaunt is unclear, which has called into question whether these specific items belonged to Dee at all. Their use in occult performances mysticised the objects, which no doubt increased their cultural and monetary value, and by linking them specifically to Dee, despite no clear line of ownership, the mirrors' provenance became even more significant. This effect was referred to by James Orchard Halliwell as 'the

⁵⁴ Jeff Fort, tr., and Arnaud Maillet, *The Claude Glass: Use and Meaning of the Black Mirror in Western Art* (Princeton University Press, Zone Books, 2014): 38.

⁵⁵ Rayna Kalas, "The Technology of Reflection: Renaissance Mirrors of Steel and Glass," *Journal of Medieval and Early Modern Studies* 32, issue 3 (2002): 519, <https://doi.org/10.1215/10829636-32-3-519>.

⁵⁶ Kalas, "The Technology of Reflection," 519.

imagination of Dee' which 'often predominated over his science.'⁵⁷ By this, Halliwell means that the invented, or dramatised version of Dee's occult interests was more interesting, or valuable, than the reality of his work, and this effect sensationalised objects based only on their purported connection to him.

A deposition from Thomas Hawes, following the death of one of Dee's beneficiaries, John Pontois (1565-1624), records seeing at Pontois' house 'a certain round flat stone like Cristall which Pountis said was a stone which an Angell brought to doctor dye [sic] wherein he did worke and know many strange things.'⁵⁸ This could ostensibly refer to either mirror, though it does suggest a possible connection that could answer for the gap in ownership history. While the provenance of these objects is relevant, Dee does make mention of his mirrors in many of his texts, customarily referring to them as 'glass'. In one instance, Dee recalls the death of his first wife in 1575, who passed on the same day Elizabeth I arrived to visit his library at Mortlake. Elizabeth refused to enter the house, but had Dee 'fetch [his] glass so famous and to show her some of the properties of it... to her Majestie's great contentment and delight.'⁵⁹ He references it again upon gifting it to Edward Kelley on December 4, 1588 as the glass that was 'so highly and long esteemed of our Quene, and the Emperor Randolph the second.'⁶⁰

Of the two crystals, only the quartz crystal (fig.2.2) belonging to the Science Museum has direct line of provenance to Dee, passing from his son, Arthur (1597-1651), to the physician, Nicholas Culpeper (1616-1654). It is 8.4 cm long, 4.1 cm wide, and 1.1 cm high, and weighs less than a pound. The metal frame has some damage, evidenced by the broken bail on one side, which might mean that another chain once linked to that side of the crystal, and the inner edging of the mount has either snapped off, or worn down over time. The crystal is clear, though the surface is scratched, especially on the back, flat side. The spherical rock crystal in the British Museum (fig.2.1) has a diameter of 5.2 cm. There is no weight listed for the object. It is a smoky, almost purple colour, and is in good condition,

⁵⁷ Halliwell, "Preface," viii.

⁵⁸ Stuart Campbell, Elizabeth Healey, Yaroslav Kuzmin, and Michael D. Glascock, "The Mirror, the Magus and More: Reflections on John Dee's Obsidian Mirror," *Antiquity* 95, issue 384 (2021): 1550, <https://doi.org/10.15184/aqy.2021.132>.

⁵⁹ James Orchard Halliwell, *The private diary of Dr. John Dee ... and the catalogue of his library of manuscripts, from the original manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge*, ed. James Orchard Halliwell (J.B. Nichols and Son, 1842): 10, https://web.english.upenn.edu/~cavitch/pdf-library/Dee_Private_Diary.pdf.

⁶⁰ Halliwell, *The private diary of Dr. John Dee*, 10.

despite obvious signs of use, like scratches and small, shallow chips in the surface. It is one of three crystal objects bequeathed to the museum by Hans Sloane (1660-1753), though there is no documentation to how this object was linked to Dee.⁶¹ Even without a direct, documented connection between Dee and these specific things, these mirrors, crystals, and ritual objects, can serve as representative examples of what Dee did own. By considering their materiality, appearance, and function, we can begin to understand the way these objects generated an emotional response from Dee's audiences during his divinatory sessions, and how they served as props in the staging of his identity.

The mirror in the British Museum (fig.2.3) is made of black obsidian, geologically originating from Pachuca, in central Mexico.⁶² Obsidian is a naturally occurring substance made from volcanic lava and though it varies in appearance, it is usually dark in colour, either black or brown, and has a glassy lustre. It was made between the fourteenth and sixteenth centuries and was possibly brought to Europe after the conquest of Mexico between 1520-1530.⁶³ It is thought that Dee acquired this mirror during his time Bohemia in the 1580s, while working in Rudolph II's court, as it is in keeping with his ritual practices at the time. However, this chapter has, so far, disputed the assumption that he would have only procured such objects specifically for scrying. Dee's collecting interests and scholarly networks support a more measured development of his philosophical practice, and both provide a feasible route through which he could have acquired the obsidian mirror as an object of interest first, and later on, integrated it into his ritual performances.

The obsidian mirror measures 18.40 centimetres in diameter, with a height of 22 centimetres, a width of 1.3 centimetres, and weighs approximately 1.9 pounds. This is not a heavy object, lending to the idea that the hole at the top of the mirror may be a pendant hole, which could be thread through with either a chain or a rope in order to wear the mirror around one's neck. This holds true to Dee's practice of divination which favoured 'crystallomancy' – the use of crystal for scrying – over catoptromancy, which used glass, or mirrors.⁶⁴ Dee may have worn the mirror instead during divinatory sessions, while his

⁶¹ Silke Ackermann and Louise Devoy, "The Lord of the smoking mirror': Objects associated with John Dee in the British Museum," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 539-549, <https://doi.org/10.1016/j.shpsa.2011.11.007>.

⁶² Campbell, "The Mirror," 1555.

⁶³ Whitby, "John Dee's Actions with Spirits," 138. This means that an obsidian mirror was in trade circulation on the continent for seventeen years before Dee's trip to Louvain in 1547.

⁶⁴ Whitby, "John Dee's Actions with Spirits," 76.

scriber, Kelley, looked into one of Dee's crystals. Though Harkness's article "Shows in the Showstone" details the angelic visions Kelley saw and then conveyed to Dee, the actual staging of the ritual space, and the specific way in which each object was used, is not always made clear in Dee's own diaries. The origin of the obsidian from Pachuca, and the dimensions of the object, can perhaps suggest a function for this mirror. Obsidian was an important resource for the Aztec empire and was often used in religious ritual activities. Mirrors were made by specialists and carried intricate symbolism, much of which was documented by Fray Bernardino de Sahagún (1499–1590), a Franciscan missionary, and primary author/translator of *The Florentine Codex*, a sixteenth-century ethnographic study of Mesoamerica, which he began writing in 1545 and continued until he died.⁶⁵ Though it was never published during Dee's lifetime, Dee may have heard about it while travelling Europe.⁶⁶ His ordainment as a Catholic priest under Mary I no doubt provided him with a network of Catholic contacts throughout his life, and his extensive scholarly connections otherwise could have also given him access to parts of *The Florentine Codex*, or exposed him to some of the knowledge it contained.⁶⁷ Though this does not lend any insight into Dee's acquisition of the mirror, it could foreground his presentation and use of it in his divinations. Obsidian was multifunctional, serving 'medicinal and protective applications' and 'the reflective appearance acted as a shield against bad spirits, and captured the image and soul of a person.'⁶⁸ Several deities were associated with obsidian like Tezcatlipoca, 'the Smoking Mirror', and Itzpapalotl, 'the Obsidian butterfly.'⁶⁹ Though Tezcatlipoca possesses many powers, his most relevant in this context is his ability for 'prediction in a chaotic world.'⁷⁰

⁶⁵ Campbell, "The Mirror," 1559.

⁶⁶ There is no evidence of the *Codex* being circulated in manuscript, but the first volume, containing books one through five, out of the total 12 twelve was translated from Nahuatl and Spanish into Italian for Cardinal Medici in the late 1570s. This means there was another copy of part of the manuscript extant at one point in time. The *Codex* also travelled from Mexico, to Spain, then Rome, and finally to Florence, where it has since remained in the collections of the Laurentian Library. See Diana Magaloni Kerpel, *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex* (Getty Publications, 2014): 6-7. It is possible that Dee, an avid collector of manuscripts and books, would have heard of this text, or learned of some of its contents. His interest in the Americas was timely, especially as he was working on several projects concerning imperial expansion in the late 1570s.

⁶⁷ Rampling, "John Dee and the sciences," 434.

⁶⁸ Campbell, "The Mirror," 1560.

⁶⁹ Campbell, "The Mirror," 1560; Arthur A. Joyce et. al, "Lord 8 Deer 'Jaguar Claw' and the Land of the Sky: The Archaeology and History of Tututepec," *Latin American Antiquity* 15, issue 3 (2004): 289, <https://doi.org/10.2307/4141575>. For more on Tezcatlipoca see Elizabeth Baquedano, ed, *Tezcatlipoca: Trickster and Supreme Deity* (University Press of Colorado, 2014): <https://doi-org.eux.idm.oclc.org/10.5876/9781607322887>.

⁷⁰ Campbell, "The Mirror," 1560.

Obsidian then, presented a material touchstone to access prophetic power, and it is therefore likely that Dee kept the mirror close to him throughout the ritual.

Iconographically, both Tezcatlipoca and Itzpapalotl are often depicted wearing obsidian mirrors, either to their front or on their backs (fig.2.5).⁷¹ The pendant hole at the top of the mirror, as well as its lighter weight, could mean that Dee, or perhaps Kelley, also wore the mirror around their necks, in reference to these depictions, and to keep the obsidian close to their bodies. This form of display might have been peculiar for audiences, although mirrors were, by the 1570s, being made to carry on one's person. Crystal glass pocket mirrors, for example, were being worn tied at the waist. They were expensive, so they were not common, but Dee's audiences, at least at court, would have been comprised of the wealthy elite.⁷² If Dee or Kelley did wear the mirror in this way, it hints that they were aware of the popularity of portable mirrors as fashion accessories, and thus believed that viewers would make connections between the more common form of the mirror and their scrying tool. The likelihood that the object's function, as well as the bearer of the object, would be more openly received if it were familiar is at play here.

The concept of familiarity, and what it means, is difficult to pin down, but in terms of objects and material cultures, Maxine Felder's discussion of familiarity as an 'embodied understanding' adds something to contextualise my usage of the term in this dissertation.⁷³ Felder uses the *Oxford English Dictionary* definition of familiarity which is 'a state of knowing somebody/something well and the state of recognizing somebody/something' adding that, as a sensation, it is ambiguous because refers to both what is known well and what is known superficially.⁷⁴ Familiarity is derived from consistently experiencing an environment in a certain way, hinging upon repetition and stability to induce familiarisation. Stability and repetition apply to both human actors and the material environment, for example, having a day-to-day routine or habits, marked by repeated occurrences, actions, or interactions with people or things that happen reliably, creates repetition, while the

⁷¹ Joyce et al., "Lord 8 Deer," 291; Fray Bernardino de Sahagún's *Primeros Memoriales* (1559-1561), a manuscript contained in *The Florentine Codex*, included detailed drawings of Tezcatlipoca. See Juan José Batalla Rosado, "Iconographic Characteristics of Tezcatlipoca in the Representations of Central Mexico: The Ezpitzal Case," in *Tezcatlipoca: Trickster and Supreme Deity*, ed. Elizabeth Baquedano (University Press of Colorado, 2014): 42, <https://doi-org.eux.idm.oclc.org/10.5876/9781607322887-005>.

⁷² Kalas, "The Technology of Reflection," 520.

⁷³ Maxine Felder, "Familiarity as a Practical Sense of Place," *Sociological Theory*, vol. 39, issue 3 (2021): 181, <https://doi.org/10.1177/07352751211037724>.

⁷⁴ Felder, "Familiarity," 181.

external environment, even undergoing small changes, serves to provide a sense of stability, in which changes, or alterations are able to be assimilated.⁷⁵

Familiarity is also shared – Felder writes that familiarity is born of a collective making of normality, which underlines the relational component of this phenomenon as dependent on a variety of factors.⁷⁶ The material things that populate these environments constitute just one ‘part of the matrix of relational cultural elements including practices, representations, and spaces which gather around objects.’⁷⁷ These spaces provide a spatial context for things that denote their use, the most common being the domestic sphere, or the home. Tim Dant defines the home as a ‘locus for material culture, a meeting point for people and things, in which social relationships and material relationships are almost indistinguishable because both are bound together in the routine practices of everyday life.’⁷⁸

While Dee’s objects are not commonplace, the occult objects in this chapter have domestic iterations as household items. Angela Loxham’s analysis of souvenirs in a museum shop is useful to understand the way in which an object’s meaning can change or shift to match its environment. Loxham’s souvenirs are purchasable, material embodiments of the histories expressed in the exhibitions at the museum, made transportable, and therefore able to be taken home. This idea of ownership lends to the sense of control exercised by the buyer, but it also extends the influence of the museum. In this way, the souvenir acts as a reminder of the museum experience, but the domestic nature of it allows for its incorporation into everyday life. Loxham notes that this is especially important for forming memories, ‘because placing objects in the home further domesticates them so that any otherness is removed.’⁷⁹ By modelling his items after everyday objects, Dee has expanded his presence into the domestic, personal spaces of his audiences through their associations with his things. Dee had to negotiate and adjust his performance with his objects to build

⁷⁵ Felder, “Familiarity,” 184-185.

⁷⁶ Felder, “Familiarity,” 186.

⁷⁷ Tim Edensor, “Material Culture and National Identity,” in *National Identity, Popular Culture and Everyday Life* (Taylor & Francis Group, 2002): 103, ProQuest Ebook Central.

⁷⁸ Tim Dant, *Material Culture in the Social World: Values, Activities, Lifestyles* (Open University Press, 1999), 60.

⁷⁹ Angela Loxham, “Shaped by familiarity: Memory, space and materiality at Imperial War Museum North,” *Museum & Society* 13, issue 4 (2015): 533. Susan Stewart, when discussing ‘exotic’ items, or souvenirs, writes that the danger of otherness ‘lies in its unfamiliarity’ which is not to do with the object itself, rather the ‘otherness speaks to the possessor’s capacity for otherness: it is the possessor, not the souvenir, which is ultimately the curiosity.’ See Susan Stewart, *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection* (Johns Hopkins University Press, 1984): 148.

and reinforce what Tim Edensor calls a ‘familiar object world’, which is ‘the everyday way in which objects relate to each other and their users.’⁸⁰ Familiar objects then are those that, through their particular properties or capabilities, engender familiar sensations, remembered by the body through repeated interactions.

Felder also looks at the outcomes of familiarity, or what it, when understood as a sensation, can produce, like feelings of ease, trust, or a sense of belonging. Trust, often a by-product of familiarity, replaces the need for knowledge or understanding. A sense of ease gives way to the feeling of belonging, or ‘feeling at home’.⁸¹ Home does not necessarily mean the house one lives in, but a place one feels like they are a part of, or belong in. It is these spaces, or emotional states that Dee attempted to access through his objects. While he and his objects were not familiar, they performed familiarity by mimicking spaces or things that were. Moreover, while Dee’s objects were not able to be taken home, they were visually and materially similar to objects his audiences may have already had, which extended Dee’s power into their private spaces. Dee, by using these things, borrowed the feelings of familiarity associated with their homes to use in his divinatory rituals.

The Claude glass could have been used for practicing divination while travelling, but it is also possible that Dee had it made as an example of glass and mirror technologies, which were both still in development in the early modern time period. He travelled to the duchy of Lorraine in 1571 to furnish his laboratories at Mortlake, returning to England with ‘one great cart lading of purposely made vessells’, which is likely where and when he acquired this object.⁸² Mirrors had been around for centuries, and were most commonly made of polished steel or glass. Obsidian mirrors were rare outside of Mesoamerica. The manufacturing of mirrors, also called ‘looking glasses’, was widespread throughout Europe, with large amounts of smaller glass mirrors being exported from Germany in the fourteenth and fifteenth centuries, and, though references to mirrors were rare in Italian household

⁸⁰ Edensor, “Material Culture and National Identity,” 108.

⁸¹ Felder, “Familiarity,” 182.

⁸² Dee, “The Compendious Rehearsal, etc.,” 30. Sixteenth-century Lorraine was a production centre for enamelled glass. See Suzanne Gaynor, “French Enamelled Glass of the Renaissance,” *Journal of Glass Studies* 33 (1991): 74, <http://www.jstor.org/stable/24190826>. Glyn Parry writes that Dee, while at Mortlake in the latter half of the 1560s and in 1570, advertised instructional classes teaching alchemy, astrology, and mathematics, among other subjects, and even worked on a plan to create a school in Elizabeth’s name to educate nobles in these areas. This plan attracted the attention of patrons like Mary Dudley Sidney and her husband, Sir Henry Sidney, who, alongside Elizabeth I, funded this trip to Lorraine to purchase vessels for alchemical experiments. See Glyn Parry, “John Dee” in *The Occult World*, ed. Christopher Partridge (Routledge, 2014): 112-113.

inventories before 1450, they were familiar to most people of any social status by 1400.⁸³ In Venice, and nearby Murano, makers were crafting mirrors from crystalline glass as early as 1420 and less than a century later, Venice had established itself as the centre for mirror-making, remaining dominant well into the late seventeenth century.⁸⁴ Different types of mirrors, convex or concave, for example, were made in a variety of materials, and were consistently improving in quality and size, becoming more readily available, and, by the middle of sixteenth century, hand-held mirrors had made their way to England.⁸⁵ Larger mirrors were difficult to make, and as such, they were more expensive and less accessible, making them common fixtures in the domestic spaces of the aristocracy as symbols of wealth and status.

Mirrors as examples of technological innovation would have been of particular interest for Dee, both as accessories for divination and as collector items. The invention of the Claude glass, or convex glass, for example, and its uses, represent a 'point of intersection where philosophical, scientific, and aesthetic discourses overlap[ped] with mechanical techniques.'⁸⁶ This suggests a meaning for this object beyond just its divinatory functions, as a material embodiment of Dee's interests. His ownership of both the Claude convex glass and the obsidian mirror would present the image of a collector who is at the forefront of technological developments in manufacturing, who is aware of the cross-cultural iconology of mirrors, and is part of vast network of contacts by which he could acquire these things. His references to the glasses as being of interest to both Elizabeth I and Rudolph II further imply that his taste was appreciated by royalty. Majorie Swann writes that sixteenth-century collecting practices recognised the:

traditional cosmology of analogies and correspondences, according to which the order of God's creation – the macrocosm – could be represented in miniature by the arrangement of a group of objects. As a symbolic mirror of the world, the collection-as-microcosm also had to depict God's power to intervene in natural processes and produce miracles.⁸⁷

⁸³ Peter Thornton, *The Italian Renaissance Interior: 1400-1600* (H.N. Abrams, 1991), 269.

⁸⁴ Thornton, *The Italian Renaissance Interior*, 269.

⁸⁵ Kalas, "The Technology of Reflection," 528.

⁸⁶ Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth-Century* (The MIT Press, 1990), 8.

⁸⁷ Marjorie Swann, "Cultures of Collecting," 18.

Swann's explanation fits Dee's larger natural philosophy – which sought to understand the role of human beings, or the microcosm, to the macrocosm, or the cosmos – in his collection of objects.

Mirrors were also culturally relevant, appearing thematically in early modern English literary practice, including plays and sonnets by William Shakespeare, Ben Jonson, and Edmund Spenser.⁸⁸ The ability of a mirror to alter, enlarge, distort, or otherwise obscure one's perception of their physical appearance made them objects of intense social interest. Mirrors became symbols by which writers explored subjects like self-consciousness, gender, truth, pride, immortality, and vanity.⁸⁹ Some mirrors were even magical, like in Shakespeare's *Hamlet* (1603) or in Geoffrey Chaucer's 'The Squire's Tale' from *The Canterbury Tales* (1400).⁹⁰

Like glass, and mirrors, crystal found cultural relevance in its ability to manipulate light and distort images. Crystals could catch light and direct it, amplifying it, dimming it, or perhaps creating a blind-spot. Crystals could control the shape and colour of light, channelling it and fracturing its appearance. Crystal balls like Dee's, were optical devices, in which the spherical lens could form images that appeared to be just beyond the surface of the ball. Before scrying sessions, Dee or Kelley would place a crystal ball on a nearby table to catch the natural light.⁹¹ This speaks to the staging or purposeful creation of 'atmosphere', in which the manipulation of light directly affects the sensory experience of those in the room. According to Bille, et. al. 'this underscores a gradual process of transformative rather than absolute and stable perception.'⁹² The transformative element of perception lends to Böhme's description of 'atmosphere' which describes its 'indeterminate' nature as either originating from objects or the environment or from the people who experience 'atmosphere', and as having no location. Böhme writes that, 'we are also unsure where they [atmospheres] are. They seem to fill the space with a certain tone or feeling like a haze.'⁹³ This 'haze', a word which by definition describes both a lack of mental clarity, or a mist, or fog which obscures, or affects air quality, or transparency, lends an almost magical quality

⁸⁸ Philippa Kelly, "Surpassing Glass: Shakespeare's Mirrors," *Early Modern Literary Studies*, vol. 8, issue 1 (2002): 21-32, <https://extra.shu.ac.uk/emls/08-1/kellglas.htm>.

⁸⁹ Kelly, "Surpassing Glass," <https://extra.shu.ac.uk/emls/08-1/kellglas.htm>.

⁹⁰ Whitby, "John Dee's Actions with Spirits," 77-78.

⁹¹ Harkness, "Shows in the Showstone," 707-708.

⁹² Bille, "Staging atmospheres," 32.

⁹³ Böhme, "Atmosphere as the Fundamental," 114.

to the concept of atmosphere, assuming it has the power to dull or suppress a person's rational response to their experience. This 'haze' could be likened to Jennifer Kitson and Kevin McHugh's theory of 'enchantment.'⁹⁴ Though this term is used primarily to describe the effect of nostalgia in chapter one, Kitson and McHugh's explanation of enchantment as an experience similar to feeling spellbound, or unable to control one's sensory experiences, is relevant here. It assumes that the control of the atmosphere, and by extension, those experiencing it, is not gone, but is co-opted by the creator of the atmosphere, and the material things that inhabit that space, who is Dee.

Dee mentions several crystals, which he also called 'showstones.'⁹⁵ In his early angel diaries, he describes a 'great Chrystaline globe', a 'stone in the frame', and the 'glass' he showed to Elizabeth I.⁹⁶ Though these all use distinct descriptors, it is unclear if Dee is referencing three separate objects, or simply calling one or two objects by different names. However, Dee's use of the word 'glass' usually meant a mirror, rather than a crystalline object. The quartz crystal in the Science Museum that passed from Arthur Dee to Nicholas Culpepper is likely the stone that Dee claims was given to him by a spirit, described in Dee's diary as being 'as big as an egg' and 'bright' and 'clere.'⁹⁷ A marginal sketch in the original manuscript next to Dee's reference to the 'stone in the frame' shows a ball, topped by a cross, elevated by some sort of mount (fig.2.6).⁹⁸ It could be the 'stone in the frame' presented to Kelley by Dee during his first scrying session. Both Sloan and the British Museum would have recognised the value of having famous names, like Dee and Kelley, attached to their objects. By connecting the similar descriptions of 'the stone in the frame' and the 'Chrystaline globe' to Sloan's spherical rock crystal, each party benefitted from Dee's association with what is otherwise a nondescript, semi-precious ball of rock crystal. Unlike his mirrors, which both have foreign origins, these semi-precious stones, were common in England. Made of rock crystal and quartz, they were 'just rare enough to be special and significant without being unattainable, and could be used for a whole range of

⁹⁴ Jennifer Kitson and Kevin McHugh, "Historic enchantments – materializing nostalgia," *Cultural Geographies*, vol. 22, issue 3 (2015): 487-508, <https://www.jstor.org/stable/26168663>.

⁹⁵ Harkness posits that the word "showstone" and its various spellings could have been unique to Dee. See Harkness, "Shows in the Showstone," 708.

⁹⁶ Whitby, "John Dee's Actions with Spirits," 137.

⁹⁷ Whitby, "John Dee's Actions with Spirits," 218.

⁹⁸ Ackermann "The Lord of the smoking mirror," 548.

magical and medicinal properties.⁹⁹ At this point in his career, Dee's patronage from Elizabeth had started to decline and he could not afford precious stones or expensive materials. The commonplace material, despite its magical applications, might have influenced Dee to create more interesting backstories for their appearance in his collections by citing angelic origins. Crystal could also imitate other gems, like expensive diamonds, calling to mind literary themes of mimesis, artifice, and fraud. Wearing any type of crystal or stone, precious or semi-precious, could immediately locate someone's wealth or social status.

Tom Blaen speculates that these semi-precious stones also 'contained elements of popular piety' that were 'remnants and continuations of practices of the pre-Reformation Church.'¹⁰⁰ He quotes Ronald Hutton, who argued that the making of popular religious relics – for example, ecclesiastical healing stones – did not stop when the Catholic Church was dismantled in England, rather they moved in the 'domestic and communal realm.'¹⁰¹ That Dee was accessing or evoking the memory of familiar sacred practise through these materials, in a magical ritual, suggests an intricate attempt to fabricate an identity that pushes the boundary of acceptable expressions of nostalgia, or at least, an interest in the past.

The materials of glass and crystal, and their manifestations in various objects, are well placed in culture – as both 'things' and concepts – making them significant tools in Dee's staging of his adept occult persona. He understood that to acquire these objects would provide him with the necessary social currency to succeed in elite spaces. That such material and their physical forms were popular and accessible, meant that they were familiar objects to a wide scope of people. When performing a divination ritual, which would be foreign to most, Dee furnished the presentation with recognisable items in both form, meaning, and function. Thus, the identifiable material components of these things became another tool through which Dee's audiences could create connections between his mysterious objects and their own things, further serving to ingratiate Dee among his peers and audiences on the basis of familiarity.

⁹⁹ Tom Blaen, *Medical Jewels, Magical Gems - Precious Stones in Early Modern Britain: Society Culture and Belief* (The Medieval Press, 2012), 101.

¹⁰⁰ Blaen, *Medical Jewels*, 101.

¹⁰¹ Blaen, *Medical Jewels*, 101.

Ritual objects: facilitating secular and sacred connections

Dee's purpose-made ritual objects include a golden amulet or disc, three wax discs (the image I discuss in this section is of the largest disc), and a 'Holy Table', or altar, and set the space where Dee and Kelley conducted their scrying sessions.¹⁰² The amulet and wax discs are on display with the obsidian mirror and crystal ball at the British Museum while the Holy Table is at the History of Science Museum in Oxford. The analysis of the objects in this section differs in that Dee created these things as material props to support his ritual performances. These objects, like his pedigree roll, embody specific emotions inherent in the collective memory of England and Europe. These feelings, nostalgia and longing, or sentimentality, differ in their manifestation from those shared memories of England's Golden Age of King Arthur, in that they are not imagined. Rather, they are born from the objects and practices central to devotional rituals in Pre-Reformation England and Europe. Some of these symbols and exercises of Pre-Reformation religious ritual, to which Dee makes reference, were outlawed in England when he was performing his divinations, meaning that these processes were made somewhat exclusive to his magical performances, amplifying their intrigue. While Dee believed in the utilitarian function of his purpose-made divination objects to facilitate his communication with angels, he also recognised their ability to affect feeling and create atmosphere. While he might not have been capable of convincing his viewers to believe in his eschatological prophecies, his primary goal, in regard to his self-fashioning, was to make himself appear credible, so that his audiences would buy into his persona of the scholarly adept turned divine messenger.

¹⁰² The only object this section does not discuss at length is the golden disc (fig.2.7). Despite its inclusion in the display of Dee's objects in the British Museum, there is not only no link suggesting Dee ever owned this item, but no mention of it as a physical tool used in any of his divinations. The object was sold by Sotheby's to the British Museum in 1942. The inscription on the disc is a diagram of a vision which appeared to Kelly in 1584 while both men were living in Cracow. Though the Sotheby's catalogue claims that the disc was marked with the London date letter for 1589, there are differences between Dee's own drawing of the diagram in his diary and the diagram on the physical disc, and the date letter could have been added later to mitigate issues of dating and provenance. Curators at the British Museum at the time of acquisition posited that the diagram drawn by Meric Casaubon in his 1659 transcription of Dee's diaries was copied from the original gold disc, but this would have been a strange as Casaubon otherwise transcribed from the text directly, where the model of the disc is perfectly clear. In light of these facts, the object does not appear to have been made during Dee's lifetime, and since he does not mention a physical object made from his drawing, I have decided not to include it in this analysis. For more on the provenance of the disc, see Ackermann, "The Lord of the smoking mirror," 539-549.

This programme of material messaging was a risk, especially for Dee who, by this time, had suffered many accusations of conjuring and a short time in custody for casting horoscopes concerning Mary I. However, in Poland and Bohemia, where Dee lived from 1583 to 1589, rituals involving special objects were still part of ecclesiastical ceremonies.¹⁰³ With this in mind, his invention of these things manufactured a cross-cultural identity that could be used at home and abroad. In England, Dee counted on the convention of social and cultural rituals to foster a sense of a shared memory of which he was the facilitator. A helpful definition of 'collective memory' from Fiona Kerlogue, also called 'social memory', is memory that 'derives from a basis in shared experience, shared history or place, or shared project.'¹⁰⁴ This collective memory, of ritual and ritual objects as central to ecclesiastical experiences, both in public, in church, and in domestic spaces, was formed in contrast to the reality of Reformation England, which saw the decline of relics and ceremonial expressions of worship.

In Europe, Dee could seek patronage without fear of religious intimidation, and thus his performances could be more overt – for example, he performed his divinations with Łaski present, on-board the ship they travelled on to reach Poland. It is not clear if they performed their divinations for Rudolph II, though they did seek an appointment with him following angelic advice.¹⁰⁵ Rudolph's own interest in strange objects was reflected in his *Kunstkammer*, which was well-known in his own lifetime. Thus, Dee may have thought that his own use of such items may persuade Rudolph II to offer him patronage, or at least show him favour. Dee and Kelley were also practicing alchemy throughout this time period, attempting to make the Philosopher's Stone, which informed the symbolism in Kelley's

¹⁰³ The survival and continued use of ritual and ritual objects was due in part to the existence of religious pluralism in East Central Europe, an area which then included Poland, Hungary, and Bohemia, in the fifteenth and sixteenth centuries. This diversity of religious beliefs was not without issue, and by the seventeenth century, all three countries were predominantly Catholic. Measures to reduce iconoclasm were implemented in these areas, and as such, the long-term destruction and removal of objects from religious rituals was not quite so ingrained in culture as it was in Dee's England, where it was even made legal to some degree. See Winfried Eberhard, "Reformation and Counterreformation in East Central Europe," in *Handbook of European History, 1400-1600: Late Middle Ages, Renaissance, and Reformation*, vol. 2, eds. Thomas A. Brady, Jr, Heiko A. Oberman, and James D. Tracy (Brill, 1994): 551-584, https://doi.org/10.1163/9789004391680_019.

¹⁰⁴ Fiona Kerlogue, "Memory and Material Culture: A case study from Jambi, Sumatra," *Indonesia and the Malay World*, vol. 39, issue 113 (2011): 89, <https://doi.org/10.1080/13639811.2011.547731>.

¹⁰⁵ Julian R. Roberts, "Dee, John (1527–1609), Mathematician, Astrologer, and Antiquary," *Oxford Dictionary of National Biography*. 23 Sep. 2004: 10, <https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-7418>.

visions. The practice of alchemy in the background of this period of Dee's life no doubt influenced his observance of the importance of materials and tools in conducting his angelic conversations.

Instructions for the making of Dee's wax discs and Holy Table were given to him by the angels Michael and Uriel in 1582. While the wax discs were made that year, Dee made the table later in April of 1583.¹⁰⁶ The largest disc measures 23.20 cm in diameter, has a thickness of 3.4 cm, and weighs around three pounds (fig.2.8). The discs are made of wax and formerly belonged to Robert Cotton. The Holy Table in the History of Science Museum, Oxford, is a marble copy from an engraving by Meric Casaubon from 1659 of the wooden original (fig.2.9), standing at 60.2 cm tall and 46.5 cm wide. The heavy marble weighs approximately 60 pounds and although the wooden table and Casaubon's engraving are no longer extant, this copy does align with the directions for creation laid out to Dee in an angelic vision.¹⁰⁷ The wooden original, which survived Dee, was seen by the antiquarian, Elias Ashmole, in the library of John Cotton (1621-1702), Robert Cotton's grandson.¹⁰⁸ From there, only the marble copy, made at some point in the mid-seventeenth century, can be accounted for. It is catalogued by the History of Science Museum as being owned first by the astrologer, William Lilly (1602-1681), and then the antiquarian, Richard Rawlinson (1690-1755), who gifted it to the Bodleian Library in 1750.

The larger dimensions of the object mean it would have been cumbersome to move. There was a pedestal for the original table, made in Poland in 1584, noted by Ashmole, as well as a wooden case for its protection.¹⁰⁹ It is possible that Dee intended to take it abroad with him, though Christopher Whitby notes that there is no clear mention of this specific table ever being used in a scrying session. In June of 1583, while still at Mortlake, Dee mentioned that Kelley was sat in a 'green Chair, by the holy Table' – Whitby notices the lack of a capital letter for the word 'holy', which could mean that any table upon which the

¹⁰⁶ Whitby, "John Dee's Actions with Spirits," 149.

¹⁰⁷ Whitby, "John Dee's Actions with Spirits," 149.

¹⁰⁸ Whitby, "John Dee's Actions with Spirits," 150. See also Vittoria Feola, "Elias Ashmole's collections and views about John Dee," *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 530-538, <https://doi.org/10.1016/j.shpsa.2011.12.011>. Feola notes the extent of Ashmole's collection of material by or about John Dee - which totalled forty-two volumes and one oil painting of Dee - acquired by the Ashmolean Museum in 1692, calling it the largest collection of "Dee-ana" since the dispersal of Dee's own library collection following his death in 1608/9.

¹⁰⁹ Whitby, "John Dee's Actions with Spirits," 151.

crystal showstone was set was made holy through this contact.¹¹⁰ This points to the sacred qualities of the showstone, rather than the table, which could be why it did not travel with Dee to Europe in September 1583 after all. If it did remain at Mortlake, it is only clear that the table survived the looting of the estate's library, though from there, how it was acquired by Robert Cotton, and passed to his grandson later on, is uncertain.¹¹¹

The extensive magical system by which Dee designed both his wax discs and Holy Table is beyond the scope of this chapter, though it is described at length by Christopher Whitby, whose doctoral thesis, published in 1988 – only the second translation of Dee's early angel diaries from 1581 to 1583 – contextualises the designs on his instruments by referencing other 'magical' texts like Heinrich Cornelius Agrippa von Nettlehsheim's (1486-1535) *De occulta philosophia* (1533) and Solomonian grimoires.¹¹² Grimoires and their function as repositories for magical knowledge is explored by Owen Davies in *Grimoires: A History of Magic Books*.¹¹³ He defines them as 'books of conjurations and charms, providing instructions on how to make magical objects such as amulets and talismans' which 'exist because of the desire... to create a tangible magical archive.'¹¹⁴ That Dee would have interacted with and used grimoires is in keeping with his alchemical background, the corpus of which was largely anthological. Alchemical texts were, for many practitioners, their only source of information, as alchemy was not practised or taught at an institutional level until the start of the seventeenth century.¹¹⁵ To begin one's study of alchemy, one would have to collect certain manuals, most of which were 'writings attributed (if at times pseudo-

¹¹⁰ Whitby, "John Dee's Actions with Spirits," 152.

¹¹¹ Dee's reference to his library as 'spoiled' in chapter seven of his *Compendious Rehearsal* was an exaggeration that gave rise to rumours that his estate had been ransacked just after he left for Poland in 1583. Glyn Parry writes that in fact, it was only Dee's associates, some of whom he owed money, and not an angry mob out to attack a purported conjuror. They took his books, mostly those which were expensive and would cover the loans they had given Dee. See Glyn Parry, "Called to a King's Office: Laski and the Second Coming," in *The Arch Conjuror of England: John Dee* (Yale University Press, 2011): 171.

¹¹² Christopher Whitby, "John Dee's Actions with Spirits (Volumes 1 and 2): 22 December 1581 to 23 May 1583," 1st ed. (Routledge, 1988). Solomon is King Solomon, the Hebrew King and successor of David, who was specially guided by God. Heinrich Cornelius Agrippa von Nettlehsheim was a German polymath. For more on Agrippa's life and work, see Wouter J. Hanegraaff, "Heinrich Cornelius Agrippa," in *The Occult World*, ed. Christopher Partridge (Routledge, 2014): 92-98, <https://doi.org/10.4324/9781315745916>. Dee owned the 1559 edition of Agrippa's *The Fourth Book of Occult Philosophy* which he brought on his travels through Europe in 1583. See Owen Davies, *Grimoires: A History of Magic Books* (Oxford University Press, 2010): 52, <https://ebookcentral.proquest.com/lib/ed/detail.action?docID=5746141>.

¹¹³ Owen Davies, *Grimoires: A History of Magic Books* (Oxford University Press, 2010).

¹¹⁴ Davies, *Grimoires*, 1-2.

¹¹⁵ Jennifer M. Rampling, "Reading Alchemically: Guides to 'Philosophical' Practice in Early Modern England," *BJHS Themes* 5 (2020): 59, <https://doi.org/10.1017/bjt.2020.3>.

anonymously) to adepts from centuries past.’¹¹⁶ This didactic literature often presented information through conversations between an imagined master and a student, in which the expert alchemist passed their knowledge on to a pupil who would, later on, repeat the cycle, becoming a guide for the next novice. Dee’s alchemical background made him well-equipped to interpret written directions and transfer them into physical objects. His wax discs and Holy Table, as well as the designs and symbols on both, are born from Solomonic grimoires.

To understand the influences relevant to Dee’s programme of messaging in his ritual divination tools, and the way in which he hoped they would be interpreted by his audiences, some background in ritual and religion is necessary, especially as it intersects with political changes in England before and during the Reformation. One definition of ‘ritual’, from Roy A. Rappaport, outlines it as ‘the performance of more or less invariant sequences of formal acts and utterances not entirely encoded by performers’ though he notes this the definition is wide-ranging and requires unpacking, as it does not stipulate what the ritual is for or about, nor does it explain who established the ritual or the order of ‘acts and utterances’ which comprise it.¹¹⁷ Rappaport provides the example that ‘ritual’, or its synonym, ‘ceremony’, can also apply to predictable behaviour or repetitive interactions between people, or to the schedule of certain social events, like graduations. This definition is useful to consider why Dee may have designed and furnished his performances with certain items or procedural steps so that the experience of witnessing his divinations would be familiar to viewers as conventionally ritualistic.

Another definition of ‘ritual’ is conceived through the lens of Christian religious ceremonies as a means by which Church doctrine could be communicated to illiterate or inexperienced audiences.¹¹⁸ Susan Karant-Nunn notes that despite religious or political upheaval, ‘Christian authorities have assigned paramount importance to the understanding and execution of central observances.’¹¹⁹ This definition suggests that rituals are acts of

¹¹⁶ Tara E. Nummedal, “Words and Works in the History of Alchemy,” *Isis* 102, issue 2 (2011): 332, <https://doi.org/10.1086/660142>.

¹¹⁷ Roy A. Rappaport, “The Ritual Form,” in *Ritual and Religion in the Making of Humanity*, Cambridge Studies in Social and Cultural Anthropology (Cambridge University Press, 1999): 24, <https://doi.org/10.1017/CBO9780511814686.004>.

¹¹⁸ Susan Karant-Nunn, “Ritual in Early Modern Christianity,” in *The Cambridge History of Christianity*, ed. R. Po-chia Hsia, Cambridge History of Christianity. Cambridge University Press, 2007: 371, <https://doi.org/10.1017/CHOL9780521811620.021>.

¹¹⁹ Karant-Nunn, “Ritual in Early Modern Christianity,” 371.

conformity which reinforce certain social or cultural values, and create a sense of collective identity. Importantly, Karant-Nunn's article investigates common elements of ritual in both Catholicism and Protestantism, noting that while ceremony and ritual was mitigated and controlled outside of ecclesiastical settings, it was not discarded in Post-Reformation England or Europe.¹²⁰ Even in Protestant England, where the necessity of rituals was continuously contested, worship services still abided by certain elements, such as the centrality of the sermon, Baptism, and the taking of Communion.

The binary viewpoint often presented when thinking about early modern visual and material culture is 'the intensely visual Catholic and the invisible, abstract, and didactic word of the Protestant' but this disregards the contemporary history and context for each image, or object, which was taken into account by those who interacted with them.¹²¹ The existence of this grey-area helps form a picture of Dee's circumstances as tenuous. To be accused of idolatry would be just as detrimental to his social status, if not worse, than his alleged crime of conjuring, and the parameters by which he could appropriately access ritual as a way to communicate his divine messages were always in flux. To quote David Davis, 'How a thing was defined could determine its survival.'¹²² Though Davis meant this in relation to images and objects – to which it definitely does apply to Dee's ritual performance items – it can also be used to understand the precariousness of Dee's position. His efforts to legitimise his scholarship and affirm his life's work relied on society's definition of him as a scholar, rather than a charlatan or conjuror.

Idolatry, which is the worship of images – in the case of objects, these were items inscribed or decorated with religious symbols, scenes, or figures, like saints, and extended to other material intermediaries, like relics and shrines – and the impact of iconoclasm, is covered expertly and at length by Margaret Aston in her book *Broken Idols of the English Reformation*.¹²³ Iconoclasm, the destruction of images and objects, was the result of 'Protestant consensus on the importance of the second commandment' from which 'there

¹²⁰ Karant-Nunn, "Ritual in Early Modern Christianity," 380-381.

¹²¹ David Davis, "Destructive Defiance: Catholic and Protestant Iconoclasm in England, 1550-1585," *Cromohs Virtual Seminars. Recent historiographical trends of the British Studies (17th-18th Centuries)*, eds. M. Caricchio, G. Tarantino (Firenze University Press, 2006): 1-5, https://oajournals.fupress.net/public/journals/9/Seminar/davis_iconoclasm.html.

¹²² Davis, "Destructive Defiance," https://oajournals.fupress.net/public/journals/9/Seminar/davis_iconoclasm.html.

¹²³ Margaret Aston, *Broken Idols of the English Reformation* (Oxford: Oxford University Press, 1988).

was widespread acceptance of the critical need to combat the fearful sin of idolatry.¹²⁴ It is well-known that the destruction of religious images and objects was central to the Protestant Reformation in England, but Aston situates English iconoclasm within the context of iconoclasm as a global phenomenon, one which has also occurred outside of the theological reasons that have been studied and fleshed out again and again.¹²⁵ In some European states, like in England, the Protestant rejection of the papacy resulted in similar measures taken against images and objects affiliated with Pre-Reformation religious rituals.

This had a profound effect on common occult practices, among which Dee's ritual divinations were categorised, as these secular performances were modelled after church liturgy, symbols, sacraments, and blessed items 'in order to access the seemingly automatic power that most people conceived as adhering to these rights.'¹²⁶ Protestantism did not just curtail Catholic doctrine, which relied on these rites and ritual to access the divine, but it limited the way in which non-religious practices could function, thus endangering the means by which practitioners, like Dee, could appropriate this sense of power for themselves.

The common thread throughout these definitions of ritual and iconoclasm, as well as Protestant and Catholic standards of ecclesiastical ceremony, is the central focus on objects. That material objects feature as a part of the physical display of rituals has long been a point of scholarly discussion. Why, asks Rappaport, is it that humans 'who can communicate with ease, efficiency, and subtlety through language, should also employ such an awkward, limited, and expensive mode of communication as physical display?'¹²⁷ In Dee's case especially, the chance that his physical performances, and by extension, his objects, would be misunderstood as magical conjurations was high. In *A Feeling for Things, Past and Present*, Sarah Randles, Sally Holloway, and Stephanie Downes connect objects and the

¹²⁴ Aston, *Broken Idols*, 17.

¹²⁵ More recent scholarship, including titles which cover iconoclasm outside of early modern England, are Jaś Elsner, "Iconoclasm as Discourse: From Antiquity to Byzantium," *The Art Bulletin* 94, issue 3 (2012): 368-394, <https://doi.org/10.1080/00043079.2012.10786048>; Kristine Kolrud and Marina Prusac, eds., *Iconoclasm from Antiquity to Modernity*, 1st ed. (Routledge, 2014): <https://doi.org/10.4324/9781315252827>; and James Simpson, *Under the hammer: Iconoclasm in the Anglo-American tradition* (Oxford University Press, 2010).

¹²⁶ Michael D. Bailey, *Magic and Superstition in Europe: A Concise History from Antiquity to Present* (Rowman and Littlefield Publishers, 2006), 195.

¹²⁷ Roy A. Rappaport, "Word and Act, Form and Substance," in *Ritual and Religion in the Making of Humanity*, Cambridge Studies in Social and Cultural Anthropology (Cambridge University Press, 1999): 140, <https://doi.org/10.1017/CBO9780511814686.007>.

materiality of ritual processes to the history of emotions. The field of emotions history is broad in its varied and interdisciplinary applications, though for the purposes of evaluating Dee's wax discs and Holy Table, I use Holloway, Randles, and Downes' approach, in line with the anthropologist Alfred Gell, which ascribes social agency to these objects, thereby taking the point of view that these items can impact the emotions of people by 'chang[ing] or alter[ing] affective states, consciously and unconsciously, permanently or temporarily, literally...or metaphorically.'¹²⁸ Outwith the visible or tangible value of these items – either for their material components, appearance, or economic worth – these items have a sentimental value, earned from their part in significant ecclesiastical experiences. This sentimentality is ascribed to these objects through the act of remembering, giving physical form to immaterial feelings and memories. As previously stated, while religion in Post-Reformation England and Europe was not completely devoid of image, object, and ritual, certain hallmarks of the experience, like relics, rosaries, and pendants, which helped transmit the divine – and, in some cases, like the *agni dei*, which made the divine portable – were illegal. For those who lived and worshipped before the Reformation and the parliamentary bans, the memory of these things was not a distant one, and in fact, there was an 'underground' market for devotional items, which further proves the ability of these objects to act on those who came into contact with them.¹²⁹ The reasons these objects were banned is precisely what gives them their emotive power – the belief that these things were imbued by God to channel his will and exert his influence. To own (or make) one of these items was to be in constant communion with God, and to lose them was to forfeit this connection to Him. Further to this point, the emotional capacity of these things is a primary motivation for Dee's use of them, as they allowed him affective control over his audiences.

Dee understood these objects to be what Ann Rigney calls 'accidental archives', in which the materiality of these items comprises the memories of people, places, and emotions that are no longer there, or have changed since the creation of the object.¹³⁰ As

¹²⁸ Stephanie Downes, Sally Holloway, and Sarah Randles, "A Feeling for Things, Past and Present," in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford University Press, 2018): 11, <https://doi.org/10.1093/oso/9780198802648.003.0002>. See also Alfred Gell, *Art and Agency: An Anthropological Theory* (Oxford University Press, 1998).

¹²⁹ Aislinn Muller, "Catholics and the Underground Devotional Market in Post-Reformation England," in *Religion and the Early Modern British Marketplace*, 1st ed., eds. Kristin M.S. Bezio, and Scott Oldenburg (Routledge, 2021): 76-100, <https://doi.org/10.4324/9781003049173>.

¹³⁰ Ann Rigney, "Materiality and Memory: Objects to Ecologies. A Response to Maria Zirra," *Parallax* 23, issue 4 (2017): 474, doi:10.1080/13534645.2017.1374517. For more on memory and material culture see Marianne

religion was one of the most important features of early modern life, the changes in ritual worship and the loss of sacred items was an experience shared by all practicing Christians in post-Reformation England and Europe. Thus, Dee's use of certain objects was not just for the individual, but a collective audience. Though she is applying it to twenty-first century urban literature, Jacinta R. Saffold provides a definition for 'collective material culture memories' that is helpful here. She defines it as 'group remembrances of lived experiences specific to a place and time and elicited by the use or recognition of a material object.'¹³¹ This collective remembering, contained in the physical 'archives' that are his objects, makes these things bridges between the past and the present. Harriet Lyon and Alexandra Walsham discuss the ability of mnemonic devices, like these objects, to 'shap[e] multiple different temporalities.'¹³² In Dee's case, he was not only working with his own lived experiences, but with quasi-historical, cosmological, and liturgical ideas of time. Dee melded the imagined Golden Age of England's Arthurian past with eschatological ideas of the future. His objects then, are physical tools to enable his manipulation of time and memory in order to elicit a certain emotional response. This emotional response, amplified by the material losses of the Reformation, triggered feelings of sentimentality, or longing and nostalgia. Nostalgic feelings were not necessarily passive. As Aislinn Muller demonstrates in her article, "Catholics and the Underground Devotional Market in Post-Reformation England", people went to extreme lengths, even risking their lives, to acquire banned religious items from the past.¹³³ Nostalgia then can be a 'force that *does* something' rather than a reflexive response to being confronted with the past.¹³⁴ If nostalgia is a force, then Dee's objects are the channel through which he used this force for his own benefit. Moreover, nostalgia is a form 'selective memory', in which the feelings of yearning, desire, and longing alter

Hirsch and Leo Spitzer, "Testimonial Objects: Memory, Gender, and Transmission," *Poetics Today*, vol. 27, issue 2 (2006): 353–383, <https://doi.org/10.1215/03335372-2005-008>; Andrew Jones, *Memory and Material Culture* (Cambridge University Press, 2007); Ann Rosalind Jones and Peter Stallybrass, *Renaissance Clothing and the Materials of Memory* (Cambridge University Press, 2000); and Kerlogue, "Memory and Material Culture," 89–101.

¹³¹ Jacinta R. Saffold, "Stories Not to Pass On: Collective Material Cultural Memory in Twenty-First-Century Urban Literature," *MELUS* 43, issue 4 (2018): 217, <https://www.jstor.org/stable/26566184>.

¹³² Harriet Lyon and Alexandra Walsham, "Early Modern Nostalgia: Memory, Temporality, and Emotion," in *Nostalgia in the Early Modern World: Memory, Temporality, and Emotion*, eds. Harriet Lyon and Alexandra M. Walsham (Boydell & Brewer, 2023): 16.

¹³³ Muller, "Catholics and the Underground Devotional Market," 76-100.

¹³⁴ Lyon, "Early Modern Nostalgia," 7.

recollection, resulting in a rose-coloured view of the lost past.¹³⁵ In these ways, nostalgia is the perfect form of emotional control for Dee in that it spurred action in the present, while also softening or tempering events that occurred before. With this in mind, I will frame his wax discs and Holy Table as examples of collective material culture memories, which Dee utilised to generate nostalgia and familiarity during his occult performances.

Considering Dee's Holy Table first, the construction and design is likely in the image of a diagram from *The Key of Solomon* or *The Testament of Solomon*, both of which are falsely attributed to King Solomon, the Old Testament King, whose characterisation in the Bible as the wisest man of his time, with knowledge of the spiritual world, saw him cast as a magician-philosopher by occult practitioners.¹³⁶ The earliest manuscript copy of *The Key of Solomon* is actually from the early-sixteenth century. *The Testament*, written in Greek, dates to the first five centuries CE, and was created in Egypt or Babylonia. Similarly, the designs on the wax discs are based on descriptions of the Seal of Solomon, which 'had the power to bind demons and was depicted in later grimoires as variously a pentagram, hexagram, or circular symbol.'¹³⁷

These grimoires fit into the programme of Enochian magic inherent to Dee's brand of philosophical inquiry, Hermeticism, in which esoteric subjects like alchemy and astronomy formed the foundational understanding of the material world and man's place in it.¹³⁸ *The Key of Solomon* is made up of five books, one being *Ars Almadel*, which details several versions of a portable altar intended to summon spirits. The original wooden table was bordered with red Enochian letters within two blue lines, with twenty-one letters painted down the long side of the table, and at each corner, the letter 'B' was engraved in

¹³⁵ Lyon, "Early Modern Nostalgia," 12.

¹³⁶ Davies, *Grimoires*, 16.

¹³⁷ Davies, *Grimoires*, 16.

¹³⁸ Enoch, a biblical character from the Book of Genesis, fits into Hermetic philosophy as 'the first scientist' and an 'eschatological scribe.' He is the purported author of *The Book of Enoch*, an ancient Jewish apocalyptic text, and the only man to go to Heaven without dying, which, to some, meant that he became an angel. See Genesis 5:23-24 (King James Version): 'And all the days of Enoch were three hundred sixty and five years. And Enoch walked with God: and he was not; for God took him.' Dee's work on Enochian magic and angel magic is primarily preserved in several manuscripts in the British Library including Sloane 3188, Cotton Appendix XLVI, parts one and two, Sloane 3191, and Sloane 3189. Other later copies exist, some made by Ashmole, and this list is not exhaustive. For more on Dee's Enochian magic, see Lorenzo DiTommaso, "Echoes of Enoch in Early Modern England: "Enoch Prayer" (London, British Library MS Sloane 3821)," in *Wisdom Poured Out Like Water: Studies on Jewish and Christian Antiquity in Honor of Gabriele Boccaccini*, eds. J. Harold Ellens, Isaac W. Oliver, Jason von Ehrenkrook, James Waddell and Jason M. Zurawski (De Gruyter, 2018): 45-71, <https://doi-org.eux.idm.oclc.org/10.1515/9783110596717-005>.

Enochian script on a gold background.¹³⁹ The top of the table was decorated with a central rectangle within a six-pointed geometric star, possibly in reference to the Star of David. The ‘Seven Ensigns of Creation’ are painted on the table with blue lines and red characters, and correspond doubly to the six days of Creation in the Bible and the alchemical process to create the Philosopher’s Stone.¹⁴⁰ The table was meant to stand upon four small, round symbols of the *Sigillum Dei* made of wax, with one larger one placed on top of the table (discussed later). Red silk was to be laid beneath the table and on top of it, covering the largest *Sigillum Dei*. The rest of the staging of the objects is unclear. A golden talisman, never made, but referred to as the ‘Character of Dignification’ was supposed to be placed over the wax seal on the table, and on top of this, the crystal ball, or ‘showstone’.¹⁴¹ All of this was supposed to take place with the *Book of Enoch* to hand, which was a Hebrew text containing angelic and apocalyptic themes, though again, it is unclear if the divinations played out in this exact manner.¹⁴² Dee’s reference to occult rituals would be indecipherable to any outside the esoteric realm of study, but the altar, in both appearance in meaning, is recognisable as a central object, or space, within a religious setting.

The unofficial destruction of altars, among other church furnishings, interiors, and objects, is traceable in Protestant England back to October 1548, and persisted throughout the sixteenth century, though the degree of removal – from complete destruction to hiding it, or changing its placement in the room – varied.¹⁴³ The altar served as a site of exchange between man and God, and was the centre-piece around which the interior space of the church was designed. The altar represented a liminal space beyond the physical interior of the church in which worshippers could access the divine. Even approaching the altar held significance, with it being likened to a pilgrimage in which a ‘journey from darkness into light, a transformation, not only in the perceptual field, but also in the understanding of a

¹³⁹ Whitby, “John Dee’s Actions with Spirits,” 150.

¹⁴⁰ Whitby, “John Dee’s Actions with Spirits,” 134.

¹⁴¹ Whitby, “John Dee’s Actions with Spirits,” 134.

¹⁴² Whitby, “John Dee’s Actions with Spirits,” 4.

¹⁴³ Kenneth Fincham and Nicholas Tyacke, “‘The Stripping of the Altars’, 1547–1560,” in *Altars Restored: The Changing Face of English Religious Worship, 1547–c.1700* (Oxford Academic, 2011): 14, <https://doi.org/10.1093/acprof:oso/9780198207009.003.0001>. See also Eamon Duffy, *The Stripping of the Altars: Traditional Religion in England, 1400–1580*, 2nd ed. (Yale University Press, 1992) and Nigel Yates, “Reformation Legacy: Catholic Buildings and Protestant Worship,” in *Buildings, Faith, and Worship* (Oxford Academic, 2011): 23–43, <https://doi.org/10.1093/acprof:oso/9780198270133.003.0003>.

concept previously unknown' takes place.¹⁴⁴ The altar as an agent of transformation, and a material intermediary of tremendous power, is particularly apparent in the taking of the Eucharist. In the Catholic faith, this sacrament was facilitated by transubstantiation, in which bread and wine became the actual Body and Blood of Christ. The altar was the designated space for this ritual to occur. Paul Connerton calls the altar 'a privileged site', different to the pulpit, which is a space for commentary on the sacred narrative, and the altar is where 'the substance of the narrative is communicated in physical signs.'¹⁴⁵ The altar as a recognisable space for the performance of physical acts and rites associated with sacred ritual was represented in Dee's Holy Table which he used as a platform for his communications. The angels could indicate successive letters to the intermediary, Kelley, which Dee would transcribe and translate. Similar to the priest, who would carry out the Eucharist on the altar, Dee and Kelley took on this role, translating angelic messages to non-practitioners.

Despite the destruction of altars, Protestant ceremonies under Edward VI, which followed a new prayer book made available from 1549, still describe communion as being celebrated at an altar.¹⁴⁶ In Europe, altars on inventories in Protestant churches were referred to as 'tables'.¹⁴⁷ The altar-table as a site of spiritual communion was present across Dee's own religious experience, and was used as a symbol, though with different implications, in both Catholic and Protestant ceremonies.¹⁴⁸ Thus, the altar-table, and Dee's own table by extension, provided immediate emotive context for spectators, regardless of time, place, religious affiliation, education, or social status. Dee hoped that the familiar role of altars in sacred ceremonies, as well as the priests who stood behind them, would be apparent to the audience privy to his divinations.

Dee also made several wax discs which were put in protective covers and then placed beneath the legs of the Holy Table.¹⁴⁹ The British Museum has three of the wax discs,

¹⁴⁴ Caryn Paredes-Santillan, "Approaching the sacred: A study of the spatial manifestations of Liminality in the churches of Leandro v. Locsin," Kyoto, Japan, *2nd Architecture and Phenomenology Symposium*, 2018. See also Victor Turner and Edith Turner, *Image and Pilgrimage in Christian Culture* (Columbia University Press: 1978).

¹⁴⁵ Paul Connerton, "Commemorative Ceremonies," in *How Societies Remember*, Themes in the Social Sciences (Cambridge University Press, 1989): 70, <https://doi.org/10.1017/CBO9780511628061.003>.

¹⁴⁶ Fincham, "The Stripping of the Altars," 18.

¹⁴⁷ Fincham, "The Stripping of the Altars," 20.

¹⁴⁸ For more on the treatment of altars and other church furnishings during the Reformation, see Nigel Yates, "Reformation Legacy: Catholic Buildings and Protestant Worship," in *Buildings, Faith, and Worship* (Oxford Academic, 2011): 23-43, <https://doi.org/10.1093/acprof:oso/9780198270133.003.0003>.

¹⁴⁹ Whitby, "John Dee's Actions with Spirits," 123.

including the largest one, which was supposed to be placed in the centre of the Holy Table. The shape of this wax disc and its smaller companions is that of the *Sigillum Dei*, or the *Sigil Dei Aemeth*, meaning the ‘Seal of God’ or ‘Truth’. Though the design of these discs is cryptic, the materiality and function of the discs mimic a category of Catholic sacred objects called sacramentals, which ‘exercis[ed] an effect over their possessor analogous to that of receiving the sacraments.’¹⁵⁰ Of these ‘things’, the *agnus dei*, meaning ‘Lamb of God’, presents many similarities to the *Sigillum Dei*. Like Dee’s beeswax discs, *agni dei* were also made of wax, and as such, were able to be stamped or easily inscribed, and would have a similar texture. To make *agni dei*, however, wax had to come from paschal candles, which were blessed annually during Easter celebrations ‘as a symbol of the Resurrected Christ.’¹⁵¹ The wax was crafted with chrism oil and holy water and then consecrated by the pope during a ceremony in front of the cardinals which would only occur during the first year of the pope’s election and then every seven years thereafter.¹⁵² *Agni dei* differ in size, shape, and appearance, though all are stamped with the Lamb of God on one side and the pope or a saint on the other. They could be worn as pendants, stored in pockets, or left at home by one’s bedside and were regarded for their protective abilities, and thus, they were often bequeathed to family and gifted to friends.¹⁵³ They were banned in England in 1571, though many Catholic communities still kept their *agni dei*, even going so far as to smuggle them into the country.¹⁵⁴ When the Reformation saw the loss of some sacraments and the severe degradation of those that were left, these items offered an ‘alternative means of accessing the sacred.’¹⁵⁵ The fragility of *agni dei* and the white colour was difficult to maintain. The tokens were thin, almost translucent, and could easily break, and were easily stained – because of this, they were often kept in cases, or metal frames, which were sometimes looped onto rosary beads and worn around the neck.¹⁵⁶ Though the thickness of Dee’s discs

¹⁵⁰ Aislinn Muller, “The Agnus Dei, Catholic Devotion, and Confessional Politics in Early Modern England,” *British Catholic History* 34, issue 1 (2018): 4, <https://doi.org/10.1017/bch.2018.1>.

¹⁵¹ Irene Galandra Cooper, “Investigating the ‘Case’ of the Agnus Dei in Sixteenth-Century Italian Homes,” in *Domestic Devotions in Early Modern Italy*. Brill, 2018: 222, https://doi.org/10.1163/9789004375871_011.

¹⁵² Muller, “The Agnus Dei,” 4.

¹⁵³ Muller, “The Agnus Dei,” 4.

¹⁵⁴ Muller, “The Agnus Dei,” 2. See also Muller, “Catholics and the Underground Devotional Market,” 76-100.

¹⁵⁵ Alexandra Walsham, “Beads, Books, and Bare Ruined Choirs: Transmutations of Catholic Ritual Life in Protestant England,” in *Catholic Communities in Protestant States: Britain and the Netherlands 1570-1720*, eds. Ben Kaplan, Bob Moore, Henk Van Neerop, and Judith Pollmann (Manchester University Press, 2006): 105-106.

¹⁵⁶ Cooper, “Investigating the ‘Case’ of the Agnus Dei,” 229-230.

did stop them from breaking easily, and the colour of beeswax is far from white, Dee did have cases made for his sigils that stayed on during use.

Taking a central position on the Holy Table, the crystal scrying ball would have been placed atop the largest wax disc. Though the materiality and function of the wax disc may have been indiscernible to viewers, depending on their nearness to Dee's staged space, the capacity of these discs to create sacredness wherever they were, would have been personally meaningful to Dee as a practitioner, and it is likely that his discs are a combination of secular, Solomonic tradition as well as the sacred tradition of blessed relics. His creation of these objects, though they did play a role in his divinations, carry an emotional element as his familiarity with these practices was not just as a secondary spectator, but recall his first-hand experience from his ordainment as a priest under Mary I. Dee's discs did possess similar meanings to the *agni dei* – the design of sigil was protective in nature, and as it was believed to be the emanation of a spirit, it facilitated a direct link between Dee and the divine, in the same way people used the *agnus dei*. The ability of both objects to surpass boundaries and foster spiritual liminality may be at the core of Dee's own choice to make his discs after *agni dei*. The material of the *agnus dei* crosses several thresholds, transforming from simple wax to symbolic pascal candle to blessed devotional item. It is an object of many meanings, many transformations, and provides yet another method by which Catholic owners of these items, through the acquisition, gifting, or wearing of them, could cross boundaries that would bring them closer to God. Dee's discs served as a doorway to the celestial, acting as a support for his other ritual objects and pushing him closer to the answers he believed only divine beings could give him.

Sarah Randles, in her article on French pilgrimage tokens, which served a similar emotional function as the *agni dei*, quotes Guy Fletcher, who observed that just because a 'thing' does not have a high monetary value, does not mean it does not have emotional value. Its value is formed relationally.¹⁵⁷ In Randle's case study, she notes that the pilgrimage tokens, like the *agni dei*, carry several mnemonic associations, which ascribe to these objects their sentimentality. This could be connected to where or how the person

¹⁵⁷ Sarah Randles, "Signs of Emotion: Pilgrimage Tokens from the Cathedral of Notre-Dame of Chartres," in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford Academic, 2018): 50, <https://doi.org/10.1093/oso/9780198802648.003.0004>. See also Guy Fletcher, "Sentimental Value," *Journal of Value Inquiry* 43 (2009): 56, <https://doi.org/10.1007/s10790-009-9152-1>.

came into possession of their token, or *agni dei*, and its link to a saint, or to the individual's own experience of receiving the sacraments.

The *agni dei* and the altar are also mnemonic devices, which carry with them both the real memories of the immediate past, as well as imagined memories of a time when England was not experiencing the disruption and unrest of the Reformation. Though this memory of a time of peace may have been false or romanticised, the feelings and sensations that accompanied the memories were real. The ability of the *agni dei* and the altar to stimulate longing is reliant on the aspect of nostalgia that 'serves to keep the past in play by imagining the possibility of a return or resurrection in the future.'¹⁵⁸ In this way, Dee's objects supersede the lines that separate the past, present, and future. Furthermore, they are representations of loss made material – this could be the loss of rituals, objects, or more broadly, the loss of a way of life. This physical representation of the past in the present collapsed the divide between the past and current times, allowing Dee the opportunity to shape these narratives to his benefit. Attaching himself to these moments in which nostalgia, as a feeling, was experienced, transferred the positive sentiments of these memories onto him.

While this chapter demonstrated Dee's use of ritual and material culture to promote feelings of familiarity and foster material connections to memories, it is also likely that this mode of expression would have been comfortable for Dee. Though his material tools, and the visual images recorded in his angel diaries, are occult in nature, the method of his expression is born from the social and cultural understanding that to demonstrate and effect change, a ritual must take place. To write about his divinatory acts, or to record his interactions with angels, and their specific instructions to create tools, was not enough to qualify as a ritual. This is the same for many rituals practiced during Dee's time – for example, though many may have understood that when one monarch died, their heir would ascend the throne, it was not enough to just know it. The true change of monarch, and the recognition and validation of this new individual as ruler, was only made real when the coronation ritual was performed and, most importantly, witnessed by their subjects. Dee's items fit into this greater convention, that is, his belief in rituals as the process by which immaterial things or concepts take on a material form and are made real by spectatorship.

¹⁵⁸ Lyon, "Early Modern Nostalgia," 6.

The tradition that Dee's ritual performances access is the practice of and adherence to rituals themselves.

The Imagination of Dee

Dee's dubious reputation is one reason that his collections of printed material and objects were so desirable after he died. Even now, the impact of his persona can be seen in the public museums these objects are displayed in. Considering some of these objects' provenance, their ties to Dee are tenuous, but the belief that he owned them is enough to make them things of interest, which calls to mind again what Halliwell referred to as 'the imagination of Dee.'¹⁵⁹ It is these objects that have either aided in the creation of his reputation or stopped the development of it as fully formed. Other than the small surviving number of diaries and marginalia, his published texts, and what remains of his Mortlake library, his ritual objects are representative of his body of experimental work, which lends to characterisation of his scholarly legacy as inherently occult.

By examining these objects through the lens of material culture, in which these objects embody collective memory and emotion, our picture of Dee becomes more incorporative. Instead of viewing his natural philosophy as disjointed, these items serve a material bridge between his more complex ideas and his cosmological belief concerning the world and his place in it. His things serve as tools of knowledge transmission, by which Dee has externalised his self-fashioning, and presented it through physical objects. His more deliberate turn toward the collection and use of occult objects demonstrate his reliance on certain Tudor conventions, namely his use of prophetic narratives, his involvement in collecting practices of the elite, and his reference to and participation in the custom of elaborate ritual processes.

The approach in this chapter does not disregard Dee's texts, rather it sees some of them as representative of the overlap between text and object, which Adam Mosley writes, includes the instrument book, a genre of writing which refers to literature that describes the making and/or use of scientific instruments.¹⁶⁰ Dee's spirit diaries, in particular, fall into this

¹⁵⁹ Halliwell, "Preface," viii.

¹⁶⁰ Adam Mosley, "Objects, texts and images in this history of science," *Studies in History and Philosophy of Science Part A*, vol. 38, issue 2 (2007): 293-294, <https://doi.org/10.1016/j.shpsa.2007.03.002>. Mosley writes that the printed instrument book of the early modern time period is best known to historians of science

category, as the angelic advice he recorded contained the designs and directions to create some of his divinatory objects. This process, by which words became things, provides wider context for Dee's occult philosophy as part of the scientific tradition. Dee's utilisation of the familiar, through which he accessed certain emotions, or feelings, like nostalgia, longing, and sentiment, is demonstrative of his understanding of the power of objects to carry complicated meanings, or embody affective states. His use of 'mediating objects' to translate his persona speaks to the impact of material culture and materiality as a tool to facilitate memory and produce feelings at both individual and collective levels.¹⁶¹

Furthermore, the material culture approach utilised in this chapter contributes to the social history of science and magic by examining Dee's beliefs, and even his emotive expression, through his tools of identity construction. By viewing early modern natural and occult sciences as enabling material and visual cultures, our understanding of both John Dee and his intellectual agenda is extended. Dee's best efforts at self-fashioning and expression are contained in these objects.

'thanks in part to their long association with the ambiguous character of the English 'mathematical practitioner.' See Mosley, "Objects, texts and images," 294.

¹⁶¹ Tim Dant, *Material Culture in the Social World: Values, Activities, Lifestyles* (Open University Press, 1999), 153.

Conclusion: Dee's Legacy Examined

'...Alchemie is a pretty kind of game, Somewhat like tricks o'the cards, to cheat a man, With charming,' so wrote English playwright, Ben Jonson, in his satire, *The Alchemist*, published in 1610, and performed for the first time that year by the King's Men at Blackfriars playhouse.¹ Jonson's five act play tells the story of several conmen living in plague-ridden London who exploit the fear of their neighbours for money by promising them the 'true philosophers stone' to cure their illnesses.² The play is a commentary on the practice of alchemy, exposing it as 'tricks, of cosning with a hollow cole, dust, scrapings, searching for things lost, with a siue and sheeres.'³

Even more than the practice of alchemy, Jonson's creation of the central antagonist, an alchemist named Subtle, exemplifies a broader denigration of practicing alchemists. Jonson's construction of Subtle as a physically repulsive, unkempt man suggests that the outer exterior of his person mirrors his internal nature. Another character, named Face, serves as a mouthpiece for Jonson's own opinion, remarking on the deceitful work of Subtle:

When all your alchemy, and your algebra...
Your coniuring, cosning, and your dosen of trades,
Could not relieue your corps, with so much linen...
I ga' you count'nance...
Aduanc'd all your black arts; lent you, beside,
A house to practise in....
Where you haue studied the more thriuing skill
Of bawdrie, since.⁴

Despite the play's use of chemical allegory and language, it is clear that Jonson's general attitude toward alchemy is unfavourable. Not only does he liken alchemy to the 'black arts', Jonson's alchemist himself is a visually unappealing, 'pinch'd' nose profligate, who abuses the generosity of others. Subtle, for all his schemes, is incapable of making a living that will, at the very least, properly clothe him.⁵ Though *The Alchemist* premiered on stage a year or so after Dee's death, the character of Subtle was believed to have been

¹ Ben Jonson, *Vol. 5: Volpone; Epicoene; The Alchemist; Catiline*, eds. C.H. Herford and Percy Simpson (Oxford University Press, 2012): II.iii.180-183, 10.1093/actrade/9780198113560.book.1. See also Lucy Munro, "The Alchemist: Stage History," *The Cambridge Edition of the Works of Ben Jonson Online* (Cambridge University Press, 2012): https://universitypublishingonline.org/cambridge/benjonson/k/essays/stage_history_Alchemist/.

² Jonson, *The Alchemist*, l.i. 102.

³ Jonson, *The Alchemist*, l.i. 93-95.

⁴ Jonson, *The Alchemist*, l.i. 38-49.

⁵ Jonson, *The Alchemist*, l.i. 25-37.

fashioned after John Dee, indicated by one of John Aubrey's notes in his entry on Dee in *Brief Lives*: 'He [Dee] used to distill Eggshells: and 'twas from hence that Ben Jonson has his hint of the Alkimist, whom he meant.'⁶

Jonson's narrative examination of a fraudulent alchemist, a practice for which Dee was a well-known, was a reflection of society's attitude toward occult practices, an opinion motivated by Protestant attacks on magic as 'the engine of subversion.'⁷ In Jonson's opinion, alchemy was not a harmless 'trick', but one meant to 'cheat' or exploit another for exploitative gain. Though it is unclear if many people would have been able to associate the character of Subtle with his real-life counterpart, the public persona with which Dee was associated was inherently negative, despite his many efforts to be regarded as a trustworthy advisor to the royal elite. Though Jonson's opinion of Dee could be seen as proof of Dee's failure to effectively communicate his credibility and assert his legitimacy, Subtle is proof, at least, of the notoriety of Dee's mysterious reputation, even after his death. The persistence of this strain of Dee's intellectual agenda is due, in part, to collectors, like Cotton and Ashmole, who, after Dee died, saved texts and objects that were primarily occult in content and in function. As well, it is likely that Dee's occult character endured as an example, or warning, to his contemporaries to consider carefully the nature of their work, and how shifts in political and cultural circumstances could either help or harm their reputation, and by extension, their livelihoods.

This dissertation analyses a genealogical roll, ritual objects, and performance to offer an interdisciplinary approach to understanding 'the whole Dee', utilising material culture studies to explore the interconnectedness of emotion, memory, and materiality at work in Dee's public persona, and more broadly, in early modern England and Europe.⁸ His self-fashioning was developed to deter the widespread destructive assumption that polymathic philosophers who entertained occult ideas were either magicians or charlatans. This assumption was a response to the exclusive nature of occult studies, as well as the consistent inability of these practitioners to deliver on their promises, like the perpetually

⁶ John Aubrey, *Brief Lives*, ed. Oliver Lawson Dick (David R. Godine Publisher, 1999): 90. This section of *Brief Lives* is contained in MS Aubrey 6, f. 38r, at the Bodleian Libraries, Oxford.

⁷ Glyn Parry, *The Arch Conjuror of England: John Dee* (Yale University Press, 2011): 272. For more on possible theatrical representations of Dee, see G.D. Horvath, *Theatre, Magic and Philosophy: William Shakespeare, John Dee and the Italian Legacy*, 1st ed. (Routledge, 2017): <https://doi.org/10.4324/9781315547114>.

⁸ William H. Sherman, *John Dee: The Politics of Reading and Writing in the English Renaissance* (University of Massachusetts Press, 1995): xiii.

elusive Philosopher's Stone. The allegation of magic, or witchcraft, was recognised in law as a felony under Elizabeth I's rule in 1563, and further expanded on in 1604 to include, specifically, the conjuration of spirits as a capital offence.⁹ While charlatanism, or fraud, was also punishable by law, the social ramification – exclusion – seemed to be, at least for Dee, as damaging as any official criminal offence, as it prevented him from finding work.

Throughout this dissertation I suggest a framework to consider Dee's self-fashioning. I posited that he created and acquired emotionally charged objects to use as tools in moulding public perception of himself, using these things to 'effect memory', and produce emotion, specifically nostalgia, in order to ingratiate himself in both positive historical narratives and collective cultural memory.¹⁰ The first chapter examined Dee's pedigree roll, an object which demonstrated Dee's participation in the antiquarian tradition, one which sees memory and emotion as underlying themes in early modern lines of historical enquiry. Using prophecy as quasi-historical precedent, Dee's scroll referenced British legends to formulate his own ancestral background, placing his family history within the same national narrative Elizabeth I had tasked him to map when building a case for English imperial expansion. Citing close personal connections to important characters in these prophecies, Dee assumed their authority as his own, hoping to put aside accusations born of fear or unfamiliarity, and instead put forward a recognisable public face that would gain him entry into elite social spaces. This chapter connects the alchemical and apocalyptic influences of Dee's own personal philosophy to his use of national memory in the development of his scroll. This imagined national memory of a 'Golden Age' speaks to the nostalgic rhetoric at work in Dee's England, and how he co-opted it to evade his real past, and better his present circumstances. This chapter expands on the way in which Dee's manuscripts have been studied as historical sources, seeing the object not only as text, but as an active mediator in the process by which Dee communicated his identity to his audiences.

The second chapter analysed a programme of objects – an obsidian mirror, a 'Holy Table', crystals, and several wax discs – that Dee used to stage his ritual divination performances. Building on the work of Stephen Clucas, Glyn Parry, and William Sherman,

⁹ James Sharpe, "Elite Perspectives on Witchcraft," in *Witchcraft in Early Modern England*, 2nd ed. (Routledge, 2019): 14, <https://doi.org/10.4324/9780429300318>.

¹⁰ Katrina Schlunke, "Memory and materiality," *Memory Studies*, vol. 6 (2013): 253, <https://doi.org/10.1177/1750698013482864>.

the chapter connected Dee's texts, specifically his angel diaries, to the physical objects he created to enable his occult inquiries. This suggested a consistent narrative for Dee's natural philosophy as one that was constantly evolving, rather than an eccentric departure from scholarly study. These objects were examined alongside other items that carried similarities in form – like mirrors, altars, and *agni dei* – and also function, as Dee placed these things into the convention of a public ritual, a style of performance which was familiar to his audiences, and imbued his material things with immaterial concepts, or feelings, like longing or nostalgia. In this way, Dee used these objects to 'enchant' his audiences, acting as the steward of emotions triggered by their experience with his things.¹¹ These concepts, of emotional objects and memory, are derived from the research of Sarah Randles, Alexandra Walsham, and Katrina Schlunke. Schlunke's theory of 'memory effects' argues that Dee's objects are tangible, material examples of memory. Their physical state continuously produces memory. In this way, memory, and accompanying feelings, like longing and nostalgia, are effects brought about through materiality, rather than produced by human consciousness, enabling memories to transcend the line that separates individual and collective experiences.¹²

The incorporation of Dee's prophetic and ritual objects into this dissertation's examination of his self-fashioning, considered alongside his texts, broadens the scope of sources available to historians of various fields of study, showcasing the way in which difficult or obscure objects can shed light on social and cultural expressions of emotion, memory, and identity. The material examined in this research also proposes different ways to think about what can be considered an emotional object by integrating a sensory, or haptic approach to research, offering avenues to think about the individual and collective experience of interacting with these things. In considering emotional artifacts, as well as related feelings of nostalgia, and with it, memory, this dissertation fits into ongoing research which sees the construction of a diachronic framework to study the development of emotional artifacts throughout their lives. Joanne Begiato suggests this way of thinking about historical time – instead of a linear approach to looking at an object's biography, the

¹¹ Jennifer Kitson and Kevin McHugh, "Historic enchantments – materializing nostalgia," *Cultural Geographies*, vol. 22, issue 3 (2015): 487-508, <https://www.jstor.org/stable/26168663>.

¹² Schlunke, "Memory and materiality," 253.

emotional approach allows the opportunity to look backward to the past (nostalgia, memory) and into the future (prophecy).¹³

Going beyond Dee's lifetime, the posterity of his work and the fate of his objects both point to Dee's awareness of how to exploit feelings, memory, and materiality in order to achieve longevity. It is limiting to say that Dee's self-fashioning was successful or unsuccessful in reforming public opinion of himself as a credible scholar, rather than a magician or a fraud. The binary here – achievement or failure – negates the wide diversity of individual responses to his work, and is restricted to his lifespan. For example, Robert Boyle (1627-1691), referred to as the 'Father of Modern Chemistry', is cited by many as the 'the man who broke once and for all from the irrational, misguided alchemy that preceded him.'¹⁴ However, Boyle was indeed interested in the application of alchemical ideas to his own natural philosophy. His curiosity was permitted, in part, because of a shift in definition: what was considered alchemy during Dee's life was classed as chemistry during Boyle's. But Boyle's belief in the link between angels, the spirit realm, and alchemy is apparent in several of his works, and the content of John Dee and Edward Kelley's research while they were in Poland is noted as being of interest to Boyle as early as 1670.¹⁵ The extent to which Dee's work influenced Boyle is significant evidence that Dee was successful, despite the misbelief that Boyle was the scientist to push alchemy into the past.

Following this example, it is more helpful to think of Dee's success as something achieved by degrees in the long-term, and with that in mind, this research provides a way to think about how fluctuating social and cultural contexts over time can convert magic into science and, in the case of Dee, transform eccentric magicians into innovative scholars. Further to this point, how Dee accomplished this, through his material objects, calls to mind Alicia Marchant's reference to the Stone of Scone as a 'time-traveller' in that it is 'itself both

¹³ Joanne Begiato, "Moving Objects: Emotional Transformation, Tangibility, and Time Travel," in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles (Oxford Academic, 2018): 239, <https://doi.org/10.1093/oso/9780198802648.003.0014>.

¹⁴ Lawrence Principe, *The Aspiring Adept: Robert Boyle and His Alchemical Quest* (Princeton University Press, 1998): 3.

¹⁵ Principe, *The Aspiring Adept*, 196. The texts are the 'Burnet Memorandum' which Boyle dictated to his friend, the Bishop Gilbert Burnet, at some point in the last two years of his life. The other is a fragment of a text listed as 'Of the supernatural arcana pretended by some Chymists' in his 1680 inventory of alchemical works. For more on Boyle's interest in alchemy and supernatural phenomena, see Michael Hunter, "Alchemy, Magic and Moralism in the Thought of Robert Boyle," *The British Journal for the History of Science* 23, issue 4 (1990): 387-410, <http://www.jstor.org/stable/4027198>.

evidence of the past and witness to that past.’¹⁶ Dee’s things are also time travellers, with the ability to transmit his legacy far beyond the bounds of his life, demonstrating his understanding of the power memory and emotion can have, and continue to have, when embodied in material objects.

¹⁶ Alicia Marchant, “Romancing the Stone: (E)motion and the Affective History of the Stone of Scone,” in *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles. Oxford Academic, 2018: 206, <https://doi.org/10.1093/oso/9780198802648.003.0012>.

Bibliography

Primary SourcesManuscripts

London, British Library, MS Sloane 3188.

London, British Library, MS Sloane 3189.

London, British Library, MS Sloane 3191.

London, British Library, MS Sloane 3677.

London, British Library, MS Sloane 3821.

London, British Library, MSS Cotton Appendix XLVI, parts I and II.

London, British Library, Add MS 36674.

London, British Library, Add MS 59681.

Oxford, Bodleian Library, MS Aubrey 3.

Oxford, Bodleian Library, MS Aubrey 6.

Oxford, Bodleian Library, Ashmole MS 1790.

Pedigrees

Brudenell, Edmund, *Genealogy of Elizabeth I from Adam and Eve*, Hatfield, Hatfield House, Cecil Papers 396.

Cooke, Robert, *Book of Arms of the Queen's Majesty's Progenitors*, 1567, London, British Library, King's MS 396.

Prince Arthur's Book, c. 1520, London, College of Arms, MS Vincent 152.

Published Primary Sources

Aubrey, John. "An Essay Towards the Description of the North Division of Wiltshire." In *Wiltshire: The Topographical Collections of John Aubrey*, ed. John Edward Jackson. The Wiltshire Archaeological and Natural History Society, 1862.

Aubrey, John. *Brief Lives*, ed. Oliver Lawson Dick. David R. Godine Publisher, 1999.

Casaubon, Meric. *"A true & faithful relation of what passed for many yeers between Dr. John Dee ... and some spirits tending ... to a general alteration of most states and kingdomes in the world : his private conferences with Rodolphe, Emperor of Germany, Stephen, K. of Poland, and divers other princes about it ... : as also the letters of sundry great men and princes ... to the said D. Dee / out of the original copy written with Dr. Dees own hand, kept in the library of Sir Tho. Cotton, Kt. Baronet ; with a preface confirming the reality (as to the point of spirits) of this relation ... by Meric Casaubon ..."* In the digital collection, Early English Books Online. University of Michigan Library Digital Collections.
<https://name.umdl.umich.edu/A37412.0001.001>.

Dee, John. *Monas Hieroglyphica*. Antwerp, 1564.

Dee, John. "The Compendious Rehearsal, etc." in *John Dee's Diary, Catalogue of Manuscripts and Selected Letters*, eds. James Orchard Halliwell, James Crossley, John Eglinton Bailey, and M. R. James. Cambridge Library Collection - British and Irish History, 15th & 16th Centuries. Cambridge University Press, 2013.
<https://doi.org/10.1017/CBO9781139245791.007>

Dee, John. *The Mathematicall Praeface to the Elements of Geometry of Euclid of Megara*, tr. Sir Henry Billingsly (London, 1570).

Dee, John. "To the Kings most excellent Maiestie." In the digital collection, Early English Books Online, University of Michigan Library Digital Collections.
<https://name.umdl.umich.edu/A20027.0001.001>.

Euclid., John Dee, John Leeke, George Serle, Muhammad al-Bagdadi, Campane., François de Foix Candale, and Marinus. *Euclid's Elements of Geometry In Xv. Books: With a Supplement of Divers Propositions and Corollaries. To Which Is Added, a Treatise of Regular Solids, by Campane and Flussas. Likewise Euclid's Data: And Marinus His Preface Thereunto Annexed. Also a Treatise of the Divisions of Superficies, Ascribed to Machomet Bagdedine, but Published by Commandine, at the Request of John Dee of London; Whose Preface to the Said Treatise Declares It to Be the Worke of Euclide, the Author of These Elements. Published by the Care and Industry of John Leeke and George Serle, Students in the Mathematicks*. London: printed, by R. & W. Leybourn, for Richard Tomlins at the Sun and Bible in Pie-corner, 1661. Proquest (2240865663).

- Halliwell, James Orchard. "Preface." In *The private diary of Dr. John Dee ... and the catalogue of his library of manuscripts, from the original manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge*, ed. James Orchard Halliwell. J.B. Nichols and Son, 1842: vii-viii.
https://web.english.upenn.edu/~cavitch/pdf-library/Dee_Private_Diary.pdf.
- Halliwell, James Orchard. *The private diary of Dr. John Dee ... and the catalogue of his library of manuscripts, from the original manuscripts in the Ashmolean Museum at Oxford, and Trinity College Library, Cambridge*, ed. James Orchard Halliwell. J.B. Nichols and Son, 1842. https://web.english.upenn.edu/~cavitch/pdf-library/Dee_Private_Diary.pdf.
- Jonson, Ben. *Vol. 5: Volpone; Epicoene; The Alchemist; Catiline*, eds. C.H. Herford and Percy Simpson. Oxford University Press, 2012: 10.1093/actrade/9780198113560.book.1.
- Josten, C. H. "A Translation of John Dee's 'Monas Hieroglyphica' (Antwerp, 1564), with an Introduction and Annotations." *Ambix* 12, issue 2-3 (1964): 84–221.
 doi:10.1179/000269864790223101.
- Roberts, Julian R. and A.G. Watson. *John Dee's Library Catalogue*. The Bibliographical Society, 1990.
- Whitby, Christopher. "John Dee's Actions with Spirits (Volumes 1 and 2): 22 December 1581 to 23 May 1583." 1st ed. Routledge, 1988.
- Wright, Neil, tr. *The History of the Kings of Britain: An Edition and Translation of the De Gestis Britonum (Historia Regum Britanniae)*, ed. Michael D. Reeve. Boydell & Brewer, 2007. <http://www.jstor.org/stable/10.7722/j.ctt14brrjp>.

Secondary Sources

- Ackermann, Silke and Louise Devoy. "'The Lord of the smoking mirror': Objects associated with John Dee in the British Museum." *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 539-549.
<https://doi.org/10.1016/j.shpsa.2011.11.007>.
- Ailes, Adrian. "The Development of the Herald's Visitations in England and Wales, 1450-1600." *The Coat of Arms*, vol. 5, issue 217. The Heraldry Society, 2009: 7-23.
<https://www.theheraldrysociety.com/wp-content/uploads/2019/10/CoA-217-Ailes-paper.pdf>.

- Anglo, Sydney. "The 'British History' in Early Stuart Propaganda. With an Appendix of Manuscript Pedigrees of the Kings of England, Henry VI to Henry VIII." *Bulletin of the John Rylands Library* 44, issue 1 (1961): 17-48. <https://doi.org/10.7227/BJRL.44.1.2>.
- Appadurai, Arjun, ed. *The Social Life of Things: Commodities in Cultural Perspective*. Cambridge University Press, 1986.
- Aston, Margaret. *Broken Idols of the English Reformation*. Oxford University Press, 1988.
- Aston, Margaret. "English Ruins and English History: The Dissolution and the Sense of the Past." *Journal of the Warburg and Courtauld Institutes*, no. 36 (1973): 231-255. <https://doi.org/10.2307/751164>.
- Auslander, Leora. "Beyond Words." *The American Historical Review* 110, no. 4 (2005): 1015-1045. <https://doi.org/10.1086/ahr.110.4.1015>.
- Bailey, Michael D. *Magic and Superstition in Europe: A Concise History from Antiquity to Present*. Rowman and Littlefield Publishers, 2006.
- Batalla Rosado, Juan José. "Iconographic Characteristics of Tezcatlipoca in the Representations of Central Mexico: The Ezpitzal Case." In *Tezcatlipoca: Trickster and Supreme Deity*, ed. Elizabeth Baquedano. University Press of Colorado, 2020: 41-58. <https://doi-org.eux.idm.oclc.org/10.5876/9781607322887-005>.
- Bates, David. "William I [known as William the Conqueror] (1027/8–1087), king of England and duke of Normandy." *Oxford Dictionary of National Biography*. 23 Sep 2004: 1-23. <https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-29448>.
- Baquedano, Elizabeth, ed. *Tezcatlipoca: Trickster and Supreme Deity*. University Press of Colorado, 2014. <https://doi-org.eux.idm.oclc.org/10.5876/9781607322887>.
- Begiato, Joanne. "Moving Objects: Emotional Transformation, Tangibility, and Time Travel." In *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles. Oxford Academic, 2018: 229-242. <https://doi.org/10.1093/oso/9780198802648.003.0014>.
- Bennett, Jane. *Vibrant Matter: A Political Ecology of Things*. Duke University Press, 2010. <https://www.paradigmtrilogy.com/assets/documents/issue-02/jane-banette--vibrant-matter.pdf>.
- Bergeron, David M. "Pageants, Politics, and Patrons." *Medieval & Renaissance Drama in England* 6 (1993): 139–52. <http://www.jstor.org/stable/24321957>.

- Belting, Hans. "The Coat of Arms and the Portrait: Two Media of the Body." In *An Anthropology of Images: Picture, Medium, Body*. Princeton University Press, 2022: 62-83. <https://doi-org.eux.idm.oclc.org/10.1515/9781400839780-004>.
- Blaen, Tom. *Medical Jewels, Magical Gems - Precious Stones in Early Modern Britain: Society Culture and Belief*. The Medieval Press, 2012.
- Blaen, Tom. "'Not Used to Be Worn as a Jewel': The Wearing of Precious Stones in Early Modern England - Ornaments or Medicine?" *Geological Society Special Publication* 452, issue 1 (2017): 261–65. <https://doi.org/10.1144/SP452.10>.
- Blair, Ann. "Natural Philosophy." In *The Cambridge History of Science*, eds. Katharine Park and Lorraine Daston (Cambridge University Press, 2006): 363-406. <https://doi.org/10.1017/CHOL9780521572446.018>.
- Bille, Mikkel, Peter Bjerregaard, Tim Flohr Sørensen. "Staging atmospheres: Materiality, culture, and the texture of the in-between." *Emotion, Space and Society*, vol. 15 (2015): 31-38. <https://doi.org/10.1016/j.emospa.2014.11.002>.
- Böhme, Gernot. "Atmosphere as the Fundamental Concept of a New Aesthetics." *Thesis Eleven*, vol. 36, issue 1 (1993): 113-126. <https://doi.org/10.1177/072551369303600107>.
- Campbell, Stuart, Elizabeth Healey, Yaroslav Kuzmin, and Michael D. Glascock. "The Mirror, the Magus and More: Reflections on John Dee's Obsidian Mirror." *Antiquity* 95, issue 384 (2021): 1547-1564. <https://doi.org/10.15184/aqy.2021.132>.
- Cavallaro, Federico. "The Alchemical Significance of John Dee's Monas Hieroglyphica." In *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193. Springer, 2006: 159-176. https://doi.org/10.1007/1-4020-4246-9_9.
- Clifton, Nicole. "Early Modern Readers of the Romance 'Of Arthour and of Merlin.'" *Arthuriana* 24, issue 2 (2014): 71–91. <http://www.jstor.org/stable/44697424>.
- Clucas, Stephen. "Introduction: Intellectual History and the Identity of John Dee." In *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 1-22. https://doi.org/10.1007/1-4020-4246-9_1.
- Clucas, Stephen. "John Dee, Alchemy, and Print Culture." *Ambix* vol. 64, issue 2 (2017): 107-114. <https://doi.org/10.1080/00026980.2017.1356632>.

- Clulee, Nicholas H. "Dee's Natural Philosophy Revisited." In *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 22-37. https://doi.org/10.1007/1-4020-4246-9_2.
- Connerton, Paul. "Commemorative Ceremonies." In *How Societies Remember*, Themes in the Social Sciences. Cambridge University Press, 1989: 41-71. <https://doi.org/10.1017/CBO9780511628061.003>.
- Cooper, Irene Galandra. "Investigating the 'Case' of the Agnus Dei in Sixteenth-Century Italian Homes." In *Domestic Devotions in Early Modern Italy*. Brill, 2018: 220-243. https://doi.org/10.1163/9789004375871_011.
- Cooper, Tarnya. *Citizen Portrait: Portrait Painting and the Urban Elite of Tudor and Jacobean England and Wales*. Yale University Press, 2012.
- Copeman, W. S. C. "The Gout of William Cecil - First Lord Burgley (1520-98)." *Medical History* 1, no. 3 (1957): 262-64. <https://doi.org/10.1017/S0025727300021323>.
- Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth-Century*. The MIT Press, 1990.
- Dant, Tim. *Material Culture in the Social World: Values, Activities, Lifestyles*. Open University Press, 1999.
- Davidson, Hilary. "Grave Emotions: Textiles and Clothing from Nineteenth-Century London Cemeteries." *Textile*, vol. 14, issue 2 (2016): 226-243, [10.1080/14759756.2016.1139383](https://doi.org/10.1080/14759756.2016.1139383).
- Davies, C.S.L. "Tudor: What's in a name?" *History* 97, issue 1 (2012): 24-42. <https://www.thinkinghistory.co.uk/ActivityBase/downloads/TudorSurpriseDavies.pdf>.
- Davies, Owen. *Grimoires: A History of Magic Books*. Oxford University Press, 2010. <https://ebookcentral.proquest.com/lib/ed/detail.action?docID=5746141>.
- Davis, David. "Destructive Defiance: Catholic and Protestant Iconoclasm in England, 1550-1585." *Cromohs Virtual Seminars*. Recent historiographical trends of the British Studies (17th-18th Centuries), eds. M. Caricchio, G. Tarantino. Firenze University Press, 2006: 1-5. https://oajournals.fupress.net/public/journals/9/Seminar/davis_iconoclasm.html.

- Debus, Allen G. *Introduction to John Dee: The Mathematicall Praeface to the Elements of Geometry of Euclid of Megara (1570)*. Science History Publications, 1975.
- DiTommaso, Lorenzo. "Echoes of Enoch in Early Modern England: "Enoch Prayer" (London, British Library MS Sloane 3821)." In *Wisdom Poured Out Like Water: Studies on Jewish and Christian Antiquity in Honor of Gabriele Boccaccini*, eds. J. Harold Ellens, Isaac W. Oliver, Jason von Ehrenkrook, James Waddell and Jason M. Zurawski. De Gruyter, 2018: 45-71. <https://doi-org.eux.idm.oclc.org/10.1515/9783110596717-005>.
- Downes, Stephanie, Sally Holloway, and Sarah Randles. "A Feeling for Things, Past and Present." In *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles. Oxford University Press, 2018: 8-24. <https://doi.org/10.1093/oso/9780198802648.003.0002>
- Drimmer, Sonja. "Questionable Contexts: A Pedigree Book and Queen Elizabeth's Teeth." In *Scholars and Poets Talk about Queens*, eds. Carole Levin and Christine Stewart-Nuñez. Palgrave Macmillan, 2015: 203-224. https://link.springer.com/content/pdf/10.1057/9781137534903_20.pdf.
- Duffy, Eamon. *The Stripping of the Altars: Traditional Religion in England, 1400–1580*, 2nd ed. Yale University Press, 1992.
- Dunn, Richard. "John Dee and Astrology in Elizabeth England." In *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193 (Springer, 2006): 85-94. https://doi.org/10.1007/1-4020-4246-9_5.
- Eberhard, Winfried. "Reformation and Counterreformation in East Central Europe." In *Handbook of European History, 1400-1600: Late Middle Ages, Renaissance, and Reformation*, vol. 2, eds. Thomas A. Brady, Jr, Heiko A. Oberman, and James D. Tracy. Brill, 1994: 551-584. https://doi.org/10.1163/9789004391680_019.
- Edensor, Tim. "Material Culture and National Identity." In *National Identity, Popular Culture and Everyday Life* (Taylor & Francis Group, 2002): 103-136. ProQuest Ebook Central.
- Ellis, Jim. "Kenilworth, King Arthur, and the Memory of Empire." *English Literary Renaissance* 43, issue 1 (2013): 3–29. <http://www.jstor.org/stable/43607602>.
- Elsner, Jaś. "Iconoclasm as Discourse: From Antiquity to Byzantium." *The Art Bulletin* 94, issue 3 (2012): 368-394. <https://doi.org/10.1080/00043079.2012.10786048>.

- Feingold, Mordechai. *The Mathematician's Apprenticeship: Science, Universities and Society in England 1560-1640*. Cambridge University Press, 1991
- Felder, Maxine. "Familiarity as a Practical Sense of Place." *Sociological Theory*, vol. 39, issue 3 (2021): 180-199. <https://doi.org/10.1177/073527512111037724>.
- Fell-Smith, Charlotte. *John Dee*. Constable & Company Ltd, 1909.
- Feola, Vittoria. "Elias Ashmole's collections and views about John Dee." *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 530-538. <https://doi.org/10.1016/j.shpsa.2011.12.011>.
- Fincham, Kenneth and Nicholas Tyacke. "'The Stripping of the Altars', 1547-1560." In *Altars Restored: The Changing Face of English Religious Worship, 1547-c.1700*. Oxford Academic, 2011: 8-38. <https://doi.org/10.1093/acprof:oso/9780198207009.003.0001>.
- Fletcher, Guy. "Sentimental Value." *Journal of Value Inquiry* 43 (2009): 55-65. <https://doi.org/10.1007/s10790-009-9152-1>.
- Forshaw, Peter J. "The Early Alchemical Reception of John Dee's Monas Hieroglyphica." *Ambix* 52, issue 3 (2005): 247-269. doi:10.1179/000269805X77772.
- Fort, Jeff, tr., and Arnaud Maillet. *The Claude Glass: Use and Meaning of the Black Mirror in Western Art*. Princeton University Press, Zone Books, 2014.
- Foster, Michael. "Thomas Allen (1540-1632), Gloucester Hall and the Survival of Catholicism in Post-Reformation Oxford." *Oxoniensia*, no. 46 (1981): 99-128. <https://www.oxoniensia.org/volumes/1981/foster.pdf>.
- French, Peter. *John Dee: The World of an Elizabethan Magus*. Routledge, 1972.
- Frietsch, Ute. "Alchemy and the Early Modern University: An Introduction." *Ambix* 68, issue 2-3 (2021): 119-34. doi:10.1080/00026980.2021.1936800.
- Gaynor, Suzanne. "French Enameled Glass of the Renaissance." *Journal of Glass Studies* 33 (1991): 42-81. <http://www.jstor.org/stable/24190826>.
- Garber, Daniel. "Physics and Foundations." In *The Cambridge History of Science*, eds. Katharine Park and Lorraine Daston. Cambridge University Press, 2006: 19-69. <https://doi.org/10.1017/CHOL9780521572446.003>.
- Gell, Alfred. *Art and Agency: An Anthropological Theory*. Oxford University Press, 1998.
- Goldring, Elizabeth. "Portraiture, Patronage, and the Progresses: Robert Dudley, Earl of Leicester, and the Kenilworth Festivities of 1575." In *The Progresses, Pageants, and*

- Entertainments of Queen Elizabeth I*, eds. Jayne Elisabeth Archer, Elizabeth Goldring, and Sarah Knight. Oxford Academic, 2015: 163-188.
<https://doi.org/10.1093/acprof:osobl/9780199673759.003.0009>.
- Guy, Ben. "Geoffrey of Monmouth's Welsh Sources." In *A Companion to Geoffrey of Monmouth*, vol. 22, eds. J. B. Smith and G. Henley. Brill, 2020: 31-66.
https://doi.org/10.1163/9789004410398_003.
- Haldrup, Michael. "Souvenirs: Magical objects in everyday life." *Emotion, Space and Society*, vol. 22 (2017): 52-60. <https://doi.org/10.1016/j.emospa.2016.12.004>.
- Hallam, Elizabeth and Jenny Hockey. "Figuring Memory: Metaphors, Bodies, and Material Objects." In *Death, Memory and Material Culture*, 1st ed. Routledge, 2011: 23-46.
<https://doi.org/10.4324/9781003085164>.
- Hanegraaff, Wouter J. "Heinrich Cornelius Agrippa." In *The Occult World*, ed. Christopher Partridge (Routledge, 2014): 92-98. <https://doi.org/10.4324/9781315745916>.
- Harkness, Deborah E. *John Dee's Conversations with Angels: Cabala, Alchemy, and the End of Nature*. Cambridge University Press, 1999.
- Harkness, Deborah E. "Managing an Experimental Household: The Dees of Mortlake and the Practice of Natural Philosophy." *Isis* 88, issue 2 (1997): 247-262.
<https://doi.org/10.1086/383691>.
- Harkness, Deborah E. "Shows in the Showstone: A Theater of Alchemy and Apocalypse in the Angel Conversations of John Dee (1527-1608/9)." *Renaissance Quarterly* 49, no. 4 (1996): <https://doi.org/10.2307/2862959>.
- Hickey, Helen M. "Capturing Christ's Tears: La Sainte Larme in Medieval and Early Modern France." In *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles. Oxford Academic, 2018: 58-71.
<https://doi.org/10.1093/oso/9780198802648.003.0005>.
- Hirsch, Marianne and Leo Spitzer. "Testimonial Objects: Memory, Gender, and Transmission." *Poetics Today*, vol. 27, issue 2 (2006): 353-383.
<https://doi.org/10.1215/03335372-2005-008>.
- Hodder, Ian. "The "Social" in Archaeological Theory: An Historical and Contemporary Perspective." In *A Companion to Social Archaeology*, eds. L. Meskell and R.W. Preucel. Blackwell Publishing, 2007.

- Horvath, G.D. *Theatre, Magic and Philosophy: William Shakespeare, John Dee and the Italian Legacy*, 1st ed. Routledge, 2017. <https://doi.org/10.4324/9781315547114>.
- Hughes, Jonathan. "Politics and the Occult at the Court of Edward IV." *Princes and Princely Culture 1450-1650*, vol. 2, eds. Martin Gosman, Alasdair A. MacDonald, and Arjo J. Vanderjagt. Brill, 2005: 97-128. https://doi.org/10.1163/9789047404859_007.
- Hunter, Michael. "Alchemy, Magic and Moralism in the Thought of Robert Boyle." *The British Journal for the History of Science* 23, issue 4 (1990): 387-410. <http://www.jstor.org/stable/4027198>.
- Janacek, Bruce. *Alchemical Belief: Occultism in the Religious Culture of Early Modern England*. The Pennsylvania State University 2011.
- Johnson, Francis R. *Astronomical Thought in Renaissance England: A Study of the English Scientific Writings from 1500-1645*. Johns Hopkins Press, 1937.
- Johnston, Stephen. "The Identity of the Mathematical Practitioner in 16th-century England." In *Der "mathematicus": Zur Entwicklung und Bedeutung einer neuen Berufsgruppe in der Zeit Gerhard Mercators*, ed. Irmgrade Hantsche. Brockmeyer, 1996: 93-120.
- Jones, Andrew. *Memory and Material Culture*. Cambridge University Press, 2007.
- Jones, Ann Rosalind, and Peter Stallybrass. *Renaissance Clothing and the Materials of Memory*. Cambridge University Press, 2000.
- Joyce, Arthur A., Andrew G. Workinger, Byron Hamann, Peter Kroefges, Maxine Oland, and Stacie M. King. "Lord 8 Deer 'Jaguar Claw' and the Land of the Sky: The Archaeology and History of Tututepec." *Latin American Antiquity* 15, issue 3 (2004): 273-297. <https://doi.org/10.2307/4141575>.
- Kalas, Rayna. "The Technology of Reflection: Renaissance Mirrors of Steel and Glass." *Journal of Medieval and Early Modern Studies* 32, issue 3 (2002): 519-542. <https://doi.org/10.1215/10829636-32-3-519>.
- Karant-Nunn, Susan. "Ritual in Early Modern Christianity." In *The Cambridge History of Christianity*, ed. R. Po-chia Hsia, Cambridge History of Christianity. Cambridge University Press, 2007: 371-285. <https://doi.org/10.1017/CHOL9780521811620.021>.
- Kelly, Morgan and Cormac Ó Gráda. "Connecting the Scientific and Industrial Revolutions: The Role of Practical Mathematics." *The Journal of Economic History* 82, issue 3 (2022): 841-873. <https://doi.org/10.1017/S0022050722000250>.

- Kelly, Philippa. "Surpassing Glass: Shakespeare's Mirrors." *Early Modern Literary Studies*, vol. 8, issue 1 (2002): 21-32. <https://extra.shu.ac.uk/emls/08-1/kellglas.htm>.
- Kerlogue, Fiona. "Memory and Material Culture: A case study from Jambi, Sumatra." *Indonesia and the Malay World*, vol. 39, issue 113 (2011): 89-101. <https://doi.org/10.1080/13639811.2011.547731>.
- Kieckhefer, Richard. "Rethinking how to define magic." In *The Routledge History of Medieval Magic*, 1st ed., eds. Sophie Page and Catherine Rider. Routledge, 2019: 15-25. <https://doi.org/10.4324/9781315613192>.
- Kieschnick, John. "Material Culture." In *The Oxford Handbook of Religion and Emotion*, ed. John Corrigan (Oxford University Press, 2008): 223–238. <https://doi.org/10.1093/oxfordhb/9780195170214.003.0013>.
- Kitson, Jennifer and Kevin McHugh. "Historic enchantments – materializing nostalgia." *Cultural Geographies*, vol. 22, issue 3 (2015): 487-508. <https://www.jstor.org/stable/26168663>.
- Klein, Joel A. "Alchemical Laboratories." In *Encyclopaedia of Early Modern Philosophy and the Sciences*, eds. Dana Jalobeanu, and Charles Wolfe. Springer, 2020. https://doi.org/10.1007/978-3-319-20791-9_233-1.
- Kolrud, Kristine and Marina Prusac, eds. *Iconoclasm from Antiquity to Modernity*, 1st ed. Routledge, 2014. <https://doi.org/10.4324/9781315252827>.
- Kopytoff, Igor. "The Cultural Biography of Things: Commoditization as Process." In *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai. Cambridge University Press, 1986: 64-92.
- Kwan, Alistair. "John Dee's crest, and arms in his 'Mathematical Preface.'" *The Coat of Arms*, vol. 1, issue 209. The Heraldry Society, 2005: 9-14. <https://www.theheraldrysociety.com/wp-content/uploads/2019/10/Kwan-paper.pdf>.
- Lake, Crystal B. *Artifacts: How We Think and Write about Found Objects*. Johns Hopkins University Press, 2020.
- Lang, Sarah, ed. *Alchemical Laboratories: Texts, Practices, Material Relics*. Graz University Library, 2023. <https://library-publishing.unigraz.at/index.php/lp/catalog/download/56/394/928?inline=1>.

- Larkin, Hilary. "Introduction." In *The Making of Englishmen: Debates on National Identity 1550-1650*. Brill, 2014: 1-21. https://doi.org/10.1163/9789004243873_002.
- Lendinara, Patrizia. "The Battle of Brunanbruh in later Histories and Romances." *Anglia: Journal of English Philology*, vol. 117, issue 2 (1999): 201-235. <https://doi-org.eux.idm.oclc.org/10.1515/angl.1999.117.2.201>.
- Linden, Stanton J. "'A Clew and a Labyrinth': Backgrounds, Definitions, and Preliminaries." In *Darke Hieroglyphicks: Alchemy in English Literature from Chaucer to the Restoration*, 1st ed. University Press of Kentucky, 1996: 6–36. <http://www.jstor.org/stable/j.ctt130hpvq.6>.
- Loomis, Robert Sherman, ed. *Arthurian Literature in the Middle Ages: A Collaborative History*. Clarendon Press, 1959.
- Loxham, Angela. "Shaped by familiarity: Memory, space and materiality at Imperial War Museum North." *Museum & Society* 13, issue 4 (2015): 522-538. <https://doi.org/10.29311/mas.v13i4.351>.
- Lyon, Harriet. "Re-Thinking Nostalgic Antiquarianism: Time, Space, and the English Reformation." *The Seventeenth Century* 37, issue 5 (2022): 757-777. <https://doi.org/10.1080/0268117X.2022.2074874>.
- Lyon, Harriet and Alexandra Walsham. "Early Modern Nostalgia: Memory, Temporality, and Emotion." In *Nostalgia in the Early Modern World: Memory, Temporality, and Emotion*, eds. Harriet Lyon and Alexandra M. Walsham. Boydell & Brewer, 2023: 1–24.
- MacMillan, Ken. "John Dee's 'Brytanici Imperii Limites.'" *Huntington Library Quarterly* 64, issue 1/2 (2001): 151-159. <https://doi.org/10.2307/3817882>.
- MacCulloch, Diarmaid. "The Church of England and International Protestantism, 1530–1570." In *The Oxford History of Anglicanism, Volume 1: Reformation and Identity c.1520-1662*, Oxford History Of Anglicanism, ed. Anthony Milton. Oxford Academic, 2017: 316-332. <https://doi.org/10.1093/acprof:oso/9780199639731.003.0017>.
- Magaloni Kerpel, Diana. *The Colors of the New World: Artists, Materials, and the Creation of the Florentine Codex*. Getty Publications, 2014.
- Marchant, Alicia. "Romancing the Stone: (E)motion and the Affective History of the Stone of Scone." In *Feeling Things: Objects and Emotions through History*, eds. Stephanie

- Downes, Sally Holloway, and Sarah Randles. Oxford Academic, 2018: 192-208.
<https://doi.org/10.1093/oso/9780198802648.003.0012>.
- Martelli, Matteo. "Maria's Practica in Early Modern Alchemy." In *Gendered Touch*, eds. Francesca Antonelli, Antonella Romano, and Paolo Savoia. Brill, 2022: 40-65.
https://doi.org/10.1163/9789004512610_004.
- McInnis, David. "Introduction." In *Mind-Travelling and Voyage Drama in Early Modern England*, *Early Modern Literature in History* (Palgrave Macmillan, 2013): 1-18.
<https://doi.org/10.1057/9781137035363>.
- McInnis, David. "The Wings of Active Thought." In *Mind-Travelling and Voyage Drama in Early Modern England*, *Early Modern Literature in History* (Palgrave Macmillan, 2013): 19-50. <https://doi.org/10.1057/9781137035363>.
- McGee, C. E. "Mysteries, Musters, and Masque: The Import(s) of Elizabethan Civic Entertainments." In *The Progresses, Pageants, and Entertainments of Queen Elizabeth I*, eds. Jayne Elisabeth Archer, Elizabeth Goldring, and Sarah Knight. Oxford Academic, 2015: 104-121.
<https://doi.org/10.1093/acprof:osobl/9780199673759.003.0006>
- McInerney, Maud Burnett. "Riddling Words: the Prophetiae Merlin." In *A Companion to Geoffrey of Monmouth*, vol. 22, eds. J. B. Smith and G. Henley. Brill, 2020: 129-152.
https://doi.org/10.1163/9789004410398_006.
- Metropolitan Museum of Art and James Snyder. *The Renaissance in the North*. The Metropolitan Museum of Art, 1987.
<https://libmma.contentdm.oclc.org/digital/collection/p15324coll10/id/113373>.
- Millican, Charles Bowie. "The First English Translation of the 'Prophecies of Merlin.'" *Studies in Philology* 28, issue 4 (1931): 720-29. <http://www.jstor.org/stable/4172130>.
- Mosley, Adam. "Objects, texts and images in this history of science." *Studies in History and Philosophy of Science Part A*, vol. 38, issue 2 (2007): 289-302.
<https://doi.org/10.1016/j.shpsa.2007.03.002>.
- Muller, Aislinn. "Catholics and the Underground Devotional Market in Post-Reformation England." In *Religion and the Early Modern British Marketplace*, 1st ed., eds. Kristin M.S. Bezio, and Scott Oldenburg. Routledge, 2021: 76-100.
<https://doi.org/10.4324/9781003049173>.

- Muller, Aislinn. "The Agnus Dei, Catholic Devotion, and Confessional Politics in Early Modern England." *British Catholic History* 34, issue 1 (2018): 1-28.
<https://doi.org/10.1017/bch.2018.1>.
- Munro, Lucy. "The Alchemist: Stage History." *The Cambridge Edition of the Works of Ben Jonson Online*. Cambridge University Press, 2012.
https://universitypublishingonline.org/cambridge/benjonson/k/essays/stage_history_Alchemist/.
- Murphy, Andrew R. "Political Theory and Nostalgia: The Power of the Past in the History of Political Thought." In *Intimations of Nostalgia: Multidisciplinary Explorations of an Enduring Emotion*, ed. Michael Hviid Jacobsen. Bristol University Press, 2021: 70-88.
<https://doi.org/10.46692/9781529214789.005>.
- Nummedal, Tara E. "Words and Works in the History of Alchemy." *Isis* 102, issue 2 (2011): 330–37. <https://doi.org/10.1086/660142>.
- Olsen, Bjørnar. "Material Culture after Text: Re-remembering Things." *Norwegian Archaeological Review* 36, issue 2 (2003): 87-104.
<https://doi.org/10.1080/00293650310000650>.
- Paredes-Santillan, Caryn. "Approaching the sacred: A study of the spatial manifestations of Liminality in the churches of Leandro v. Locsin." Kyoto, Japan, *2nd Architecture and Phenomenology Symposium*, 2018.
- Parry, Glyn. "Called to a King's Office: Laski and the Second Coming." In *The Arch Conjuror of England: John Dee*. Yale University Press, 2011: 162-178.
- Parry, Glyn. "John Dee." In *The Occult World*, 1st ed., ed. Christopher Partridge. Routledge, 2014: 107-116. <https://doi.org/10.4324/9781315745916>.
- Parry, Glyn. *The Arch-Conjuror of England: John Dee*. Yale University Press, 2011.
- Principe, Lawrence. *The Aspiring Adept: Robert Boyle and His Alchemical Quest*. Princeton University Press, 1998.
- Prown, Jules. "Mind in Matter: An Introduction to Material Culture Theory and Method." *Winterthur Portfolio* 17, no. 1 (1982): 1-19. <http://www.jstor.org/stable/1180761>.
- Rampling, Jennifer M. "Early Modern Alchemy." *Furnace and Fugue: A Digital Edition of Michael Maier's "Atalanta fugiens" (1618) with Scholarly Commentary*. University of Virginia Press, 2020. <https://doi.org/10.26300/bdp.ff.rampling>.

- Rampling, Jennifer M. "From Alchemy to Chemistry." In *Brill's Encyclopaedia of the Neo-Latin World*, eds. Philip Ford, Jan Bloemendal, and Charles Fantazzi. Brill, 2014: 705-717, https://doi.org/10.1163/9789004271296_enlo_B9789004271012_0053.
- Rampling, Jennifer M. "John Dee and the alchemists: Practising and promoting English alchemy in the Holy Roman Empire." *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 498-508. <https://doi.org/10.1016/j.shpsa.2011.12.009>.
- Rampling, Jennifer M. "John Dee and the sciences: early modern networks of knowledge." *Studies in History and Philosophy of Science Part A*, vol. 43, issue 3 (2012): 432-436. <https://doi.org/10.1016/j.shpsa.2011.12.001>.
- Rampling, Jennifer M. "Reading Alchemically: Guides to 'Philosophical' Practice in Early Modern England." *BJHS Themes* 5 (2020): 57–74. <https://doi.org/10.1017/bjt.2020.3>.
- Rampling, Jennifer M. "The Catalogue of the Ripley Corpus: Alchemical Writings Attributed to George Ripley (d. ca. 1490)." *Ambix*, 57, issue 2 (2010): 125-201. <https://doi.org/10.1179/174582310X12719003720322>.
- Rampling, Jennifer M. *The Experimental Fire: Inventing English Alchemy, 1300-1700*. The University of Chicago Press, 2020.
- Rampling, Jennifer M. "Transmission and Transmutation: George Ripley and the Place of English Alchemy in Early Modern Europe." *Early Science and Medicine* 17, issue 5 (2012): 477-499. <https://doi.org/10.1163/15733823-175000A2>.
- Randles, Sarah. "Signs of Emotion: Pilgrimage Tokens from the Cathedral of Notre-Dame of Chartres." In *Feeling Things: Objects and Emotions through History*, eds. Stephanie Downes, Sally Holloway, and Sarah Randles. Oxford Academic, 2018: 43-57. <https://doi.org/10.1093/oso/9780198802648.003.0004>.
- Rappaport, Roy A. "The Ritual Form." In *Ritual and Religion in the Making of Humanity*, Cambridge Studies in Social and Cultural Anthropology. Cambridge University Press, 1999: 23-68. <https://doi.org/10.1017/CBO9780511814686.004>.
- Rappaport, Roy A. "Word and Act, Form and Substance." In *Ritual and Religion in the Making of Humanity*, Cambridge Studies in Social and Cultural Anthropology. Cambridge University Press, 1999: 139-168. <https://doi.org/10.1017/CBO9780511814686.007>.

- Raymond, R.W. *The Glossary of Mining and Metallurgical Terms*. American Institute of Mining Engineers, 1881.
- Reese, Graham. "Frances Bacon's Semi-Paracelsian Cosmology." *Ambix: The Journal of the Society for the History of Alchemy and Chemistry* 22, issue 2 (1975): 161-173.
<https://doi.org/10.1179/amb.1975.22.3.161>.
- Reid, W. Stanford. "The Four Monarchies of Daniel In Reformation Historiography." *Historical Reflections / Réflexions Historiques* 8, issue 1 (1981): 115–23.
<http://www.jstor.org/stable/41298743>.
- Rigney, Ann. "Materiality and Memory: Objects to Ecologies. A Response to Maria Zirra." *Parallax* 23, issue 4 (2017): 474-478. doi:10.1080/13534645.2017.1374517.
- Roberts, Julian R. "Dee, John (1527–1609), Mathematician, Astrologer, and Antiquary." *Oxford Dictionary of National Biography*. 23 Sep. 2004: 1-17.
<https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-7418>.
- Saffold, Jacinta R. "Stories Not to Pass On: Collective Material Cultural Memory in Twenty-First-Century Urban Literature." *MELUS* 43, issue 4 (2018): 217-234.
<https://www.jstor.org/stable/26566184>.
- Schlunke, Katrina. "Memory and materiality." *Memory Studies*, vol. 6 (2013): 253-261.
<https://doi.org/10.1177/1750698013482864>.
- Sedikides, Constantine and Tim Wildschut. "Nostalgia across cultures." *Journal of Pacific Rim Psychology*, vol. 16 (2022): 1-16. <https://doi.org/10.1177/18344909221091649>.
- Shapin, Steven. "The House of Experiment in Seventeenth-Century England." *Isis* 79, issue 3 (1988): 373–404. <http://www.jstor.org/stable/234672>.
- Sharpe, James. "Elite Perspectives on Witchcraft." In *Witchcraft in Early Modern England*, 2nd ed. Routledge, 2019: 13-28. <https://doi.org/10.4324/9780429300318>.
- Sherman, William H. *John Dee: The Politics of Reading and Writing in the English Renaissance*. University of Massachusetts Press, 1995.
- Simpson, James. *Under the hammer: Iconoclasm in the Anglo-American tradition*. Oxford University Press, 2010.
- Smith, Pamela H. "Laboratories." In *The Cambridge History of Science*, eds. Katharine Park, and Lorraine Daston. Cambridge University Press, 2006: 290-305.
<https://doi.org/10.1017/CHOL9780521572446.014>.

- Stallybrast, Peter. "Books and Scrolls: Navigating the Bible." In *Books and Readers in Early Modern England: Material Studies*, eds. Jennifer Andersen and Elizabeth Sauer. University of Pennsylvania Press, 2002: 42-79.
<https://doi.org.eux.idm.oclc.org/10.9783/9780812204711.42>
- Stewart, Susan. *On Longing: Narratives of the Miniature, the Gigantic, the Souvenir, the Collection*. Johns Hopkins University Press, 1984.
- Swann, Marjorie. "Cultures of Collecting in Early Modern England." In *Curiosities and Texts: The Culture of Collecting in Early Modern England*. University of Pennsylvania Press, 2001: 16-54.
<https://ebookcentral.proquest.com/lib/ed/detail.action?docID=3441534>.
- Szönyi, György. "John Dee and Early Modern Occult Philosophy." *Aries* 2, issue 1 (2002): 76-87. <https://doi.org/10.1163/157005902753647892>.
- Szönyi, György. "John Dee, an Elizabethan Magus and his links with Central Europe." *Angol Filológiai Tanulmányok / Hungarian Studies in English*, no. 13 (1980): 71-83.
<http://www.jstor.org/stable/41273770>.
- Szönyi, György. "Paracelsus, Scrying, and the Lingua Adamica." In *John Dee: Interdisciplinary Studies in English Renaissance Thought*, ed. Stephen Clucas, International Archives of the History of Ideas, vol. 193. Springer, 2006: 207-229. https://doi.org/10.1007/1-4020-4246-9_11.
- Timmermann, Anke. "Alchemical Poetry and Academia: Manuscripts as Chronicles of Scholarly Enquiry." In *Verse and Transmutation*. Brill, 2013: 143-172.
<https://doi.org/10.1163/9789004254831>.
- Thornton, David E. "Cadwaladr ap Cadwallon [called Cadwaladr Fendigaid] (d. 664/682), king of Gwynedd." *Oxford Dictionary of National Biography*. 23 Sep. 2004.
<https://www.oxforddnb.com/view/10.1093/ref:odnb/9780198614128.001.0001/odnb-9780198614128-e-4317>.
- Thornton, Peter. *The Italian Renaissance Interior: 1400-1600*. H.N. Abrams, 1991.
- Trevisan, Sara. "Genealogy and Royal Representation: Edmund Brudenell's Pedigree Roll for Elizabeth I (1558–60)." *Huntington Library Quarterly* 81, issue 2 (2018): 257–75.
<https://www.jstor.org/stable/90023623>.

- Turner, Marie. "Genealogies." In *Medieval Historical Writing: Britain and Ireland, 500–1500*, eds. Jennifer Jahner, Emily Steiner, and Elizabeth M. Tyler. Cambridge University Press, 2019: 84–100. doi:10.1017/9781316681299.006.
- Turner, Victor and Edith Turner. *Image and Pilgrimage in Christian Culture*. Columbia University Press: 1978.
- Velde Vander, Wendy Marcella. "How Kingdoms Were Forged: King Arthur, Queen Elizabeth, and the Assimilation of Self and Other in the New Ancient World." PhD diss., Boston University, 2014. <https://hdl.handle.net/2144/15281>.
- Vine, Angus. "Introduction." In *In Defiance of Time: Antiquarian Writing in Early Modern England*. Oxford Academic, 2010: 1-21. <https://doi.org/10.1093/acprof:oso/9780199566198.003.0001>.
- Walsham, Alexandra. "Beads, Books, and Bare Ruined Choirs: Transmutations of Catholic Ritual Life in Protestant England." In *Catholic Communities in Protestant States: Britain and the Netherlands 1570-1720*, eds. Ben Kaplan, Bob Moore, Henk Van Neerop, and Judith Pollmann. Manchester University Press, 2006: 103-123.
- White, Rachel. "Early Modern Literature and the Occult." *Oxford Research Encyclopaedia of Literature*. 24 Feb. 2022. <https://oxfordre.com/literature/view/10.1093/acrefore/9780190201098.001.0001/acrefore-9780190201098-e-1318>.
- Williams, Kelsey Jackson. "Antiquarianism: A Reinterpretation." *Erudition and the Republic of Letters*, vol. 2, issue 1 (2017): 56-96. <https://doi.org/10.1163/24055069-00201002>.
- Yates, Frances. *The Occult Philosophy in the Elizabethan Age*, 1st ed. Routledge, 1979.
- Yates, Frances. *The Rosicrucian Enlightenment*. Routledge, 1972.
- Yates, Nigel. "Reformation Legacy: Catholic Buildings and Protestant Worship." In *Buildings, Faith, and Worship*. Oxford Academic, 2011: 23-43. <https://doi.org/10.1093/acprof:oso/9780198270133.003.0003>.
- Zakai, Avihu. "Reformation, History, and Eschatology in English Protestantism." *History and Theory* 26, issue 3 (1987): 300–318. <https://doi.org/10.2307/2505065>.
- Zeiders, Blaire. "Conjuring History: The Premodern Origins and Post-Truth Legacy of John Dee's *Brytanici Imperii Limites*." *Journal of Medieval and Early Modern Studies*, vol. 49, issue 2 (2019): 377-401. <https://doi.org/10.1215/10829636-7506570>.

Zetterberg, Peter J. "The Mistaking of 'the Mathematicks' for Magic in Tudor and Stuart England." *The Sixteenth Century Journal* 11, no. 1 (1980): 83–97.
<https://doi.org/10.2307/2539477>