Advanced Subject Part II - Paper 17 [2022-23]

Title of Course:
The Politics of Knowledge from the Late Renaissance to the Early Enlightenment

Name/Email of Convenor(s)
Scott Mandelbrote (Peterhouse) <shm24@cam.ac.uk>

Course Description:
The origins of the modern world can, and should, be traced to many different periods and places of human history. But the period between the late Renaissance and the early Enlightenment in Europe – what might be called the 'long' seventeenth century, between about 1575 and about 1725 – has a particular claim to the attention of those interested in the intellectual developments that made possible both the systematic investigation of culture, society, and belief, and also modern science and technology. This paper provides an opportunity to study some of the most important of these intellectual developments.
The acquisition of knowledge in this period was often a highly controversial affair. Discoveries and innovations in one sphere–such as astronomy, for instance –often had important repercussions in others, as contemporary critics were sometimes quick to point out. Knowledge in this period therefore has an intellectual politics that is distinct both from the political history of the period, and also from developments in the history of political thought (both of which are well covered in other papers in the Tripos). The purpose of this paper is to explore this 'politics of knowledge': partly through the study of certain important general themes, and partly through a selection of key primary texts – and attacks upon them.

In early modern Europe the two cultures – of humanistic inquiry on the one hand, and the natural sciences on the other – had yet to diverge, and many central figures in philosophy and the sciences, from Francis Bacon to Gottfried Leibniz, were also important writers and historians. So the natural sciences, and the transformational developments that took place in them across the period, will form an important strand of our inquiries. The seventeenth century lies at the heart of the period widely described as the 'scientific revolution', and for this reason study of the natural world forms a central and important part of this paper. The laborious and complex overturning of the philosophical framework provided by Aristotelianism by figures such as Francis Bacon allowed for the elaboration of a range of new and challenging doctrines. In the hands of astronomers such as Galileo, Kepler and Newton the very shape of the universe was altered. The structure of matter came increasingly to be seen in atomist terms, and its motion in mechanical ones. And new ideas of experiment allowed for a fundamental reconfiguration of both the theory and the practices of natural philosophy. Moreover, developments in the study of nature also had implications for how philosophers – Descartes in particular – thought about nature of human beings themselves: how was man like and unlike other animals? What was the relationship between the body and the soul?

In parallel with a transformation in the study of nature, the period between the Renaissance and the Enlightenment also witnessed profound changes in the realm of culture and religion. Even more, perhaps, than the impact of the New World of the Americas in the west, the world to the east of Europe offered a challenge to the Christian culture of Europe that was still bitterly divided by the impact of the Reformation. The paper therefore offers a chance to study how and why Europeans in this period sought knowledge of Islam and also how some of them used this knowledge to think critically about Christianity and its Churches. For this

was also an age in which – in the hands of dangerous freethinkers such as Spinoza – the revealed authority of the Bible, and even the stability of its text, came under increasing scrutiny. Early seventeenth century Europe was living through a late Renaissance, in which the world was still seen through lenses offered by Greek and Roman antiquity, and also through the Hebraic history provided in the Old Testament. By the end of the seventeenth century, however, this world had been transformed into one that many scholars characterise as an 'early Enlightenment': a time in which 'moderns' did intellectual battle with 'ancients' in order bring into being a more secular, tolerant, and critical society.

The paper therefore offers an opportunity to explore a wide variety of themes within a crucial transformative period in human self-understanding; it also encourages direct primary engagement with the texts of the most interesting, important, and often controversial works of the time.

Mode of Teaching:

(Balance of lectures, classes and supervisions and the mode of supervision)

The paper will be taught by means of a course of twelve lectures (Michaelmas term), outlining some of the key themes; and eight seminars (Lent term), focusing both on these themes and on key texts from the period that speak to them. The normal supervision arrangements for this paper are to to offer seven hour-long one-on-one supervisions. Supervisions for the course will primarily be provided by Michael Edwards, Scott Mandelbrote, and Richard Serjeantson. We are confident that we will be able to meet likely demands.

Maximum Supervision Capacity:

20 students

The Politics of Knowledge

from the
Late Renaissance to the Early Enlightenment

Specified Subject
Cambridge University Historical Tripos (2019–20)
Part II, Paper 17

Maerten de Vos, 'Allegory of the Seven Liberal Arts' (1590). Private collection.

Logic *Rhetoric*
Astronomy
Arithmetic *Music*
Geometry *Grammar*

THE POLITICS OF KNOWLEDGE FROM THE
LATE RENAISSANCE TO THE EARLY ENLIGHTENMENT

The origins of the modern world can, and should, be traced to many different periods and places of human history. But the period between the late Renaissance and the early Enlightenment in Europe – what might be called the 'long' seventeenth century, between about 1575 and about 1725 – has a particular claim to the attention of those interested in the intellectual developments that made possible both the systematic investigation of culture, society, and belief, and also modern science and technology. This paper provides an opportunity to study some of the most important of these intellectual developments.

The acquisition of knowledge in this period was often a highly controversial affair. Discoveries and innovations in one sphere – such as astronomy, for instance – often had important repercussions in others, as contemporary critics were sometimes quick to point out. Knowledge in this period therefore has an intellectual politics that is distinct both from the political history of the period, and also from developments in the history of political thought (both of which are well covered in other papers in the Tripos). The purpose of this paper is to explore this 'politics of knowledge': partly through the study of certain important general themes, and partly through a selection of key primary texts – and attacks upon them.

In early modern Europe the two cultures – of humanistic inquiry on the one hand, and the natural sciences on the other – had yet to diverge, and many central figures in philosophy and the sciences, from Francis Bacon to Gottfried Leibniz, were also important writers and historians. So the natural sciences, and the transformational developments that took place in them across the period, will form an important strand of our inquiries. The seventeenth century lies at the heart of the period widely described as the 'scientific revolution', and for this reason study of the natural world forms a central and important part of this paper. The laborious and complex overturning of the philosophical framework provided by Aristotelianism by figures such as Francis Bacon allowed for the elaboration of a range of new and challenging doctrines. In the hands of astronomers such as Galileo, Kepler and Newton the very shape of the universe was altered. The structure of matter came increasingly to be seen in atomist terms, and its motion in mechanical ones. And new ideas of experiment allowed for a fundamental reconfiguration of both the theory and the practices of natural philosophy. Moreover, developments in the study of nature also had implications for how philosophers – Descartes in particular – thought about nature of human beings themselves: how was man like and unlike other animals? What was the relationship between the body and the soul?

In parallel with a transformation in the study of nature, the period between the Renaissance and the Enlightenment also witnessed profound changes in the realm of culture and religion. Even more, perhaps, than the impact of the New World of the Americas in the west, the world to the east of Europe offered a challenge to the Christian culture of Europe that was still bitterly divided by the impact of the Reformation. The paper therefore offers a chance to study how and why Europeans in this period sought to gain knowledge of the east, and of Islam in particular; and also how some of them used this knowledge to think critically about Christianity and its Churches. For this was also an age in which – in the hands of dangerous freethinkers such as Spinoza – the revealed authority of the Bible, and even the stability of its text, came under increasing scrutiny. Early seventeenth century Europe was living through a late Renaissance, in which the world was still seen through lenses offered by Greek and Roman antiquity, and also through the Hebraic history provided in the Old Testament. By the end of the seventeenth century, however, this world had been transformed into one that scholars have increasingly characterised as the 'early Enlightenment': a time in which

'moderns' were doing battle with 'ancients' in order bring into being a more secular, tolerant, and critical society.

The paper therefore offers an opportunity to explore a wide variety of themes within a crucial transformative period in human self-understanding; it also encourages direct primary engagement with the texts of the most interesting, important, and often controversial works of the time.

Teaching arrangements:

The paper will be taught by means of a course of twelve lectures (Michaelmas term), outlining some of the key themes; and eight seminars (Lent term), focusing both on these themes and on key texts from the period that speak to them. The normal supervision arrangements for this paper are to offer seven hour-long one-on-one supervisions, and so long as there are not too many takers it should be possible to repeat this pattern. Supervisions for the course will be provided by Michael Edwards, Scott Mandelbrote, and Richard Serjeantson.

FIG. 101. Dottrina: LEARNING.
A mature Lady, ſitting with her Arms open, as if ſhe would embrace another. A Scepter in one Hand, on which is a Sun. A Book open on her Lap; and from the ſerene Sky falls abundance of Dew.
The Age ſhews that Learning is not acquir'd but by *long Study*; the open Book, and extended Arms, that Learning is very *communicative*; the Scepter and Sun, the *Dominion* it has over the *Darkneſs* of *Ignorance*; the Dew, that Learning makes tender Youth *fruitful*.

Cesare Ripa, *Iconology* [first publ. 1593], trans. P. Tempest (London, 1709), p. 26

Classes and Supervision Topics

The sixteen supervision topics for this paper are divided into two categories. 'A' topics are thematic and relatively wide-ranging, and are best approached through the relevant secondary literature, with forays made into the suggested extracts from primary sources. 'B' topics, by contrast, deal with a particular author, text, or set of texts; they are best approached through the set primary reading supplemented by biographical and other historiographical materials. Each week students may study and write an essay on *either* an 'A' topic, *or* a 'B' topic, according to preference. The eight Faculty classes in the Lent Term will follow the same pattern, with each seminar offering students an opportunity to consolidate their thematic reading with reference to the set text(s), or to develop their understand of the set text(s) in the light of the week's larger themes.

Essay questions and materials relating to each week's work will be available via the Politics of Knowledge CamTools site to all students taking the paper.

Week I
1(*a*). The intellectual culture of the late Renaissance
1(*b*). Michel de Montaigne and late Renaissance philosophy

Week II
2(*a*). The universities and their knowledge
2(*b*). Francis Bacon and the advancement of learning

Week III
3(*a*). Late Renaissance natural philosophy
3(*b*). Galileo and Copernicanism

Week IV
4(*a*). 'Human nature' and reason
4(*b*). René Descartes and the *Discourse on Method*

Week V
5(*a*). New natural philosophies
5(*b*). The early Royal Society and its critics

Week VI
6(*a*). Biblical criticism
6(*b*). Spinoza and the bible

Week VII
7(*a*). Knowledge of the East
7(*b*). Islam and imposture

Week VIII
8(*a*). The intellectual culture of the early Enlightenment
8(*b*). Pierre Bayle

Jan Saenredam (engraver), after Hendrik Goltzius (artist), 'Scientia' [Knowledge] (1615)

General Studies

* *Starred items are those which it may be particularly helpful to begin by reading*

The intellectual culture of the period:

Binns, J.W., *Intellectual Culture in Elizabethan and Jacobean England: The Latin writings of the age* (Leeds, 1990)

* Bouwsma, W. J., *The Waning of the Renaissance, 1550–1640* (New Haven, 2001)

* Burke, P., *A Social History of Knowledge: From Gutenberg to Diderot* (Cambridge, 2000)

Copenhaver, B. P., and C. B. Schmitt, *Renaissance Philosophy* (Oxford, 1992)

* Dear, P., *Revolutionizing the Sciences: European knowledge and its ambitions, 1500–1700* (Princeton, 2001)

Garber, D. and M. Ayers (ed.), *The Cambridge History of Seventeenth-Century Philosophy*, 2 vols (Cambridge, 1998)

Haakonssen, K. (ed.), *The Cambridge History of Eighteenth-Century Philosophy*, 2 vols (Cambridge, 2006)

Hazard, P., *The European Mind 1680–1715*, trans. J. L. May (London, 1964; repr. 1990)

Israel, J. I., *Radical Enlightenment: Philosophy and the making of modernity 1650–1750* (Oxford, 2001)

———, *Enlightenment Contested: Philosophy, Modernity and the Emancipation of Man 1670–1752* (Oxford: Oxford University Press, 2006)

Schmitt, C. B., *et al.* (eds.), *The Cambridge History of Renaissance Philosophy* (Cambridge, 1988)

Webster, C. (ed.), *The Intellectual Revolution of the Seventeenth Century* (London, 1974)

Selected period overviews:

* Bergin, J. *The Seventeenth Century: Europe 1598–1715* (Oxford, 2000)

Kishlansky, M. A., *A Monarchy Transformed 1603–1714* (London, 1996)

Munck, T., *Seventeenth-Century Europe*, 2nd edn (London, 2005)

Parker, G., 'Crisis and catastrophe: the global crisis of the seventeenth century reconsidered', *American Historical Review,* 113 (2008), 1053–79

Pennington, D., *Europe in the Seventeenth Century*, 2nd edn (London, 1989)

Rabb, T. K., *The Struggle for Stability in Early Modern Europe* (Oxford, 1975)

Sturdy, D. J., *Fractured Europe, 1600–1720* (Oxford, 2002)

Selected biographical sources:

Bietenholz, P. G., and T. B. Deutscher (eds.), *Contemporaries of Erasmus: A biographical register of the Renaissance and Reformation*, 3 vols (Toronto, 1985–87)

Bunge, W. van, *et al.* (eds.), *The Dictionary of Seventeenth and Eighteenth-Century Dutch Philosophers* (Bristol, 2003)

Carney, J. E., *Renaissance and Reformation, 1500–1620: A Biographical Dictionary* (Westport, 2001)

Matthew, H. C. G., and B. Harrison (eds), *Oxford Dictionary of National Biography*, 60 vols (Oxford, 2004) [http://www.oxforddnb.com/]

Pyle, A. (ed.), *The Dictionary of Seventeenth-Century British Philosophers*, 2 vols (Bristol, 2000)

Yolton, J. W., J. V. Price and J. Stephens (eds.), *The Dictionary of Eighteenth-Century British Philosophers*, 2 vols (Bristol, 1999)

Selected reference works:

Applebaum, W. (ed.), *Encyclopedia of the Scientific Revolution: from Copernicus to Newton* (New York, 2000)

Grendler, P. F. (ed.), *Encyclopedia of the Renaissance* (New York, 1999)

Briggs, W. W., and W. M. Calder (eds.), *Classical Scholarship: A Biographical Encyclopedia* (New York, 1990)

1(*a*). The Intellectual Culture of the Late Renaissance

If the 'high' Renaissance came about in Italy in the latter years of the fifteenth century, by the period *c*. 1570-*c*. 1630 the energies that had led to the 'rebirth' of Roman and Greek antiquity had arguably moved north, to France, to the Low Countries, and slowly even to England. This period of 'late' Renaissance saw humanist scholars direct their energies towards critical editions of ancient texts, the study of history and chronology, antiquarianism, and in the application of their reading to practical action. Philosophically, the Aristotelianism of the schools competed with the revival of other ancient philosophical sects, leading to neo-stoicism (most prominently represented by the figure of Justus Lipsius), neo-scepticism (Michel de Montaigne), and, by the 1640s, even neo-Epicureanism (Pierre Gassendi).

Indicative primary reading:

Justus Lipsius, *On Constancy* [1584], trans. Sir John Stradling [1594], ed. by John Sellars (Exeter, 2006) or on EEBO [selections]

Francis Bacon, 'Of Studies', in *Essays* [1597-1625]. Available in many editions, of which the most scholarly is the one edited by Michael Kiernan (Oxford, 1985; repr. as *Oxford Francis Bacon*, vol. XV, 2000).

Secondary readings:

* * Baldwin, G., 'Individual and self in the late Renaissance', *Historical Journal*, 44 (2001), 341-64

Blair, A., 'Bodin, Montaigne, and the role of disciplinary boundaries', in *History and the Disciplines: The reclassification of knowledge in early modern Europe*, ed. D. R. Kelley (Rochester, NY, 1997), pp. 29-40

* Boutcher, W., *The School of Montaigne*, 2 vols (Oxford, 2017), especially vol. 2

* Bouwsma, W. J., *The Waning of the Renaissance, 1550-1640* (New Haven, 2001)

Cochrane, E. (ed.), *The Late Italian Renaissance, 1525-1630* (London, 1970)

Floridi, L., *Sextus Empiricus: The transmission and recovery of Pyrrhonism* (Oxford, 2002)

Gowland, A., *The Worlds of Renaissance Melancholy: Robert Burton in context* (Cambridge, 2006)

* * Grafton, A., *Defenders of the Text: The Traditions of Scholarship in an Age of Science, 1450-1800* (Cambridge, MA, 1991), esp. chs 1, 2, 5

------, 'Portait of Justus Lipsius', in *Bring Out Your Dead: The Past as Revelation* (Cambridge, MA, 2001), ch. 12 (first publ. in *American Scholar*, 56 (1987), 382-90)

Grafton, A., and L. Jardine, 'Studied for action: how Gabriel Harvey read his Livy', *Past and Present*, 129 (1990), 30-78

Kenny, N., *The Palace of Secrets: Béroalde de Verville and Renaissance Conceptions of Knowledge* (Oxford, 1991)

Kraye, J. 'Moral philosophy', in *The Cambridge History of Renaissance Philosophy*, ed. C. B. Schmitt, *et al*. (Cambridge, 1988), pp. 303-86

------, 'Conceptions of moral philosophy', in *The Cambridge History of Seventeenth-Century Philosophy*, ed. D. Garber and M. Ayers (Cambridge, 1998), pp. 1279-318

Maclean, I., 'Foucault's Renaissance *episteme* reassessed: an Aristotelian counterblast', *Journal of the History of Ideas*, 59 (1998), 149-66

McCuaig, W., *Carlo Sigonio: The changing world of the late Renaissance* (Princeton, 1989), esp. ch. 1

* * Morford, M., *Stoics and Neostoics: Rubens and the Circle of Lipsius* (Princeton, 1991)

Osler, M. J., 'Ancients, moderns, and the history of philosophy: Gassendi's Epicurean project', in *The Rise of Modern Philosophy*, ed. T. Sorell (Oxford, 1993), pp. 129-43

Popkin, R. H., 'Scepticism and modernity', in *The Rise of Modern Philosophy*, ed. T. Sorell (Oxford, 1993), pp. 15-32

Sellars, J., 'Justus Lipsius's *De Constantia*: a Stoic spiritual exercise', *Poetics Today*, 28 (2007), 339-62

Thomas, K., 'The life of learning', *Proceedings of the British Academy*, 117 (2002), 201-35

van Miert, D. 'The long life of the humanist tradition: the Amsterdam Athenaeum Illustre in the Golden Age', *History of Universities*, 21 (2006), 1-76

1(*b*). Michel de Montaigne

Montaigne is one of the most celebrated of all late Renaissance philosophers and authors - and certainly the most enjoyable to read. He invented the modern genre of the essay, but there is nothing laborious or indeed even argued about how he wrote. Flitting from topic to topic like a bee visiting flowers, he drew upon his reading in Roman poetry and Greek philosophy, and on his experience of the political and religious upheavals of his own lifetime, in order to articulate a philosophy that draws upon elements of both neo-scepticism and neo-stoicism, but which is always highly personal.

Primary Reading:

Michel Eyquem de Montaigne, *Essais* (1580, 1588, 1595). Begin by reading 'Of the education of children', 'A Defense of Seneca and Plutarch', and the (much longer) 'Apology for Raymond Sebond'; then explore at will.

There are several modern editions of the *Essays*: either trans. M. A. Screech (Penguin, 1991); or trans. Donald M. Frame (Stanford University Press, 1958; repr. Everyman, 2003); or trans. John Florio [1603], 3 vols (Everyman's Library; London: Dent, 1980) (this early modern translation has much charm and in some ways is closest to Montaigne's original, but may be heavier going); or read the *Essais* in French if you prefer.

Secondary reading:

Blair, A., 'Bodin, Montaigne, and the role of disciplinary boundaries', in *History and the Disciplines: The reclassification of knowledge in early modern Europe*, ed. D. R. Kelley (Rochester, NY, 1997), pp. 29–40

Blair, A., 'Reading Strategies for Coping with Information Overload ca. 1550–1700', *JHI (*2003), 11–28

* * Boutcher, W., *The School of Montaigne*, 2 vols (Oxford, 2017)

* Burke, P., *Montaigne* (Oxford, 1981); repr. in *Renaissance Thinkers* (Oxford, 1993)

Cameron. K. (ed.), *Montaigne and his Age* (Exeter, 1981)

Desan, P., *Montaigne* (Princeton, 2016)

Engster, D., 'The Montaignian moment', *Journal of the History of Ideas*, 59 (1998), 625-50

* Green, F., 'Reading Montaigne in the twenty-first century', *Historical Journal*, 52 (2009), 1085-1109

Green, F., *Montaigne and the Life of Freedom* (Cambridge, 2012)

Fontana, B., *Montaigne's Politics: Authority and Governance in the Essais* (Princeton, 2008)

Force, P., 'Innovation as spiritual exercise: Montaigne and Pascal', *Journal of the History of Ideas*, 66 (2005), 17-36

Frame, D., *Montaigne: A Biography* (London, 1965)

Hartle, A., *Michel de Montaigne: Accidental philosopher* (Cambridge, 2003)

Hoffmann, G., *Montaigne's Career* (Oxford, 1998)

Jordan, C., 'Montaigne on property, public service, and political servitude', *Renaissance Quarterly*, 56 (2003), 408-35

Keohane, N., 'Montaigne's individualism', *Political Theory*, 5 (1977), 363-90

Keohane, N. O., *Philosophy and the State in France: The Renaissance to the Enlightenment* (Princeton, 1980)

Langer, U., (ed.), *The Cambridge Companion to Montaigne* (Cambridge, 2005)

Larmore, C., 'Scepticism', in *The Cambridge History of Seventeenth-Century Philosophy*, 2 vols, ed. D. Garber and M. Ayers (Cambridge, 1998), vol. II, pp. 1145-92

Maclean, I., and I. D. McFarlane (eds.), *Montaigne: Essays in Memory of Richard Sayce* (Oxford, 1982)

Maclean, I., 'The place of interpretation: Montaigne and humanist jurists on words, intention and meaning', in *Neo-Latin and the vernacular in Renaissance France*, ed. G. Castor and T. Cave (Oxford, 1984), pp. 252-72

------, *Montaigne philosophe* (Paris, 1996) [in French]

Noirot, C., (ed.), *Montaigne and Ethos* (Cambridge, 2007)

Popkin, R. H., *The History of Scepticism from Erasmus to Spinoza* (Berkeley, CA, 1979)

Schiffman, Z. S., 'Montaigne and the rise of skepticism in early modern Europe', *Journal of the History of Ideas*, 45 (1984), 499-516

Scholar, R., *Montaigne and the Art of Free-Thinking* (Oxford, 2010)

Screech, M. A., *Montaigne and Melancholy* (London, 1983)

Starobinski, J., *Montaigne in Motion*, trans. A. Goldhammer (Chicago, 1985)

2(*a*). Aristotelianism and the Universities

After the revival of interest in his writings in the later thirteenth century Aristotle became such a dominant presence in later medieval and early modern philosophy that he was simply known as 'the Philosopher'. In the late Renaissance he remained the dominant authority in European universities, where his writings were increasingly studied in their original Greek as well as in Latin translation, and the recovery of this phenomenon has been an important development in the historiography of early modern Europe. But dissenting voices were raised throughout our period, and by the end of the seventeenth century they had become so forceful that Aristotle was, to use a common image from the time, 'overthrown'. In this topic we consider the nature and causes of this process.

Indicative primary reading:

Pierre Gassendi, *Unorthodox Essays against the Aristotelians* [1624], in *Descartes' 'Meditations': Background source materials*, ed. R. Ariew, *et al.* (Cambridge, 1998), pp. 166-75

Thomas Hobbes, *Leviathan* [1651], ed. R. Tuck, 2nd edn (Cambridge, 1996), ch. xlvi

Seth Ward, *Vindiciæ Academiarum* [1654], in *Science and Education in the Seventeenth Century: The Webster-Ward Debate*, ed. A. G. Debus (London, 1970), pp. 193-259 [or on EEBO]

Secondary sources:

Ariew, R., 'Aristotelianism in the seventeenth century', in *The Routledge Encyclopedia of Philosophy*, 10 vols, ed. E. Craig (London, 1998), vol. I, pp. 386-93

Brockliss, L. W. B., *French Higher Education in the Seventeenth and Eighteenth Centuries: A cultural history* (Oxford, 1987)

* * Dear, P., *Revolutionizing the Sciences: European knowledge and its ambitions, 1500-1700* (Princeton, 2001), esp. pp. 1-48 (Introduction and chs. 1-2)

Debus, A. G., *Science and Education in the Seventeenth Century: The Webster-Ward debate*(London, 1970)

Feingold, M., 'Aristotle and the English universities in the seventeenth century: a reevaluation', in *European Universities in the Age of Reformation and Counter-Reformation*, ed. H. Robinson-Hammerstein (Dublin, 1998), pp. 135-48

Feola, V., and S. Mandelbrote, 'The Learned Press: Goegraphy, Science, and Mathematics', in *The History of Oxford University Press, Volume 1: Beginnings to 1780*, ed. I. Gadd (Oxford, 2013), pp. 308-49.

Gascoigne, J. *Cambridge in the Age of the Enlightenment: Science, religion, and politics from the Restoration to the French Revolution* (Cambridge, 1989)

Grendler, P. F., 'The universities of the Renaissance and Reformation', *Renaissance Quarterly*, 57 (2004), 1-42

Levitin, D., 'Reconsidering John Sergeant's attacks on Locke's *Essay*', *Intellectual History Review*, 20 (2010), 457-77

Ridder-Symoens, H. de (ed.), *A History of the University in Europe*, vol. II: *Universities in Early Modern Europe (1500-1800)* (Cambridge, 1996)

Maclean, I., 'Foucault's Renaissance *episteme* reassessed: an Aristotelian counterblast', *Journal of the History of Ideas*, 59 (1998), 149-66

Schmitt, C. B., *Aristotle and the Renaissance* (Cambridge, MA, 1983)

------, *John Case and Aristotelianism in Renaissance England* (Toronto, 1983)

------, *The Aristotelian Tradition and Renaissance Universities* (Aldershot, 1984)

Serjeantson, R. W., 'Hobbes, the universities, and the history of philosophy', in *The Philosopher in Early Modern Europe*, ed. C. Condren *et al.* (Cambridge, 2006), pp. 113-39

Tuck, R., 'The institutional setting', in *The Cambridge History of Seventeenth-Century Philosophy*, ed. D. Garber and M. Ayers, 2 vols, vol. I (Cambridge, 1998), pp. 9-32

Tyacke, N., (ed.), *The History of the University of Oxford*, vol. IV: *Seventeenth-Century Oxford*(Oxford, 1997)

2(*b*). Francis Bacon and the Advancement of Learning

At least since the time of his death the English philosopher and statesman Francis Bacon (1561-1626) has been regarded as a central voice in seventeenth-century calls for a new approach to the study of nature and the overthrow of Aristotle. In this topic we will consider both his encyclopedic account of the deficiencies of contemporary knowledge, *The Advancement of Learning* (1605), and his programme for the renewal of natural philosophy by means of a 'New Instrument' (*Novum Organum*, 1620) for investigating nature, one that would replace the old tools of Aristotelian logic. This was the Bacon who came in due course to be set up as a central intellectual inspiration behind the new Royal Society of London for the Promotion of Natural Knowledge in 1660.

Set texts:

(i) Francis Bacon, *The Advancement of Learning* (London, 1605), esp. bk i.

Recommended editions: Francis Bacon, *The Advancement of Learning*, ed. M. Kiernan, The Oxford Francis Bacon IV (Oxford: Clarendon Press, 2000) [original spelling, good notes and full introduction]

Francis Bacon, *The Major Works*, ed. B. Vickers (Oxford: Oxford University Press, 1996; repr. 2002), pp. 120-299 [modernised spelling, useful notes and introduction]

(ii) Francis Bacon, *Novum Organum* (London, 1620), esp. the preliminaries and bk i

Recommended editions: Francis Bacon, *The Instauratio Magna, Part II: Novum Organum and Associated Texts*, ed. and trans. G. Rees, The Oxford Francis Bacon XI (Oxford: Clarendon Press, 2004); or

Francis Bacon, *The New Organon*, ed. L. Jardine, trans. M. Silverthorne (Cambridge: C.U.P., 2000); or

Francis Bacon, *Novum Organum*, ed. and trans. P. Urbach and J. Gibson (Chicago: Open Court, 1994)

Secondary reading:

Findlen, P., 'Francis Bacon and the reform of natural history in the seventeenth century', in *History and the Disciplines: The reclassification of knowledge in early modern Europe*, ed. D. R. Kelley (Rochester, 1997), pp. 239-60

Gaukroger, S., *Francis Bacon and the Transformation of Early-Modern Philosophy* (Cambridge, 2001)

Henderson, J. R. '"Vain affectations": Bacon on Ciceronianism in *The Advancement of Learning*',*English Literary Renaissance*, 25 (1995), 209-34

Henry, J., *Knowledge is Power: How magic, the government and an apocalyptic vision inspired Francis Bacon to create modern science* (Cambridge, 2002)

Leary, J. E., Jr., *Francis Bacon and the Politics of Science* (Ames, IA, 1994)

Lewis, R., *Language, Mind and Nature: Artificial languages in England from Bacon to Locke*(Cambridge, 2007), ch. i

Manzo, S., 'Francis Bacon: freedom, authority and science', *British Journal for the History of Philosophy*, 14 (2006), 245-73

Martin, J., 'Francis Bacon, authority, and the moderns', in *The Rise of Modern Philosophy*, ed. T. Sorell (Oxford, 1993), pp. 71-88

Olivieri, G. T., 'Galen and Francis Bacon: faculties of the soul and the classification of knowledge', in *The Shapes of Knowledge from the Renaissance to the Enlightenment*, ed. D. R. Kelley and R. H. Popkin (Dordrecht, 1991), pp. 61-81

Peltonen, M. (ed.), *The Cambridge Companion to Bacon* (Cambridge, 1996)

* * Peltonen, M., 'Bacon, Francis (1561-1626)', in *Oxford Dictionary of National Biography*, 60 vols, ed. H. C. G. Matthew and B. Harrison (Oxford, 2004), vol. III, pp. 123-45

Serjeantson, R. W., 'Testimony: the artless proof', in *Renaissance Figures of Speech*, ed. S. Adamson, G. Alexander and K. Ettenhuber (Cambridge, 2007), pp. 179-94

Serjeantson, R.W., 'Francis Bacon and the "Interpretation of Nature" in the Late Renaissance', *Isis*, 105 (2014), 681-705

Solomon, J. R. and C. G. Martin (eds.), *Francis Bacon and the Refiguring of Early Modern Thought* (Aldershot, 2005)

* * Zagorin, P., *Francis Bacon* (Princeton, 1998)

------, 'Francis Bacon's concept of objectivity and the idols of the mind', *British Journal for the History of Science*, 35 (2001), 379-94

3(*a*) Late Renaissance natural philosophy

Late Renaissance natural philosophers tackled their subject from a range of perspectives and used a variety of methods -- experimental, alchemical, astrological, biblical, philological, and

mathematical -- to do so. The impetus to investigate and understand nature was not simply a product of a 'scientific revolution', and indeed the achievements attributed to the latter need to be understood in the broad context of the late sixteenth and early seventeenth centuries, rather than with the hindsight brought by later developments. Resulting preoccupations do not always fit neatly into stories about the mechanisation or mathematisation of nature, and need to be understood in ways that respect contemporary ideas: both about intellectual disciplines and appropriate methods of representing new forms of understanding.

Indicative primary reading:

Daniel Sennert, *Thirteen Books of Natural Philosophy* [first publ. as *Epitome naturalis scientiæ*(Wittenberg, 1618)], trans. by Nicholas Culpeper and Abdiah Cole (London, 1660), pp. 6-11 (bk i, ch. 2: 'Of the Nature of *Physica*, or Natural Phylosophy')

John Wilkins, *The Discovery of a World in the Moone* (London, 1638), pp. 79-94.

Secondary reading:

Blair, A., 'Humanist methods in natural philosophy: the commonplace book', *Journal of the History of Ideas*, 53 (1992), 541-51

------, *The Theater of Nature: Jean Bodin and Renaissance Science* (Princeton, 1997)

------, 'Natural philosophy and the "new science"', in *The Cambridge History of Literary Criticism*, vol. III: *The Renaissance*, ed. G. P. Norton (Cambridge, 1999), pp. 449-57

------, 'Mosaic physics and the search for a pious natural philosophy in the late Renaissance',*Isis*, 91 (2000), 32-58

* * ----, 'Natural philosophy', in *The Cambridge History of Science*, vol. III: *Early Modern Science*, ed. L. Daston and K. Park (Cambridge, 2006), pp. 365-406

Clericuzio, A., *Elements, Principles and Corpuscles: a study of atomism and chemistry in the seventeenth century* (Dordrecht, 2000)

* * Dear, P., *Revolutionizing the Sciences: European knowledge and its ambitions, 1500-1700* (Princeton, 2001), pp. 1-79 (Introduction and chs. 1-4)

Edwards, M., 'Digressing with Aristotle: Hieronymus Dandinus' *De corpore animato* (1610) and the expansion of late Aristotelian philosophy', *Early Science and Medicine*, 13 (2008), 127-70

Edwards, M., 'The Fate of Commentary in the Philosophy of the Schools', *Intellectual History Review*, 22 (2012), 519-36

Feingold, M., 'John Selden and the nature of seventeenth-century science', in *In the Presence of the Past*, ed. R. T. Bienvenu and M. Feingold (Dordrecht, 1991), pp. 55-78

------, (ed.), *The New Science and Jesuit Science: Seventeenth-century perspectives* (Dordrecht, 2003)

Gingerich, O., *An Annotated Census of Copernicus'* De Revolutionibus (Leiden, 2002)

Grafton, A., 'The new science and the traditions of humanism', in *The Cambridge Companion to Renaissance Humanism*, ed. J. Kraye (Cambridge, 1996), pp. 203-23; repr. in *Bring Out Your Dead: The past as revelation* (Cambridge, MA, 2001), pp. 97-117

------, 'Johannes Kepler: the new astronomer reads ancient texts', in *Commerce With the Classics: Ancient books and Renaissance readers* (Ann Arbor, 1997), pp. 185-224

Jardine, N., 'Epistemology of the sciences', in *The Cambridge History of Renaissance Philosophy*, ed. C. B. Schmitt *et al.* (Cambridge, 1988), pp. 685-711

Kelley, D. R., and R. H. Popkin (eds.), *The Shapes of Knowledge from the Renaissance to the Enlightenment* (Dordrecht, 1991)

Kusukawa, S., *Picturing the Book of Nature* (Chicago, 2012)

Maclean, I., 'Problems for Natural Historians in the Reception of Aristotelian Logic and Biology from Pomponazzi to Bacon', in *Historia*, ed. G. Pomata and N. Siraisi (Cambridge, MA, 2005), pp. 147–79

Mikkeli, H., 'The foundation of an autonomous natural philosophy: Zabarella on the classification of arts and sciences', in *Method and Order in Renaissance Philosophy of Nature*, ed. D. Di Liscia, E. Kessler and C. Methuen (Aldershot, 1997), pp. 211-28

Newman, W. R., *Atoms and Alchemy: Chymistry and the Experimental Origins of the Scientific Revolution* (Chicago, 2006)

Serjeantson, R.W., 'Becoming a Philosopher in Seventeenth-Century Britain', in *The Oxford Handbook of Philosophy in Seventeenth-Century Britain*, ed. P. Anstey (Oxford, 2013), pp. 9-38.

Serjeantson, R. W., 'Proof and persuasion', in *The Cambridge History of Early Modern Science*, ed. L. Daston and K. Park (Cambridge, 2006), 132-75

Wallace, W. A. 'Traditional Natural Philosophy', in *The Cambridge History of Renaissance Philosophy*, ed. C. B. Schmitt *et al.* (Cambridge, 1988), pp. 201-35

3(*b*). Galileo and Copernicanism

Within in his own lifetime Galileo became celebrated across Europe both for his defence of Copernicus's view that the earth moved round the sun, and for his trial and imprisonment as a consequence of those views. This topic explores the the different ways in which he handled the Copernican thesis in his *Dialogue on the Two Great World Systems* (1632), and considers more generally the complex relations between natural philosophy and the Roman Catholic church in the earlier part of the seventeenth century.

Set texts:

Galileo Galilei, 'Letter to the Grand Duchess Christina' [1615], in **either** *Discoveries and Opinions of Galileo*, ed. Stillman Drake (New York: Doubleday, 1957) **or** *The Essential Galileo*, ed. and trans. Maurice A. Finocchiaro (Indianapolis: Hackett, 2008), pp. 109-45.

Suggested further reading:

Galileo Galileo, *Dialogue Concerning the Two Chief World Systems* [1632], trans. Stillman Drake, 2nd edn (Berkeley: University of California Press, 1967); see also *Galileo on the World Systems: A new abridged translation and guide*, ed. and trans. M. A. Finocchiaro (Berkeley: University of California Press, 1997)

Secondary studies:

Biagioli, M., *Galileo, Courtier: The practice of science in the culture of absolutism* (Chicago, 1993)

Blackwell, R. J., *Galileo, Bellarmine, and the Bible: including a translation of Foscarini's Letter on the motion of the earth* (Notre Dame, IN, 1991)

------, *Behind the Scenes at Galileo's Trial: Including the first English translation of Melchior Inchofer's Tractatus syllepticus* (Notre Dame, IN, 2006)

Finocchiaro, M. A., *The Galileo Affair: A Documentary History* (Berkeley, CA, 1989)

* * Heilbron, J., *Galileo* (Oxford, 2010)

Jardine, N., 'Demonstration, dialectic, and rhetoric in Galileo's *Dialogue*', in *The Shapes of Knowledge from the Renaissance to the Enlightenment*, ed. D. R. Kelley and R. H. Popkin (Dordrecht, 1991), pp. 101-21

Koyré, A., 'The *Dialogue Concerning the Two Chief World Systems* and the anti-Aristotelian polemic', in *Galileo Studies* (New Jersey, 1978), pp. 154-75

* * Machamer, P. (ed.), *The Cambridge Companion to Galileo* (Cambridge, 1998), esp. the chapters by Felday, McMullin, Redondi and Shea

Mayer, T. F., 'The Roman Inquisition's precept to Galileo (1616)', *British Journal for the History of Science*, 43 (2010), 327-52

* * McMullin, E. (ed.), *The Church and Galileo* (Notre Dame, IN, 2005)

Moss, J. D., 'Galileo's *Letter to Christina*: Some rhetorical considerations', *Renaissance Quarterly,*36 (1983), 547-76

------, 'Galileo's rhetorical strategies in defense of Copernicanism', in *Novità celesti e crisi del sapere*, ed. P. Galluzzi (Florence, 1984), pp. 95-103

Naylor, R. H., 'Galileo, Copernicanism and the origins of the new science of motion', *History of Science,* 36 (2003), 151-82

Raphael, R., *Reading Galileo: Scribal Technologies and the* Two New Sciences (Baltimore: Johns Hopkins University Press, 2017)

Redondi, P., *Galileo: Heretic* (Princeton: Princeton University Press, 1987)

Sylla, E., 'Galileo and probable arguments', in *Nature and Scientific Method*, ed. D. O. Dahlstrom (Washington, DC, 1990), pp. 211-34

Vickers, B., 'Epideictic rhetoric in Galileo's *Dialogo*', *Annali Dell'Istituto e Museo Di Storia Della Scienza di Firenze*, 8 (1983), 69-102

Wallace, W. A. (ed.), *Reinterpreting Galileo* (Washington, DC, 1986)

Wootton, D., *Galileo: Watcher of the Skies* (New Haven, 2010)

4(*a*). 'Human Nature' and Reason

Whereas by the mid-eighteenth century the study of 'human nature' had become principally a moral and social endeavour, in our period it was still closely bound up with natural philosophy. This topic explores some of the ways in which human beings were conceived in relation to other beings - such as animals, angels, and God - and also how women and men were conceived in relation to one another.

Indicative primary reading:

René Descartes, *Discourse on the Method* [1637], ed. and trans. Ian Maclean (Oxford, 2006), parts v andvi

François Poulain de la Barre, *Three Cartesian Feminist Treatises* (Chicago, 2002), extracts

George Sibscota, 'A Discourse Concerning the Reason and Speech of Beasts', in *The Deaf and Dumb Man's Discourse* (London, 1670), pp. 48-89 [on CamTools]

Pierre Bayle, 'Rorarius', in *Historical and Critical Dictionary: Selections* [1697], ed. by R. H. Popkin and C. B. Brush (Indianapolis: Hackett, 1991), pp. 213-54

Secondary reading:

Edwards, M., *Time and the Science of the Soul in Early Modern Philosophy* (Leiden, 2013)

* * Floridi, L., 'Scepticism and animal rationality: the fortune of Chrysippus' dog in the history of western thought', *Archiv für Geschichte der Philosophie,* 79 (1997), 27-57

Garber, D., 'Soul and mind: life and thought in the seventeenth century', in *The Cambridge History of Seventeenth-Century Philosophy*, 2 vols, ed. D. Garber and M. Ayers (Cambridge, 1998), vol. I, pp. 759-95

Garrett, A., 'Human nature', in *The Cambridge History of Eighteenth-Century Philosophy*, 2 vols, ed. K. Haakonssen (Cambridge, 2006), vol. I, pp. 160-233 (esp. sections i-iii)

Harrison, P., 'The virtues of animals in seventeenth-century thought', *Journal of the History of Ideas*, 59 (1998), 463-84

Hatfield, G., 'The passions of the soul and Descartes's machine psychology', *Studies in History and Philosophy of Science,* 38 (2007), 1-35

Hotson, H., *Johann Heinrich Alsted 1588-1638: Between Renaissance, Reformation, and Universal Reform* (Oxford, 2000), pp. 67-82 (part of ch. 2)

Katz, D. S., 'The language of Adam in seventeenth-century England', in *History and Imagination*, ed. H. Lloyd-Jones, V. Pearl and B. Worden (London, 1981), pp. 132-45

* * Lennon, T. M., 'Lady oracle: changing conceptions of authority and reason in seventeenth-century philosophy', in *Women and Reason*, ed. E. D. Harvey and K. Okruhlik (Ann Arbor, 1992), pp. 39-61

Maclean, I., *The Renaissance Notion of Woman: A study in the fortunes of scholasticism and medical science in European intellectual life* (Cambridge, 1980)

Michael, F. S. and E. Michael, 'Two early modern concepts of mind: reflecting substance *vs*. thinking substance', *Journal of the History of Philosophy*, 27 (1989), 29-48

Mulligan, L., '"Reason", "right reason", and "Revelation" in mid-seventeenth century England', in *Occult and Scientific Mentalities in the Renaissance*, ed. B. Vickers (Cambridge, 1984), pp. 375-401

Park, K., 'The organic soul', in *The Cambridge History of Renaissance Philosophy*, ed. C. B. Schmitt *et al.* (Cambridge, 1988), pp. 464-84

Schmaltz, T. M., 'The science of mind', in *The Cambridge Companion to Early Modern Philosophy*, ed. D. Rutherford (Cambridge, 2006), pp. 136-69

Serjeantson, R. W., 'The passions and animal language, 1540-1700', *Journal of the History of Ideas,* 62 (2001), 425-44

* * ----, 'The soul', in *The Oxford Handbook of Philosophy in Early Modern Europe*, ed. D. M. Clarke and C. Wilson (Oxford, 2011), pp. 119-41

Smith, R., 'The language of human nature', in *Inventing Human Science: Eighteenth Century Domains*, ed. C. Fox, R. Porter and R. Wokler (Berkeley, 1995), pp. 88-111

4(*b*). René Descartes and the *Discourse on Method*

Perhaps more than any other seventeenth-century philosopher the French Catholic René Descartes - who lived for much of his life in the intellectually tolerant Protestant Dutch republic - was the figure who came to displace Aristotle as an intellectual authority. Descartes's *Discourse on Method* (1637) forms a kind of intellectual autobiography as well as introducing the nature of his interests in natural philosophy, mathematics, and the human mind, as well as on philosophical method and human nature.

Set text:

René Descartes, *Discourse on the Method* (1637)

Many translations are available: recommended are those by Ian Maclean (Oxford: World's Classics, 2006) or the one in *The Philosophical Writings of Descartes*, trans. J. Cottingham *et al.*, 2 vols (Cambridge: Cambridge University Press, 1984-85), vol. I, pp. 111-51; or read it in the original French

Suggested further primary reading:

René Descartes, 'Second Meditation' [1641]; Thomas Hobbes, 'Third Set of Objections [to the Second Meditation]' and Descartes's replies; Pierre Gassendi, 'Fifth Set of Objections [to the Second Meditation]' and Descartes's replies; all in *The Philosophical Writings of Descartes*, trans. John Cottingham *et al.*, 2 vols (Cambridge: Cambridge University Press, 1984-85), vol. II, pp. 16-23, etc.

'Treatise on Man', in *The World and Other Writings* [1629-33], ed. and trans. S. Gaukroger (Cambridge: Cambridge University Press, 1998), pp. 99-169

------, 'The Passions of the Soul', in *The Philosophical Writings of Descartes*, ed. J. Cottingham *et al.*, 3 vols, vol. I (Cambridge: Cambridge University Press, 1985), bk i

Secondary reading:

Ariew, R., *Descartes and the Last Scholastics* (Ithaca, NY, 1999)

Clarke, D. M., *Descartes's Theory of Mind* (Oxford, 2003)

------, *Descartes: A biography* (Cambridge, 2006)

Dear, P., 'Method and the study of nature', in *The Cambridge History of Seventeenth-Century Philosophy*, ed. D. Garber and M. Ayers, 2 vols (Cambridge, 1998), vol. I, pp. 147-77

* * Dear, Peter, *Revolutionizing the Sciences: European knowledge and its ambitions, 1500-1700*(Princeton, 2001), esp. pp. 80-100 (ch. 5)

Des Chene, D., *Spirits and Clocks: Machine & Organism in Descartes* (Ithaca, NY, 2001)

* * Edwards, M., 'Aristotelianism, Descartes, and Hobbes', *Historical Journal*, 50 (2007), 449-64

Garber, D., 'Soul and mind: life and thought in the seventeenth century', in *The Cambridge History of Seventeenth-Century Philosophy*, ed. D. Garber and M. Ayers, 2 vols (Cambridge, 1998), vol. I, pp. 759-95

Gaukroger, S., *Descartes: An intellectual biography* (Oxford, 1995)

------, *Descartes' System of Natural Philosophy* (Cambridge, 2002)

Grafton, A., 'Descartes the dreamer', in *Bring Out Your Dead: The Past as Revelation* (Cambridge, Mass., 2001), pp. 244-58

Hatfield, G., 'Descartes' naturalism about the mental', in *Descartes' Natural Philosophy*, ed. S. Gaukroger, J. Schuster and J. Sutton (London, 2000), pp. 630-58

------, 'The *Passions of the Soul* and Descartes's machine psychology', *Studies in History and Philosophy of Science*, 38 (2007), 1-35

Joy, Lynn S., 'Rationality among the friends of truth: the Gassendi-Descartes controversy', *Perspectives on Science*, 3 (1995), 429-49

Kraye, J., 'In praise of reason: from humanism to Descartes', in *The Discovery of Happiness*, ed. S. McCready (London, 2001), pp. 136-51

* * Maclean, I. 'Introduction', to René Descartes, *Discourse on the Method* (Oxford, 2006), pp. vii-lxx

* * Rodis-Lewis, G., 'Descartes' life and the development of his philosophy', in *The Cambridge Companion to Descartes*, ed. J. Cottingham (Cambridge, 1992), pp. 21-57

5(*a*). Experimental Natural Philosophy

From the middle years of the seventeenth century a new form of natural philosophy began to emerge and rapidly rise to prominence, especially outside the universities. 'Experimental' natural philosophy emphasised experimentally-derived matters of fact over a generalised experience of what occurred in nature all or most of the time; experimental philosophers also drew systematically upon new philosophical instruments, such as the microscope and the air-pump; and they increasingly published their findings in the new genre of the learned journal.

Indicative primary reading:

Robert Boyle, 'Of the Usefulness of Experimentall Philosophy, Principally as it Relates to the Mind of Man', in *The Usefulness of Experimental Natural Philosophy* [1663, 1671], in *The Works of Robert Boyle*, ed. Michael Hunter and Edward B. Davis, 14 vols, vol. III (London: Pickering & Chatto, 1999-2000), or on CamTools

Isaac Newton, 'A Letter ... containing his New Theory about Light and Colors', *Philosophical Transactions of the Royal Society*, 80 (19 Feb. 1671/2), pp. 3075-87 [on CamTools or via http://www.newtonproject.sussex.ac.uk/view/texts/normalized/NATP00006]

Secondary reading:

Beretta, M., 'At the source of western science: the organization of experimentalism at the Accademia del Cimento (1657-1667)', *Notes and Records of the Royal Society of London*, 54 (2000), 131-51

Blair, A., 'Natural philosophy', in *The Cambridge History of Science*, vol. III: *Early Modern Science*, ed. L. Daston and K. Park (Cambridge, 2006), pp. 365-406

Dear, P., 'Jesuit mathematical science and the reconstitution of experience in the early seventeenth century', *Studies in History and Philosophy of Science*, 18 (1987), 133-75

------, 'Miracles, experiments, and the ordinary course of nature', *Isis*, 81 (1990), 663-83

------, *Discipline and Experience: The mathematical way in the scientific revolution* (Chicago, 1995), esp. pp. 180-250 (*i.e.* chs. 7-8 and Conclusion)

* * ----, *Revolutionizing the Sciences: European knowledge and its ambitions, 1500-1700* (Princeton, 2001), esp. pp. 80-148 (chs. 5-7)

* * ----, 'The meanings of experience', in *The Cambridge History of Science*, vol. III: *Early Modern Science*, ed. K. Park and L. Daston (Cambridge, 2006), pp. 106-31

Des Chene, D., 'From natural philosophy to natural science', in *The Cambridge Companion to Early Modern Philosophy*, ed. D. Rutherford (Cambridge, 2006), pp. 67-94

Feingold, M., 'Tradition versus novelty: universities and scientific societies in the early modern period', in *Revolution and Continuity: Essays in the History and Philosophy of Early Modern Science*, ed. P. Barker and R. Ariew (Washington, DC, 1991), pp. 45-62

Garber, D., 'Experiment, community, and the constitution of nature in the seventeenth century', *Perspectives on Science*, 3 (1995), 173-205

Henry, J., *The Scientific Revolution and the Origins of Modern Science* (Basingstoke, 1997)

Mandelbrote, S., 'Early Modern Natural Theologies', in *The Oxford Handbook of Natural Theology*, ed. R. Re Manning (Oxford, 2013), pp. 75-99.

Middleton, W. E. K., *The Experimenters: A study of the Accademia del Cimento* (Baltimore, MD, 1971)

Newman, W. R., 'Art, nature and experiment among some Aristotelian alchemists', in *Texts and Contexts in Ancient and Medieval Science: Studies on the occasion of John E. Murdoch's seventieth birthday*, ed. E. Sylla and M. McVaugh (Leiden, 1997), pp. 305-17

Osler, M. J., 'Ancients, moderns, and the history of philosophy: Gassendi's Epicurean project', in *The Rise of Modern Philosophy*, ed. T. Sorell (Oxford, 1993), pp. 129-43

Pesic, P., 'Proteus unbound: Francis Bacon's successors and the defense of experiment', *Studies in Philology*, 98 (2001), 428-56

Shapiro, A. E., 'Newton's "experimental philosophy"', *Early Science and Medicine*, 9 (2004), 185-217

5(*b*). The Early Royal Society and its Critics

A phenomenon closely associated with the emergence of experimental philosophy was the philosophical society. The Royal Society of London for the Promotion of Natural Knowledge, founded in 1660, was one of the earliest and has been (so far) the longest-lasting of these. But its early years were precarious and controversial. What sort of challenge did the Royal Society pose to existing insitutions, such as the universities? How did its view of knowledge challenge those held by its critics? How did its apologists, including the cleric Thomas Sprat, go about legitimating its existence?

Set Texts:

Thomas Sprat, *History of the Royal Society* [1667], ed. Jackson I. Cope and Harold Whitmore Jones (London: Routledge and Kegan Paul, 1958)

Meric Casaubon, *A Letter to Peter du Moulin ... Concerning Natural Experimental Philosophie* [1669], in M. R. G. Spiller, *'Concerning Natural Experimental Philosophie': Meric Casaubon and the Royal Society* (The Hague: Martinus Nijhoff, 1980), pp. 146-89

Henry Stubbe, *Legends no Histories: or, A Specimen of some Animadversions upon the History of the Royal Society* (London, 1670), esp. pp. 1-22

Secondary studies:

If you have not studied the 1660s before you may find it helpful to begin by reading some accounts of the period as well as biographies of the principal protagonists:

Keeble, N. H., *The Restoration: England in the 1660s* (Oxford, 2002)

Spurr, J., 'Religion in Restoration England', and M. Goldie, 'Restoration political thought', both in *The Reigns of Charles II and James VI & II*, ed. Lionel K. J. Glassey (Basingstoke, 1997)

'Spratt, Thomas', 'Glanvill, Joseph', 'Stubbe, Henry', and 'Casaubon, Meric', all in the *Oxford Dictionary of National Biography* (Oxford, 2004) [http://www.oxforddnb.com/]

Feingold, M., 'The origins of the Royal Society revisited', in *The Practice of Reform in Health, Medicine, and Science, 1500-2000: Essays for Charles Webster*, ed. M. Pelling and S. Mandelbrote (Aldershot, 2005), pp. 167-83

Hunter, M., 'The debate over science', in *The Restored Monarchy 1660-1688*, ed. J. R. Jones (London, 1979), pp. 176-95

------, *Science and Society in Restoration England* (Cambridge, 1981)

------, 'Ancients, moderns, philologists, and scientists', *Annals of Science*, 39 (1982), 187-92; repr. in Michael Hunter, *Science and the Shape of Orthodoxy: Intellectual change in late seventeenth-century Britain* (Woodbridge, 1995), pp. 214-22

* * ----, 'Latitudinarianism and the "ideology" of the early Royal Society: Thomas Sprat's *History of the Royal Society* (1667) reconsidered', in *Establishing the New Science: The experience of the early Royal Society* (Woodbridge, 1989), pp. 45-71

* * and J.A. Bennett, *The Image of Restoration Science: The Frontispiece to Thomas Sprat's* History of the Royal Society (Abingdon, 2016)

Jacob, J. R., *Henry Stubbe, Radical Protestantism and the early Enlightenment* (Cambridge, 1983)

Malcolm, N., 'Hobbes and the Royal Society', in *Perspectives on Thomas Hobbes*, ed. G. A. J. Rogers and A. Ryan (Oxford, 1988), pp. 43-66; repr. in Malcolm, *Aspects of Hobbes* (Oxford, 2002), pp. 317-35

* * Morgan, J., 'Science, England's "interest" and universal monarchy: the making of Thomas Sprat's *History of the Royal Society*', *History of Science*, 47 (2009), 27-54

* * ----, 'Religious conventions and science in the early Restoration: reformation and "Israel" in Thomas Sprat's *History of the Royal Society* (1667)', *British Journal for the History of Science*, 42 (2009), 321-44

Serjeantson, R. W., 'Introduction', to Meric Casaubon, *Generall Learning: A seventeenth-century treatise on the formation of the general scholar*(Cambridge, 1999), pp. 1-65

Skouen, T., 'Science versus Rhetoric? Sprat's *History of the Royal Society* reconsidered', *Rhetorica*, 29 (2011), 23-52

6(*a*). Biblical Criticism

In many ways the intellectual life of seventeenth-century Europe revolved around the Old and New Testaments of the Christian Bible: as the immediate word of God, it served as a repository of sacred history, a source of irrefragable authority, and a set of texts that generated an enormous body of commentary. But this was also the period when, for the first time in a sustained way, the Bible's claims to Revelation came under sustained, though rarely direct, scrutiny. In parallel with these processes the chronology suggested by the Old Testament was both established in unprecedented detail - and also, gradually, brought into doubt.

Indicative primary readings:

Thomas Hobbes, *Leviathan* [1651], ed. by Richard Tuck, rev. edn (Cambridge: Cambridge University Press, 1996), pp. 260-69 (ch. 33)

Benedict de Spinoza, *Theological-Political Treatise* [1670], trans. Michael Silverthorne and Jonathan Israel (Cambridge: Cambridge University Press, 2007), ch. vii

Richard Simon, *A Critical History of the Old Testament* (London, 1682), preface, and Bk I, chs i and ii

Secondary reading:

Barr, J., 'Why the world was created in 4004 bc: Archbishop Ussher and Biblical chronology', *Bulletin of the John Rylands Library*, 67 (1985), 575-608

*Cameron, E. (ed.), *The New Cambridge History of the Bible. Volume Three* (Cambridge, 2016), essays by Hamilton, Kraye, Mandelbrote and others.

* * Grafton, A., 'Isaac La Peyrère and the Old Testament', in *Defenders of the Text: The Traditions of Scholarship in an Age of Science, 1450-1800* (Cambridge, MA, 1991), pp. 204-13

------, 'Chronology and its discontents in Renaissance Europe: the vicissitudes of a tradition', in *Time: Histories and Ethnologies*, ed. D. Owen Hughes and T. R. Trautmann (Ann Arbor, 1995), pp. 139-66

Hall, B., 'Biblical Scholarship: Editions and commentaries', in *The Cambridge History of the Bible*, ed. S. L. Greenslade (Cambridge, 1963), pp. 38-93

Hardy, N., *Criticism and Confession* (Oxford, 2017)

Katz, D. , 'Isaac Vossius and the English biblical critics 1650-1689', in *Scepticism and irreligion in the seventeenth and eighteenth Centuries*, ed. R. Popkin and A. Vanderjagt (Leiden, 1993), pp. 142-84

* * Malcolm, N., 'Hobbes, Ezra, and the Bible: the history of a subversive idea', in *Aspects of Hobbes* (Oxford, 2002), pp. 383-431; a revised and shorter version of this chapter may be found in '*Leviathan*, the Pentateuch, and the origins of modern biblical criticism', in *Leviathan After 350 Years*, ed. T. Sorell and L. Foisneau (Oxford, 2004), pp. 241-64

Mandelbrote, S., 'Isaac Newton and Thomas Burnet: Biblical criticism and the crisis of late seventeenth-century England', in *The Books of Nature and Scripture*, ed. J. E. Force and R. H. Popkin (Dordrecht, 1994), pp. 149-77

------, 'The authority of the word: manuscript, print and the text of the Bible in seventeenth-century England', in *The Uses of Script and Print, 1300-1700*, ed. J. Crick and A. Walsham (Cambridge, 2004), pp. 135-55

------, 'English scholarship and the Greek text of the New Testament, 1620-1720: the impact of the Codex Alexandrinus', in *Scripture and Scholarship in Early Modern England*, ed. A. Hessayon and N. Keene (Aldershot, 2006), pp. 74-93

------, '"The Doors shall fly open": Chronology and Biblical Interpretation in England, c. 1630-c. 1730', in *The Oxford Handbook to the Early Modern Bible*, ed. K. Killeen and H. Small (Oxford, 2015), pp. 176-95.

Metzger, B. M., 'The pre-critical period: the origin and dominance of the *textus receptus*', in *The Text of the New Testament: Its transmission, corruption, and restoration* (Oxford, 1968), pp. 95-118

Miert, Dirk van, *et al.* (eds), *Scriptural Authority and Biblical Criticism in the Dutch Golden Age* (Oxford, 2017), especially the introduction and the essay by Grafton

Popkin, R. H., *Isaac La Peyrère, 1596-1676* (Leiden, 1987)

------, 'Newton and Spinoza and the Bible scholarship of the day', in *Rethinking the Scientific Revolution*, ed. M. J. Osler (Cambridge, 2000), pp. 297-314

Reventlow, H., *The Authority of the Bible and the Rise of the Modern World*, trans. J. Bowden (London, 1984)

Sheehan, J., *The Enlightenment Bible: Translation, Scholarship, Culture* (Princeton, 2005)

Stroumsa, G. G., 'Richard Simon: from philology to comparatism', *Archiv für Religionsgeschichte*, 3 (2001), 89-107

Twining, T., 'The Early Modern Debate over the Age of the Hebrew Vowel Points', *Journal for the History of Ideas*, 81 (2020), 337-58

Woodbridge, J. D., 'Richard Simon's reaction to Spinoza's *Tractatus Theologico-Politicus*', in, *Spinoza in der Früzeit seiner religiösen Wirkung*, ed. K. Gründer and W. Schmidt-Biggemann (Heidelberg, 1984), pp. 210-26

6(*b*). Spinoza and the Bible

One of the most dramatically original - though for that reason also uncharacteristic - later-seventeenth century critics of the Bible (mostly the Old, but also implicitly the New Testament) was the excommunicate Jewish philosopher Benedict de Spinoza. What were the principles that informed the interpretations he offered? How significant is his invocation of natural philosophy as the model for Biblical interpretation? How did he arrive at his views on the authorship of the Old Testament books? What were the implications of his conclusions?

Set text:

Benedict de Spinoza, *Theological-Political Treatise* [1670], trans. Michael Silverthorne and Jonathan Israel (Cambridge: Cambridge University Press, 2007), esp. chs. i-xv

Secondary Reading:

Chappell, V. (ed.), *Baruch de Spinoza* (New York, 1992)

Curley, E., 'Notes on a neglected masterpiece: Spinoza and the science of hermeneutics', in*Spinoza: The Enduring Questions*, ed. G. Hunter (Toronto, 1994), pp. 64-99

De Brabander, F., 'The highest form of devotion: Spinoza on piety, patriotism, and the therapy of religion', *History of Philosophy Quarterly*, 24 (2007), 19-38

de Deugd, C. (ed.), *Spinoza's Political and Theological Thought* (Amsterdam, 1984)

Donagan, A., 'Spinoza's theology', in *The Cambridge Companion to Spinoza*, ed. D. Garrett (Cambridge, 1996), pp. 343-82

Garrett, A., *Meaning in Spinoza's Method* (Cambridge, 2003)

Grafton, A., 'Good Company: Spinoza the Traditionalist and Some Unexpected Friends', in *What Reason Promises: Essays on Reason, Nature and History*, ed. Wendy Doniger, Peter Galison, Susan Neiman (Berlin: De Gruyter, 2016), pp. 178–185

Israel, J., *Radical Enlightenment: Philosophy and the making of modernity 1650-1750* (Oxford, 2001)

------, *Enlightenment Contested: Philosophy, modernity and the emancipation of man 1670-1752* (Oxford, 2006)

Kasher, A., and S. Biderman, 'Why was Baruch de Spinoza excommunicated?' in *Sceptics, Millenarians and Jews*, ed. D. S. Katz and J. I. Israel (Leiden, 1990), pp. 98-141

* * Klever, W. N. A., 'Spinoza's life and works', in *The Cambridge Companion to Spinoza*, ed. D. Garrett (Cambridge, 1996), pp. 13-60

* * Malcolm, N., 'Hobbes, Ezra, and the Bible: the history of a subversive idea', in *Aspects of Hobbes* (Oxford, 2002), pp. 383-431; a revised and shorter version of this chapter may be found in '*Leviathan*, the Pentateuch, and the origins of modern biblical criticism', in *Leviathan After 350 Years*, ed. T. Sorell and L. Foisneau (Oxford, 2004), pp. 241-64

*Miert, Dirk van, *et al.* (eds), *Scriptural Authority and Biblical Criticism in the Dutch Golden Age* (Oxford, 2017), especially the introduction and the essay by Grafton

Nadler, S. M., *Spinoza: A Life* (Cambridge, 1999)

Popkin, R. H., 'Some new light on the roots of Spinoza's science of Bible study', in *Spinoza and the Sciences*, ed. M. Grene and D. Nails (Dordrecht, 1986), pp. 171-88

* * ----, 'Spinoza and Bible scholarship', in *The Cambridge Companion to Spinoza*, ed. D. Garrett (Cambridge, 1996), pp. 383-407

------, 'Newton and Spinoza and the Bible scholarship of the day', in *Rethinking the Scientific Revolution*, ed. M. J. Osler (Cambridge, 2000), pp. 297-314

Preus, J. S., 'The hidden dialogue in Spinoza's *Tractatus*', *Religion*, 28 (1998), 111-24

------, *Spinoza and the Irrelevance of Biblical Authority* (Cambridge, 2001)

Reventlow, H., *The Authority of the Bible and the Rise of the Modern World*, trans. J. Bowden (London, 1984)

* Touber, J., *Spinoza and Biblical Philology in the Dutch Republic* (Oxford, 2018)

Verbeek, T., *Spinoza's Theologico-Political Treatise: Exploring 'the will of God'* (Aldershot, 2003)

7(*a*). Knowledge of the East

By the end of the seventeenth century, readers could turn to a wide range of sources for information about distant lands in the East. Alongside scholars who mined oriental texts for guidance in making sense of the scriptures, several other 'experts' emerged as important authorities on the East: roving travellers like Ambrosio Bembo (1625-1705), merchant-scholars like John Chardin (1643-1713) (who rubbed shoulders daily with unidentified Persian informants), and even news writers and hacks who churched out fanciful stories about the East in cheap printed texts and novels. This diverse and growing body of information about the worlds of Islam, Judaism, and Eastern Christianity also reflected the increased importance of autopsy, eye-witness accounts, and information obtained from native informants and intermediaries like Ibrahim al-Hakilani (1605-1664). In this period too, universities, traditionally the centres of oriental studies, were joined by new institutions that served as clearinghouses of information about the East, such as the Royal Society, the Royal Exchange, especially the trading companies that gathered there, not to mention the vast correspondence networks that comprised the Republic of Letters.

Indicative primary reading:

The Travels and Journal of Ambrosio Bembo, ed. C. Bargellini and A. Welch (Berkeley, 2007)

https://idiscover.lib.cam.ac.uk/permalink/f/t9gok8/44CAM_ALMA51621216700003606

The Travel Diary of Robert Bargrave: Levant Merchant (1647-1656), ed. M. G. Brennan (London, 1999)

https://idiscover.lib.cam.ac.uk/permalink/f/t9gok8/44CAM_ALMA51617518910003606

P. Rycaut, *The Present State of the Ottoman Empire, Containing the Maxims of the Turkish Politie, the Most Material Points of the Mahometan Religion, &c.* (London, 1668)

https://ezp.lib.cam.ac.uk/login?url=https://www.proquest.com/docview/2240924764?accountid=9851

Secondary literature:

Bevilacqua, A., *The Republic of Arabic Letters* (Cambridge, MA, 2018)

Bisaha, N., *Creating East and West: Renaissance humanists and the Ottoman Turks* (Philadelphia, 2004)

Dew, N., *Orientalism in Louis XIV's France* (Oxford, 2009)

Elmarsafy, Z., *The Enlightenment Qur'an: The politics of translation and the construction of Islam* (Oxford, 2009), esp. chs. 1-3

Feingold, M., 'Oriental Studies', in *The History of the University of Oxford*, vol. IV: *Seventeenth Century Oxford*, ed. N. Tyacke (Oxford, 1997), pp. 449-503

Ferrier, R. W. (ed.), *A Journey to Persia: Jean Chardin's portrait of a seventeenth-century empire* (London, 1996)

Findlen, P., *Athanasius Kircher: The last man who knew everything* (London, 2004)

Ghobrial, J.-P., *The Whispers of Cities: Information Flows in Istanbul, London, and Paris in the Age of William Trumbull* (Oxford, 2013)

Hamilton, A., *William Bedwell the Arabist, 1563-1632* (Leiden, 1985)

------, 'Eastern churches and western scholarship', in *Rome Reborn: The Vatican Library and Renaissance Culture*, ed. A. Grafton (New Haven, 1993), pp. 225-249

------ and F. Richard, *André Du Ryer and oriental studies in seventeenth-century France* (London, 2004)

------, M. H. v.d. Boogert and B. Westerweel, *The Republic of Letters and the Levant* (Leiden, 2005)

* Irwin, R., *For Lust of Knowing: The orientalists and their enemies* (London, 2006)

Loop, J., *Johann Heinrich Hottinger* (Oxford, 2013)

* Mills, S., *A Commerce of Knowledge* (Oxford, 2020)

Rietbergen, P., 'A Maronite mediator between seventeenth-century Mediterranean cultures: Ibrahim Al Hakilani, or Abraham Ecchellense (1605-1664)', *Lias,* 16 (1989), 13-42

Rubies, J.-P., *Travel and Ethnology in the Renaissance: South India through European Eyes, 1250-1625* (Cambridge, 2000)

* ----, 'Oriental despotism and European orientalism: Botero to Montesquieu', *Journal of Early Modern History,* 9 (2005), 109-180

Russell, G. A. (ed.), *The 'Arabick' Interest of the Natural Philosophers in Seventeenth-Century England* (Leiden, 1994)

Shalev. Z., 'Measurer of all things: John Greaves (1602-1652), the Great Pyramid, and early modern metrology', *Journal of the History of Ideas,* 63 (2002), 555-75

Stolzenberg, D., 'What was Oriental Studies in Early Modern Europe?', in *The Allure of the Ancient*, ed. M. Geoga and J. Steele (Leiden: Brill, 2022), 343-75

* Toomer, G. J., *Eastern Wisedome and Learning: The study of Arabic in seventeenth-century England* (Oxford, 1996)

Wiegers, G., 'Learned Moriscos and Arabic Studies in the Netherlands, 1609–1624', in *Romania Arabica*, ed. Jens Lüdtke (Tübingen: Gunter Narr, 1996), pp. 405–18

Wunder, A., 'Western travelers, eastern antiquities, and the image of the Turk in early modern Europe', *Journal of Early Modern History,* 7 (2003), 89–119

7(*b*). Islam and Imposture

Transformations in the state of knowledge about the East armed European critics with a wider set of tools to draw on in their own intellectual, religious, and philosophical exchanges. The notion of imposture - or false prophethood - for example, had a long history in the Christian tradition, one that went back at least as far as the Old Testament. But as reports of impostors in the East circulated into Europe in the 1660s, apologists and sceptics alike would draw on such information in framing their own ideas about religion and revelation. This seventeenth-century tradition would have an important, but subtle, afterlife in some of the key Enlightenment works of the early eighteenth century, such as Montesquieu's *Persian Letters* (1721) and the *Treatise of the Three Impostors*.

Set texts:

Richard Simon, *The Critical History of the Religions and Customs of the Eastern Nations*, trans. Archibald Lovell (London, 1685), esp. ch. XV: 'Of the religion and customs of the Mahometans'

Humphrey Prideaux, *The True Nature of Imposture fully Displayed in the Life of Mohomet* (London, 1697)

Pierre Bayle, 'Mohamet', in *Historical and Critical Dictionary: Selections* [1698], ed. and trans. R. H. Popkin and C. B. Brush (Indianapolis, IN: Hackett, 1991)

Secondary literature:

Anderson,, A. (ed. and trans.), *The Treatise of the Three Impostors and the Problem of Enlightenment: A new translation of the 'Traite des Trois Imposteurs' (1777 edition)* (Lanham, MD, 1997)

* * Berti, S. 'Scepticism and the *Traité des trois imposteurs*', in *Scepticism and Irreligion in the Seventeenth and Eighteenth Centuries*, ed. R. H. Popkin and A. Vanderjagt (Leiden, 1993), pp. 216-29

------'Unmasking the truth: the theme of imposture in early modern European culture', in *Everything Connects: In Conference with Richard Popkin*, ed. J. Force and D. Katz (Leiden, 1999), pp. 21-36

* * Champion, J., 'Legislators, impostors, and the politic origins of religion: English theories of "imposture" from Stubbe to Toland', in *Heterdoxy, Spinozism, and Free Thought in Early-Eighteenth-Century Europe: Studies on the 'Traité des trois imposteurs'*, ed. S. Berti, F. Charles-Daubert and R. H. Popkin (Dordrecht, 1996), pp. 333-56

Daniel, N., *Islam and the West* (Edinburgh, 1960)

Frassetto, M., and D. R. Blanks, *Western Views of Islam in Medieval and Early Modern Europe*(Basingstoke, 1999)

* * Hamilton, A., 'The study of Islam in early modern Europe', *Archiv für Religionsgeschichte*, 2 (2001), pp. 169-82

Hourani, A. 'Islam and the philosophers of history' and 'Western attitudes toward Islam', in *Europe and the Middle East*, ed. A. Hourani (London, 1980), pp. 1-73

Iliffe, R., 'Lying wonders and juggling tricks: religion, nature and imposture in early modern England', in *Everything Connects: In Conference with Richard H. Popkin*, ed. J. E. Force and D. S. Katz (Leiden, 1999), pp. 185-209

Lugt, Mara van, 'The body of Mahomet: Pierre Bayle on war, sex, and Islam', *Journal of the History of Ideas*, 78 (2017), 27-50

Malcolm, N., 'The 1649 English Translation of the Koran. Its Origins and Significance', *Journal of the Warburg and Courtauld Institutes*, 75 (2012), 261-95

Mandelbrote, S., 'Witches and Forgers: Anthonie van Dale on Biblical History and the Authority of the Septuagint', in D. van Miert et al. (eds), *Scriptural Authority and Biblical Criticism in the Dutch Golden Age* (Oxford, 2017), pp. 270-306

Massignon, L., 'La légende «De Tribus Impostoribus» et ses origins Islamiques', *Revue de l'Histoire des Religions,* 41 (1920), 74-78

Pailin, D. A., *Attitudes to Other Religions: Comparative religion in seventeenth- and eighteenth-century Britain* (Manchester, 1984)

Popkin, R. H., 'Roads that led beyond Judaism and Christianity', in *The Third Force in Seventeenth-Century Thought*, ed. R. H. Popkin (Leiden, 1992), pp. 351-70

Shelford, A., 'Worse than the three impostors? towards an interpretation of Theodor Ludwig Lau's *Meditationes philosophicae de Deo, mundo, homine*', in *Heterdoxy, Spinozism, and Free Thought in Early-Eighteenth-Century Europe: Studies on the 'Traité des trois imposteurs'*, ed. S. Berti, F. Charles-Daubert and R. H. Popkin (Dordrecht, 1996), pp. 439-74

Southern, R., *Western Views of Islam in the Middle Ages* (Cambridge, MA, 1978)

8(*a*) The Intellectual Culture of the 'Early Enlightenment'

Recent writing on the later-seventeenth and earlier-eighteenth centuries has increasingly drawn upon the category of 'early Enlightenment' to classify the period - not always as self-consciously, perhaps, as such a leading term deserves. How justified is it to see this period in this way? Do the advantages accrued outweigh the teleological peril inherent in the term? If its participants did not regard themselves as living in an 'early' enlightened era how did they conceive of the intellectual nature of their age? How valuable do the insights remain of Paul Hazard's classic book on the crisis of the Europe mind, originally published in 1935?

Secondary Reading:

Ahnert, T., 'Newtonianism in early Enlightenment Germany, *c*.1720-1750', *Studies in History and Philosophy of Science*, 35 (2004), 471-91

Bunge, W. van, (ed.), *The Early Enlightenment in the Dutch Republic, 1650-1750* (Leiden, 2003), esp. pp. 1-18, 19-38, 39-59, 215-30

Edelstein, D., 'Humanism, *l'Esprit Philosophique*, and the *Encyclopédie'*, *Republics of Letters: A Journal for the Study of Knowledge, Politics and the Arts*, 1 (2009), 1-17

* * ----, *The Enlightenment: A Genealogy* (Chicago, 2010)

* * Fitzpatrick, M., P. Jones, C. Knellwolf and I. McCalman (eds.), *The Enlightenment World* (London, 2004), parts I & II

* * Hazard, P., *The European Mind 1680-1715*, trans. J. L. May (London, 1952; repr. 1990)

Hochstrasser, T. J., *Natural Law Theories in the Early Enlightenment* (Cambridge, 2000)

Hunter, I., *Rival Enlightenments: Civil and metaphysical philosophy in early modern Germany*(Cambridge, 2001)

Israel, J., *Radical Enlightenment: Philosophy and the making of modernity, 1650-1750* (Oxford, 2001), esp. part i

------, *Enlightenment Contested: Philosophy, Modernity and the Emancipation of Man 1670-1752* (Oxford, 2006), esp. part i

------, 'John Locke and the intellectual legacy of the early Enlightenment', *Eighteenth Century Thought*, 3 (2007)

Levitin, D., 'From Sacred History to the History of Religion', *Historical Journal*, 55 (2012), 1117-1160

Levitin, D, *Ancient Wisdom in the Age of the New Science* (Cambridge, 2015)

Malcolm, N., 'Hobbes and the European republic of letters', in *Aspects of Hobbes* (Oxford, 2002), pp. 457-545 (ch. 14)

Mandelbrote, G., and K. A. Manley (eds.), *The Cambridge History of Libraries in Britain and Ireland*, vol. II: *1640-1850* (Cambridge, 2006), chs. by S. Mandelbrote ('Professional collections: libraries for scientists and doctors') and P. Nelles ('Libraries, books and learning, from Bacon to the Enlightenment')

Mandelbrote, S., 'Biblical Hermeneutics and the Sciences, 1700-1900: An Overview', in J. van der Meer and S. Mandelbrote (eds), *Nature and Scripture in the Abrahamic Religions: 1700-Present* (Leiden, 2008), 1: 3-37

Mandelbrote, S., 'Witches and Forgers: Anthonie van Dale on Biblical History and the Authority of the Septuagint', in D. van Miert et al. (eds), *Scriptural Authority and Biblical Criticism in the Dutch Golden Age* (Oxford, 2017), pp. 270-306

Marshall, J., *John Locke, Toleration and Early Enlightenment Culture* (Cambridge, 2006)

Mulsow, M., 'Eclecticism or scepticism? A problem of the early Enlightenment', *Journal of the History of Ideas*, 58 (1997), 465-77

Nelles, P. A., '*Historia litteraria* at Helmstedt: books, professors and students in the early Enlightenment university', in *Die Praktiken der Gelehrsamkeit in der Frühen Neuzeit*, ed. H. Zedelmaier and M. Mulsow (Tübingen, 2001), pp. 147-76

Ossa-Richardson, A., *The Devil's Tabernacle. The Pagan Oracles in Early Modern Thought* (Princeton, 2013)

Parkin, J., 'Taming the Leviathan: reading Hobbes in seventeenth-century Europe', in *Early Modern Natural Law Theories: Context and strategies in the early Enlightenment*, ed. T. J. Hochstrasser and P. Schröder (Dordrecht, 2003), pp. 31-52

Parkin, J., *Taming the Leviathan: The Reception of the Political and Religious Ideas of Thomas Hobbes in England 1640-1700* (Cambridge, 2007)

Robertson, J., *The Case for the Enlightenment: Scotland and Naples 1680-1760* (Cambridge, 2005), esp. pp. 1-51, 94-146 (chs 1 and 3)

Sutcliffe, A., 'Judaism in the anti-religious thought of the clandestine French early Enlightenment', *Journal of the History of Ideas*, 64 (2003), 97-118

Thomson, A., *Bodies of Thought: Science, Religion, and the Soul in the Early Enlightenment* (Oxford, 2008)

8(*b*). Pierre Bayle

If the early Enlightenment exists, Pierre Bayle is widely agreed to be a central figure in it. This Huguenot refugee from Catholic France was editor of the journal *Nouvelles de la république des lettres*, a professor of philosophy, and a critical and controversial historian. His *Critical and Historical Dictionary* (1697) constituted a major compendium of European knowledge at the close of the seventeenth century - but not an impartial one. Often ironic, sometimes scathing, always critical, both its tone and its encyclopedic ambitions were picked up and admired in the high Enlightenment of the eighteenth century. But scholars still debate Bayle's ultimate allegiances and purposes: was he a Huguenot, but a very sceptical one - or the infidel that both his Protestant and his Catholic enemies accused him of being?

Set text:

Pierre Bayle, *Historical and Critical Dictionary: Selections* [1697], ed. and trans. Richard Henry Popkin and Craig Brush (New York, 1991). Read as widely as possible in this volume, but you might start with the articles 'Arriaga', 'Rorarius', 'Spinoza', 'Dicaearchus', 'Hall', 'Leucippus' and the four 'Clarifications'.

Secondary reading:

Bunge, W. van, and H. Bots (eds.), *Pierre Bayle (1647-1706), le philosophe de Rotterdam: Philosophy, religion and reception* (Leiden, 2008)

Burke, P., 'Two crises of historical consciousness', *Storia della Storiografia*, 33 (1998), 3-16

Burrell, P., 'Pierre Bayle's *Dictionnaire Historique et Critique*', in *Notable Encyclopedias of the Seventeenth and Eighteenth Centuries*, ed. F. A. Kafker (Oxford, 1981), pp. 83-103

Charnley, J., *Pierre Bayle, Reader of Travel Literature* (Berne, 1998)

Paganini, G. (ed.), *The Return of Scepticism from Hobbes and Descartes to Bayle* (Dordrecht, 2003)

Goldgar, A., *Impolite Learning: Conduct and Community in the Republic of Letters, 1680-1750* (New Haven, 1995)

Grafton, A., *The Footnote: A curious history* (London, 1997) (also cf. *idem*, 'The footnote from De Thou to Ranke', *History and Theory*, 33 (1994), 53-76)

Hickson, M., and T. Lennon, 'The real significance of Bayle's authorship of the *Avis*', *British Journal for the History of Philosophy* 17 (2009), 191-205

Lennon, T. M., 'What kind of a skeptic was Bayle?' *Midwest Studies in Philosophy,* 26 (2002), 258-79

James, E. D., 'Scepticism and fideism in Bayle's *Dictionnaire'*, in *Port-Royal to Bayle*, ed. by Vere Chappell (New York, 1992), pp. 267-83

Labrousse, E., *Pierre Bayle*, 2 vols (The Hague, 1964) [in French]

* * ------, *Bayle*, trans. Denys Potts (Oxford, 1983)

Lieshout, H. H. M. van, *The Making of Pierre Bayle's Dictionaire Historique et Critique* (Amsterdam, 2001)

* Lugt, Mara van, *Bayle, Jurieu and the* Dictionnaire historique et critique (Oxford, 2016)

Mori, G., 'Pierre Bayle on scepticism and "common notions"', in *The Return of Scepticism from Hobbes and Descartes to Bayle*, ed. G. Paganini (Dordrecht, 2003), pp. 393-414

Neto, J. R. M., 'Bayle's academic scepticism', in *Everything Connects: In Conference with Richard H. Popkin*, ed. J. E. Force and D. S. Katz (Leiden, 1999), pp. 263-76

Popkin, R. H., *History of Scepticism: from Savonarola to Bayle* (Oxford, 2003)

Robertson, J., *The Case for the Enlightenment: Scotland and Naples 1680-1760* (Cambridge, 2005), esp. pp. 201-324 (chs. 5 and 6)

Soll, J., 'Empirical history and the transformation of political criticism in France from Bodin to Bayle', *Journal of the History of Ideas*, 64 (2003), 297-316

Sutcliffe, A., 'Spinoza, Bayle, and the Enlightenment politics of philosophical certainty', *History of European Ideas*, 34 (2008), 66-76

Whelan, R., *The Anatomy of Superstition: A Study of the Historical Theory and Practice of Pierre Bayle* (Oxford, 1989)

Wootton, D., 'Pierre Bayle, libertine?' in *Studies in Seventeenth-Century European Philosophy*, ed. M. A. Stewart (Oxford, 1997), pp. 197-226