Introduction

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This edited collection grew out of the desire to explore how knowledge was preserved and reinvented in the Middle Ages. Writings from throughout the medieval period reveal, in both secular and religious contexts, a concern with the establishment, transmission and appropriation of knowledge, whether for practical purposes or out of academic interest in learning. Bede, the great Anglo-Saxon scholar, praises the appetite for 'wholesome learning' of the early English church;[1] for him *scientia* is a gift of God to be nurtured and disseminated. Chaucer's ideal scholar is the clerk whose life is devoted to learning: 'gladly wolde he lerne and gladly teche'.[2] For Dante, humankind was created to follow virtue and knowledge (*seguir virtute e canoscenza*).[3]

Bede's intellectual setting is a monastic one but from the twelfth century onwards universities became the new centres of learning, where people like Chaucer's clerk would have been trained and *canoscenza* cultivated. Universities formed part of an intellectual network which promoted the dissemination of knowledge, and they boosted the popularity of scientific disciplines across the late medieval world. Inherited knowledge was passed on in monasteries and universities but it was also adapted and extended. Throughout the period writers respectfully altered sources to heighten their relevance to certain events or to a particular readership. In the Preface to *De temporum ratione*, for example, Bede declares that he has created a new work out of 'what can be found scattered here and there in the writings of the ancients'.[4]

Recent years have seen a number of publications reflecting increased and ongoing interest in areas of the vast topic of medieval knowledge. Notable

contributions have included the publications resulting from the Italian 'Leornungcræft' and Dutch 'Storehouses of Wholesome Learning' projects, which have added a wealth of knowledge on instruction, learning, and textual traditions from early medieval manuscripts. Rolf H. Bremmer and Kees Dekker's *Foundations of Learning* series, which resulted from the 'Storehouses' project, has unquestionably enhanced our understanding of how 'the study of texts and manuscripts combined opens up windows on the early medieval world of learning as represented by glossaries, proto-encyclopaedias, biblical companions, hagiographical guides, didactic verse'.[5] *Foundations of Learning* was followed by Sándor Chardonnens and Bryan Carella's edited collection, *Secular Learning in Anglo-Saxon England*, which as the title suggests, explores secular learning in the vernacular in the following disciplines: law, encyclopaedic notes, computus, medicine, charms and prognostication.[6] The outcome is a fascinating book, which brings together a corpus of writings in Old English which are very often neglected. As for the later medieval period, Rita Copeland's *Pedagogy, Intellectuals, and Dissent in the Later Middle Ages* (2001), which aims to 'make visible certain forms of medieval cultural knowledge which historiography has suppressed', is of particular importance in understanding the role of intellectuals and knowledge in an age of dissent.[7]

The present collection undoubtedly grew out of the same desire to explore how knowledge was preserved and reinvented, but with different objectives in mind. Unlike previous publications, which are predominantly focused on either a specific historical period, or, as in Rita Copeland's case, on precise cultural and historical events, this volume, which includes essays spanning from the eighth to the fifteenth centuries, is intended to eschew traditional categorisations of periodisation and disciplines and to enable the establishment of connections and cross-sections between

different departments of knowledge, including the history of science (computus, prognostication), the history of art, literature, theology (homilies, prayers, hagiography, contemplative texts), music, historiography and geography. As suggested by its title, the collection does not pretend to aim at inclusiveness or comprehensiveness but is intended to highlight suggestive strands of what is a very wide topic. *Aspects of Knowledge* seeks to establish a forum of multi-disciplinary and multi-cultural collaboration between different branches of medieval studies and to stimulate further work in areas which are here opened out.

A primary purpose of this collection is to investigate the role that 'texts' – intended both as words and as the physical objects which embody them (as represented by books, maps, stones, caskets) – play in the conveyance and transformation of knowledge and ideas throughout the Middle Ages. The book contains original contributions by leading medievalists, who explore the topic from different yet complementary angles, covering the entire medieval period, from early to late medieval.

Medieval perspectives

In the medieval period itself 'knowledge' was understood as an ambivalent and wide-ranging concept embracing several meanings, as demonstrated by the vast semantic range of the Latin terms, commonly translated as 'knowledge', which include *scientia*, *cognitio*, *notitia*, *eruditio* (among others) together with their respective verbal cognates of *scire*, *cognoscere*, *noscere* and *erudire*. Apart from the general meaning of knowledge, *cognitio*, for instance, mainly denotes knowledge acquired through perception or through the exercise of our mental powers, *notitia* commonly

refs to knowledge of a concept or an idea, and *eruditio*, knowledge obtained by instruction, is more akin to learning and can occasionally be used as a synonym for *doctrina*, *disciplina*, *scientia*, *intelligentia* and *cognitio*.

With regard to *scientia*, Steven Livesey observes that 'from its beginnings, Christianity displayed an ambivalent and cautious attitude toward *scientia*'.[8] In his condemnation of idolatry (1 Cor 8:1–2), St. Paul warns Christians that *scimus quia omnes scientiam habemus scientia inflat caritas vero aedificat si quis se existimat scire aliquid nondum cognovit quemadmodum oporteat eum scire*[9] ('we know we all possess knowledge. Knowledge puffs up, but love edifies. And if a man thinks that he knows all things, he has not yet known as he must know'). As the apostle strongly advocates, heathen knowledge, a misguided type of *scientia*, inevitably leads to greed and arrogance, whilst *caritas* or love of God is a prerequisite to acquire true *scientia* which is directed to *scientia Dei*. *Scientia*, an inherent quality we all possess (*scientia habemus*), is therefore a mouldable and fluid concept which acquires a positive or negative value depending on purpose and circumstance. This ambivalence is reinforced by Augustine who, borrowing from 1 Cor 8:1–2,[10] also reprimands men for pursuing *immani feritate superbiae* (uncontrolled wildness of pride), *voluptate luxuriae* (passions of luxury), and *a fallaci nomine scientiae* (what is falsely called knowledge) and differentiates between useful and useless forms of *scientia*.[11]

For Augustine men should be learned in the knowledge of things which tend to edification (*scientia qua aedificamur*), and ultimately to the understanding of God, as clearly elucidated in one of his *Soliloquies*, where to Reason's question: '*Quid ergo scire vis?*' ('What then do you want to know?'), Augustine replies: '*Deum et animam scire cupio*' ('I wish to know God and the soul').[12] Thus, all knowledge is a gift from the Holy Spirit (John 14:26) and as such cannot be separated from love and faith,[13] as

St. Paul says in 1 Cor 8:3: *si quis autem diligit Deum hic cognitus est ab eo* ('but if one loves God, the same is known by him').

The relationship between love of God, truth (acquired through vision) and knowledge as inseparable entities is explored more fully in *De trinitate*, where Augustine discusses at great length the doctrine of knowledge mainly as a theological concept, rather than a theoretical subject. What is understood cannot be separated from the object of love: *verbum est igitur, quod nunc discernere ac insinuare volumus, cum amore notitia* (the word, therefore, which we now wish to discern and study is knowledge with love).[14] Here Augustine uses the word *notitia*[15] to denote an embedded form of awareness or *intelligentia* 'perception' which can be achieved through self-knowledge and divine illumination rather than through intellectual understanding or *scientia*. The epistemological dichotomy of *sapientia* 'wisdom' and *scientia* 'knowledge' is at the core of book XII of *De trinitate* where the noblest type of knowledge, *sapientia*,[16] is concerned with the contemplation of eternal things (*aeternorum contemplatione*), whilst *scientia* is linked to the way in which we act upon temporal things (*actio qua bene utimur temporalibus rebus*).[17] Paige E. Hochschild clarifies that in *De trinitate* '*scientia* is properly understood as the life of faith: it is the temporal ordering of all things to the truth of God. *Sapientia* is the wisdom of God himself. Both are combined in the twofold nature of Christ'.[18] As a consequence, both *genera* of knowledge are indispensable to attain true happiness and *amore Dei*.

In Book II of the *De doctrina christiana*, a work that greatly contributed to the understanding of philosophy, theology, rhetoric and semiotics in medieval Europe, Augustine offers a disquisition on the appropriation of classical learning and the liberal arts (*disciplinis liberalibus*)[19] for the understanding of the Sacred Scripture, a

'complex and mysterious text that its study demanded formidable erudition of a philological, historical and scientific nature'.[20] Some kinds of *scientia* are deemed unnecessary and luxurious and ought to be utterly rejected. These included branches of learning that were in vogue amongst the heathens, especially those associated with the fellowship of the devil, ranging from magical arts, haruspices and augurs and incantations to 'horoscope' or 'genethliac' astrology which sought to replace God and divine grace with a fatalistic explanation of the universe.[21] Yet, certain other disciplines, particularly *scientia* from the senses linked to objects ('vision'), and experimental or intellectual *scientia* which embraced experiments and the mechanical arts (medicine, agriculture, and navigation), the sciences of reasoning and of numbers, history and natural science,[22] if subordinated to the love of God and to the study of the Scripture, constituted a valuable exegetical aid to Christians:

> *Hac igitur instructione praeditum cum signa incognita lectorem non impedierint, mitem et humilem corde, subiugatum leniter Christo et oneratum sarcina levi, fundatum et radicatum et aedificatum in caritate quem scientia inflare non possit, accedat ad ambigua signa in Scripturis consideranda et discutienda, de quibus iam tertio volumine dicere aggrediar, quod Dominus donare dignabitur.*[23]

(Whatever a man has learned apart from Scripture is censured here, if it is harmful; if it is useful, he finds it here. And, although everyone may have found there everything which he learned profitably somewhere else, he will discover there, in much greater profusion, things which he can learn nowhere else at all, except in the admirable profundity and surprising simplicity of the

Scriptures alone).[24]

The importance of re-appropriation of learning and knowledge from the past had already been emphasised in *De ordine* where Augustine encouraged students to be instructed in *disciplinis omnibus* (all branches of learning). Amongst those, the verbal disciplines of grammar, language and writing were regarded as *utilia* 'useful' and *nec discuntur illicite* 'not unlawful to learn' and of great service to the comprehension of biblical hermeneutics, after all *profani si quid bene dixerunt, non aspernandum* 'no help is to be despised, even if it derives from a profane source'.[25] However, Augustine's guarded approach towards *profana scientia* is evident in his discussion on dialectics, in his view the most profitable branch of learning that is 'of very great service in searching into and unraveling all sorts of questions that come up in Scripture' (*in litteris sanctis sunt penetranda et dissolvenda, plurimum valet*), but at the same time one is warned 'against the love of wrangling, and the childish vanity of entrapping an adversary'.[26] Yet, instruction (*eruditio*) in the liberal arts, if pursued in moderation and with determination from childhood, leads the mind to God (*intellectum efferent ad divina*), enhances the spirit and shapes excellent teachers of philosophy.[27]

Augustine's view of the usefulness of secular learning for clerical education, is echoed by Cassiodorus (c. 485–c. 585) in the preface to the *Institutiones*, where he explains that 'Divine Scripture […] will be better understood if one has prior acquaintance [*notitia*] with [the arts and disciplines of liberal studies]'; these are *de grammatica*, *de rhetorica*, *de dialectica*, *de arithmetica*, *de musica*, *de geometrica*, *de astronomia*, which are discussed in greater detail in book II.[28] Cassiodorus's aim is to refute the belief of certain Church Fathers like Caesarius of Arles, who criticised the

philosophia artis as leading to doctrinal heresy,[29] and demonstrate that the liberal arts are embedded universal forms of knowledge which were in existence long before pagan authors learnt and taught them. In line with Augustine, for Cassiodorus arithmetic, geometry, music and astronomy, given their shared concern with numbers, belong to *mathematicam uero latino sermone doctrinalem possumus appellare* (what in Latin indeed we call the mathematical art 'theoretical').[30] The term *quadrivium* is used for the first time by Boethius[31] in the Preface to his treatise on numbers, *De arithmetica*, in relation to a four-part study, including arithmetic, music, geometry and astronomy, the knowledge of which was subordinated to the 'the highest perfection of the disciplines of philosophy'.[32]

Isidore of Seville's debt to Cassiodorus's and Boethius's classification of the *artes liberales* reframed within a Christian context is evident in the first three books of his encyclopaedic work the *Etymologiae* (I. *de grammatica*; II. *de rethorica et dialectica*; III. *de quattor disciplinis mathematicis*)[33]. According to M. Asmsler, Isidore perceives knowledge or *cognitio* as 'fixed rather than transitory because it is structured in language'.[34] Etymology is in fact the structure upon which knowledge of all things is built, [35] *nisi enim nomen scieris, cognitio rerum perit* (for unless you know the name, the understanding perishes),[36] and 'an essential prerequisite for knowledge of the world is the coherent organization of a collection of names for the world [...] that is the production of discourse which fixes the names for things in a text'.[37] Book I on *ars grammatica,* in Isidore's view, the governing principle of knowledge together with etymology, opens with a clear etymological distinction between *disciplina* and *ars* which the author attributes to Plato and Aristotle.[38] For Isidore *disciplina* and *scientia*, both deriving from *discere* (learning), imply something that ought to be learned in order to be known, whereas *ars,* derived from

the Greek ἀρετή (virtue) is rather a faculty of the mind or manner of thinking consisting of strict principles and rules.[39] On this subject, J. Ackerman argues,

> In the Middle Ages, an 'art' was a technique, and the seven liberal 'arts' that constituted the core of education were not so much areas of knowledge as tools for getting and dispensing knowledge […]. Art is to be read as 'technique' (as in the word 'artifact'), and *scientia* as something like 'the structure of ideas' (or 'images'). Every discipline has got its technique and its *scientia*.[40]

'Encyclopaedic' works such as Isidore's *Etymologiae* and long before that Pliny's *Historia naturalis* (an anthology of sources on the natural world), can be described as, to borrow M. Franklin-Brown's terminology, '"heterotopias" of knowledge, that is, spaces where many possible ways of knowing are juxtaposed', and whose main goals are: 'to provide a comprehensive overview of knowledge, to organize it, and to propagate it'.[41] In the preface to the *Historia naturalis* (completed c. 78 CE) dedicated to the future emperor Titus, Pliny describes his *libellus*, as a work 'of a lighter nature' (*mediocre*) and without talent (*nam nec ingenii sunt capaces*) which include those subjects that the Greek call *enkuklios paideia* and that should be dealt with (*iam omnia attingenda quae Graeci* ἐγκύκλιος παιδεία [*enkuklios paideia*] *vocant* (that the Greeks call 'encyclic culture').[42] Most scholars identify Pliny's enigmatic reference to ἐγκύκλιος παιδεία with a comprehensive advanced programme of study 'the aim of which is to produce a type of complete man, versed in all the disciplines'.[43]

In one of the most quoted passages from the *Historia ecclesiastica gentis anglorum*, the Anglo-Saxon scholar Bede (672–735) zealously praises the ambitious

and 'encyclic' educational programme offered at the school of Theodore (Archbishop of Canterbury 668–90) and his colleague Hadrian which recruited monks ready to learn Greek and Latin, Christian and pagan works, alongside the study of grammar and metrics, and of other subjects such as astronomy, arithmetic and computus, which were linked to the study of the Scriptures:[44] *Ita ut etiam metricae artis astronomiae et arithmeticae ecclesiasticae disciplinam inter sacrorum apicum volumina suis auditoribus contraderunt* (They gave their hearers instruction not only in the books of Holy Scriptures but also in the art of metre, astronomy, and ecclesiastical computation).[45] Aldhelm, Theodore's pupil, also devoted himself to the organisation of a school whose curriculum included calculation, astronomy and Roman law and was responsible for introducing astrology, mechanics and medicine as part of the *quadrivium*. With the exception of *De septenari*, a study of the functions of the number seven, mathematics at this time was ecclesiastical arithmetic, above all computus, a 'monastic philosophy of time and life, and a dominant force during the Middle Ages',[46] in which setting the dates of the religious calendar, particularly Easter, was the main object of study.[47] Hrabanus Maurus associated the study of the computus with astronomical knowledge and in *De clericum institutione* he emphasises the importance for God's cleric to be skilled in the *ars* of astronomy which follows natural inquiry (*naturali inquisitione exsequitur*) and focuses on the investigation of the courses of the sun, moon and stars (*solis lunaeque cursus atque stellarum*) in order to compute (*ratiocinari*) the beginning of the paschal feast and 'the true places which ought to be observed for all solemnities and celebrations and be able to proclaim their lawful celebration to the people of God' (*certa loca omnium solemnitatum atque celebrationum, sibi sciat intimare observanda, et populo dei rite valeat indicare celebranda*).[48]

Faith Wallis maintains that for Bede *scientia* 'simply denoted "knowledge"'
and was not to be intended as 'an end in itself', but as for Augustine,
'was directed to knowledge of God' (*doctrina christiana*).[49] In chapter XXV of *De temporum ratione*, designed as a scientific textbook for teaching and learning,
covering diverse subjects including medicine, mathematics, astronomy and natural
science, Bede refers to *naturalis ratio* in the sense of 'factual knowledge about the
natural world, and rational inferences drawn from this knowledge'.[50] According to
Wallis, Bede understood *ratio* as embracing 'both "reckoning" and "reasoning"' and
that 'time-reckoning and the study of the natural world [were] not to be intended as
self-contained and self-explanatory disciplines, but subordinate elements of *Doctrina
christiana* or erudition useful for Christian preachers and exegetes'.[51] Studying the
computus might be useful for daily needs and it might expand human knowledge, but
it had first to aid the understanding of God. In the *Historia ecclesiastica*, Bede
narrates the story of the arrival of the Irish Bishop Aidan who was summoned by
King Oswald as a spiritual guide *cuius doctrina ac ministerio gens, quam regebat,
Anglorum, dominicae fidei et dona disceret, et susciperet sacramenta* ('whose
teaching and ministry the English people over whom he ruled might receive the
blessings of the Christian Faith and the sacraments').[52] Aidan is described as a saintly
man of *summae mansuetudinis, et pietatis, ac moderaminis uirum, habentemque
zelum Dei* ('outstanding gentleness, holiness, and moderation, he had a zeal in God')*,*
but not *secundum scientiam* (according to knowledge) 'in that he kept Easter in
accordance with the customs of his own nation'. Bede here seems to be separating
faith from *scientia*; knowledge of God does not suffice when it comes to the study of
computus, which Bede sees as a form of applied knowledge, 'a vision of science as a
problem-solving activity'[53] more in line with the *naturalis ratio* of the *De temporum*

ratione, than implied *scientia*.

Bede's reverential attitude towards ancient writers and inherited knowledge (and perhaps also in an attempt to prevent criticism) is explicated in the Preface to *De temporum ratione* where he claims that he has created a new piece of work out of 'what can be found scattered here and there in the writings of the ancients' (*quare de his quae sparsim in veterum scriptis inveniri potuerant ipse novum opus condere studuerim*).[54] The same concept is restated by Ælfric in the *De temporibus Anni,* an Old English adaptation of Bede's works on time-reckoning ad natural science, where the author admits that he has gathered *sum gehwæde andgit of ðære bec þe Beda se snotera lareow gesette 7 gegaderode of manegra wisra lareowa bocum be ðæs geares ymbrenum fram anginne middaneardes* (some small meaning from the book which Bede the learned teacher compiled and gathered together from the books of many wise teachers about the progression of time from the beginning of the world).[55] Bede's scientific works, which were widely disseminated in Carolingian schools and scriptoria, made their way back into England with the Benedictine Reform. An example of the great intellectual ambitiousness associated with this renewed scientific interest and computistical knowledge is the elaborate treatise on the reckoning of time, written by Byrhtferth of Ramsey (a student of Abbo of Fleury), and composed to help parish priests in their regular duties. Byrhtferth's aim is to introduce the science of *computus* (*we gesetton on þissum enchiridion, þæt ys manualis on Lyden 7 handboc on Englisc, manega þing ymbe gerimcræft*) to the *iunge men* of the monastery and teach them more about the Easter mysteries, including the cycles and the twelve tables. He implores both scholars and educated men, who know these things perfectly, not to be annoyed when teaching inexperienced pupils.[56]

The intellectual setting of the early medieval period was predominantly confined to courts, a good example of which is Charlemagne's, and monasteries, but from the twelfth century onwards universities became the new centres of learning, where people like Chaucer's clerk would have been trained and Dante's *canoscenza* cultivated. Universities formed part of an intellectual network which promoted the dissemination of knowledge, and boosted the popularity of scientific disciplines across the later medieval world. The epistemological paradigm established by Augustine in Book II of the *De doctrina christiana*, which set the foundations for the medieval understanding of knowledge, was both complemented and theoretically challenged in the later period by the proliferation of classical scientific, philosophical and mathematical materials from the Greek, Jewish and Islamic traditions, made accessible to the West through the works of Latin translators and commentators, including Gerard of Cremona, Michael Scotus and Alfred of Sareschal as part of the cultural and educational programme promoted at the Cathedral School of Toledo.[57] Aristotle's treatises on dialectic (logic) in particular (*The Prior and Posterior Analytics*, the *Topics* and the *Sophistical Refutations*), which came to be incorporated into the university curriculum, offered a reconceptualisation of the nature of *scientia* and scientific knowledge (ἐπιστήμη 'episteme') and a new philosophical framework of investigation based on a 'carefully crafted logical methodology that surveyed everything that was humanly knowable about the natural world, its ultimate principles and causes, as well as man's destiny in this universe – all this without the aid of divine revelation'.[58] For early medieval thinkers in fact 'both faith and *scientia* depend[ed] ultimately on the same indirect first principles that must be accepted, not proved',[59] and subjected to the *doctrina christiana*, whereas, for Aristotle, instruction was mainly an inductive process given or received by way of argument and which

proceeds from pre-existent knowledge,[60] which is of two kinds, 'in some cases admission of the fact must be assumed, in others comprehension of the meaning of the term used, and sometimes both assumptions are essential'.[61] The mathematical sciences and all other speculative disciplines, which, for Aristotle, were mainly independent entities, are learnt in this way, and the same can be said for the two forms of dialectical reasoning, syllogistic and inductive, 'for each of these latter make use of old knowledge to impart new, the syllogism assuming an audience that accepts its premises, induction exhibiting the universal as implicit in the clearly known particular'.[62] Thus scientific knowledge must be demonstrated (demonstrative syllogism or *apodeixis*)[63] through its cause (*scientia ex causis*), 'we think we understand something if we possess a deduction from some true and primitive items'[64], for grasp of a reasonable conclusion is the primary condition of knowledge.

On the one hand, the new theoretical and scientific models offered by both Aristotle and the works by Averroes, which were in circulation at the same time, posed a considerable threat to the supremacy of theology as a science within the university organisation, on the other, 'only the proof of the strictly scientific character of theology could secure its place at university'.[65] Of particular significance for the theologians of the thirteenth and fourteenth centuries was Aristotle's theory of subalternate sciences, which he extensively discusses in the first book of *Posterior Analytics*, where he argues that each science possesses its own field of enquiry, arguments and application:

> Thus you cannot prove anything by crossing from another kind, e.g. something geometrical by arithmetic. […] Now the items from which the demonstrations proceed may be the same; but were the kinds are different, as with arithmetic

and geometry, you cannot attach arithmetical demonstrations to what is incidental to magnitudes – unless magnitudes are numbers'.[66]

Subalternate sciences derive their principles from higher sciences, as is the case with optics, which infers most of its concepts from geometry. Thomas Aquinas's familiarity with Aristotle's disquisition on sciences is evidenced in his *Expositio libri Posteriorum Analyticorum*:[67] 'for Aquinas, as for the empiricists, all our thought and knowledge has its origins in our senses: he rejects the notion of innate knowledge'.[68]

In his answer to the *questio* of whether the *sacra doctrina*, based upon divine revelation, is a science, Aquinas distinguishes between two kinds of *scientiae* (*duplex est scientiarum genus*):

> *Quaedam enim sunt, quae procedunt ex principiis notis lumine naturali intellectus, sicut arithmetica, geometria, et huiusmodi. Quaedam vero sunt, quae procedunt ex principiis notis lumine superioris scientiae, sicut perspectiva procedit ex principiis notificatis per geometriam, et musica ex principiis per arithmeticam notis. Et hoc modo sacra doctrina est scientia, quia procedit ex principiis notis lumine superioris scientiae, quae scilicet est scientia Dei et beatorum. Unde sicut musica credit principia tradita sibi ab arithmetico, ita doctrina sacra credit principia revelata sibi a Deo.*[69]

> (There are some which proceed from a principle known by the natural light of the intelligence, such as arithmetic and geometry and the like. There are some which proceed from principles known by the light of a higher science: thus the science of perspective proceeds from principles established by geometry, and

music from principles established by arithmetic. So it is that sacred doctrine is a science, because it proceeds from principles established by the light of a higher science, namely, the science of God and the blessed. Hence, just as the musician accepts on authority the principles taught him by the mathematician, so sacred science is established on principles revealed by God). [70]

The *Sacra doctrina* can be both speculative and practical (*speculativa et alia practica*),[71] although it is more speculative in the sense that it relates mainly to divine things and God is the primary object of this science: *in hac scientia fit sermo de Deo, dicitur enim theologia, quasi sermo de Deo. Ergo Deus est subiectum huius scientiae* (in this science the treatment is mainly about God; for it is called theology, as treating of God. Therefore God is the object of this science).[72] Thus knowledge of God (*scientiam Dei*) is the cause of everything, for knowledge is received from natural things, which are between the knowledge of God and human knowledge, indeed we acquire knowledge of natural things through God from whom they originate: *unde, sicut scibilia naturalia sunt priora quam scientia nostra, et mensura eius, ita scientia Dei est prior quam res naturales, et mensura ipsarum* (Hence, as the natural objects of knowledge are prior to our knowledge, and are its measure, so, the knowledge of God is prior to natural things, and is the measure of them).[73] Aquinas places theology as a subalternate science which is subjected to the higher knowledge which is revealed or inspired directly by God.

The developing understandings and applications of knowledge sketched briefly above – we are well aware that a full account of medieval theories of knowledge remains to be written – provides a conceptual background for the specific 'aspects' covered in the present collection. Our overview has focused on attitudes to

knowledge in learned Christian tradition but it is also important to attend to secular strands of knowledge, such as those deriving from Germanic culture and from folk practice, which existed in relationship to the learned knowledge that this book explores. As indicated in some of the chapters that follow, such strands could be appropriated by and integrated into Christian frameworks but could also be explicitly rejected or derided, as is exemplified in the opening chapter below.

Outline of the chapters

The chapters in this volume are conveniently grouped into four sections: I, Translating the Past, II, Knowledge and Materiality, III, Transmission of Christian Traditions, and IV, Anthologies of Knowledge. The first section, Translating the Past, illustrates how the past interacts with the culture and politics of the period to fit the needs of contemporary writers and audiences. This section opens with Richard North's chapter 'Meet the Pagans: the Misuse of *Beowulf* in *Andreas*', which argues that *Andreas*, the Old English poem in the Vercelli Book, appropriates *Beowulf* for mock-epic purposes, turning knowledge of *Beowulf*, a poem which by implication must have been famous in Anglo-Saxon England, to a new Christian purpose. *Andreas* is seen to offer through its mock-epic style a satirical commentary on the heathen nostalgia of *Beowulf.* The *Andreas*-poet's apparent derision of the Mermedonian cannibals, that North sees as a transposition of the aristocracy of the heathen Danes in Heorot, may have been prompted by the ninth-century Danish invasion, and by a desire on the poet's part to introduce Danish heathen *wælwulfas* 'wolves of slaughter' to monastic culture for the first time in a contemporary authentic rather than mystical imaginary way. In *Andreas* knowledge of secular

literature and its version of the past is astutely re-appropriated for religious purposes, being absorbed into and transcended by a Christian celebration of the true heroism of the saint.

In the following chapter, the emphasis shifts from the re-appropriation of the mythical past of *Beowulf* to that of particular historical events. Sarah Baccianti's contribution examines the role and use of sources in history texts produced in England and Scandinavia, as 'a platform to showcase knowledge of events and characters, together with the authors' own erudition'. Baccianti focuses her attention chiefly on the events which led to the Norman Conquest, as they are recorded in the *Anglo-Saxon Chronicle,* Henry of Huntingdon's *Historia Anglorum* and Snorri Sturluson's *Heimskringla*, to demonstrate how knowledge of those historical occurrences was transmitted differently according to the different political agendas of the authors, and the important role a contemporary audience played in shaping those views. Such historical knowledge is not neutral or objective but is the product of particular circumstances and needs, knowledge of the past being preserved, therefore, but also reinvented.

Emily Wingfield's chapter examines treatments of Margaret (d. 1093), queen of Scots and consort of Malcolm III, beginning with the *Life* written by Turgot, prior of Durham at the request of Margaret's daughter the English queen Matilda, a work that highlights Margaret's literacy and learning. Margaret's role as reader and writer is shown to be emphasised also in later treatments. The subject of this chapter is thus not a branch of knowledge but the perceived learning of an important female individual and the significance of that learning in constructions of her as a saint. The chapter examines the way in which books function as vehicles for Margaret's sanctity and political power and suggests that the *Life* itself and images of reading within it are

designed to model the life of a learned and holy queen for Margaret's daughter, Matilda. Wingfield then considers how later accounts of Margaret as reader and writer develop this tradition so that she comes to function as an advisor of princes as well as princesses. In the twelfth- to fifteenth-century verbal and visual accounts analysed here, Margaret's sanctity is shown to inhere, 'quite specifically, in her literacy'.

The second section, entitled Knowledge and Materiality, explores ways in which material objects were instrumental in the preservation and circulation of knowledge. Consisting of three contrasting chapters, it opens with Gaby Waxenberger's study of the eighth-century whalebone Auzon/Franks Casket, a study that challenges previous readings of the casket's motifs and inscriptions. In her chapter, Waxenberger offers a new interpretation of the casket as a 'mirror of knowledge and learning', both Christian and pre-Christian-Germanic, investigating textual (use of word dividers, abbreviations) and visual clues (ornaments, borders). The chapter works towards an understanding of the casket as a material object that transmits knowledge through its texts and images and through the interplay of both.

Michelle Brown's contribution also represents an instance of the integration of Christian and pre-Christian Germanic knowledge in the early Middle Ages. Brown explores the context and meaning of the distinctive late-tenth-century rune-stone carved at the royal burial ground of Jellinge in Denmark, viewing the monument as a book in stone and a symbol of conversion and of changing political agendas in Scandinavia in the tenth century. Ranging widely across early medieval manuscript art and stone carvings, Brown explains that the stone (like the Auzon/Franks Casket, to which she also alludes) draws upon both Christian and pagan Norse traditions 'to form a new, integrated iconography that formed a distinctive expression of the Scandinavian experience of cultural synthesis and conversion'. The stone is presented

as a book, thereby honouring the new faith, but the use of runes on the stone (rather than the Latin language and script) proclaims local identity and former cultural achievements and beliefs.

Materiality is writ large in the final essay of this section, by Donald Scragg. Scragg focuses on the very practical issue of the size and the layout of Anglo-Saxon manuscripts from the eighth century to the first half of the twelfth, in order to explore the role of books in the transmission of thought, knowledge and practical experiences of the age. The chapter explores how the dimensions of surviving books in English can give clues 'about their intended use, about how they were created, and about what that may tell us about the role of the written vernacular in the society of early England'.

Questions of transmission are engaged with throughout *Aspects of Knowledge* but come particularly to the fore in the third section, Transmitting Christian Traditions, which examines how Christian traditions are constructed and then appropriated and used over time. The chapters here also consider to varying degrees points of intersection and divergence between the eastern and western cultural and physical constructions of knowledge. The theme of the interpretation and application of Christian knowledge is central to Hugh Magennis's survey of treatments of the apostles particularly in vernacular writings in Anglo-Saxon England. The *acta* of the apostles originated in the East but were transmitted and reworked by western writers, not least in pre-Conquest England. Examining depictions of the apostles in Old English prose and verse, Magennis's chapter emphasises the definitive place that the apostles occupy within Christian systems of knowledge and understanding but also considers how traditions of the apostles are appropriated and reconceived by Anglo-

Saxon writers (including the poet of *Andreas*, whose reworking of his source is considered in greater detail in the chapter by North).

Suzanne Conklin Akbari and Asa Simon Mittaman's chapter 'Seeing Jerusalem: Schematic Views of the Holy City, 1100–1300' brings us into the realm of cartography and medieval perceptions of geographical space, specifically in relation to maps of Jerusalem. The chapter pays particularly attention to the map of the city in the British Library manuscript Add. 32343, a manuscript from twelfth-century Flanders, doing so in the context of an overview of medieval map-making which stresses the symbolic function of maps within a Christian view of the physical world, with Jerusalem the ideal city at its centre. For the composer of the Add. 32343 map, however, Jerusalem is not just an ideal, but a real city. The theological understanding is strikingly combined with the practical knowledge: 'A profound symbolic geography is embedded in this map; but an actual urban environment is also reflected here'.

Denis Renevey's contribution examines the ways in which writers in the Greek world and, later, western religious teachers used the name of 'Jesus' in contemplative practices, and offers 'answers as to the way in which knowledge of the power of the name "Jesus" was appropriated for different purposes in the two differing Christian traditions, and according to distinct spiritual ideologies'. Renevey identifies Origen as the most significant patristic figure in the development of knowledge about the powerful potential of the name of Jesus and he goes on to highlight the attachment to the name in Orthodox liturgical practice from about the ninth century, an attachment that in the fervency of its language anticipates western traditions of affectivity. Among western writers, he focuses on Anselm of Canterbury and Bernard of Clairvaux, the former promoting affective use of the name in personal

devotion (his key work here addresses a lay female patron), the latter in a communal monastic context, as part of a well-conceived devotional scheme.

As analysed in the chapter by Kath Stevenson, traditions of Christian knowledge are an abiding preoccupation for William Langland in *Piers Plowman*, with Langland exploring fundamental questions about the pre-eminence or otherwise of abstract learning, textually mediated and transmitted ('clergie'), over experiential knowledge ('kynde knowynge') and about the role of learning in Christian salvation. What good is knowledge? In an age of abstruse academic discourse, in which Langland himself was deeply versed, Langland's protagonist Will searches urgently for the knowledge that is truly valuable, that is the knowledge that will enable him to save his soul. Traditions of knowledge must be interrogated and tested as to their efficacy in the face of this imperative of personal salvation. The first two sections of Stevenson's discussion focus on Langland's own engagement with the notion of textual authority. Within *Piers Plowman*, texts are concomitantly lauded as offering definitive answers, and shown to be vulnerable to misreading and misrepresentation. The final section of the chapter locates Langland's ambivalence about the efficacy of textually mediated learning within the wider contexts of vernacular theology in the late fourteenth and fifteenth centuries and in particular shows Langland's treatment of the Passion in the central passus of his poem to be informed by the developing traditions of affective piety. For Langland the Passion can function as a site in which textual and experiential knowledge are united, with abstract intellectual knowledge becoming transfigured as it is fused with 'kynde knowynge'.

The fourth and final section, Anthologies of Knowledge, considers the textual transmission of learning in anthologies and collections of texts that not only preserve existing knowledge but also develop and add to or modify that knowledge. Marilina

Cesario's chapter addresses the subject of weather forecasting in the Middle Ages as revealed in the meteorological prognostics that survive abundantly from throughout the period but particularly from the eleventh century onwards. The chapter asks what kind of information weather texts give about the world they come from and seeks to discover how such texts were read and used. In pursuing these ends it focuses on one fifteenth-century medical manuscript from Germany (not previously studied) which contains a *libellus* comprising a series of seven Latin weather texts, including a version of the much copied and adapted *Revelatio Esdrae*. The *libellus* constitutes an anthology of prognostic materials which acts as a case study for Cesario, who edits and translates the texts for the first time and offers detailed discussion of them. Cesario finds that these prognostic treatises contribute to the manuscript's overarching interest in natural philosophy and that they were mostly given more theoretical than practical usage, having their place in a context of academic learning (*eruditio*). One item stands out from the others, however, a puzzling salt prognostication found uniquely here. This text relies not, it is argued, on erudite knowledge but on knowledge acquired empirically. Instructional and experimental in nature, it appears to have been designed for practical use. The chapter throws new light on the prognosticatory literature that has recently emerged from the margins to become a significant object of scholarly concern.

In the second chapter of this section Sándor Chardonnens takes the reader into the world of dreams. In an ambitious and wide-ranging account Chardonnens argues that alphabetical dream books, dream lunaries and mantic alphabets belong to the same branch of divination, that of oneiromancy, and were very often copied in clusters within the same collection. The author investigates patterns of transmission of dream divination in manuscripts and early printed texts in order to understand whether the

ways in which those three types of texts were clustered together may give us an indication of genre awareness. The chapter is accompanied by an extensive hand list of sources cataloguing 556 manuscripts and early printed books.

The final contribution of the volume, by Ann Buckley, presents an appraisal of the collection known as 'The Cambridge Songs', or *Carmina Cantabrigiensia* (Cambridge University Library MS Gg.5.35, ff. 432ra–443vb), found in an English manuscript but derived from a German source which also included material from the international clerical court culture of the period. Buckley suggests that the collection can be viewed as an example of an 'anthology of musical knowledge' which informs on poetic and musical genres, techniques of playing musical instruments and singing, performance practice in the presence of an audience, as well as types of repertory which would have been usual in the eleventh century among learned audiences. The chapter focuses firstly on the song texts as a source of information on musical knowledge and musical practice in German court culture of the eleventh century, but takes account too of the wider European context for Latin song in clerical circles and among lay intellectuals of the time and interrogates the *raison d'être* of such a collection in the context of anthologies of knowledge of the time.

The volume as a whole, which includes diverse yet complementary contributions by medievalists who collectively cover a wide geographical and historical spread, serves to explore issues of preservation, transmission and reinvention of knowledge and learning in the Middle Ages. It is hoped that this edited collection will take readers on a learning journey, stopping off at eighth-century caskets, Scandinavian burial stones, manuscripts, maps, texts on divination and prognostics, epic poetry, historical and religious writings and musical instruction, that will be of benefit to scholars working in different fields of medieval studies.

[1] *Bede's Ecclesiastical History of the English People*, ed. and trans. B. Colgrave and R. A. B. Mynors (Oxford: Clarendon Press, 1969, IV.2

[2] Chaucer, *General Prologue*, line 308, ed. L. D. Benson, *The Riverside Chaucer* (Oxford: Oxford University Press, 1989), p. 28.

[3] Dante, xxvi.118.

[4] *Bede The Reckoning of Time,* trans. F. Wallis (Liverpool: Liverpool University Press, 1998, repr. 2004), p. 4.

[5] R. H. Bremmer and K. Dekker (eds), *Foundations of Learning: the Transfer of Encyclopaedic Knowledge in the Early Middle Ages* (Leuven: Peeters, 2007), p. x., and R. H. Bremmer and K. Dekker (eds), *Practice in Learning: the Transfer of Encyclopaedic Knowledge in the Early Middle Ages* (Leuven: Peeters, 2010). See also P. Lendinara, L. Lazzari and M. A. D'Aronco (eds), *Form and Context of Instruction in Anglo-Saxon England in the Light of Contemporary Manuscript Evidence* (Turnhout: Brepols, 2007).

[6] S. Chardonnens and B. Carella (eds), *Secular Learning in Anglo-Saxon England: Exploring the Vernacular* (Amsterdam: Ropopi, 2012).

[7] R. Copeland, *Pedagogy, Intellectuals, and Dissent in the Later Middle Ages: Lollardy and Ideas of Learning* (Cambridge: Cambridge University Press, 2001); see also, Copeland's *Rhetoric Hermeneutics and Translation in the Middle Ages* (Cambridge: Cambridge University Press, 1991). See also D.G. Deanery, K. Ghosh and N. Zeeman (eds), *Uncertain Knowledge: Scepticism, Relativism, and Doubt in the Middle Ages* (Turnhout: Brepols, 2014).

[8] T. Glick, S. J. Livesey and F. Wallis (eds), *Medieval Science, Technology and Medicine, An Encyclopaedia* (Abingdon: Routledge, 2005), s.v. 'scientia', p. 455.

[9] R. Challoner and B.W., Griffin (eds), *The Holy Bible: Douay Version,*

Translated from the Latin Vulgate (Douay, A.D. 1609; Rheims, A.D. 1582) (Dublin: Richard Coyne, 1816, repr. London: Catholic Truth Society, 1957). Available online at http://www.latinvulgate.com.

[10] *Sed hoc modo instructus divinarum Scripturarum studiosus, cum ad eas perscrutandas accedere coeperit, illud apostolicum cogitare non cesset: 'Scientia inflat, charitas aedificat'* (*Sancti Aurelii Augustini Hipponensis Episcopi Opera Omnia, De doctrina christiana,* opera et studio Monachorum Ordinis Sancti Benedicti e Congregatione S. Mauri (Paris: Gaume Frates, 1836), II.xli.62, cols 75‒6. 'When the student of the Holy Scriptures, after being instructed in this manner, begins his examination of them, he should not fail to reflect upon that observation of the apostles: 'Knowledge puffs up, but charity edifies'. The translation is from J.J. Gavivan, *Saint Augustine, Christian Instruction* (The Fathers of the Church; Washington: The Catholic University of America Press, 1947, repr. 1966), p. 114.

[11] *Confessionum Libri Tredecim* (*Opera Omnia*), opera et studio Monachorum Ordinis Sancti Benedicti e Congregatione S. Mauri (Paris: Gaume Frates, 1836), XIII.xxi.30, col. 396.

[12] T.F. Gilligan, *Soliloquies* (New York: Cima Publishing, 1948), *Sol*. I.ii.7, p. 350.

[13] For a study of Augustine's epistemology, see L. Gioia, *The Theological Epistemology of Augustine's De Trinitate* (Oxford: Oxford University Press, 2008).

[14] *Cum itaque se mens novit et amat, iungitur ei amore uerbum eius. Et quoniam amat notitiam et novit amorem, et verbum in amore est, et amor in verbo, et utrumque in amante atque dicente* (*De trinitate*, *Opera Omnia,* IX.x.15, col. 1348). 'Hence, when the mind knows and loves itself, its word is joined to it by love. And because the mind loves its knowledge and knows its love, then the word is in the love and the love in the word, and both are in him who loves and who speaks'. The translation is from S.

McKenna, *St Augustine's The Trinity* (Washington: The Catholic University of America Press, 1963, repr. 1972), p. 285.

[15] See M. J. B. Gardin Dumesnil (ed.), *Latin Synonyms, with their different Significations, and Examples Taken from the Best Latin Authors*, trans. by J. M. Gosset (London: Whittaker, 1819).

[16] 'For it is the duty of good education to arrive at wisdom by means of a definite order; without order this is a matter of chance hardly to be relied upon […]'. Gilligan, *Soliloquies*, *Sol.* I.xiii.23, p. 374.

[17] *De trinitate*, XII.xxii.16, cols 1400–1.

[18] P. E. Hochschild, *Memory in Augustine's Theological Anthropology* (Oxford: Oxford University Press, 2012), p. 218.

[19] S. Borruso (trans.), *St. Augustine, On Order* (South Bend, IN: St. Augustine's Press, 2007), Book II, Second Debate, ix.26, p. 86.

[20] *The Reckoning of Time*, p. xxi.

[21] *De doctrina christiana*, II.xx.30, cols 59-60.

[22] *De doctrina christiana*, II.xxix.58, col. 74.

[23] *De doctrina christiana*, II.xlii.63, col. 78.

[24] Gavivan, *Christian Instruction*, p. 116.

[25] *De doctrina christiana*, II, table of contexts, chapter xviii, cols 41–2.

[26] *De doctrina christiana*, II.xxxi.48, col. 69.

[27] *On Order,* Book I, First Debate, viii.24, pp. 30–1.

[28] W. Halporn (ed. and trans.), *Cassiodorus Institutions of Divine and Secular Learning, On the Soul*, with an introduction by M. Vessey (Liverpool: Liverpool University Press, 2004), p. 107.

[29] G. Morin (ed.), *Sancti Caesarii Arelatensis Sermones*, CCSL 103–4 (Turnhout:

Brepols, 1953), Sermo XCIX.

[30] *Iam in musica, in geometria, in astrorum motibus, in numerorum necessitatibus ordo ita dominator ut si quis quasi eius fontem atque ipsum penetrale videre desideret, aut in his inveniat aut per haec eo sine ullo errore ducatur* ('take now music, geometry, the motion of the heavens, number theory. Order is so overpowering in these, that anyone seeking its source will either find it there, or will be led to it through them without error'). Borruso, *On Order*, Book II, First Debate, 5.14, pp. 68–9.

[31] For a thorough study of education and culture from the sixth to the eighth centuries, see P. Riché, *Education and Culture in the Barbarian West Sixth through Eighth Centuries*, trans. from the 3rd ed. by J. J. Contreni (Columbia, SC: University of South Carolina Press, 1976).

[32] M. Masi (trans.), *Boethian Number Theory* (Amsterdam: Rodopi, 1983), p. 71. Both Boethius and Cassiodorus drew on Martianus Capella's order of discussion of the liberal arts in *De nuptiis philologiae et mercurii*. By the sixth century classical learning and study of pagan authors had already entered Irish monasteries where particular relevance was given to the *quadrivium* as applied to computistical studies.

[33] S.A. Barney (trans.), *The Etymologies of Isidore of Seville* (Cambridge: Cambridge University Press, 2006), I.xxix.2, p. 55.

[34] M. Asmler, *Etymology and Grammatical Discourse in Late Antiquity and the Early Middle Ages* (Amsterdam: John Benjamins Publishing, 1989), p. 136.

[35] For an insightful study of etymology in late antiquity and the early Middle Ages, see Asmler, *Etymology and Grammatical Discourse*, p. 134.

[36] Barney, *Etymologies*, p. 42.

[37] Asmler, *Etymology and Grammatical Discourse*, p. 136.

[38] *Disciplina* and *ars* were often used interchangeably. Augustine uses *disciplina* to refer to *disciplinis liberalis*, and *ars* to denote the branch of learning as in *artes mechanicae*, *de arte rhetorica et dialectica* (*De doctrina*, II. xli.62).

[39] J. Oroz Reta and M.A. Marcos Casquero (eds), *Etymologias* (Madrid: Biblioteca de Autores Cristianos, 1994), I.i.1, p. 25.

[40] J. Ackerman, 'On scientia', *Daedalus*, 94.1 (1965), 14–23 (14).

[41] M. Franklin-Brown, *Reading the World: Encyclopaedic Writing in the Scholastic Age* (Chicago and London: University of Chicago Press, 2012), pp.7–8. See also J. North, 'The art of knowing everything', in P. Binkley (ed.), *Pre-Modern Encyclopaedic Texts* (Leiden: Brill, 1997), pp. 183–200.

[42] H. Rackman (ed. and trans.), *Pliny Natural History*, vol. 1 (Cambridge, MA and London: Harvard University Press and W. Heinemann, 1967), Preface.14, pp. 10–11.

[43] U. Eco, *Interpretation and Overinterpretation* (New York: Cambridge University Press, 1992), p. 149. On the interconnectedness of knowledge and the importance of learning different subjects, Vitruvius states that *Architecti est scientia pluribus disciplinis et variis eruditionibus ornata, cuius indicio probantur omnia quae ab ceteris artibus perficiuntur*. 'The science of the architect depends upon many disciplines and various apprenticeships which are carried out in other arts'. F. Granger (ed. and trans.), *Vitruvius on Architecture*, 2 vols (Cambridge, MA and London: Harvard University Press and W. Heinemann, 1970), I.i, pp. 6–7.

[44] For a detailed analysis of Theodore's and Hadrian's period, see B. Bischoff and M. Lapidge (eds), *Biblical Commentaries from the Canterbury School of Theodore and Hadrian*, CSASE 10 (Cambridge: Cambridge University Press, 1994).

[45] Colgrave and Mynors, *Bede's Ecclesiastical History*, IV.ii, pp. 333–5.

[46] A. Borst, *The Ordering of Time: From the Ancient Computus to the Modern Computer*, trans. by A. Winnard (Chicago: University of Chicago Press, 1993), p. 98.

[47] See M. Lapidge, *Anglo-Latin Literature 600–899* (London and Rio Grande, OH: The Hambledon Press, 1996), pp. 247–69, and A. Orchard, *The Poetic Art of Aldhelm*, CSASE 8 (Cambridge: Cambridge University Press, 1994).

[48] D. Zimpel (ed.), *De institutione clericorum libri tres* (Frankfurt: Peter Lang, 1996), 25, 403D–404A. The translation is taken from *The Reckoning of Time*, p. xci.

[49] F. Wallis, 'Bede and Science', in S. DeGregorio (ed.), *The Cambridge Companion to Bede* (Cambridge: Cambridge University Press, 2010), pp. 114 and 116.

[50] F. Wallis, 'Si naturam quæras: reframing Bede's "science"', in S. DeGregorio (ed.), *Innovation and Tradition in the Writings of the Venerable Bede* (Morgantown, WV: West Virginia University Press, 2006), pp. 88-9.

[51] *Ibid*., p. 114.

[52] Colgrave and Mynors, *Bede's Ecclesiastical History*, III. 3, p. 256.

[53] Wallis, 'Bede and Science', p. 125.

[54] C.W. Jones (ed.), *Bedae opera de temporibus*, (Cambridge, MA: The Medieval Academy of America, 1943), p. 175. The translation is that of Wallis, *Bede's Reckoning of Time*, Preface, p. 4. Bede's debt to both divine inspiration (*amore Dei*) and ancient documents (*litteris antiquorum*) is explicitly acknowledged in the final passage of the *Historia* which opens with: *Haec de historia ecclesiastica Brittaniarum, et maxime gentis Anglorum, prout uel ex litteris antiquorum, uel ex traditione maiorum, uel ex mea ipse cognitione scire potui, Domino adiuuante digessi Baeda famulus Christi, et presbyter monasterii beatorum apostolorum Petri et Pauli, quod est ad Uiuraemuda, et Ingyruum* (I, Bede, servant of God and priest of the monastery of St. Peter and St. Paul which is at Wearmouth and Jarrow, have, with the

help of God and to the best of my ability, put together this account of the History of the Church of Britain and of the English people in particular, gleaned either from ancient documents or from tradition or from my own knowledge). Colgrave and Mynors, *Bede's Ecclesiastical History*, , V.xxiv (293).

[55] M. Blake (ed.), *Ælfric's De temporibus Anni* (Cambridge: D. S. Brewer, 2009), pp. 76–7.

[56] M. Lapidge and P.S. Baker (eds), *Byrhtferth's Enchiridion* (EETS, SS 15; Oxford: Oxford University Press, 1995), pp. 120–1.

[57] For a detailed discussion on this topic, see S. Brown, 'The intellectual context of later medieval philosophy: universities, Aristotle, arts, theology', in John Marebon (ed.), *Medieval Philosophy* (History of Philosophy, vol. III; London: Routledge, 2004), pp. 188–203.

[58] See G. Klima, F. Allhoff and A. Jayprakash Vaidya (eds), *Medieval Philosophy. Essential Readings with Commentary* (Oxford: Blackwell, 2007), p. 8.

[59] Glick, S. J. Livesey and F. Wallis, *Medieval Science*, p. 455.

[60] J. Barnes (trans.), *Aristotle Posterior Analytics* (Oxford: Clarendon Press, 2nd ed. 1994), I.1, p. 1. 'The object of knowledge would appear to exist before knowledge itself, for it is usually the case that we acquire knowledge of objects already existing'. E.M. Edghill (trans.), *Aristotle, Categories*, R. McKeon, *The Basic Works of Aristotle* (New York: Random House, 1941), p. 7.

[61] Barnes, *Aristotle Posterior*, I.1, p. 1.

[62] *Ibid*.

[63] 'We do know things through demonstration. By a demonstration I mean a scientific deduction; and by scientific I mean a deduction by possessing which we understand something'. Barnes, *Posterior Analytics*, II.ii. 18–20, p. 2.

[64] Barney, *Posterior Analytics*, I.ix, p. 14.

[65] U. G. Leinsle, *Introduction to Scholastic Theology* (Washington, DC: The Catholic University of America Press, 2010), p. 131.

[66] Barney, *Posterior Analytics*, I.vii, p. 12.

[67] Jerkins notices that in Aquinas's commentary to Aristotle's *Posterior Analytics, noscere* and *notitia* are employed as 'near synomyms of *cognoscere* and *cognitio*, but the former pair of terms seem to be used in a more restricted sense. They seem to signify only intellectual *cognitio* and *cognitio* which successfully apprehend its object. That is, *notitia* seems to be true belief with positive epistemic status, and *noscere* seems to be to have such a belief. Aquinas uses *innotescere* as the passive form of *noscere* (to become known)'. J. I. Jerkins, *Knowledge and Faith in Thomas Aquinas* (Cambridge: Cambridge University Press, 1997), p. 17. See also R. Pasnau, *Theories of Cognition in the Later Middle Ages* (Cambridge: Cambridge University Press, 1997).

[68] C. Martin (ed.), *The Philosophy of Thomas Aquinas. Introductory Readings* (London: Routledge, 1988), p. 119.

[69] P. Caramello (ed.), *Sancti Thomae de Aquino Summa theologiae* (Turin: Marietti, 1952), Iª.Q.1.art.2, p. 15.

[70] *The Summa Theologica of St. Thomas Aquinas, part I. QQ I.XXVI* , trans. by the Fathers of the English Dominican Province (London: Burns Oates & Washbourne, 1992), Iª.Q.1.art.2, p. 4.

[71] Q.I. art.4, p. 6.

[72] Q. I. art. 7, p. 11.

[73] Q.15. Art. 9, p. 199.