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Chapter Seven
The Medieval Universities of Oxford and Paris

The "final draft" of this chapter has been made open access through a special arrangement with the University of Chicago Press, reflecting their interest in exploring the access themes raised in the book.

Note that the final draft, which has benefited from rounds of peer review and revision before being accepted for publication by the press, differs at a great many points from the published text of the book. The book benefited from the press' excellent copyediting, as well as my revisions and proofreading (with the help of colleagues) in that process. Those who are unable to obtain a copy of the published book from which to cite may wish to quote from and reference the final draft of this chapter as follows:

Chapter 7

The Medieval Universities of Oxford and Paris

A new educational entity for advanced studies, known as the *studium generale*, emerged

in Europe during the twelfth century. It initially arose out of the congregation of masters

and scholars to be found in such centers of learning as Bologna, Paris, and Oxford. These

prototypes of the medieval university formed through such an unremarkable series of

steps that little or no record was left behind. As if by spontaneous generation, masters and

scholars began to organize themselves, outside of episcopal schools, monasteries, and

private tutoring arrangements. By the early years of the thirteenth century, these masters

were operating within what could be identified as faculties of arts, law, medicine, and

theology.[1] The *studium generale* was attracting considerable attention. One after another

of these new institutions was formed in Cambridge, Salamanca, Siena, Naples, and

elsewhere during the thirteenth century.

The sense of mystery around the exact origins of the universities has not prevented

historians from speculating about why the *studium* appeared when and where it did. Some

historians point to the eleventh-century reestablishment of the legal right to incorporate

(from Roman law), as the master teachers formed a corporation (*universatas*), following

the guild model.[2] The new *studium* appeared in the emerging market centers of the High

Middle Ages. This was where the learned could readily attract students and find books, as

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[1] Jacques Le Goff refers to the "'spontaneously born' universities," in contrast to the "universities *created* by the public authorities," which followed not long after, while emphasizing that historians of this era "still confront a complex and ambiguous variety of institutions"; *Time, Work, and Culture in the Middle Ages*, trans. Arthur Goldhammer (Chicago: University of Chicago Press, 1980), 137, 135.

[2] Aleksander Gieysztor, "Management and Resources," in *Universities in the Middle Ages*, ed. H. de Ridder-Symoens, vol. 1 of *A History of the University in Europe*, ed. Walter Rüegg (Cambridge: Cambridge University Press, 1992), 108ff.

well as profit by the example of other guilds.[3] They were, in the first instance, practicing something of a new trade, and as artisans or masters of that trade, they were ready to form "the corporation of book users," as Jacques Le Goff names them, to gain protection and privilege for their practices.[4] Other historians observe how both church and state had an increasing need for highly literate staff, sufficiently conversant in matters of logic and law, in which these universities specialized, to administer their burgeoning interests.[5] Some reflect on how cathedral and canon schools succeeded so well in generating a secular enthusiasm for scholasticism – embodied by the legendary, if tragic, brilliance of Peter Abelard – that these schools could not keep up with the intellectual demand of a growing body of students.[6]

What typically goes missing from this list of likely causes is the great twelfth- and thirteenth-century influx of Islamic learning through the translation movement, discussed in the previous chapter.[7] The works translated into Latin during this period introduced

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[3] Davide Cantoni and Noam Yuchtman, "Medieval Universities, Legal Institutions, and the Commercial Revolution," *Quarterly Journal of Economics* 129, n. 2 (2014), 823–887.

[4] Le Goff *Time, Work, and Culture in the Middle Ages*, 133.

[5] Alexander Murray describes a "golden age for careerism," beginning in the twelfth century, featuring "the university ladder"; *Reason and Society in the Middle Ages* (Oxford: Oxford University Press, 1978), 220, 27. Alan B. Cobban writes of how "western European society had reached that point in its corporate growth which dictated the establishment of permanent centers of high growth capable of concentrating its available talent for socially useful employment"; *The Medieval Universities: Their Development and Organization* (London: Methuen, 1975), 18ff.

[6] Maurice de Wulf: "The schools of Notre Dame occupied the foremost place, and it was from them that the University [of Paris] sprang"; "The Teaching of Philosophy and the Classification of the Sciences in the Thirteenth Century," *The Philosophical Review* 27, no. 4 (1918), 357. Ronald G. Witt summarizes the arguments in favor of the private schools over the cathedral schools as the origin of the universities in the case of the Italian peninsula; he describes "the entire institutional growth of the Bolognese schools" into Bologna's university as "shadowy"; *The Two Latin Cultures and the Foundation of Renaissance Humanism in Medieval Italy* (Cambridge: Cambridge University Press, 2012), 8-9, 363.

[7] Charles Homer Haskins identifies a role for translation in the formation of universities, but leaves aside the Islamic aspect: "This new [Hellenist and Roman] knowledge burst the bonds of the cathedral and monastery schools… [and] drew… youths… to form… academic gilds"; *The Rise of Universities* (Ithaca: Cornell University Press, 1923), 5. John Marenbon presents university and translation as a coincidence: "The first fifty years of the Paris and Oxford universities also coincided with the rapid assimilation of Aristotle's non-logical writings"; *Pagans and Philosophers: The Problem of Paganism from Augustine to Leibniz* (Princeton: Princeton University Press, 2015), 127. Gordon Leff gives due credit to Islamic

European scholars to such a wide and sophisticated array of works of Islamic, Hellenic, Hindu, Persian, and Jewish thinkers that it could not help but define the intellectual moment for the period and region.[8] In Bologna, Paris, Oxford and elsewhere, the learned had then to wrestle with the relatively sudden profusion of a diverse body of works, which were, fortunately, often support by commentaries. Before the thirteenth century was half over, "virtually the whole corpus of Greek science was accessible to the western world," Robert W. Southern states, even as he joins those historians who tend to overlook the contributions of Islamic learning to this accessibility, "and scholars groaned [with pleasure, surely] under its weight as they strove to master it all."[9] On the other hand, Robert Burnett notes, in reference to Giles of Rome's 1277 condemnation of teaching at the University of Paris, that "the preeminence of Arabic sources for Western philosophy can be seen in the fact that, when Giles of Rome criticizes the errors of the philosophers, all the philosophers named are Arabic or wrote their philosophy in Arabic (Maimonides),

learning but not as a cause for these new institutions: "If institutionally the universities are the great new fact in the academic life of Christendom from the thirteenth century onward, intellectually it consists of the Greco-Arabic corpus of knowledge and ideas" and "the effects of Averroes' advent were among the most far-reaching in the intellectual history of the thirteenth century [in the West]"; *Paris and Oxford Universities in the Thirteenth and Fourteenth Centuries: An Institutional and Intellectual History* (New York: Wiley, 1968), 127, 136. Ann Blair takes a similar stance: "The translation into Latin for the first time of many texts of Aristotelian philosophy, from Arabic and directly from Greek in some cases, triggered the expansion of teaching beyond the seven liberal arts… the new disciplines which were added to the curriculum at the newly founded universities were the three philosophies (physics, metaphysics, and ethics), themselves considered propaedeutic to study in the higher faculties of medicine, law, and theology"; "Organizations of Knowledge," in *Cambridge Companion to Renaissance Philosophy*, ed. James Hankins (Cambridge: Cambridge University Press, 2007), 289. As does Ronald G. Witt: "By 1200 contact with an ever-enlargening corpus of scientific and theological writings of ancient Greek and medieval Islamic origin in translation had awakened European intellectuals to the possibility of asking a wealth of new questions"; *Two Latin Cultures*, 397.

[8] Burnett supports his claim of "the preeminence of Arabic sources for Western philosophy" in the Middle Ages with a list of 114 Arabic philosophic works translated into Latin roughly prior to 1600; "Arabic into Latin: The Reception of Arabic Philosophy into Western Europe," in *The Cambridge Companion to Arabic Philosophy*, eds. Peter Adamson and Richard C. Taylor (Cambridge: Cambridge University Press, 2005), 383, 391- 400.

[9] R. W. Southern, "Medieval Humanism" in *Medieval Humanism and other Studies* (Oxford: Blackwell, 1971), 48.

with the exception of Aristotle himself. Even in the case of Aristotle, Giles uses the Arabic–Latin translations."[10]

These works represented not just philosophy but novel branches of mathematics, astronomy, natural history, and medicine. Most of it had yet to be reconciled with the tenets of Christianity. It seems reasonable to surmise that cathedral and canon schools were overwhelmed by the stream of Latin translations from Toledo, Sicily, Antioch, and southern Italy. The works themselves called for the development of analytical skills, forms of inquiry, and ways of thinking that went well beyond the traditional training offered in Scripture and Church Fathers. The cathedral schools were clearly inadequate, as Abelard had already demonstrated earlier in the twelfth century, and before the Latin translation movement was fully underway. Something new was required and it initially took shape, not surprisingly, in a number of forms.

While this chapter focuses on the medieval universities in Paris and Oxford where the teaching masters formed chartered guilds, this was not the only model. In Bologna, the *studium* was far more of a student initiative, arising out of the contracted *societas* between a master and a pupil that became a prominent feature of twelfth-century education in the city. The students came to organize themselves around the "nations" from which they had travelled in pursuit of disciplines that served the professions, such as law.[11] Bologna was transformed by this pupil-driven trade in learning and the

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[10] Charles Burnett, "Arabic into Latin: The Reception of Arabic Philosophy into Western Europe," in *The Cambridge Companion to Arabic Philosophy*, eds. Peter Adamson and Richard C. Taylor (Cambridge: Cambridge University Press, 2005), 383.

[11] Hastings Rashdall, *Salerno, Bologna, Paris*, vol. 1 of *The Universities of Europe in the Middle Ages*, eds. F. M. Powicke and A. B. Emden (Oxford: Oxford University Press, 1936), 275, 176*ff*. The students later banded together to form a *universitas scholarium*, with the goal of obtaining fair prices for rooms, meals, and books in Bologna; M. W. Strasser, "The Educational Philosophy of the First Universities," in *The University World: A Synoptic View of Higher Education in the Middle Ages and Renaissance*, ed. Douglas

universatas scholarium that they formed soon garnered the support of the Holy Roman

Emperor, Frederick I, who issued a *Privilegium scholasticum* in 1158 that guaranteed

Bologna scholars safe conduct in their travels. Such privileges were warranted, his

declaration held, for those "who for love of learning choose exile and poverty and divest

themselves of their patrimony, while exposing themselves to every peril," even as they

"illuminated the whole world with their learning."[12]

In Bologna, the curricular focus was on the Justinian corpus of Roman law. Its

study required courses in the art and science of government, as well as canon law,

rhetoric, grammar and *ars nortaria*. This was surely part of Frederick's interest in

supporting the university, given his own imperial aspirations and the practical need for

administrators of the empire. Yet the interest in this learning was not entirely secular. In

1219, Pope Honorius III issued a bull enabling the cathedral archdeacon in Bologna to

award a *licentia* (a license to teach or degree) on the students who passed their

examinations. The *studium* in Bologna was underway and it grew into the Middle Ages'

dominant intellectual force in jurisprudence.[13]

The model was inspiring, given the rising bureaucratic needs of the feudal state,

and it was not long before universities were being founded by royal decree. Alfonso VIII

of Castile was among the first, creating a university in Palencia at the request of the city's

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Radcliff-Umstead (Pittsburgh: Medieval and Renaissance Studies Committee, University of Pittsburgh, 1973), 3. Witt, *Two Latin Cultures*, 277-78

[12] Pearl Kibre, *Scholarly Privileges in the Middle Ages: The Rights, Privileges, and Immunities of Scholars and Universities at Bologna, Padua, Paris and Oxford* (Cambridge: Mediaeval Academy of America, 1962), 10, 325.

[13] Walter Ullmann, *Law and Politics in the Middle Ages: An Introduction to the Sources of Medieval Political Ideas* (Ithaca: Cornell University Press, 1973), 85ff. Similar to Ronald G. Witt cited in n6 above, Ullmann refers to the university's origins in the twelfth-century "glossatorial school in Bologna," in which teachers would lecture, and with students, create glosses of the Roman law corpus in what were private lay schools; ibid.

bishop, in or around 1210. Not long after, Frederick II managed to establish a more successful instance in Naples in 1224. Part of the key to founding a university with staying power, Frederick discovered, was luring away masters of note from other institutions, notably Bologna and Paris, with promises of patronage and titles.[14]

The medieval university was dominated by the curricular presence of Aristotle. This was true for advanced degrees in law, medicine, and theology, as well as in the study of government, citizen, and state.[15] The Philosopher, as he was simply known, was made all the more teachable by the commentaries of Alfarabi, Avicenna, and Averroes in Latin, and later by improved translations of his works from the original Greek. The educational use of pagan philosophers in the universities understandably troubled the church. The universities were preparing young men for the priesthood, after all (and excluded women partly on that basis).[16] As a result, the teaching of Aristotle became a battleground in these new organizations' struggle for intellectual autonomy and self-governance. The universities were much more part of the world and the marketplace, compared to the monasteries that had pursued their own form of autonomy during the

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[14] Jacques Verger, *Men of Learning in Europe at the End of the Middle Ages*, trans. Lisa Neal and Steven Randall (Notre Dame: University of Notre Dame Press, 2000), 144. George Makdisi points to similarities between the endowed foundation of colleges, such as one established by Frederick II, and the Islamic madrasa, as both being an "incorporated charitable trust" devoted to learning, and thereby suggests that the *studium* is another aspect of the Islamic legacy in the West; *The Rise of Colleges: Institutions of Learning in Islam and the West* (Edinburgh: Edinburgh University Press, 1981), 225-27. This does not account for the guild formation of the *studium* elsewhere (observed by Frederick) nor the influence of monasticism on the incorporation of endowed institutions.

[15] Ullmann: "The cosmological revolution which the absorption of Aristotle wrought on the 13th century, displayed its greatest effects in the sphere of governmental science… Aristotle's concepts of the State as a 'body of citizens sufficing for the purposes of life' seems innocuous enough but nevertheless introduced new dimensions of thought concerning society and its government"; *Law and Politics*, 269.

[16] Jo Ann Kay McNamara: "Once priesthood became a prerequisite of higher education, nuns were institutionally disqualified from following monks into new areas of learning and administration, regardless of their natural endowments"; "The Herrenfrage: The Restructuring of the Gender System, 1050-1150," in *Medieval Masculinities: Regarding Men in the Middle Ages*, eds. Clare A. Lees (Minneapolis: University of Minnesota Press, 1994), 34.

Early Middle Ages. But the universities were insistent that their active pursuit of learning required them to stand apart from the business of the world, including local church business, the case for which and the implications for intellectual property I want to consider for the interconnected thirteenth-century histories of the universities of Oxford and Paris.

The University of Oxford

"At some point in the second half of the twelfth century," Nicholas Barker, a deputy keeper at the British Library, sums up Oxford's origins: "a swarm of the wandering scholars found all over western Europe settled at Oxford."[17] Adding to the mystery, the historian Gordon Leff at the University of York notes that, "indeed, the striking thing about the emergence of the university is that it was from the first untrammeled by any monastic or cathedral leading strings."[18] Still, there is evidence of a contributing cause for the Oxford settlement to be found in a trail of Latin translations leading from the farthest reaches of Christendom to Oxford. Those implicated in this learned transport include Petrus Alfonsi and Adelard of Bath, from the preceding chapter, and others such as Daniel of Morley.[19]

Daniel of Morley was a Norfolk lad who first studied at Oxford around 1160 before taking his studies to Paris where he encountered *doctrina Arabum* (Arab learning) while studying astronomy there. Told that Toledo was the source of such learning, off he

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[17] Nicholas Barker, *The Oxford University Press and the Spread of Learning* (Oxford: Oxford University Press, 1978), 1.

[18] Leff, *Paris and Oxford Universities,* 76.

[19] See Charles Homer Haskins, "The Introduction of Arabic Science into England," in *Studies in the History of Medieval Science* (New York: Frederick Ungar, 1924), 113-129.

went to the Iberian Peninsula, and once settled in Toledo, he attended the astronomy lectures of the great Arabic translator, Gerard of Cremona.[20] In Daniel's only surviving work, *Philosophia*, from around 1175, he describes how it was that, "eventually my friends begged me to come back from Spain; so, on their invitation, I arrived in England, bringing a precious multitude of books with me."[21] His *Philosophia* celebrates "the logical arguments of the Arabs," as he puts it, and it is tellingly dedicated to John of Oxford, who was clearly among the more open-minded bishops, given to patronizing such adventuresome learners, with their precious cart-loads of books adding to Oxford's ability to attract the learned to this community.[22]

As for the early traces of such books at Oxford, the scant records of the time indicate that Alexander Nequam, grammarian, encyclopedist, commentator, and poet, was introducing his theology students to Aristotle during the 1190s and showed an awareness of texts by Euclid, Galen, and Isaac Israeli, as well as of a mariner's instruments, all suggesting Islamic influence.[23] Master John Blund was another who taught Aristotle at Oxford, from around 1200 and with the help of Avicenna and with little effort to reconcile the Greek philosopher's views on the soul, free will, and immortality, with Christianity.[24] His commentary on Aristotle's *On the Soul* is rich in

[20] Charles Burnett, "The Translating Activity in Medieval Spain," in *The Legacy of Muslim Spain*, ed. Salma Khadra Jayyusi (Leiden: Brill, 1992), 1045.

[21] Cited by Charles Burnett, *Introduction of Arabic Learning into England* (London: British Library, 1997), 62.

[22] Ibid., 63.

[23] A. C. Crombie, *Robert Grosseteste and the Origins of Experimental Science 1100-1700* (Oxford: Oxford University Press, 1953), 41.

[24] Mary Martin McLaughlin, *Intellectual Freedom and Its Limitations in the University of Paris in the Thirteenth and Fourteenth Centuries* (New York: Arno Press, 1977), 42.

references to Avicenna and Al-Ghazali, with some mention of Plato, Cicero, Boethius, and lesser amounts of Augustine and John of Damascene.[25]

In 1209, Blund was among those masters and scholars who ceased lecturing at Oxford and left for Paris in protest over the town's treatment of two students, while others headed to Cambridge to start a new university. Oxford's mayor and burgess had summarily hanged two pupils who were seemingly involved in the murder of a local woman. The masters believed that the students had clerical status, which made them subject to the church law and court alone, although the whole matter was complicated by a papal interdict censuring King John and the country as a whole.[26] When King John finally agreed to submit to the authority of Pope Innocent III in 1214, the town of Oxford took it as an opportunity to rebuild the university. Expressing regrets over the hanging, officials approached the papal legate in England, Nicholas de Romanis, for a settlement that might bring the university back to life in Oxford. Nicholas complied with a bull on June 20, 1214, that firmly established the scholars' legal rights and town's obligations, with an attractive package that protected them from civil law and provided discounted rents.[27] Hastings Rashdall, a nineteenth-century historian of European universities, names

[25] Leff, *Paris and Oxford Universities*, 144.

[26] C. H. Lawrence, "Blund, John (*c.*1175–1248)," in *Oxford Dictionary of National Biography*, eds. H. C. G. Matthew and Brian Harrison (Oxford: Oxford University Press, 2004), online. On those who went to Cambridge, Oxford man Rashdall adds, "what attracted them to that distant marsh town we know not"; Hastings Rashdall, *English Universities, Student Life,* vol. 3 of *The Universities of Europe in the Middle Ages* (Oxford: Oxford University Press, 1895/1936), 34.

[27] The papal ordinance established that the town of Oxford would exercise rent controls to protect students for two decades, beginning at half their rates in 1209 for the first ten years, and then going no higher than those earlier rates; as well, the students were granted 52 shillings annually by the town for the poor among them, as well as an annual dinner for a hundred on St. Nicholas Day (December 6th, likely anniversary of the student executions); and students were to have the benefit of clergy, which meant submitting to a church court on all legal matters, much as their Parisian counterparts had possessed over the previous decades; L. W. B. Brockliss, *The University of Oxford: A History* (Oxford: Oxford University Press, 2016), 13-14.

the ordinance a "charter of privilege," while Southern calls it a "charter of submission."[28] It was both, of course, and as such, established for the first time the legal and autonomous standing of the university in Oxford.

Among its terms, the deed refers to a "chancellor whom the bishop of Lincoln shall set over the scholars."[29] The initial appointment is thought to have been Robert Grosseteste, although some controversy remains on the nature and title of his brief tenure.[30] What is clear is that Grosseteste played a major role in making the Greco-Arabic sciences a part of the university. Born into a modest Suffolk family in 1175, Grosseteste was introduced to the new science while serving the Bishop of Hereford, William de Vere, who organized within his household a remarkably active study of chronology, astronomy, and astrology.[31] Although we do not have the whole story behind Grosseteste's education, he appears to have acquired a master's degree at a young age, studied in Oxford and perhaps Paris (where he may well have picked up the ascription of a swelled head), and at some point, he encountered the works of Avicenna, al-Ghazali, al-Hazen and others circulating Europe at the time.[32]

Once established as a master at Oxford, Grosseteste taught theology, while translating Greek texts into Latin and preparing influential commentaries on Aristotle.[33] His greatest influence on the university was introducing the standards of empiricism into

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[28] Rashdall, *Universities*, vol. 3, 35; R. W. Southern, "From Schools to University," in *Early Oxford Schools*, ed. J. I. Catto, vo. 1 of *The History of the University of Oxford* (Oxford: Oxford University Press, 1984), 26-31.
[29] Ibid., 31.
[30] M. B. Hackett, "The University as Corporate Body," in *The Early Oxford Schools*, ed. J. I. Catto, vol. 1 of *The History of the University of Oxford* (Oxford: Oxford University Press, 1984), 45-47.
[31] Josiah C. Russell reports on how Roger of Hereford, for example, had adapted Arabic tables in 1176 for tracing the movement of the heavens and the casting of horoscopes suitable to the region; "Hereford and Arabic Science in England about 1175-1200," *Isis* 18, no. 1 (1932), 14-25.
[32] Burnett, *Arabic Learning,* 74.
[33] Leff, *Paris and Oxford Universities*, 145.

the sciences.[34] He championed the pedagogical and intellectual value of experimentation, as well as the demonstrative logic to be found in Euclid's geometry and other works. In his teaching, he drew on the commentaries of al-Kindī, Alfarabi, Ibn al-Haytham, and Avicenna. His leadership in natural philosophy and the sciences during those early years at Oxford amounted to, in the estimation of Alistair C. Crombie, University of London historian of science, "the methodological revolution to which modern science owes its origin."[35] The extent to which Grosseteste was inspired in this revolution by the fruits of the Latin translation movement forms a part of my access argument for the intellectual properties of learning. To vastly expand the commons that scholars are able to draw upon, in this or any other way, clearly acts as a generational force, leading to new techniques and properties. Grosseteste is credited with having composed 120 books on a vast range of topics, which in the sciences included *On the Calendar*, *On the Movement of the Planets*, and *On the Origins of Sound*.

Now, to be sure, the scientific methods that Grosseteste introduced were still in their formative years. At one point, he presents the example of "experimental" results demonstrating that the herb scammony (native to Syria and Asia Minor) has been successfully used to treat excess bile. Later scholars have found evidence that Grosseteste likely lifted this treatment from a work by Avicenna, who presented it as no more than something he had observed and assumed to be "not by mere chance," as the Islamic

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[34] Richard W. Southern, *Robert Grosseteste: The Growth of an English Mind in Medieval Europe* (Oxford: Oxford University Press, 1986), v-vii; Robert W. Southern, "Grosseteste, Robert (*c.*1170–1253)," in *Oxford Dictionary of National Biography*. See also Crombie, *Grosseteste***.**

[35] Crombie, *Grosseteste*, 9. In a remarkable turn, Crombie both credits the translation movement and deprecates its cultural sources: "The new translations, of which the Greek and Arabic originals had so conspicuously failed to produce a thoroughgoing experimental science in the classical and Mohammedan worlds, provided Western Christendom with the beginnings of a method of rational explanation of empirical facts"; ibid., 11.

scholar put it.[36] Then there is his combination of science and theology in his work on optics. Here Grosseteste works from Alfarabi's use of geometry, arithmetic, astronomy, and music in the study of light.[37] In *On Light* (*De luce*), from 1228, Grosseteste presents a treatise on how light's geometrical properties reflect certain theological and metaphysical qualities. Light is the "first corporeal form" and from it the rest of the physical universe is revealed and takes its physical shape, just as God's first biblical command was, "Let there be light."[38] In *On Lines, Angles, and Figures* (*De lineis, angulis, et figuris*) from 1230-31, Grosseteste demonstrates the value of applying Euclidean geometry to be able to make sense of how light behaves: "The utility of considering lines, angles and figures is of the greatest utility since it is impossible to know the nature of philosophy without them," he writes in this work on reflection and refraction.[39] The geometry of light revealed the divine structure of the world for Grosseteste. Geometry was the key to his natural philosophy, much as the calculus was for Newton, as they sought to look into the mind of God (rather than looking into his face, as monastics aspired to do).

Still, what Grosseteste did for Oxford was to make a clear call for a "science acquired by demonstration" for that is a science able to arrive at "a cause of the thing

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[36] Cited by Bruce S. Eastwood: "Mediaeval Empiricism: The Case of Grosseteste's Optics," *Speculum* 43, no. 2 (1968), 310, 308 n. 19. Richard C. Dales observes that "most of the experiments" reported are "those he had read about"; "Robert Grosseteste's Scientific Works," *Isis* 52, no. 3 (1961), 401.

[37] Ibid., 399. Alfarabi contrasts his interest in *explaining* how light works through geometry with Aristotle's focus on *describing* light's behavior.

[38] Cited by A. Mark Smith, *From Sight to Light: The Passage from Ancient to Modern Optics* (Chicago: University of Chicago Press, 2015), 257.

[39] Cited and translated by Amelia Carolina Sparavigna, "Reflection and Refraction in Robert Grosseteste and his Treatise on Lines, Angles and Figures and the Propagation of Light," *International Journal of Science* 2, no. 9 (2013), 101. Grosseteste also refers to Aristotle's *Meteorology and Metaphysics*, Euclid's *Elements*, Boethius's *Arithmetic*, and Averroes's *Long Commentary on the* On the Soul; Smith, *From Sight to Light*, 259. Smith also sees traces of al-Kindi in *On Lines*, with Grosseteste citing the Islamic scientist elsewhere; ibid.

known," and that, for him, is "science most strongly and most properly so called."[40] In practice, these inquiries were more complicated than that, amounting to an amalgam of theological concerns, past authorities and present demonstrations. Still, it offered a form of proof and a means of pedagogy, a way of learning and teaching, that served Grosseteste particularly well in advancing natural philosophy at Oxford.[41]

Still, there came a day in 1231, when Grosseteste attended a sermon that changed his life. It was given by a visiting Dominican friar whose fulminations against the sins of academic pride and vanity moved Grosseteste, at the age of 56, to give up his university post and his parish of Abbotsley. In their stead, he dedicated himself to serving as a teacher (*lector*) for the *studium* of a newly established Franciscan community just beyond Oxford's city walls. He did not take the vows of a friar (with more on the Franciscans and Dominicans below) but continued to serve the order for four years.

In 1235, the indefatigable Grosseteste was elected Bishop of Lincoln. Although the local bishop was often the bane of the university (which was part of the diocese), Grosseteste was very much its continuing servant. In 1238, he rescued Adam of Buckfield from the Oxford jail, after he was caught up in a student riot.[42] More significantly, in 1240, Grosseteste was able to divert one of the university's bursaries –

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[40] Cited by Steven P. Marrone, *William of Auvergne and Robert Grosseteste: New Ideas of Truth in the Early Thirteenth Century* (Princeton: Princeton University Press, 1983), 228. In the twelfth century, Averroes wrote of "the books of demonstration" and the "demonstrative arts," contrasting them to "persuasive" statements; *Tahafut al Tahafut* (*The Incoherence of the Incoherence*), trans. Simon Van Den Bergh (Cambridge: Gibb Memorial Trust, 2008), 257. When Gerard of Cremona translated Aristotle's *Posterior Analytics*, he called it *The Book of Demonstrations*; Burnett, "Arabic into Latin," 374.
[41] Crombie points to how he added to "the popularity of optics and mathematical science in the Oxford school"; *Grosseteste*, 131.
[42] Adam of Buckfield went on to teach at Oxford, for which he prepared Aristotelian commentaries that were used by Thomas Aquinas in Paris; J. A. Weisheipl, "Science in the Thirteenth Century," in *The Early Oxford Schools*, ed. J. I. Catto, vol. 1 of *The History of the University of Oxford*, (Oxford: Oxford University Press, 1984), 462-63.

paid by the town's burgesses in retribution for the 1209 executions – into a loan-chest for the use of masters and scholars who were caught short financially. This university welfare system became an ongoing tradition for ensuring that members of this community were able to continue their studies through thick and thin.[43] More importantly, Grosseteste saw to it that the estate of Alan Basset, which was left to the university in 1243, was used to purchase land that then funded two scholarships for students in need.[44] The students or scholar-priests had to perform a daily mass in the name of Alan Basset and his wife, in yet another of the monastic traditions that were taken up by the *studium*.

As the university continued to attract such gifts, in recognition of its contribution to English life, they were used in this manner, with the very substantial ones directed at founding, incorporating, and financing residential colleges, again in the monastic tradition. The residential colleges also took steps to build up their libraries by drawing on the private collections of their members, who were asked to pledge them to the college, following their departure, whether from the college or this earth. The best copies were often chained to the shelves to ensure access for everyone, while lesser copies were lent out to the fellows. The university's statutes advised the world at large, at more than one

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[43] T. H. Aston and Rosamond Faith, "The Endowments of the University and Colleges to Circa 1348," in *Early Oxford Schools*, ed. J. I. Catto, vol. 1 of *The History of the University of Oxford* (Oxford: Oxford University Press, 1984), 267. Support also came from Oxford's Jewish moneylenders, for while Jews were barred from joining the university (until 1856), their money-lending, book trade, and ownership of academic halls made them a vital part of the emerging institution, as did the example of their own devotion to study and book collections; ibid., 274-75.

[44] Aston and Faith, "Endowments," 268. Aston and Faith note how the early colleges were "a community living a common life of a clerical though non-monastic nature"; ibid., 265. His *Rules of Robert Grosseteste*, *c*. 1240-42, which he prepared in French to guide the widowed Countess of Lincoln, Margaret de Lacy in estate management, does suggest further monastic parallel; Louise J. Wilkinson, "*The Rules of Robert Grosseteste* Reconsidered: The Lady as Estate and Household Manager in Thirteenth-Century England," in *The Medieval Household in Christian Europe, c. 850-c. 1550*, eds. Cordelia Beattie, Anna Maslakovic, and Sarah Rees Jones (Turnhout: Brepols, 2003), 293-307.

point, that "among other works of piety, it is reckoned pious to relieve the needs of scholars."[45]

Although Grosseteste had not spent long with the Franciscans, on his death in 1253, he left a substantial collection of papers, as well as Latin, Greek, and Arabic books to the convent where he had taught. His bequest formed the core of the Franciscan convent library in Oxford. For if the Franciscans could own nothing, not even a book, they could *use* the books, whether to study or prepare a sermon, much as they ate to give themselves the strength to preach. Grosseteste greatly aided in this use of the books by having symbols placed in the margins of many of them, indicating the topics dealt with, such as free will or the Day of Judgment (with some 400 symbols in all).[46]

It is worth pausing over the part played by Franciscans and Dominicans in the medieval organization of learning. In 1209, Francis of Assisi had been inspired by a sermon that he heard to change his life (as happened to Grosseteste a couple of decades later). The sermon's theme on the piety of asceticism led Francis to form an order of mendicant friars known as the Friars Minor, Grey Friars, or Franciscans. He committed the order to extreme simplicity and humility, leaving little space for learning. Not only was private property forbidden but communal property, such as books, as well: "To live in obedience," Francis' Short Rule had it, "in chastity, and without anything of their own."[47] The friars, who were to live on handouts and not provide for themselves, made

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[45] Cited by Aston and Faith, "Endowments," 265.

[46] M. W. Sheehan, "The Religious Orders 1220-1370," in *The Early Oxford Schools*, ed. J. I. Catto, vol. 1 of *The History of the University of Oxford*. (Oxford: Oxford University Press, 1984), 210. To examine a manuscript page displaying these clever indexing icons, see "Robert Grosseteste's Indexing Symbols, in a Volume of Works by St. Augustine, St. John Of Damascus, and Others," *Online Gallery* (London: British Library, 2009). Also, S. Harrison Thomson, "Grosseteste's Topical Concordance of the Bible and the Fathers," *Speculum: A Journal of Mediaeval Studies* 9, no. 2 (1934), 139-144.

[47] Francis of Assisi, "The Earlier Rule," in *Francis and Clare: The Complete Works*, trans. Regis J. Armstrong and Ignatius Brady, 107-35. (Mahwah: Paulist Press, 1982), 109.

no effort to teach the unlettered to read. They were to pray rather than read, to live their faith rather than interpret it.[48] In 1230, Pope Gregory IX, who had been a friend of Francis, issued a bull affirming the Franciscan rule against private and communal property, with the convents that the order had acquired reverting to church ownership. However, the pontiff specified that the mendicants retained the right to use books, as well as parchment and ink, if still at the discretion of the order's ministers.[49]

The Franciscans, as well as the Dominican order which began around the same time, were drawn to the *studium generale* in their desire for an informed and persuasive rhetoric for combatting what they felt were the heresies and materialism of their times[50] They had no patience with the guild structure of the universities, with this lack of regard antagonizing the *seculars* (the masters who took holy orders as clergy) over the nature of this new institution and its place in the world.[51] The seculars supported the medieval university's guild model of charging students for instruction, while the mendicants relied on gifts and donations from learning's patrons. And where the secular masters defended the guild's legal standing and its autonomy within the church, the mendicants brought to

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[48] Neslihan Senocak, *The Poor and the Perfect: The Rise of Learning in the Franciscan Order, 1209-1310* (Ithaca: Cornell University Press, 2012), 30, 32, 50.

[49] Senocak, *The Poor and the Perfect*, 60, 201. Senocak adds that the friars were advised "by administrators not to use works that indicate ownership" when referring to their collections of books; ibid., 205. In 1307, the General Chapter condemned "the communities of books" that precluded some friars from using the library; ibid., 207. Webber: "Not only did the number of communally owned books increase dramatically, but the collections appear to have gained a greater level of institutional stability. The practice of supplying books with an inscription of communal ownership was beginning to become more common by the end of the twelfth century, especially among the Cistercians and Augustinians"; "Monastic and Cathedral Book Collections," in *To 1640,* vol. 1, *The Cambridge History of Libraries in Britain and Ireland*, eds. Elisabeth Leedham-Green and Teresa Webber (Cambridge: Cambridge University Press, 2006), 123.

[50] Barbara H. Rosenwein and Lester K. Little, "Social Meaning in the Monastic and Mendicant Spiritualities," *Past & Present* 63 (1974), 4. Rosenwein and Little: "The friars rejected money; the monks abandoned the battlefield"; ibid., 32.

[51] Rosenwein and Little on the un-guild-like nature of the friars: "The friars in both orders thought of themselves as mendicants, determined to lead full lives each day without stocking supplies for the following day" and "the root of the problem seems to have been two-fold: first, there was a disgust with money itself; and second, the new urban professions lacked moral justification"; ibid., 21, 25.

this new institution a reformed sense of the monastic impulse to stand apart from the world, to bring that world closer to God.

The Dominicans, with their motto of "study, preaching and the salvation of the souls," established a religious house in Paris as early as 1217 and went on to dominate thirteenth-century teaching of theology and philosophy there, with Albert the Great and Thomas Aquinas among the more illustrious of their number, and studies in logic and natural philosophy in the *studium* they set up in Bologna.[52] With the rise of market and craft culture, Dominicans preached against individual ownership (*dominium*) in favor of traditional rights of use (*ius utendi*), which, I have been at pains to show, is a mainstay of the commonwealth of learning.[53] "True poverty is in religion, wherein is no ownership of person or of property," with "little even in common," as the Dominican Robert Bacon puts it.[54] Bacon was one of the earliest of the Dominican masters at Oxford, who took his vows in or around 1229 and continued teaching at the university until his death in 1248. If he was not prepared to reconcile Aristotle and Augustine in support of Christian beliefs, he still demonstrated the Dominican command of the new (ancient) learning with occasional Aristotelian examples in his teaching.[55]

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[52] K. W. Humphreys, *The Book Provisions of the Medieval Friars 1215-1400* (Amsterdam: Erasmus Booksellers, 1964), 46; Witt, *Two Latin Cultures*, 406.

[53] Janet Coleman: "Franciscans only wanted to claim *simplex ususfacti* [or *simplex usus facti*], the power to consume a commodity but not to trade it, alienate it, involve it in the monetary world; they were thereby able to preserve themselves from the non-feudal, profit economy and were, in effect, doing what radical but earlier monastic groups had done: run from the current economy rather than cope with it; "Dominium in Thirteenth and Fourteenth-Century Political Thought and its Seventeenth-Century Heirs: John of Paris and Locke," *Political Studies* 33 (1985), 95.

[54] Cited by B. Smalley, "Robert Bacon and the Early Dominican School at Oxford," *Transactions of the Royal Historical Society*, Fourth Series, 30 (1948), 9.

[55] Smalley, "Bacon and the Early Dominican School," 15. Smalley: "The early Oxford Dominicans show a queer blend of resistance and receptivity to new lines in thinking and teaching"; ibid.

Property had clearly become a spiritual test case. The Dominican, John of Paris, born around 1255, claimed, amid much controversy and censure from the church, that all ecclesiastical property, including that of the university presumably, should be regarded as held in common by all.[56] In 1269, the Franciscan theologian, Bonaventure, who studied and taught at the University of Paris, laid out a more nuanced set of property categories: "In dealing with temporal goods, namely, ownership, possession, usufruct, and simple use."[57] The friars took their stand with simple use, Bonaventure asserted, while allowing that this did not preclude the church's retention of its extensive properties. Bonaventure was responding to the objections of his secular colleagues at the University of Paris. They criticized the mendicant presumption that their higher poverty was "a more excellent state than that of the Roman church," as Gerard of Abbeville, another Paris theologian, put it in a sermon at the time.[58] A decade later, in 1279, Pope Nicholas III attempted to settle the dispute with a bull that, among other measures, made distinctions between a mendicant's right of use (say, to consult the books in a library) compared to the simple use of food to stay alive.[59]

The Grey Friars became known for the communal libraries that they assembled during the thirteenth century at a number of universities, based on Grosseteste-like

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[56] John of Paris: "Lay property is not granted to the community as a whole as is ecclesiastical property"; *On Royal and Papal Power*, trans. J. A. Watt (Toronto: Pontifical Institute of Medieval Studies, 1971), 103. Coleman: "John of Paris, as a Dominican, is traditionally held to be a staunch defender and follower of Aquinas, but he is doing something more radical than Aquinas and more akin to the Locke this author reads, at any rate, in arguing for the positive support of property rights from the natural law"; "Dominium in Thirteenth and Fourteenth-Century Political Thought," 96.

[57] Bonaventure, *The Works of St. Bonaventure*, ed. Robert J. Karris, vol. 15, *Defense of the Mendicants*, trans. José de Vinck and Robert J. Karris (St. Bonaventure: Franciscan Institute Publications, 2010), 307. Usufruct granted a right to the use of property, including commercial use, that left it unchanged, and as such corresponds to the intellectual property right of use that I associate with learning.

[58] Cited by Robert J. Karris, "Introduction," ibid., 10.

[59] Giorgio Agamben, *The Highest Poverty: Monastic Rules and Form-of-Life*, trans. Adam Kotsko (Stanford: Stanford University Press, 2013), 125-26. Agamben points to this as a distinction between law and fact; ibid., 126.

donations.[60] Among their growing libraries, the Franciscans pioneered a number of organizational innovations to improve the usefulness of their collections. They grouped books by subject; assigned them call numbers; created collection catalogs, including union catalogs across different collections; preserved works in book presses (flattening the humidity-sensitive parchment pages); and sold off less useful works with the proceeds building areas of strength in their collections.[61] Many aspects of the friars' communal patronage model of the well-managed research library attuned to the needs of scholars were later taken up by university libraries.

Among the Franciscans at Oxford, Roger Bacon (not to be mistaken for the Dominican, Robert Bacon, introduced earlier), arrived there after lecturing in Paris on Aristotle's *Physics and Metaphysics* in the 1240s, before returning to England where he as likely to have joined the order. At Oxford, Bacon followed the example of Grosseteste by promoting mathematics and the experimental sciences at the university "in the service of theology," to borrow from one of his book titles, but then he also had a strong faith in the powers of astrology.[62] He was among the more ecumenical spirits of his time, bringing together Solomon, Aristotle, and Avicenna as examples of those given to the

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[60] K. W. Humphreys, *The Book Provisions of the Medieval Friars 1215-1400* (Amsterdam: Erasmus Booksellers, 1964), 47-48. Humphreys: "The advent of friars to the universities at Paris, Oxford, Cambridge and Bologna introduced a new phase in the history of the library"; ibid., 83.
[61] Humphreys, *Book Provisions,* 62, 81, 99-118. M. T. Clanchy: "The Dominicans, like modern academics, required extensive libraries in which they could glance rapidly over a whole series of books, many of very recent authorship, in order to construct a wide-ranging argument"; *From Memory to Written Record: England 1066-1307*, 2nd ed. (Oxford: Blackwell, 1993), 160.
[62] Crombie, *Grosseteste*, 139. Smith: "In sharing the same Augustinian theological leaning, the same drive for broad learning, and the same enthusiasm for applying mathematics to the analysis of natural philosophy, Bacon was, in a sense, Grosseteste's alter ego"; *Sight to Light*, 260. Marenbon points out how Roger Bacon's *scientia experimentalis* was "something nearer to astrology, alchemy and magic than the experimental sciences in a modern sense," while he was also doing work in optics and mathematics; *Pagans and Philosophers*, 128.

renewal of learning, while calling for a spirit of cooperation among those committed to a Christian revival.[63]

In England, the Franciscans and Dominicans extended their educational efforts by setting up elementary schools, with the best boys sent to their respective order's priory house to study at Oxford.[64] The spiritual element that the friars brought to the university in Oxford attracted the royal patronage of Henry III, who made close to a hundred grants to the two orders, including allotments of timber and stone, during his long thirteenth-century reign.[65] The friars also received royal pittances to support their students.[66] The point of general agreement that eventually emerged among masters, secular and mendicant, during that century was on the order that Aristotle brought to learning. The peripatetic philosopher was placed at the head of the Oxford curriculum, but only as he had been carried there on the shoulders of his plentiful commentators, Greek, Islamic, and now English. The secular and mendicant masters contributed to their own "Oxford gloss" on Aristotle, and they did so with much support from and citing of the Commentator, which is to say, Averroes.[67]

Before the thirteenth century was over, monastics began to turn to these new institutions of learning. In 1257, the scholarly Benedictine monk and historian, Matthew Paris, appeared before King Henry III to defend the *studium* masters against the interference of Henry of Lexington, a bishop of Lincoln who was not as sympathetic to

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[63] George Molland, "Bacon, Roger (*c.*1214–1292?)," in *Oxford Dictionary of National Biography*.
[64] On the conflict between the orders, Archbishop John Pecham, a Franciscan, failed in his attempt toward the end of the thirteenth century to have the Dominican philosophy of Thomas Aquinas banned from Oxford; Sheehan, "Religious Orders," 204-5.
[65] Ibid., 211.
[66] Ibid., 201.
[67] Burnett, *Arabic Learning,* 75-6.

the university as Bishop Grosseteste had been.[68] In 1282, the Cistercians founded the first

of Oxford's monastic colleges, having already opened a college in Paris. The

Benedictines following suit at Oxford with the founding of Gloucester College in 1283

and Durham in 1286.[69] It signaled a recognition of what the university meant for learning

in ways that could support the monastic mission in ways that Bernard of Clairvaux had

not imagined in his opposition to the schools of Paris a little more than a century earlier.

In introducing his biography of Grosseteste, Southern refers to "the grandeur of

the medieval scholastic enterprise" as "one of the greatest achievements of cooperative

intellectual effort and social organization at any period in the past."[70] Grosseteste's citing

and crediting of Islamic scholars during this period points to how the West's engagement

with the translation movement marked an openness to learning that stood in stark contrast

to the Crusades' violent assault on Islam and to the proprietary secrets maintained by the

other trade guilds. The scholastic masters made their sources and methods plain; it is

what they taught, to fee-paying students, and what they published, for those who could

afford to have copies made. The masters and scholars were working within a distinct

intellectual property order in a semi-autonomous commonwealth of learning that

involved communal libraries, copying and compiling, commentaries and critiques. What

Grosseteste demonstrated above all, and what the friars managed to advance, is how this

cooperative intellectual effort thrived on well-organized access to new and traditional

forms of knowledge, and on equally well managed sponsorship and charity, if still in a

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[68] Lloyd Simon and Rebecca Reader, "Paris, Matthew (*c.*1200–1259)," in *Oxford Dictionary of National Biography*.
[69] Ibid., 194.
[70] Southern, *Grosseteste*, xxiii-xxiv.

struggle over the autonomy that served learning best. This proved to be all the more the case with Paris during the thirteenth century.

The University of Paris

Still, it was different in Paris. To begin with, the university, which took shape over the course of the twelfth century, grew out of the famous cathedral school at Notre Dame. The school's chancellor, appointed by the bishop, retained control of the *studium,* if often amid considerable controversy, throughout the thirteenth century and beyond. At the same time, the university masters and scholars swore oaths of fidelity to the ordinances and statutes of their *studium* guild. Another source of tension common to universities everywhere was how readily the young, rambunctious, and foreign students riled up the townsfolk. King Philip Augustus (the first to hold the title "King of France") had to step in more than once in the case of Paris, and after one such conflagration in 1200 granted the *studium* its own royal charter, which, among the rights and privileges granted, gave the scholars some immunity from overbearing civil magistrates.[71]

Issues also arose around the access and use rights of masters and scholars. In 1210, a synod led by Archbishop Peter of Corbeil forbade the teaching or study of Aristotle in all of Paris. He also prohibited the use of related commentaries on natural philosophy by Avicenna, Averroes, and others. Still, the ban appears to have had little enough effect on the university's program of teaching. After five years, Pope Innocent III felt compelled to become involved. His local legate, Cardinal Robert de Courçon, issued a less restrictive prohibition allowing that Aristotle could be used for private study and by

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[71] Kibre, *Scholarly Privileges*, 85-87.

the theology faculty.[72] In softening the prohibition against Aristotle, the Cardinal recognized the central place of the philosopher's work in the new learning, as well the degree of intellectual autonomy that was necessary if the masters were to serve (rather than resist) the authority of the church.[73] The responsible use of Aristotle was, after all, a frequent subject of scholastic disputation. A master might delve into an Aristotelian dialectic or a grammatical theme, while a bachelor of arts might respond with how perfectly appropriate or, more daringly, how inappropriate this use of Aristotle might be, by drawing on the well-studied text of the philosopher or a commentary on his work.[74]

The cardinal also weighed in on the university's fee structure, in light of the Christian belief that as knowledge comes of God, it cannot be sold.[75] The masters did not represent just another guild, but carried forward some part of the communal and pious spirit of monasticism. Cardinal Courçon condemned the charging of student fees in theology and canon law, while allowing it for secular subjects such as geometry. If a master of theology was without a church benefice to support himself, however, the cardinal allowed that he could reasonably accept gifts of appreciation from pupils.[76] And finally, the cardinal empowered the *studium* to enter into rent-control agreements with Parisian landlords.[77]

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[72] John F. Wippel, "The Parisian Condemnations of 1270 and 1277," in *A Companion to Philosophy in the Middle Ages*, ed. Jorge J. E. Garcia and Timothy N. Noone (Oxford: Blackwell, 2002), 66; Senocak, *The Poor and the Perfect*, 177.

[73] The popes also intervened in protecting the masters' rights to decide who to grant a license to teach and in preventing the chancellor from demanding payment for that right; Kibre, *Scholarly Privileges*, 89.

[74] McLaughlin, *Intellectual Freedom*, 57. McLaughlin points out that these disputations could wander into heresy, using the example of John of Brescain, who was cited in 1247 for errors which "seemed close to the Arian heresy"; ibid., 58-59. The papal legate deprived John of the right to teach and expelled him from Paris forever; ibid, 59.

[75] In 1215, for example, Johannes Teutonicus reaffirmed this position as part of canon law, which he taught at Bologna; Gaines Post, Kimon Giocarinis, and Richard Kay, "The Medieval Heritage of a Humanistic Ideal: 'Scientia donum dei escst, unde vendi non potest,'" *Traditio* 11 (1955), 197, 209.

[76] John W. Baldwin, *Paris, 1200* (Stanford: Stanford University Press, 2010), 183-84.

[77] Ibid., 185.

Housing was no small issue in Paris (then or now). Fortunately, merchant and noble benefactors were prepared, as they had been in England, to help poor students pursue an education. As early as 1180, the English merchant Jocius de Londoniis founded the Collège des Dix-huit, which provided room and board for eighteen poor students in the Hôtel-Dieu near Notre Dame. It was the students' duty there, according to its charter, to carry a cross and holy water at the head of the procession that removed the dead from the hospital. In 1258, the king's chaplain, Robert Sorbon, contributed a residential college that provided accommodation to poor clergy and scholars who were expected to go on to serve the church.[78] Throughout the thirteenth century, approximately a dozen colleges were founded for students across the Left Bank, with the donors encouraged, in part, by royal favors granted them by the king.[79]

The university's struggle for autonomy continued over the course of the thirteenth century, with the church excommunicating masters and scholars and revoking teaching licenses for infractions. There were book burnings, teaching strikes, riots, and at least one student execution, along with a number of other violent deaths. In 1229, for example, a majority of the masters protested the provost of Paris's violent suppression of a student riot. When the masters' concerns were ignored by the responsible city authorities, they decided to put a stop right then and there to the Paris *studium*. This was no bluff. The masters began to leave the city, setting off, in what became known as the Great

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[78] Astrik L. Gabriel "Motivation of the Founders at Medieval Colleges," *Miscellanea Mediaevalia* 3 (1964), 66.

[79] Baldwin, *Paris,* 184-185. Baldwin identifies the first two college founders as the English merchant Jocius, and Robert, count of Dreux; ibid. See also Franklin J. Pegues, "Philanthropy and the Universities in France and English in the Later Middle Ages," in *The Economic and Material Frame of the Medieval University*, ed. Astrik L. Gabriel (Notre Dame: International Commission for the History of Universities, 1977), 70.

Dispersion, to welcoming universities in Toulouse, Oxford, and elsewhere. It was enough to catch the attention of Pope Gregory IX, if not immediately.

Within two years of the Paris shut-down, the pope reached out to the masters with a conciliatory bull, *Parens scientiarum*. The bull named the university the *parent of the sciences*. It reasserted that masters and scholars were serving the greater good of the church, and thus warranted privileges that protected their scholarly rights to study. These included a limited immunity from civil authorities and local ecclesiastics, and the right of faculties to determine what was taught, hours of instruction, hostel rent fees, and dress code.[80] The bull even established procedures and guidelines for the teaching of Aristotle: "Those books on natural philosophy which for a certain reason were prohibited in a provincial council, are not to be used at Paris until they have been examined and purged of all suspicion of error."[81]

Gregory followed up the bull that same year with an affirmation that scholars could not be excommunicated by local ecclesiastics, which was as much of a guarantee of academic freedom as could be had in the medieval university. And it came at a cost. The pope made it clear that he expected the masters and scholars to be intellectual leaders in the church's defense of the faith. In 1240, the masters were called upon to serve in the Paris papal court instigated by Gregory to hear the charges of blasphemy brought against the Talmud and the Jewish people, resulting in the book's condemnation and subsequent burning in the public squares of the city.[82]

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[80] Kibre, *Scholarly Privileges*, 94-95.
[81] "Statutes of Gregory IX for University of Paris 1231," in *Translations and Reprints from the Original Sources of History*, vol. 2 (Philadelphia: University of Pennsylvania, Dept. of History, 1902), 10.
[82] Robert Chazan, "Trial, Condemnation, and Censorship: The Talmud in Medieval Europe," in *The Trial of the Talmud: Paris, 1240,* trans. John Friedman and Jean Connell Hoff (Toronto: Pontifical Institute of Medieval Studies, 2012), 1. After hearing appeals from Jewish leaders, Pope Innocent IV later reduced the sentence to a redaction of seemingly offensive passages. Earlier, the Council of Paris had decreed in 1213

The accord that Gregory struck between church and *studium* was challenged by the righteous within the church who held up examples of what they saw as the university's continuing abuses in the teaching of Aristotle. They pointed to an anonymous work entitled *Ethics*, of dubious authenticity, which advised students that "we ought not to solve problems after the manner of the theologian but according to the intention of the Philosopher."[83] The church responded with further bans on the reading and teaching of Aristotle and company. Finally, in 1254, the members of the university took a united stand against the church's continuing interference. They issued an encyclical asserting that the *studium* was not an arm of the local church (which the cathedral schools were). Rather, the *studium* was the intellectual foundation, the masters held, of the church writ large, which required study and teaching without undue interference.[84] Like the monastery, the university carefully positioned itself as both a part of and apart from church and state.

In 1256, Pope Alexander IV decided to pursue a different tack with the Parisian masters. Alexander again declared the work of the university central to the church. Thus, the university's mission needed to be supported, while remaining accountable to the church. The *studium* was, as he put it, "like the tree of life and like a burning lamp in the house of the Lord."[85] At the same time, he solicited the help of the master Albert the Great in attacking what was obviously misguided and heretical among the work of the

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that Jews were not allowed to teach their young "this art of writing [used to write down the loans made by their parents]"; cited by Sophia Menache, "Communication in the Jewish Diaspora: A Survey" in *Communication in the Jewish Diaspora: The Pre-Modern World*, ed. Sophia Menache (Leiden: Brill, 1996), 46.

[83] Cited by McLaughlin, *Intellectual Freedom*, 39.

[84] McKeon, P. R. "The Status of the University of Paris as Parens Scientiarum: An Episode in the Development of its Autonomy," *Speculum* 39, no. 4 (1964)," 656-57.

[85] Citied by McLaughlin, *Intellectual Freedom*, 22. McLaughlin adds that the university "was also a field for the intervention of various authorities, and an arena for their conflicts"; ibid.

Parisian masters. In Paris and then at the Dominican *studium generale* in Cologne, Albert had done considerable work on Aristotle, as well as Alfarabi and Avicenna. Albert favored the Aristotelian sense of an intellect as something acquired through study, while opposing Averroes' position on a singular extra-human intellect that was the source of all ideas.[86] In undertaking this mission for Pope Alexander, Albert's principal targets became those known as the Latin Averroists, led by the colorful and controversial figure of Siger of Brabant, who ended up facing the Inquisitor for his beliefs, only to be murdered by his secretary.[87]

Albert was joined in the *averroista* refutation by his student Thomas Aquinas, whose work on Aristotle had drawn from the Islamic commentaries, as well as Moses Maimonides, the great Jewish philosopher and a contemporary of Averroes from Córdoba. Aquinas' willingness to reach out, intellectually, to pagan, Islamic, Jewish, and Christian thinkers reflected his interest in strengthening the intellectual basis of Christianity: "We need such knowledge [as Aristotle proffered]," Aquinas wrote, "since we need to teach everything that reason can know for the perfection of human wisdom called philosophy."[88] In this use of others' work, Aquinas was careful to locate his

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[86] Burnett: "The writings of Albertus Magnus in particular show a knowledge of several Arabic philosophical texts of which we do not have evidence of full translations into Latin, such as commentaries on Aristotle's logic and physics"; "Arabic into Latin," 383.

[87] Siger's position on Averroes was ambivalent, at best, and his reputation was rescued after his death by Dante, who places him in the fourth circle of heaven in the *Paradiso*. Herbert A. Davidson identifies nineteen Averroists by name in Paris, Bologna, and Oxford during the thirteenth and fourteenth century, while pointing to the influence of Averroes through to the sixteenth century in northern Italy; *Alfarabi, Avicenna, and Averroes on Intellect: Their Cosmologies, Theories of the Active Intellect, and Theories of Human Intellect* (Oxford: Oxford University Press, 1992), 309-11. The church objected to Averroes' ideas on the perfectibility of reason and knowledge, as well as on humankind sharing a common intellect; Marshall W. Baldwin, "The Popes and Learning in the High Middle Ages (Concluded)," *Manuscripta* 2, no. 1 (1958), 17.

[88] Thomas Aquinas, *Commentary on Aristotle's* Politics, trans. Richard J. Regan (Indianapolis: Hackett, 2007), 2. Bernard McGinn sums up Aristotle's influence as follows: "Truth told, Thomas absorbed much from both Aristotle and the Neoplatonists, but he would not have been happy to be termed either an 'Aristotelian' or a 'Neoplatonist' – nor, of course, a 'Thomist'"; *Thomas Aquinas'* Summa theologiae: *A*

position in relation to theirs, as if to affirm this common project of building the

philosophical coherence of human wisdom: "I say with Avicenna," writes Aquinas in

opposing Averroes, "that the possible intellect begins to exist but does not go out of

existence with the body."[89] Or he would anchor an assertion with, "this is also the

teaching of the Commentator," which is to say Averroes on Aristotle.[90] Aquinas was a

diligent scholar in this accreditation process, citing tens of thousands of passages over the

course of his work.[91]

In making Aristotle safe for Christianity, Aquinas had to confront what was most

unchristian about Averroes' influential reading of Aristotle. This was principally the idea

– which Averroes alone found in the philosopher's *On the Soul* – of an external and

immortal intellect shared by humankind but belonging to no one. This seemed to

undermine the sense of individual responsibility for ideas, heretical or otherwise, in this

age of Catholic confession; it also did not do much for the concept of a soul possessing

eternal life, if that soul had not an intellect of its own to preserve. In 1270, Aquinas

sought, in his own words, to "destroy the error ['in what is falsely named a science']…

using the arguments and teachings of the philosophers themselves."[92] He cites both

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Biography (Princeton: Princeton University Press, 2014), 42. "He was more inclined to examine the arguments of thinkers than their faith," David C. Burrell, professor of theology at the University of Notre Dame, notes: "he epitomized the medieval respect for learning, with its conviction that 'truth was where one found it'"; "Aquinas and Islamic and Jewish Thinkers," in *Cambridge Companion to Aquinas*, eds. Norman Kretzmann and Eleonore Stump (Cambridge: Cambridge University Press, 1993), 61.

[89] Thomas Aquinas, "Commentary on Book II of the 'Sentences,' Distinction 17, Question 2, Article 1," trans. Richard C. Taylor, in *Philosophical Psychology in Arabic Thought and the Latin Aristotelianism of the 13th Century*, eds. Luis Xavier López Farjeat and Jörg Alejandro Tellkamp (Paris: J. Vrin, 2013), 291. As part of that curation, later scholars have identified the exact locations in the works of Averroes and Avicenna to which Aquinas is referring.

[90] Thomas Aquinas, *The Divisions and Methods of the Sciences*, 4th ed., trans. Armand Maurer (Toronto: Pontifical Institute of Medieval Studies, 1986), 92.

[91] McGinn, *Thomas Aquinas'* Summa theologiae, 23.

[92] Thomas Aquinas, *Aquinas Against the Averroists: On There Being Only One Intellect*, trans. Ralph McInerny (West Lafayette: Purdue University Press, 1993), 145.

Aristotle and Avicenna in demonstrating that "certain operations of the soul are not

through a mediating body," as Averroes held.[93]

Aquinas' emphasis on intellectual responsibility not only served the church's

interest in personal confession, it provided the groundwork for considering writers'

intellectual property rights in their work. His theology of property and authorship

possesses a further relevance for this book's interest in intellectual property. In *Summa*

theologiae, Aquinas introduces the Christian conceptions of communal property found in

the *Acts of the Apostles*, as well as in the work of the Church Fathers Basil, Ambrose, and

Augustine. He then employs Aristotle's arguments to identify the natural limits of this

communality: "Every man is more careful," Aquinas paraphrases Aristotle, "to procure

what is for himself alone than that which is common to many or to all."[94] He takes

Aristotle's observation to form a natural proof: "It is by this argument that the

Philosopher proves (*Polit*. i, 3) that the possession of external things is natural to man."[95]

He then allows that these two property types, common and private, co-exist, the one by

natural law and the other by human reason: "Hence the ownership of possessions is not

contrary to the natural law, but a super-addition (*adinventio*) thereto devised by human

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[93] Thomas Aquinas, "Commentary on Book II of the 'Sentences,' Distinction 17, Question 2, Article 1," trans. Richard C. Taylor, in *Philosophical Psychology in Arabic Thought and the Latin Aristotelianism of the 13th Century*, eds. Luis Xavier López Farjeat and Jörg Alejandro Tellkamp (Paris: J. Vrin, 2013), 292. Aquinas writes, following Alfarabi, that "in every man there is a certain principle of knowledge, namely the light of the active intellect, through which certain universal principles of all the sciences are naturally understood as soon as proposed to the intellect" which is an interpretation, Aquinas reminds us, of "what the Philosopher says (Poster. I, I): 'All teaching and all learning proceed from previous knowledge,'" even as Aquinas supports a claim at one point by adding, "as Averroes argues"; *Summa theologiae,* trans. Laurence Shapcote (Raleigh: Hayes Barton, 2006), 1.117.1.4 1045-46.
[94] Aquinas, *Summa theologiae*, 2.2.66.1-2, 2684.
[95] Ibid. "In general," Aristotle writes, "living together and sharing in common in all human matters is difficult, and most of all in these sorts of things"; *The Politics*, trans. by T. A. Sinclair and Trevor J. Saunders (London: Penguin, 1981), 1263a15-16. As well, "further, with regard to pleasure, too, it makes an immense difference to consider something one's own. For it is not without reason that each person has affection for himself; this is natural"; ibid., 1263a40-b1.

reason."[96] This is the Aristotelian-Christian synthesis, and it figures in Locke's natural

law theory of property considered in Chapter 11.

Aquinas also advocated a more open approach to teaching and disputations

around such issues. He was in favor of giving controversial issues a hearing rather than

hiding them away: "Let him not speak in corners nor to boys who cannot judge."[97] As if

to attest to the intellectual value of such open discussions among theologians, Aquinas

was to change his position over time on the unity of forms to that of their plurality

(bringing him closer in line with Augustine and Anselm).[98] It was in this spirit of making

scholarly deliberations more of a public enterprise that the University of Paris passed a

measure in 1276, two years after Aquinas' death, requiring that lectures be given in the

university's public settings, rather than in "private places."[99]

Yet this new level of public accountability only exacerbated the local church's

attacks on the Parisian masters' intellectual autonomy. In 1277, Etienne Tempier, Bishop

of Paris and former Notre Dame Chancellor (and thus chancellor of the university),

issued *Condemnation of 219 Propositions* directed against the University of Paris.

Although it was not uncommon at the time to hear of the heresies being perpetuated by

the masters at the university, Tempier's charges added up to a particularly pointed and

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[96] Aquinas, *Summa theologiae*, 2.2.66.2 2686. Although Averroes does not figure in Aquinas' ideas on property, he does play a part in Aquinas' work on teaching, both in his comments on Aristotle and as "Averroes argues, the teacher does not cause knowledge in the disciple"; ibid., 1.2.117.1 1046.

[97] Aquinas, *Against the Averroists*, 145. Typical of those taking exception to Aquinas' approach is his contemporary, Franciscan Peter Olivi: "I am astonished to see that Aristotle the pagan and the Arab Averroes, as well as other unbelieving philosophers, are held in great esteem and veneration and allowed so great an authority, especially in discussions about scared authority": cited by John M. Rist, *Augustine Deformed: Love Sin and Freedom in the Western Tradition* (Cambridge: Cambridge University Press, 2014), 140.

[98] Leland E. Wilshire, "The Condemnations of 1277 and the Intellectual Climate of the Medieval University," in *The Intellectual Climate of the Early University: Essays in Honor of Otto Gründler*, ed. Nancy van Deusen (Kalamazoo: Medieval Institute Publications, 1977), 153.

[99] Cited by McLaughlin, *Intellectual Freedom*, 83.

aggressive attack on the new learning.[100] Aristotle, Averroes, and Avicenna were once again the targets, with some controversy among scholars about whether the recently departed Thomas Aquinas was also being singled out if not by name.[101]

Tempier charged the university's masters and scholars of "certain obvious and loathsome errors, or rather *vanities and lying follies* [Psalms, 39:5] which are contained in the roll joined to this letter."[102] The roll provided a point by point caricature of the new learning's principal propositions: "2. That the only wise men in this world are the philosophers"; "5. That man should not be content with authority to have certitude about any question"; and "180. That the Christian Law impedes learning."[103] Tempier singled out specific positions held by Averroes without naming their source – "116. That the intellect is numerically one for all" – and by Aquinas in his support for Aristotle – "27. That the first cause cannot make more than one world."[104] Tempier also proclaimed in the preamble that those who dared to teach such propositions, "or listened to them," was subject to excommunication from the church.[105] The only hope for the guilty was to confess their sins to Tempier or the university chancellor within seven days of their error,

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[100] J. M. M. Thijssen: "Sixteen lists of censured theses… were issued at the University of Paris during the thirteenth and fourteenth centuries"; "What Really Happened on 7 March 1277? Bishop Tempier's Condemnation and its Institutional Context," in *Texts and Contexts in Ancient and Medieval Science*, eds. Edith Sylla and Michael McVaugh (Brill: Leiden, 1997), 85. The University of Oxford faced a similar set of condemnations at the time from Robert Kilwardby, archbishop of Canterbury; Leland E. Wilshire, "Were the Oxford Condemnations of 1277 Directed Against Aquinas?" *New Scholasticism* 48, no. 1 (1974): 125-132.
[101] See Wilshire, "The Condemnations," 152ff.
[102] "The Condemnation of 219 Propositions," trans. Ernest L. Fortin and Peter D. O'Neill, in *Medieval Political Philosophy: A Sourcebook*, eds. Ralph Lerner and Muhsin Mahdi (New York: Free Press: 1963), 337.
[103] Ibid., 338, 352. Giles of Rome prepared a far more detailed critique in *De erroribus philosophorum*, likely written between 1270 and 1277, citing passages from Aristotle, Al-Kindi, Al-Ghazali, Avicenna, Averroes, and Maimonides; Richard Dale, *Medieval Discussions of the Eternity of the World* (Leiden: Brill, 1990), 154.
[104] "Condemnations," 347, 340.
[105] Ibid., 338.

and for which they should still expect "penalties as the gravity of the offence demands."[106]

In the face of the bishop's sweeping condemnation, the Parisian masters once again turned to pope and king for support. Although Pope John XXI had written in support of the *Condemnations*, especially as they applied to the arts faculty, he passed away within months of their issuance. The proctor of the university's arts faculty, John of Malignes, appeared before Pope Martin IV in 1283 (or perhaps 1284) to challenge the right of Notre Dame's chancellor Tempier to act as head of the *studium*. John sought to convince the pope that Tempier was not the right person to lead the university, as the university was a distinctive gift of God acting in the service of the larger church and, as such, deserved the oversight and protection of the pope rather than a local chancellor: "God himself has wisely provided for man the tree [i.e., Paris] in whose center He opened the noble fount which is divided into four streams…whose water is [the masters'] teaching… The streams are the four faculties of arts, medicine, canon law, and theology."[107]

Despite John's plea, Pope Martin IV upheld the Notre Dame chancellor's right to govern the university. It was only in 1296, with Pope Boniface VIII, that the university was freed from the oversight of Notre Dame. By this point, the church was providing various forms of funding directly to the university, including benefices (salaries) to support masters in the arts faculty, and prebends (stipends) for up to five years for clerics studying theology.[108] As well, during the final decade of the thirteenth century, King

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[106] Ibid.
[107] Cited by McLaughlin, *Intellectual Freedom*, 1.
[108] Ibid., 27; Baldwin, *Paris, 1200*, 183.

Philip IV shored up the Paris scholars' rights, privileges, and immunities, by placing the students under the king's safeguard in their travels, as well as exempting them from travelers' tolls and customs duties (largely for importing books, one imagines), and from tax assessments for the royal household and the needs of war.[109]

It was clear by this point, at the close of the thirteenth century, that the university of Paris had been incorporated for purposes that set it apart from other craft and trade guilds, as well as from local bishops, chancellors, and civil laws. The masters constituted themselves as a self-governing body in regulating costumes, lectures, disputations, funerals, the rent charged to students, and the pawnbrokers allowed to lend them money. They took a particular interest in the production of texts. Here, the city's guild structure came to the fore. The university masters worked with the guilds organized by scribes, illuminators, and bookbinders.[110] The university appointed *peciarii* from within its own ranks to oversee the local book trade, led by the *stationarii* who operated bookstalls with new and second-hand manuscripts for rent, sale, and trade. The *peciarii* saw to the correctness of the exemplars that were used by making copies. They assessed fines against the scribes when students or masters found errors in their copies.[111] They recalled copies of a given text from master and student when questions arose about the integrity and accuracy of texts being taught.

The scribal culture of the university operated its own program of copy rights. The university assumed a right to regulate the texts that could be copied. Master and pupil had

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[109] Kibre, *Scholarly Privileges*, 128-30.
[110] David Diringer, *The Book Before Printing: Ancient, Medieval and Oriental* (New York: Dover, 1982), 208.
[111] Rashdall writes of students having to report errors "on pain of perjury," *Universities*, vol. 1, 189. He judges the university book trade "one of the most curious parts of the university system," and gives the further example of how "books above a certain value might only be sold in presence of the university notary"; ibid, 190.

non-exclusive rights to have texts copied and to copies that were as complete and correct as possible. The authors of the texts, whether living or dead, had a right to proper attribution, as well as a fidelity to the original text. Everyone involved had a right and responsibility to report errors; to improve translations; to prepare new, more accurate editions; to compose compilations; to create glosses; and to fashion commentaries. The manuscript books in circulation at the time constituted their own commonwealth of learning. The architecture of the books that made up this commonwealth came to include an analytical table of contents, running titles, and other study aids, including content summaries, chapters, paragraphs, footnotes, and indexes. As well, many books were assembled out of compilations of related texts, creating their own course of study.[112]

The book trade that formed in and around the universities was not the only medieval intellectual property regime. In 1291, the Republic of Venice granted legal rights to the Murano Guild of glass producers in Venice to keep their knowledge secret and secure with regulations and fines.[113] This secretiveness is what sets the *studium* apart from the Murano Guild. The knowledge and skills of the university masters were precisely what was being shared and enjoyed by all men – and only men, alas – willing

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[112] The act of compiling texts is portrayed by Malcolm Beckwith Parkes as a way for "a scholar of very humble talents… [to] feel that he was contributing to something of importance"; "The Influence of the Concepts of *Ordinatio* and *Compilatio* on the Development of the Book," in *Medieval Learning and Literature: Essays Presented to Richard William Hunt,* eds. J. J. G. Alexander and M. T. Gibson (Oxford: Clarendon, 1976), 115-116.

[113] Tine De Moor, "The Silent Revolution: A New Perspective on the Emergence of Commons, Guilds, and Other Forms of Corporate Collective Action in Western Europe," *International Review of Social History*, Supplement 53 (2008), 203. Patrick McCray, *Glassmaking in Renaissance Venice: The Fragile Craft* (Aldershot: Ashgate, 1999), 150. Pamela O. Long: "Craft secrecy and patents, both manifestations of proprietary attitudes toward craft knowledge, developed rapidly in the specific historical context of medieval urbanism": *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance* (Baltimore: Johns Hopkins University Press, 2001), 89. Long adds that "there seems to have been no interest in discovering whether the claimant for a patent actually invented the device"; ibid., 95.

and able to pay, or to find a patron who would pay, for what was essentially an intellectual property contract between master and scholar.

To step away from Oxford and Paris in concluding this chapter, the impetus for sharing learning's properties was built into the book-making regulations at Bologna. There, every *studium* master or doctor was required to transcribe the argument of each *diputatio* or *repetition* that he conducted. These transcriptions were submitted to the university beadle who, judging it sufficiently detailed, sent it along to the stationers for copying and thus publication.[114] To ensure an adequate supply of books at the time, the university employed a good number of women, contracts from the period reveal, who typically worked as scribes and miniaturists with their fathers and husbands.[115] Bologna also took steps to ensure that books were spared the tolls and customs that other goods faced, while preventing such works from being seized to pay a scholar's debts.[116]

The Venetian glassmakers are often credited with securing as early as the thirteenth century a new form of legal protection against any infringements on their craft knowledge. My intent with this prehistory is to present an older tradition of privilege and protection associated with the production of knowledge in medieval monasteries, schools, and, with this chapter, universities.[117] The universities were incorporated by masters and scholars for, among other reasons, furthering their work with the great expanse of

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[114] Rashdall, *Universities*, vol. 1, 190.
[115] Chiara Frugoni, "The Imagined Woman," trans. Clarissa Botsford, in *Silence of the Middle Ages*, ed. Christiane Klapisch-Zuber, vol. 2 of *A History of Women in the West* (Cambridge: Harvard University Press, 1992), 400.
[116] Kibre, *Scholarly Privileges*, 21.
[117] Robert P. Merges: "Whatever economic dislocations it brings with it, the trend toward more intellectual property certainly shows the robustness of the concepts first introduced by those Renaissance Venetians"; "The Economic Impact of Intellectual Property Rights: An Overview and Guide," *Journal of Cultural Economics* 19 (1995), 111.

translations, from Aristotle to Averroes, introduced into Europe during the twelfth and thirteenth century. These new institutions provided masters and scholars with a means of effectively negotiating with church and state particular rights of access, accreditation, autonomy, communality, sponsorship, and use that were deemed necessary for the advancement of learning. I take these to be intellectual property rights because they so influenced the day-to-day regulation of manuscript production; the constant battles with local church officials over the university's teachings; and the extraordinary measures occasionally employed on both sides involving academic strikes and excommunication. Grosseteste and Aquinas, as well as other Franciscans, Dominicans, and secular masters, reflected their own sense of these rights in crediting, synthesizing, and devising scientific methods and means of inquiry, demonstrations and experiments.

There was a growth in the sharing of this work within and across these institutions, through the circulation of masters moving from studium to studium, as well as the carting of instruments, treatises, translations, and commentaries. It represented an active trade in the intellectual properties of learning, principally through an expanding world of manuscript texts that managed to attract benefactors, who supported the learning, and those just as quick to condemn where this pursuit of learning led. The scope of this trade was about to be further amplified and made all the more public with the introduction of print.