

Printing and astrology in early modern France:
Vernacular almanac-prognostications, 1497-1555

by

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Abstract

This thesis examines the French trajectories of an early ephemeral printed genre, annual almanac-prognostications, charting the genre's development from its origins at the end of the fifteenth century to its transformation by Michel Nostradamus in 1555. In so doing, it investigates how astrology was transformed by vernacularization and the introduction of print technologies. Based on a study of thirty-five surviving examples of the genre and a microhistory of the life and times of a single prognosticator, Jean Thibault, it argues that printing opened both astrological predictions (annual almanac-prognostications) and a key resource for producing them (celestial ephemerides) to an increasingly broad audience. Astrology was transformed from an esoteric art practiced by university physicians for a select clientele to a popular print phenomenon that provided predictions on weather, public health, commodities, warfare, and propitious times for everything from planting crops to letting blood to the general public.

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Introduction and historiography

1. “*Considerant infiniz abus estre perpetrez à cause d’ung tas de Prognostications.*”

In the famous *Pantagrue line prognostication* of 1533, François Rabelais highlighted the threats posed by making astrological prognostications widely available, particularly when these were printed abroad. He began his anti-prognostication “*Considerant infiniz abus estre perpetrez à cause d’ung tas de Prognostications de Louvain*” which, he suggests, had likely been made in the shadow of a glass of wine, “*je vous en ay presentement calculé une la plus secure et veritable que fut oncques veue, comme l’experience vous le demonstrera.*”¹ Rabelais then offered the reader a sober prediction which is “secure and truthful”: a parody of astrological prognostication altogether, meant to denounce the astrologer’s craft and assuage any public anxiety that printed prognostications might cause. According to Rabelais, it is no light sin on the part of astrologers to tell lies and knowingly deceive the simple folk, always curious to learn something new. He even suggested that prognostications (and any other news coming into France from abroad) which had no stake in France or its king, should be “verified” at the borders:

autant sont ilz faciles a croire ce que leur est annoncé, debvroit on pas metre gens dignes de foy a gaiges a l’entrée du Royaulme, qui ne serviroient d’aulture chose sy non d’examiner les nouvelles qu’on y aporte, a sçavoir sy elles sont veritables?
Certes ouy. Et ainsi faict mon bon maistre Pantagruel par tout le pays de Utopie...²

What latent threat might such astrological prognostications provoke, that Maistre Alcofrybas Nasier (Rabelais’s pseudonym) introduced his satire by recommending censorship for the kingdom of France, and that the good Pantagruel—a learned humanist and ideal renaissance

¹ “Considering the infinite abuses being perpetrated by a heap of prognostications from Louvain [...] I have presently calculated for you one that is the most secure and true of any that has ever been seen, as your own experience will confirm,” François Rabelais, *Pantagrue line prognostication pour l’an mil. D. xxxiii.* (Lyon: [François Juste], 1533), 4°, fol. A₁r°. All translations from the French are my own. The text is also available in a modern edition by M.A. Screech, along with Rabelais’s other almanacs: see François Rabelais, *Pantagrue line prognostication pour l’an 1533*, ed. M.A. Screech et al., *Textes littéraires Français* (Genève: Librairie Droz, 1974), 4:1-8.

² “So much do they [the common people] easily believe whatever is announced to them, should we not put people worthy of faith, with wages, at the entrance of the kingdom, who would do nothing other than examine the news that is brought in, to know whether or not it is true? Certainly. My good master Pantagruel does so throughout the whole country of Utopia,” Rabelais, *Pantagrue line prognostication*, fol. A₁r°; Screech, ed. *Pantagrue line prognostication*, 5:26-32.

prince—would have enacted such a policy in his own kingdom of Utopia? Although his critique might have been partially motivated by his own patronage with members of François's court, who had much to lose from a batch of bad prognostications shipped in from abroad, Rabelais was not the only one to reflect on the consequences of widely distributing this kind of information through printing.

By the early sixteenth century, almanacs and prognostications were anything but innocuous. They had evolved into an elaborate genre which aimed to predict events of broad interest to a wide spectrum of the population. At best, they might reassure people over the fate of crops or the likelihood of diseases in the coming year; at worst, they could be the cause of mass-panic, as in the famous prediction of a second deluge for February 1524, held to be caused by the rare conjunction of Saturn and Jupiter within the aqueous sign of Pisces. Though the flood itself failed to materialize, the conjunction was held to be an important cause behind the outbreak of the 1525 German Peasant's War, the growth of the Reformation, and the defeat and capture of François I of France by the Holy Roman Emperor Charles V at the Battle of Pavia.³ Indeed, Anthony Grafton has gone so far as to call this the first media event of the modern age.⁴ How could these publications have such broad-ranging predictions, from the fate of crops and livestock to the fate of kings to the mutation of world religions? A brief summary of their contents can serve to clarify this.

The printed annual prognostications that Rabelais satirized offered a general forecast of the coming year, typically about eight pages long (one quarto gathering), and almost always written in the vernacular. By the end of the fifteenth century, a standard structure had come to

³ M.A. Screech, "Introduction," *Pantagrueline Prognostication*, xv-xvi. On the 1524 conjunction more generally, see the essays collected in Paola Zambelli, ed., *'Astrologi hallucinati': Stars and the End of the World in Luther's Time*, (Berlin and New York: Walter de Gruyter, 1986); and for accounts of popular responses to these predictions in Italy, see Ottavia Niccoli, *Prophecy and People in Renaissance Italy*, tr. Lydia G. Cochrane (Princeton, NJ: Princeton University Press, 1990), 140-166.

⁴ Anthony Grafton, *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer* (Cambridge, MA and London: Harvard University Press, 1999), 54.

characterize the genre, which Rabelais follows in his *Pantagrueline prognostication*. After specifying the “Du gouverneur et seigneur de ceste annee”—the planet whose influence will be most important based on a horoscope figure cast for the year’s spring equinox—most provide seasonal and monthly astronomical and meteorological predictions. This is typically followed by “Les maladies les plus regnantes ceste annee,” the ever-important section on the likelihood of plague and diseases, held to have astrologically-governed miasmatic causes (i.e., planetary configurations causing poisonous vapours to rise from decomposed matter). Next is “Des fruictz et biens croissans de terre,” which discusses prospects for different crops and livestock, anticipates whether or not there will be a drought, and sometimes includes more general commodities forecasts (e.g., wine, silk, linen, spices). A section on the likelihood of warfare, violence, and any ensuing property damage in given locales comes after this, “De paix et de guerre de ceste annee,” based on the transit of the planet Mars across the zodiac and its aspect toward other planets. After this, the state of different occupations are predicted according to their ruling planet (e.g., Venus for lovers and musicians; Mars for brewers and mercenaries; the Sun for princes and nobles), a distant ancestor of the modern newspaper horoscope. The prognostications usually conclude with two related sections, “De lestat de divers grans princes et monarques” which focus on specific rulers, typically including the Emperor, the kings of France and England, and lesser aristocrats and patrons of local importance; and “De divers royaumes, duchez et grans villes,” which provides brief localized predictions for an assortment of regions and nearby cities, again varying according to the place of publication. Both of these are often based on the nativities of the ruler or the city, sometimes traced back to an approximate date of birth or foundation.⁵

⁵ The specific titles notes here are taken from Rabelais’s *Pantagrueline Prognostication* as well as a legitimate prognostication, Henry de Fines, *La grande prenostication de Louvain. Faicte par Maistre Henry de Fines docteur en medecine [...] pour ceste presente annee Mil cinq cens et xviii* (Antwerp, s.n. [c.1517]), 4°. The latter is also reprinted in Screech, ed., *Pantagrueline prognostication*, 83-96.

These prognostications supplemented an even older genre, typically printed on the first or last page of the pamphlet-gathering: the almanac. The almanac tabulates important astronomical and calendric data, including lunar phases, feast days, and in their printed versions also supply the dates for important fairs. Since the late Middle Ages, almanacs played an important role in medicine, especially in noting which days were most propitious for bloodletting or the administration of purgatives. Indeed, while moderns might associate almanacs with farmers, in their inception they served the purposes of physicians and surgeons. It was often the task of late medieval professors of medicine to provide an almanac for the use of the medical faculty, practicing physicians, and members of the local guild of barber-surgeons.⁶ Originally circulated in manuscript copies, these almanacs were being printed en masse in Flanders, Germany, Italy, and France by the end of the fifteenth century.

Rabelais was not the only medical astrologer to reflect on the consequences of the wide distribution of this kind of information through printing. Writing in 1530, Jean Thibault, a French astrologer and medical empiric, wrote a polemical pamphlet against the accusations of a fellow astrologer and publisher of annual almanacs and prognostications, Gaspar Laet le Jeune. Laet, himself the son of a famous prognosticator of the same name, had published a pamphlet condemning errors in the almanacs and prognostications produced by his rivals, including Thibault.⁷ In his rebuttal, the *Apologie de Maistre Thibault*, written “contre les invectives daucuns pronostiqueurs,” Thibault in turn accused Laet of making even more grave errors in the compilation of his own almanacs. While the Rabelaisian satire focuses on the prose prognostications, Thibault is concerned with Laet’s almanac table itself, specifically with the important medical column. Citing the moon’s aspect vis-à-vis other planets on a number of days

⁶ Steven Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology* (Leiden: Brill, 2003), 30-32.

⁷ Gaspar Laet Jr., *Correctorie ofte bewijsinghe des erroren oft fauten in diversche pronosticacien ende almanacken vanden jare i.iiii. ende .xxx.* (Antwerp: Michel Hillen van Hoochstraten, [c.1530]), 4°.

in 1529, he declared “Iceulx jours estoient fort dangereux pour faire saigner parquoy tous Barbiers qui saignent sus voz Almanachz en telz aspectz ont mis les gens en gros dangiers.”⁸ Thibault reminds his reader that no man can perform any healing without knowledge of the heavens, and it is up to those who have understanding of such things—astrologers and mathematicians—to provide counsel to those who know them less well—physicians and especially barber-surgeons, whose duty it was to let blood, carry out surgery, and administer purgatives. If astrologers make mistakes in electing the days to do this, as he claims Laet has, they put people’s lives at risk. Indeed, for Thibault, the stakes of rival interpretations of the astronomical data were literally life or death. For this reason, Thibault advocates that this information ought to be carefully regulated:

Sus ce doibvent les Seigneurs des villes avoir regard. De non laisser passer aucuns Almanachz qui soient autres que selon l’ordonnance des docteurs antiques comme de Johannes de Monte Regio, Johannes Stoefflerinus, et Jacobus Pflaum, lesquelz ont ordonne par ung commun accord avec plusieurs autres docteurs en faisant les Ephemerides, deffendant ordonner aucunes saignes combien que le jour y fust ydone...⁹

Like Rabelais, Thibault recommends that civil authorities keep an eye on almanacs. In particular, he writes that their contents should be verified according to renowned multi-year celestial ephemerides produced at the University of Tübingen, first by Regiomontanus beginning in 1474 and later by Johannes Stöffler and Jacob Pflaum in over at least nine editions from 1499 to 1551. Rather than being drawn from direct observations, the basic astronomical data in most annual almanacs was typically drawn from these ephemerides—publications that would forecast

⁸ “These days were quite dangerous for bloodletting, which is why all barbers who let blood according to your almanacs, in these aspects, put people in great danger,” Jean Thibault, *Apologie de Maistre Thibault, [...] et ce contre les invectives daucuns pronostiqueurs* (Antwerp: s.n., 1530), 4^o, fol. B_{1r}^o.

⁹ “The town lords should watch over this: not to let any almanacs pass but for those made according to the rule of ancient doctors like Johannes de Monte Regio [Regiomontanus], Johannes Stöffler, and Jacob Pflaum: those which were ordered by a common accord with many other doctors in making the ephemerides: prohibiting the prescription of any bloodletting on any days hereafter given,” Thibault, *Apologie*, fol. A_{4r}^o.

planetary motions and celestial events decades in advance with exacting degrees of accuracy.¹⁰ Although Thibault was not alone in taking the Tübingen ephemerides as the industry standard for astronomical data, he and other astrologers often differed in their interpretations, favouring certain authorities over others. Laet, for instance, followed the humanist fashions of the day in rejecting medieval Christian and Arabic sources while prizing recently reedited classical texts, especially the *Tetrabiblos* of Ptolemy. Thibault, by contrast, was an empiric healer, and derided Laet for his slavish reliance on Ptolemy. Though he too relied on a plethora of interpretive treatises while defending his prognostications, Thibault cites “experience et raysons naturelles” as the most authentic revelations of astrological truth because they come directly from God himself.

Controversy over the elected days for bloodletting and the administration of purgatives was not new to the sixteenth century. The records of at least one late medieval debate survive: a disputation between rival physicians over the compilation of a medical almanac for 1437.¹¹ What was special about the problems raised by Rabelais and his *Pantagrueline prognostication* and Jean Thibault in his *Apologie* was the new magnitude that dissemination via printing lent to them.

The concerns of both Rabelais and Thibault draw attention to the stakes of widely-disseminated astrological predictions, all the while demonstrating two very different attitudes to astrological knowledge. Rabelais published at least three genuinely scientific annual almanacs, complete with medical elections, but minus the elaborate prognostications on drought, plague,

¹⁰ See Chapter One of this thesis. For a general overview of these publications and their late-medieval forbears, see Noel Swerdlow, “The Rediscovery of the Exact Sciences of Antiquity,” in *Rome Reborn: The Vatican Library and Renaissance Culture*, ed. Anthony Grafton (Vatican City: Biblioteca apostolica vaticana, 1993), 125-67. On Regiomontanus, Noel Swerdlow, “Science and Humanism in the Renaissance: Regiomontanus’s *Oration on the Dignity and Utility of the Mathematical Sciences*,” in *World Changes: Thomas Kuhn and the Nature of Science*, ed. Paul Horwich (Cambridge, MA: MIT Press, 1993), 131-68. In spite of their importance as astronomical tools, no modern study of Stöffler and Pflaum’s ephemerides exists.

¹¹ Thérèse Charmasson, “L’établissement d’un almanach médical pour l’année 1437,” *Comptes-rendus du 99e Congrès national des sociétés savant*, Section des sciences, fasc. V (Paris, 1976), 217-234.

warfare, and the fate of kings.¹² Allowing that the stars influenced the body and the natural world, Rabelais called their relationship with human free will into doubt. Thibault, by contrast, was comfortable producing both medical almanacs and extensive prognostications, and grounded his epistemological authority in a kind of revelation through nature.

In most cases, the authors of almanacs and prognostications were medical practitioners, be it university physicians like Rabelais or talented empirics like Thibault. How did they understand their craft? The answers vary more according to the practitioner's moral and epistemological convictions than where he received his training. While approving of medical almanacs, Rabelais for instance presents an image of the prognosticators as drunkards and charlatans, guilty of misleading the naïve "menu peuple." His objections, shared by many contemporaries from moderate Christian humanists to Reformers like Jean Calvin, are largely moral and religious, having to do with the threat astrology can pose to free will and the foolish impiety of trying to know the future—synonymous with the unknowable mind of God.¹³

Thibault, by contrast, had an entirely different perspective on the prognosticator's craft, which he explains in his *Apologie*. He declares:

Sy donc ma nature [...] de jeunesse a choisy l'art que je exerce qui est Astrologie, Medecine, Geometrie, et Arithmetique, l'on ne me doit imputer a vice, veu que de ce nen entens user sinon a l'honneur de Dieu et a l'utilite du peuple, ce que desire estre faict par tous autres docteurs et scientifiques.¹⁴

For Jean Thibault, public prognostication was an important calling, and the information he provided was not for the sake of humanist pride—but instead for the glory of God and the utility of the people. For Thibault, this concern with serving the common good is proper to the learned and the wise, and in his case concerned the dissemination of accurate and useful astrological data

¹² See the almanacs for 1533, 1535, and fragments of the almanac for 1541, all reprinted in Screech, ed., *Pantagrueline Prognostication*, 39-53.

¹³ M.A. Screech, *Rabelais* (London: Duckworth, 1979), 105-107. For Calvin's objections, see Jean Calvin, *Advertissement contre l'astrologie judiciaire*, ed. Olivier Millet, *Textes littéraires Français* (Geneva: Droz, 1985).

¹⁴ "If then my nature in youth chose the art I practice, which is astrology, medicine, geometry, and arithmetic, none should impute vice upon me: seeing as I do not use these otherwise but for the honour of God and the utility of the people: which is what all other doctors and the learned seek to do," Thibault, *Apologie*, fol. A₂r^o.

and predictions concerning the coming year. It is an historical irony that only a few years after writing this tract, Thibault would find himself on the wrong end of exactly the same kind of censorship and “verification” he had advocated: records show that he was prosecuted by the Parlement of Paris, at the behest of the university Faculty of Medicine, for publishing unauthorized almanacs and practicing medicine without the Faculty’s approval. Far from having his almanacs held to the standards of the Tübingen ephemerides, however, Thibault was here the victim of the Faculty’s efforts to maintain a general monopoly over medical knowledge and practice, and of the hostility of the new humanist dean of medicine, Jean Tagault, toward medical astrology altogether—especially when practiced by empirics. Indeed, as Jean Dupèbe has remarked, France was a land inhospitable to astrologers in the sixteenth century, especially when compared to Germany or Italy: the conflicts between practitioners and authorities produced in this climate make France an especially interesting site to explore the relationships between prognosticators, printers, universities, and civil authorities in early modern society.¹⁵

2. *Research goal and sources.*

Inspired by the themes running through the *Pantagrueline prognostication* and the *Apologie de Maistre Thibault*, I intend to investigate how the astrological prognosticator’s craft had been fundamentally changed by the introduction of print technologies and the progress of vernacularization in the late fifteenth and early sixteenth centuries. In manuscript form, the distribution of astrological handbooks, tables, and ephemerides could be easily regulated, as could the training needed to use them. Likewise, astrological predictions were largely private, being circulated to a limited audience in manuscript or delivered orally to members of certain intellectual communities and court elites. While the university medical faculties and physicians had an epistemological monopoly on both the production and distribution of astrological knowledge in the late medieval period, printing made both available to a much broader spectrum

¹⁵ Jean Dupèbe, *Nostradamus: Lettres inédites* (Geneva: Droz, 1983), 13.

of the population. The explosive potential of this change left secular and religious authorities, as well as the universities, struggling to regulate the new flow of information; further, it presented the university astrologers with competitors, leaving them to assert their epistemological authority over that of empirics and astrologers who claimed their own readings to be divinely inspired.

My exploration of these questions is based on two groups of sources. Firstly, my general findings are based on research into thirty-five annual prognostications and their almanac tables from between the 1490s (when the genre first appears in French) and 1555 (the year for which the earliest surviving Nostradamus prognostication was published), as well as dozens of related publications, including ephemerides, astrological handbooks, polemical pamphlets between rival astrologers, and anti-astrological treatises.¹⁶ Second, the later chapters are based on a more localized case-study, the career of the French astrologer and empiric physician mentioned above, Jean Thibault (active c. 1525-1545). My sources here include almost all of his publications, be they prognostications or otherwise; his output during a stint as a printer in Antwerp; a letter of support written on his behalf by Heinrich Cornelius Agrippa for the council of Malines; a pamphlet written against him by another astrologer; and a transcript of the trial before the Parlement de Paris—arising from charges of illegal practice by the University of Paris Faculty of Medicine—that sought to put an end to his career. While most prognosticators, having committed little to the historical record beyond a few surviving publications, remain hazy outlines, there is a veritable goldmine of information about Thibault's intellectual and social

¹⁶ The collections examined include those of the Bibliothèque nationale de France (Arsenal and François-Mitterrand sites), the Bibliothèque Sainte-Geneviève, and the Bibliothèque Mazarine in Paris; the Bibliothèque du Musée Condé in Chantilly; the Médiathèque de l'agglomération Troyenne in Troyes; the Bibliothèque royale de Belgique; the Universiteitsbibliotheek in Leiden; the British Library; the Bibliothèque municipale de Lyon; the Bibliothèque publique et universitaire de Genève; and the Bibliothèque Mejanès, in Aix-en-Provence. I have also drawn from the existing digital databases of the Bayerische Staatsbibliothek in Munich and the Bibliothèques virtuelles humanistes project at the Université François-Rabelais in Tours.

The descriptive bibliography of French almanacs and prognostications ca. 1497-1555 that I assembled during this research is attached to this thesis as an appendix. It includes full material description of the format, paper, typeset, and any copy-specific details such as binding, manuscript notes, and any clues of provenance, as well as full transcriptions of title pages.

context. Focusing on his active career—from roughly 1519-1543—also helps fill a lacuna in the history of French astrology. While late medieval astrology has been treated through Jean-Patrice Boudet's important study of the biographical listing of astrologers prepared by Simon de Phares (1444-1499), and the decline of French astrology in the seventeenth and eighteenth century has been explored in Hervé Drévilion's *Lire et écrire l'avenir : l'astrologie dans la France du Grand Siècle 1610-1715* (1996), the sixteenth century has yet to receive any great attention, beyond scattered studies on Nostradamus (which are highly specialized and typically more concerned with his prophetic *Centuries* than his almanacs).¹⁷

As a means of providing context to my research, I shall begin with a brief survey of the present state of historical studies on astrology, first by exploring general treatments of its role in early modern society, and then with a review of the historiography of astrology in intellectual history and the history of science since Lynn Thorndike.

3. *Situating astrology in early modern European societies: Theoretical problems.*

In spite of being an important element of early modern European science and culture, astrology does not figure prominently in most general accounts of the period. My intention here is to treat some of the theoretical problems raised by two influential accounts which have sought to integrate astrology into early modern history more generally: Keith Thomas's *Religion and the Decline of Magic* (1971); and Denis Crouzet's influential *Les guerriers de Dieu : La violence au temps des troubles de religion* (1990).

In *Religion and the Decline of Magic*, Keith Thomas's project is to understand why magical beliefs, now "rightfully disdained" by intellectuals, "were taken so seriously by equally intelligent people in the past."¹⁸ Thomas's account of astrology within this complex of

¹⁷ Jean Patrice Boudet, *Le Recueil des plus célèbres astrologues de Simon de Phares, édition critique et commentaire*, 2 vols. (Paris: Honoré Champion, 1997-1999); and Hervé Drévilion, *Lire et écrire l'avenir : l'astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996).

¹⁸ Keith Thomas, *Religion and the Decline of Magic: Studies in Popular Beliefs in Sixteenth- and*

premodern beliefs focuses on a set of famous practitioners who operated consulting practices in seventeenth-century London and published prognostications and almanacs as supplementary sources of income. Indeed, Thomas's great achievement in *Religion and the Decline of Magic* is to bring his readers into the consulting rooms of these astrologers through their surviving case books. From these, Thomas infers that astrologers were generally consulted for information that no other source could provide, such as business prospects, the safety of travel, the causes of sicknesses, when to conceive a child, or even where lost property or missing persons might most likely be found.¹⁹

In spite of its achievements in showing the pervasiveness of astrology in early modern culture, Thomas's account proceeds from his assumption of the necessary ineffectiveness of astrology; as Patrick Curry has noted in a recent review article, it goes without saying that such an assumption was not held by his subjects.²⁰ Following a structural-functionalist approach drawn from classical anthropology, Thomas assumes the assortment of "magical devices" he describes serve a utilitarian purpose as "attempts to counter human helplessness in the face of the physical and social environment," and that the decline of magic can be explained by "a marked improvement in the extent to which this environment became amenable to control."²¹ From this perspective, newer and more effective technologies such as probability theory, statistics, and their practical applications in early insurance schemes and market forecasting come to fulfill the needs astrology once served.²²

As anthropologist Hildred Geertz has affirmed, to assert that magic, astrology, and religion were simply ineffective responses to problems that had not yet been "solved" by

Seventeenth-Century England (London and New York: Penguin, 1991), ix.

¹⁹ Thomas, *Religion and the Decline of Magic*, 362-82.

²⁰ Patrick Curry, "The Historiography of Astrology: A Diagnosis and a Prescription," in *Horoscopes and Public Spheres*, ed. Gunther Oesteman et al. (Berlin: Walter de Gruyter, 2005), 261-276. See Keith Thomas, "An Anthropology of Religion and Magic II," *Journal of Interdisciplinary History* 6.1 (Summer 1975), 108.

²¹ Thomas, *Religion and the Decline of Magic*, 777.

²² Thomas, *Religion and the Decline of Magic*, 779; 791.

applications of science, technology, or social organization fails to consider the ontological and linguistic conceptions on which they were founded. She argues that these constitute an alternative cosmology within which such practices were perfectly coherent and effective and maintains that they could only “decline” when this deeper substratum fell into question.²³ In rebuttal, Thomas questioned whether magic and astrology had such underpinnings at all, standing firmly on the side of utilitarian functionalism.²⁴

This paradigm has been widely influential: in his more specialized monograph on the English almanac trade, Bernard Capp follows Thomas’s interpretation closely, noting that “the almanacs, like astrology as a whole, were designed to serve mankind in a highly utilitarian way from the cradle to the grave.”²⁵ For both, astrology simply became obsolete in the face of more effective technologies. As Patrick Curry has noted, this view continues to hold tacit sway over scholarship: modern historians are privileged with more accurate knowledge about reality than their subjects. As Curry points out, this is positivist anachronism: it forwards that we moderns know the truth and have real operational knowledge of nature, while premoderns only had ineffective beliefs and practices—until they evolved into moderns.²⁶

The biggest problem with *Religion and the Decline of Magic* is perhaps the greatest virtue of Denis Crouzet’s *Les guerriers de Dieu*: the latter offers a sustained engagement with the ontological and linguistic foundations of belief. His project has at least one key drawback, however. As he unabashedly affirms, his effort to evoke the collective imaginary of sixteenth-century France is predicated upon what he calls the disindividualization and the desocialization of the written word: except where absolutely necessary, he does not consider the background of

²³ Hildred Geertz, “An Anthropology of Religion and Magic I,” *Journal of Interdisciplinary History* 6.1 (Summer 1975): 83-4. In effect, this debate can be characterized as a post-“linguistic turn” anthropologist’s critique of a historian who drew upon pre-“linguistic turn” anthropology.

²⁴ Thomas, “An Anthropology II,” 101-2.

²⁵ Bernard Capp, *Astrology and the Popular Press: English Almanacs, 1500-1800*, (London, Boston: Faber, 1979), 291.

²⁶ Curry, “The Historiography of Astrology,” 262.

the authors or texts, preferring instead to conceive of all of his sources as a single coherent text manifesting the collective imaginary of the age. Indeed, he declares that years spent combing the print collections of the Bibliothèque nationale de France have revealed that mass eschatological anxiety was the motivation behind the religious crises and violence of the sixteenth century.²⁷

Within Crouzet's sources, almanacs and astrological prognostications play an important part. While the astrology might at first appear to affirm mankind's domination of the temporal realm, Crouzet cautions that it helped promulgate widespread eschatological anxiety ("l'angoisse eschatologique") in the decades leading up to the Wars of Religion. Here he invests printing with a crucial role: in the early sixteenth century, seemingly innocuous publications such as the *Compost et calendrier des bergers* (1491), constantly reprinted, helped to inculcate literate French society with the basic tenets of learned astrology. With this groundwork laid, print could then serve as a vector for more alarmist astrological predictions.²⁸ At the heart of Crouzet's narrative in this regard is Michel de Nostredame (1503-1566), commonly known as Nostradamus, the most famous of French prognosticators. Nostradamus's prognostications mix the authority of astrology and inspired prophecy to produce what Crouzet calls "discursive violence," especially his ambiguous prophetic quatrains, which served to magnify popular panic by allowing people to read their individual fears into the verses.²⁹

Crouzet concludes his discussion by proposing that throughout the sixteenth century, religious violence between Catholics and Huguenots was fostered by a widespread popular vision that the End Times were nigh, and that astrological prognostications played an important part in this ever-quickenning fugue. From the Catholic point of view, this apocalyptic ontology necessitated the purging and purifying of the church. In the case of Calvinism, Crouzet argues

²⁷ Denis Crouzet, *Les guerriers de Dieu : La violence au temps des troubles de religion, vers 1525-vers 1610*, 2 vols. (Paris: Champ Vallon, 1990), 1:47-8.

²⁸ Crouzet, *Guerriers de Dieu*, 1:102-3. Later: "Des schèmes mentaux sont instaurés, facilitant l'intrusion d'une autre tension, celle, plus violente et puissante, d'un prophétisme astrologique...Les Temps dominé se fait Temps de l'angoisse," Crouzet, *Guerriers de Dieu*, 1:106.

²⁹ Crouzet, *Guerriers de Dieu*, 1:125; 129.

that one of its great appeals was that it offered solace to these anxieties through the doctrine of predestination coupled with hostility to prophecy and divination, including astrology.³⁰

Was eschatological anxiety as pervasive as Crouzet suggests it was, and did the brutal collective violence of the French Wars of Religion necessarily follow from it? While Crouzet's more general thesis is supported by good evidence, in the case of the prognostications, I would stress the importance of not reading the frenzied tone of Nostradamus backward into the first half of the sixteenth-century. As Chapter Three will show, my own investigations suggest that prognostications from the first half of the century are all relatively mild: while far from optimistic about the weather, crops, and even warfare, they seldom venture into territory that might be considered eschatological. Indeed, their authors likely produced them as a source of income supplementary to medical practices, and almost certainly did not consider themselves to be inspired prophets mandated by God to convince sinners to repent because the world was about to end. Further, turning out to be wrong could ruin their credibility in following years. Even considering astrology's role in the widespread deluge panic of 1524,³¹ the overtly eschatological doomsaying evoked by Crouzet does not begin in earnest until the mid-1550s, well into the religious crisis, and that even then it seems to have been a result of the influence of—or the desire to compete with—Nostradamus. Further, as Roger Chartier often cautions, the agency of readers should always be kept in mind when evaluating the impact of print: widely available texts can be used and interpreted by individual readers in a plurality of ways. Any case for understanding print as a vehicle for mass eschatological anxieties should be moderated by this qualification.³²

³⁰ Crouzet, *Guerriers de Dieu*, 1:145.

³¹ The deluge panic is treated in Chapter One of this thesis. In general, see Paola Zambelli, ed, *'Astrologi hallucinati': Stars and the End of the World in Luther's Time* (Berlin and New York: Walter de Gruyter, 1986).

³² Roger Chartier, "Reading as Appropriation," in *Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer* (Philadelphia: University of Pennsylvania Press, 1995), 83-99.

What is needed, it seems to me, is an approach that takes the best of both Thomas and Crouzet: one that works to submerge itself in the sometimes alien cosmos where celestial influences are a reality, but also acknowledges the importance of the individual astrologers and clients living and working within such a cosmos. In reading them, as well as their critics, I have consolidated some of my own theoretical convictions about how the history of early modern astrology's encounter with printing should be told: it should be concerned with real people and practices, not abstracted collectivities, and should respect their cosmology as having the same validity to them as our modern one does to us.

4. *Astrology in early modern intellectual history.*

a. *Origins: Neugebauer, Thorndike, and Yates.*

Any general attempt to describe the place of astrology in early modern society must rest not only on these convictions but also on a synthesis of much more specialized studies: Thomas and Crouzet often had little to work with, since astrology has been slow to gain respect in historical circles, both French and English. Neither shows a great awareness of the actual practices and tools of astrologers, and Crouzet altogether dismisses their intellectual background and their place within larger intellectual communities in his study. Although informed by the broader questions treated above, I have endeavoured in this thesis to understand the practices, communities, and social roles of astrologers as it their discipline was transformed by printing.³³

In many ways, an appreciation of the place of astrology in early modern society and culture was scarcely possible until recently. Until there was enough distance between historians and nineteenth-century convictions of positivism and progressivism, studies of astrology and other occult sciences were prone to be dismissed by members of the academic community as unworthy or useless contributions to historical knowledge. Otto Neugebauer's defence of the

³³ The best and most recent review of such trends is Anthony Grafton, "Starry Messengers: Recent Work in the History of Western Astrology," *Perspectives on Science* 8, no.1 (2000): 70-83.

“study of wretched subjects” against the criticism of George Sarton is a poignant testament to this lack of historical empathy.³⁴ Even Herbert Butterfield—a staunch critic of what he called “Whig history”—famously observed that historians of the occult often “seem to become tinctured with the same lunacy they set out to describe.”³⁵ Some scholars continue to note that some of the best studies of early modern astrology are plagued by “the residues of unresolved positivism.”³⁶

Perhaps most influential in the inclusion of astrology under the aegis of the history of science is Lynn Thorndike. Thorndike worked to justify astrology as a legitimate subject of historical study and to break down the simplistic and anachronistic barriers which sought to distinguish reason from superstition. He declared that astrological beliefs were “held by scientists and by mankind at large for centuries” and needed to be taken into account by historians.³⁷ Indeed, Thorndike laid the foundation for most subsequent study of astrology in early modern Europe with his encyclopaedic *History of Magic and Experimental Science* (1923-1958), which unearthed hundreds of new sources and rightly placed magic and the occult alongside what moderns might more easily recognize as science.³⁸

As Thorndike petitioned for the recognition of magic and astrology among historians of science, students of renaissance philosophy rediscovered the occult sciences through Neoplatonism and Hermeticism. Most prominently, Frances Yates in her 1967 essay, “The Hermetic Tradition in Renaissance Science” put forward the radical theory that active magical attitudes were at the root of human efforts to understand and control nature.³⁹ This “Yates thesis”

³⁴ Otto Neugebauer, “The Study of Wretched Subjects,” *Isis* 42, no. 2 (1951): 111.

³⁵ Herbert Butterfield, *The Origins of Modern Science: 1300-1800* (New York: Free Press, 1965), 141.

³⁶ Curry, “The Historiography of Astrology,” 263.

³⁷ Lynn Thorndike, “The True Place of Astrology in the History of Science,” *Isis* 46.3 (Sept. 1955): 273-278

³⁸ Lynn Thorndike, *A History of Magic and Experimental Science*, 8 vols. (New York: Columbia University Press, 1923-1958).

³⁹ Frances Yates, “The Hermetic Tradition in Renaissance Science” in *Art, Science, and History in the Renaissance*, ed. Charles S. Singleton (Baltimore: The Johns Hopkins Press, 1967), 255-75.

provoked considerable criticism, but spurred much research into the previously disdained “occult sciences.”⁴⁰

b. Astrology in the history of ideas: Saving Athens from Alexandria.

Following these opening forays, scholarship in the history of ideas sought to do two related things: (1) identify the common epistemological underpinnings of the “occult sciences,” and (2) distinguish them from a rational scientific mentality. This project reflects a semantic shift: the originally emic (insider’s) use of the word “occult” (which originally meant unseen) becomes an etic (outsider’s) category, with “occult” becoming synonymous with unscientific or irrational and the “occult sciences” becoming an umbrella-term covering astrology, alchemy, and natural magic, all understood as illegitimate according to modern scientific paradigms. It is a manifestation of the larger post-Enlightenment dismissal of astrology as an illegitimate form of knowledge and the reduction of what had once been part of the legitimate liberal arts of medieval and early modern Europe into a “pseudoscience” or a “superstition.”⁴¹

In *Astrology in the Renaissance: The Zodiac of Life* (1976) Eugenio Garin referred to this problematic attempt to draw a hard line between superstitious astrology and rational astronomy as the effort to “save Athens from Alexandria,” associating Athens with classical Greek rationality and Alexandria with the naive syncretism and superstition of the Hellenistic and Roman period. As he notes, “it is not an easy task [...], because it is difficult to see where Athens finishes and Alexandria begins.”⁴²

Attempts to “save Athens from Alexandria” culminated in an important conference on the place of the occult in the history of science, published as *Occult and Scientific Mentalities in the*

⁴⁰ In terms of criticism, see the two classic essays in Robert S. Westman and J. E. McGuire, *Hermeticism and the Scientific Revolution: Papers read at a Clark Library seminar, March 9 1974* (Los Angeles: William Andrews Clark Memorial Library, 1977).

⁴¹ Gunther Oesteman, H. Darrel Rutkin and Kocku von Stuckrad, “Introduction,” in *Horoscopes and Public Spheres*, 2-5.

⁴² Eugenio Garin, *Astrology in the Renaissance: The Zodiac of Life*, tr. Carolyn Jackson and June Allen (London and Boston: Routledge and Kegan Paul, 1983), xii.

Renaissance (1984). The publication's editor, Brian Vickers, was especially interested in establishing a clear delineation between the two. In his own contribution, "Analogy versus identity: the rejection of occult symbolism, 1580-1680," Vickers draws on Ferdinand de Saussure to argue that occult practices are the result of a confusion between signified and signifier:

In the scientific tradition, I hold, a clear distinction is made between words and things and between literal and metaphorical language. The occult tradition does not recognize this distinction: Words are treated as if they are equivalent to things and can be substituted for them. Manipulate one and you manipulate the others.⁴³

According to Vickers, this confusion characterizes the mentality underpinning not only astrology, but also numerology, alchemy, and natural magic. To offer a few examples: the malign planet Mars has a martial influence, and rules over matters of violence, war, and other conflicts; the benign influence of Venus is venereal, having to do with women, love, and peace. As celestial phenomena, they are thought to exercise influence over matter and even individual human wills in the sublunary realm, modified by their position on the band of the zodiac (the constellations of which have associations governed by similar correspondences) and their angular relation to other planets. The supposed confusion that these examples demonstrate are as old as classical antiquity: first, it correlates a set of astronomical phenomena (i.e. the planets), with deities from influential pre-Christian traditions; then, it associates the planets—each now invested with a complex of attributes—with various natural phenomena, parts of the human body, diseases, individual inclinations, even world-historical events, which they are held to govern or influence. "As above, so below," to quote the Hermetic dictum.⁴⁴ At first glance,

⁴³ Brian Vickers, "Analogy versus identity: the rejection of occult symbolism, 1580-1680" in *Occult and Scientific Mentalities in the Renaissance*, ed. Brian Vickers (Cambridge and New York: Cambridge University Press, 1984), 95.

⁴⁴ "Quod est inferius, est sicut id quod est superius," *Tabula smaragdina*, ed. Julius Ruska (Heidelberg, 1926): 2.

correspondences like these seem (for moderns) to be an elementary error in reasoning, and are explained by Vickers as a sort of semiotic short-circuit.

This explanation of the idea of correspondences assumes that it should be evaluated as a modern scientific hypothesis. Such a view fails to understand that pre-modern people did not operate with modern notions of scientific knowledge and that their worldview was grounded in a different but similarly complex set of convictions about the nature of the cosmos. Further, such assumptions render adherents of such views—including some of the most important thinkers of the Renaissance—hopelessly naive by judging them by criteria that did not belong to their worldview. This judgement is the product of what can be called an anachronistic fallacy in historical interpretation.⁴⁵

Recent scholars of religion, notably those associated with the Amsterdam Hermetica, have provided a firm theoretical foundation for how alchemy, astrology, and natural magic can be historicized. Wouter Hanegraaff has suggested that the theoretical assumptions, real practices, and legitimating strategies used by practitioners of each of these have changed with time and cultural context. Hanegraaff defines the renaissance theory of correspondences as “the assumption that the world has been created in such a way that resemblances (whether formal or structural) are the reflection of real connections.”⁴⁶ This implies a great deal more than a simple confusion of ideal connections with real ones, and from the point of view common to most strands of Christian and Neoplatonic thought, there was nothing irrational or accidental about such correspondences at all.⁴⁷ The interlocked levels of creation, from the heavens down to the

⁴⁵ See Wouter J. Hanegraaff, “How magic survived the disenchantment of the world,” *Religion* 33 (2003): 357-380, on the theory of correspondences underpinning Hermetic magical texts. Hanegraaff is Professor of the History of Hermetic Philosophy and Related Currents at the University of Amsterdam, the first full program for research and teaching in this field, which studies these trends from the vantage of cultural anthropology and religious studies rather than the history of science.

⁴⁶ Hanegraaff, 361.

⁴⁷ For a general introduction to the Platonic and Hermetic sources of these ideas, see Kocku von Stuckrad, *Western Esotericism: A Brief History of Secret Knowledge*, tr. Nicholas Goodrick-Clarke (London and Oakville: Equinox, 2005): 12-23.

elemental sphere of the Earth, were an expression of the divine mind. If our reality is an imperfect model of the perfect and eternal divine mind, created though it is in the changeable realm of space and time, then the various resemblances we observe are manifestations of real metaphysical connections. Further, it could be understood by beings whose souls were thought to be a microcosm working through the same thought-processes as the heavenly spheres, both being reflections (albeit imperfect ones) of the divine mind.⁴⁸

Although human reason is insufficient for completely scrutinizing the mind of God, even when mediated through nature, it too has certain in-built advantages: nature itself was thought to speak to humans through a language of signs whose mysteries were to be deciphered. God, not man, chose the symbols, and then hardwired us to interpret them by fashioning humans, like the heavens, in the image of his own mind. In their efforts to decode the natural world, humans could also rely on ancient authorities held to have possessed greater insight into these secrets. Notable in this regard is the idea of a *prisca theologia*, which posits that the threads of a primeval revelation run through all of the ancient religious traditions, teaching humans about their place in the cosmos and providing operational knowledge of these universal correspondences (through the arts of alchemy, astrology, and natural magic).⁴⁹

Vickers's semiotic argument breaks down here as well, because it presupposes that things in the phenomenal world, such as Mars and Venus, were named by humans, and invested by us with all of the correspondences mentioned above. For this reason, they seem arbitrary from the perspective of modern semiotics. The renaissance thinker, by contrast, assumes that they were, in a fundamental way, named by God himself, through a code that humans themselves could decipher thanks to the hardwired relationship between the heavenly macrocosm and man the microcosm. As Hanegraaff concludes,

⁴⁸ Hanegraaff, 361-3.

⁴⁹ Hanegraaff, 362. For a general introduction to the idea of a *prisca theologia*, see Stuckrad, *Western Esotericism*, 57-9.

what strikes us as so obviously arbitrary could strike the Renaissance mind as so many examples of how perfectly and meaningfully God had created the world, providing man with abundant clues by which he might learn to read the “prose of the world.”⁵⁰

This adds a further complication: if nature and the mind of man are both reflections of the divine mind, then knowledge of the natural world is also a kind of self-knowledge, and both of these are knowledge of God. This gives the practice of astrology, natural philosophy, and even Hermetic magic its special importance.

While most of the other contributions in *Occult and Scientific Mentalities in the Renaissance* do not call for such a firm distinction to be made, Vickers’s introduction is nonetheless concerned with maintaining a division between a “scientific” mentality familiar to moderns and an “occult” mentality that is seen to be the product of a semiotic malfunction. When forced to grapple with the presence of both in the work of individual thinkers, he argues that “Renaissance scientists were able to operate for a while, at least, in two finally incompatible traditions,” however much this may seem to be a kind of “schizophrenia” to historians.⁵¹ As the work of Hanegraaff and other scholars has demonstrated, the simpler solution is to acknowledge that the division is of little use in attempting to understand the past on its own terms: the “mentalities” underlying astrological or magical practices change over time and are far more complex than a mere confusion of signifiers and signifieds.

c. Recent trends in intellectual history: Education, institutions, and practices

Against attempts to cluster astrology with alchemy and natural magic as occult sciences, some scholars have recently pointed out that, as understood by the historical actors within the periods under study, astrology has far more in common with mathematics and medicine, and was virtually inseparable from astronomy.⁵² Rather than describe astrology through the debates that

⁵⁰ Hanegraaff, 363.

⁵¹ Vickers, *Occult and Scientific Mentalities*, 13.

⁵² Oestmann, Rutkin, and Stuckrad, “Introduction,” *Horoscopes and Public Spheres*, 5.

often surrounded its theological, philosophical, and physical underpinnings and implications, as even Eugenio Garin does, historians have recently explored the educational curricula, intellectual communities, and concrete practices of late medieval and renaissance astrologers. Although the ways in which historians of ideas and religion have approached astrology has an important place in this survey of the historiography, it is the intellectual communities and practices of the astrologers themselves that are the primary subject of my research, especially the new practice of publishing annual prognostications.

As Anthony Grafton and William Newman have recently observed, “Astrology formed more than a set of abstract theories and beliefs. It was also a coherent body of practices, strongly supported by institutions.”⁵³ How and in which institutions did one learn to do astrology in the Renaissance? Though there were alternatives available—a student could increasingly be self-taught thanks to printing and the growing vernacularization of the literature, or might be trained privately under an astrological adept—universities played a crucial role and provided astrology with its main institutional setting. From the beginning of the fourteenth century, astrology was an important part of the arts curriculum at late medieval and renaissance universities, studied under three disciplines: mathematics, natural philosophy, and medicine, where it had its most important practical role.⁵⁴

H. Darrell Rutkin’s recent dissertation, together with his more concise description of astrology’s institutional setting in *The Cambridge History of Science* (2003), has been crucial in framing these questions.⁵⁵ In addition, Steven Vanden Broecke’s recently published history of learned astrology at the University of Louvain describes its position as the institution par

⁵³ Anthony Grafton and William R. Newman, “Introduction,” in *Secrets of Nature: Astrology and Alchemy in Early Modern Europe*, (Cambridge and London: The MIT Press, 2001), 6.

⁵⁴ H. Darrel Rutkin, “Astrology,” in *The Cambridge History of Science*, vol. 3 “Early Modern Science” (Cambridge: Cambridge University Press, 2003), 541.

⁵⁵ H. Darrel Rutkin, “Astrology, Natural Philosophy and the History of Science c. 1250-1700: Studies Toward an Interpretation of Giovanni Pico della Mirandola’s *Disputationes adversus astrologiam divinatricem*” (Ph.D. diss., Indiana University, 2002).

excellence of astrological studies in Northern Europe, and then moves on to account for how astrology's academic status finally came under question in the seventeenth century through a series of efforts to reform it.⁵⁶

Beyond exposure to the astronomical foundations of astrology in the undergraduate quadrivium through lectures on John of Sacrobosco's *De sphaera* and other texts, advanced study was included in the medical curriculum. Astrology had been definitively incorporated into medical education by Pietro d'Abano at the University of Padua in the early fourteenth century.⁵⁷ Following Hippocrates and Galen, Pietro asserted that the complete physician must be trained in astrology. Here students would study Alcabitius's short *Liber isagogicus* and Ptolemy's *Centiloquium*, and later more advanced texts such as the *Tetrabiblos* and the unusually titled *De urinis non visis*.⁵⁸ His approach flourished through to the sixteenth and seventeenth centuries at universities such as Bologna, Pisa, Padua, and Louvain.⁵⁹ Following Vanden Broecke, Rutkin also suggests that scholars seeking to understand both astrological reform and astrology's ultimate loss of academic legitimacy in the eighteenth century should also consider "changing disciplinary patterns and their reflection in university curricula," notably in medical faculties, where astrology remained longest.⁶⁰

The work of Darrel Rutkin and Steven Vanden Broecke, coupled with the work of Jean-Patrice Boudet on astrology at the University of Paris, is particularly useful in accounting for Jean Thibault's prosecution.⁶¹ Whether it was because of the presence of the powerful Faculty of

⁵⁶ Steven Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology* (Leiden: Brill, 2003).

⁵⁷ On the legacy of Pietro d'Abano's curriculum and on the place of astrology within Renaissance medicine as a whole, see Nancy Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago and London: The University of Chicago Press, 1990), esp. 68-9; 110-111; 123-8.

⁵⁸ Rutkin, "Astrology," 545-6.

⁵⁹ *Ibid.*, 548. For an even early example of this approach, see Mordechai Feingold, "The Occult Tradition in the English Universities of the Renaissance: A Reassessment," *Occult and Scientific Mentalities*, 73-94

⁶⁰ Rutkin, "Astrology," 553.

⁶¹ Jean-Patrice Boudet, "Charles V, Gervais Chrétien et les manuscrits scientifiques du collège de Maître Gervais," *Médiévales* 52 (2007): 15-38.

Theology, or even differences in medical faculty attitudes toward astrology, it was far less accepted at Paris than it was in contemporary Padua or Louvain. Indeed, as Jean Dupèbe has remarked, France was a land inhospitable to astrologers in the sixteenth century, especially compared to Germany and Italy.⁶²

In addition to the study of education and institutions, the concrete practices of astrologers have also begun to receive greater attention. Exemplary in this respect is Anthony Grafton's survey of astrological techniques in his work on the Italian astrologer Girolamo Cardano, *Cardano's Cosmos* (1999). Drawing on contemporary engravings, he fleshes out the space of the astrologer's consulting room and the tools of his craft, including astrolabes, armillary spheres, and the indispensable ephemeris—the typical source of most astrologers' raw data on planetary positions, tables covering daily positions for decades at a time. From there, Grafton provides a general description of the complexities involved in interpreting the data, from establishing the houses and aspects to interpreting the relative influences of different configurations. Ultimately, the astrologer would produce a simplified figure and provide his client or readers with a commentary to interpret it. This flurry of complex data and interpretation will be discussed in detail in the first chapter, which treats the elements of astrological judgement.⁶³

While scholars such as Grafton provide the necessary introduction for readers unfamiliar with astrology, others have provided incredibly detailed technical analyses. In *Nostradamus astrophile* (1993), for instance, Pierre Brind'Amour is able to discover—with the assistance of a computer program—numerous errors in Nostradamus's figures, putting his competence in question using the very standards of his contemporaries.⁶⁴ Although I do not claim expertise in

⁶² Jean Dupèbe, *Nostradamus: Lettres inédites* (Geneva: Droz, 1983), 13.

⁶³ Grafton, *Cardano's Cosmos*, 22-37.

⁶⁴ Pierre Brind'Amour, *Nostradamus astrophile: Les astres et l'astrologie dans la vie et l'œuvre de Nostradamus* (Ottawa: Les Presses de l'Université d'Ottawa, 1993), 293-429.

these techniques, some familiarity with them is a necessary component of any history of astrology and will be included in my account.⁶⁵

5. *Conclusion: Situating the career of Jean Thibault in the history of astrology*

The thesis is divided into four main chapters. (1) The first will introduce the place of astrology in renaissance understandings of the cosmos and discuss how printing opened astrology up to a far wider spectrum of the population. This is followed by (2) a chapter treating French vernacular almanac-prognostications from 1497 to 1555, both materially as print-objects within an international marketplace and discursively as astrological predictions of future events and conditions. With this groundwork laid, I will then offer (3) an instructive case-study as my final chapter, putting all of these questions in motion through a microhistorical account of the life and times of a single prognosticator, the self-declared astrologer-empiric Jean Thibault and his various clashes with competing astrologers, the university medical community, and ultimately civil authorities.

Indeed, only a few years after calling for the censorship and verification of almanacs, Thibault found himself targeted by it. Arrested and then imprisoned in the dungeons of the Châtelet, he was ultimately prosecuted by the Parlement of Paris, at the behest of the University of Paris Faculty of Medicine, for publishing unauthorized almanacs and practicing medicine without its approval. Far from having his almanacs held to the standards of the Tübingen ephemerides, however, Thibault was here the victim of the Faculty's efforts to maintain a general monopoly over medical knowledge and practice, and of the special hostility of the new humanist

⁶⁵ Other detailed accounts of the technical practices of medical astrologers include Charmasson, "L'établissement d'un almanach medical pout 1437"; and Nancy Siraisi and Anthony Grafton, "Between the Election and My Hopes: Girolamo Cardano and Medical Astrology," in *Secrets of Nature*, 69-132.

dean of medicine, Jean Tagault, toward medical astrology altogether—especially when it was practiced and published so brazenly by an empiric.⁶⁶

Thibault's case complicates the pictures provided by Rutkin, Vanden Broecke, and other recent scholars exploring the institutional settings of astrology in two ways. First, it reveals the attitudes of an institution that was far less accommodating of astrology than contemporary Louvain; second, it explores how an outsider such as Thibault, although clearly dependent on the learned traditions promulgated by these institutions, was nonetheless able to practice outside of them and without their support. The key to this divergence is, I will show, the emergence of print culture, the implications of which remain relatively undiscussed in the history of astrology. Indeed, Thibault's career exemplifies the effects of the early modern communications revolution on the social aspects of knowledge more generally: printing both increased the possibility for rival epistemological claims and amplified their ramifications, first by equipping an empiric like Thibault with the tools of the astrological trade, and then by giving him access to a platform for broadly disseminating his competing claims. Thanks to astrology's encounter with printing, universities and civil authorities had to fight even more fiercely to regulate access to a potentially dangerous form of information, vital to everyday life—knowledge of the future.

⁶⁶ On Jean Tagault, see Jean Dupèbe, "Introduction," to Michel Servet, *Discussion apologétique pour l'astrologie contre un certain médecin*, Cahiers d'humanisme et Renaissance 69 (Geneva: Droz, 2004) : 11-13. On the Faculty's war against irregular medicine more generally, see Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France* (Oxford: Clarendon Press, 1997), 230-73.

Chapter One, Printing and the transformation of the astrologer's craft

The astrology of the prognosticators was, on the whole, a bookish art. The almanac-prognostication pamphlet was a unique product of print culture, and its compilation rested on one of the great astronomical reference sources disseminated by printing: the multi-year ephemeris. The first printed ephemeris was produced by Johannes Müller of Königsberg, aka Regiomontanus, in 1474 and would be updated by Johannes Stöffler and Jacob Pflaum to cover up to 1551.⁶⁷ These ephemerides, which tabulated the positions of the planets for a set number of years, provided the astrologer with his basic data for interpretation.

This chapter will explore how the technical practice of astrology was transformed by printing, becoming increasingly reliant on a set of standardized data. Although these technical practices are not the focus of this thesis, my intention here is to provide a brief orientation on how learned astrologers could predict future events with reference to the configurations of planets, the zodiac, and houses at a given time. Some understanding of these practices is, of course, necessary to understanding the prognostications themselves, which will be discussed in the following chapter.

I will discuss some of the other tools of the trade that came into print by the end of the fifteenth century and contributed to the popularization of astrological practices. These can be divided into two successive waves, one Latin and international, the second vernacular and local. The former is made up of Latin treatises on astrological judgement, primarily late antique Greek and medieval Arabic in origin, that were made available by the end of the fifteenth century thanks to the industry of early scientific publishers such as Erhard Ratdolt in Venice.⁶⁸ The latter,

⁶⁷ Johannes Stöffler and Jacob Pflaum, *Almanach nova plurimis annis venturis inserentia* (Ulm: Johann Reger, 1499), 4°, Bibliothek of the Bayerische Staatsbibliothek: BSB-Ink S-591, http://inkunabein.digitale-sammlungen.de/Ausgabe_S-591.html (accessed November 1 2009).

⁶⁸ In addition to printing Euclid's *Elementa geometriae*, Luca Pacioli's *Summa de arithmetica*, Sacrobosco's *De sphaera*, Johannes Angelus' *Astrolabium planum*, and Puerbach's *Theoricae novae planetarum*, Ratdolt also published a dozen of the most significant late medieval works on astrological judgement.

beginning in the 1540s, is made up of vernacular handbooks: in the case of France, these include the French translation of Oronce Finé's handbook on the use of ephemerides (1551), and Claude Dariot's famous *Introduction au jugement des astres* (1558).⁶⁹ The intent in drawing on these treatises to provide a summary of astrological judgement is not so much to provide the reader with a crash-course in how to do astrology, as it is to lay the necessary foundations in order to show how crucial the printed ephemerides were as a resource for astrologers.

The chapter will also provide a brief assessment of how another long-term printing phenomena, this one far less learned and much more popular, may have transformed the broader urban public's understanding of mind, body, and cosmos. I have in mind here the vernacular miscellanies on medicine and cosmology that were often appended to early calendars such as the famous *Compost et calendrier des bergers* (1494).⁷⁰ These publications encouraged popular interest in astrological predictions and created a readership for cheap printed annual prognostications, which astrologers could easily produce with the help of ephemerides.

Finally, the possibilities opened by these two dissimilar but related instances of popularization will be explored through reference to the widespread panic following the astrological prediction that 1524 would see a second deluge. How did these print traditions

Over the course of his thirty-year career in Venice (1476-86) and Augsburg (1486-1506), these included (in chronological order): Alcabitius, *Liber isagogicus* (1482), 4°; Abraham ibn Ezra, *De luminaribus et diebus criticis* (1482), 4°; *Alfontii regis castelle illustrissimi celestium motuum tabule* (1483), 4°; Ptolemy, *Quadripartium opus* (Jan. 15, 1484), 4°; Abraham ibn Ezra, *Liber de nativibus* (1484), 4°; Haly Aenragel, *De iudicis astrorum* (1485), 2°; Alcabitius, *Libellus isagogicus* (1485), 4°; *Opusculum repertorii pronosticon in mutationes aeris tam via astrologica* (1485), 4°; a third edition of Alcabitius, *Liber isagogicus* (1485), 4°. In Augsburg, he would later print Albumasar's *De magnis conjunctionibus* (1489), 4°; and the *Flores astrologie* (1488), 4°.

See the useful catalogue of his Venetian editions provided in Gilbert Redgrave, *Erhard Ratdolt and His Work at Venice: A Paper Read Before the Bibliographical Society, November 20, 1893* (London: The Bibliographical Society, 1894), 28-46.

⁶⁹ Oronce Finé, *Les canons et documents tresamples touchant l'usage et pratique des communs almanachz que l'on nomme ephemerides* (Paris: Regnaud Chaudiere, 1551), 8°; Claude Dariot was first published in Latin as *Ad astrorum judicia facilis introductio* (Lyon: Maurice Roy et Loys Pesnot, 1557), 4°; and then in translation, *L'introduction au jugement des astres* (Lyon: Maurice Roy et Loys Pesnot, 1558), 4°. Both were translated into English, in 1583 and 1558 respectively.

⁷⁰ *Compost et calendrier des bergers* (Paris: Guy Marchant, 18 April 18 1493), 2°, facsim. ed. Max Engammare (Paris: Presses universitaires de la France, 2008). According to Engammare's bibliography at least 31 editions of the *Calendrier des bergers* were published in French between 1491-1555. See Max Engammare, "Introduction," *Calendrier des bergers*, facsim. (Paris: Presses universitaires de la France, 2008), 4-49.

transform the practice of astrology itself, especially the attitudes of social secrecy that surrounded the craft in the late Middle Ages? I would like to suggest that they gave astrology an entirely new field of operation in print, offering literate people a new way in which they could structure their everyday lives and understand the world around them. In the late Middle Ages astrological training was given at the university, and the training and tools needed for learned astrological predictions were hardly accessible outside of university, medical, and court communities. Following the advent of print, both the practice and the products of astrology became available to increasingly large segments of the population. Further, as the subsequent chapter will argue, astrology gained an entirely new context as its mundane branch became firmly situated within print culture itself in the form of cheap annual prognostications.

1. *Sacrobosco among the shepherds: The cosmology of the Calendrier des bergers*

From antiquity onward, astrology had evolved into a sophisticated interpretive framework. It originated in classical Greece and Babylon, and reached maturity in second-century Egypt, where Claudius Ptolemy perfected the mathematical model by which the positions of the planets would be predicted well into the sixteenth century. This system was transmitted from the Roman to the Arabic world, and then into Latin Europe. By this time, it had become fully integrated into an account of the natural world derived from Aristotle and notions of the human body derived from Galen. It gained a prominent place in the curricula of the nascent universities there, especially in medicine.

As Jean-Patrice Boudet has remarked, astrology cannot simply be reduced to a set of predictive techniques. Rather, it provided nothing less than a comprehensive system for interpreting the cosmos and human life.⁷¹ Beyond being technically complex, as the following section will illustrate, it rested on deeply rooted assumptions about the organization of the

⁷¹ "Il s'agit bien d'un système global d'interprétation du monde, cherchant à embrasser tous les domaines, individuels et collectifs, de la vie des hommes," Jean-Patrice Boudet, *Entre science et nigromance: astrologie, divination et magie dans l'occident médiévale* (Paris: Publications de la Sorbonne, 2006), 67.

cosmos and the body. To begin, it will perhaps be helpful to provide a brief description of the basic cosmology within which astrology was practiced, and briefly mention some of the ways it was integrated into other forms of medical and natural knowledge.

Rather than doing this through a learned text, however, I shall draw from a vernacular source: the famous *Compost et calendrier des bergers* (1493). Centred around a perpetual calendar and framed as the transcribed wisdom of an illiterate shepherd, the *Calendrier des bergers* provides a miscellany of texts covering a broad variety of areas: these include a classification of vices and virtues, graphic depictions of Hell, a collection of devotional texts, a Salerno-inspired health regime, and last but not least, “l’Astrologie des bergiers,” a short introduction to astronomy and astrology (Figure 1). Thanks to the diversity of its contents, the *Calendrier* offers a provocative window into the everyday worldview of the late fifteenth century. The discussion here focuses on its astronomical section, using it to provide a general introduction to the cosmos as it was then understood.

How much astronomy could one learn from the *Calendrier des bergers*? On a strictly practical level, it only offered instructions for how to use a perpetual calendar and how to build a “tablet de boys” or “cadrant des bergiers”: that is, a nocturne or nocturlabe, including a pattern for carving one out of wood.⁷² Accordingly, its technical information was limited to elementary astronomical timekeeping. On the level of more general information, however, it did provide a reasonably good introduction to elementary cosmology. The section entitled “L’astrologie des bergiers” is made up first of eighteen pages on elementary astronomy defining various divisions and properties of the celestial and terrestrial spheres.⁷³ Eleven pages follow that are more specifically astrological in content: these are made up first of a short explanation of astrological houses and then of verse mnemonics and woodcut illustrations showing the properties of each

⁷² *Calendrier des bergers* (1493), fol. L₅r^o-v^o.

⁷³ *Calendrier des bergers* (1493), fols. H₇v^o-K₂r^o.

planet.⁷⁴ The former section is largely drawn from the most popular late medieval university textbook of astronomy, the English astronomer John of Sacrobosco's *De sphaera*.⁷⁵ Beginning in the thirteenth century, the basics of astronomy were common knowledge to anyone who had attended a university in pursuit of a bachelor's degree, typically through Sacrobosco.⁷⁶ As Emmanuel Poulle has noted, Sacrobosco was primarily a pedagogical text on cosmology, not an introduction to astronomical techniques. In this way, it is comparable to the armillary sphere that was likely used as a visual aid by lecturers commenting on Sacrobosco in the classroom.⁷⁷ In the *Calendrier des bergers*, this introduction to cosmology was placed in the mouths of the illiterate shepherds. Indeed, the compiler followed the same pedagogical order as Sacrobosco, and in some cases, simply abridged and translated passages directly from *De sphaera*, as is the case with some of his definitions of the different circles.⁷⁸

The *Calendrier des bergers* begins its exposition by explaining the basic geocentric model of the cosmos as a series of nested spheres and by articulating the Aristotelian division between the elemental and the heavenly realms (Figure 2). In these and subsequent cases, the learned concepts of Sacrobosco are explained with analogies using everyday objects. Within this cosmos, the *Calendrier* tells us, "Les elemens et toutes choses qui en sont composees sont enclos

⁷⁴ *Calendrier des bergers* (1493), fols. K₂r^o-L₁v^o.

⁷⁵ Engammare, "Introduction," 33. Engammare recognizes certain elements, such as the definition of the meridian, to be borrowed from Sacrobosco but does not recognize the overall structural similarities.

⁷⁶ For a brief introduction to the astronomical tradition and its place in the medieval arts curriculum, see Claudia Kren, "Astronomy" in *The Seven Liberal Arts in the Middle Ages*, ed. David Wagner (Bloomington IN: Indiana University Press, 1983), 218-47.

⁷⁷ Emmanuel Poulle *Les sources astronomiques*, Typologie des sources du Moyen Âge occidental, vol. 39 (Turnhout, Belgium: Brepols, 1981), 17-21.

⁷⁸ *Calendrier des bergers* (1493), fols. H₇v^o-K₂r^o. Cf. John of Sacrobosco, "On the Sphere," tr. Lynn Thorndike, 442-451 in *A Source Book in Medieval Science* ed. Edward Grant (Cambridge MA: Harvard University Press, 1974), esp. 445-9. The definitions for the zodiac and ecliptic are nearly word-for-word translations from the second chapter, "Of the circles and their names." The compiler of the *Calendrier* then omits the section on the colures, instead making brief mention of them in the section on the tropics; his explanation of the meridian and horizon are adapted, using different analogies and examples; his definitions of the tropics of Cancer and Capricorn, as well as the arctic and antarctic circles, appear in the same order but again with different examples.

dedens le premier ciel, comme le moyeu de l'euf est enclos en l'aubun."⁷⁹ In contrast to the heavy, chaotic earth, made of the constantly changing elements of fire, air, water and earth,

les cieulx ne sont proprement ne pesans ne legier, ne durs ne molz, ne clers ne espes, ne chautz ne frois, ne si non ne saveur ne odeur, [...] ilz peuvent causer chaleur icy bas par leurs lumieres, par leurs movemens, et par leurs influences. [Ils] ne peuvent croistre ne appetisser, ou estre d'autre figure que ronde, ne peuvent muer ne changer, ne empirer ne enveillir, ne estre corumpus et alteres. [...] Se sont les cielz et estoilles d'autre nature que les elemens et chose qui en sont composees, lesquelles sont transmuables et corruptibles.⁸⁰

The heavens, then, are made of a fifth element, perfect and incorruptible, which moves naturally in regular circular motions: this fifth element is the ether or "quintessence."

Moving inward from the firmament (the sphere of the fixed stars), are the planets.

Although both the planets and the firmament revolve around the earth from east to west once every 24 hours, "chascun planete a son movement propre contraire au mouvement des estoilles," erratically and slowly moving from west to east: as the *Calendrier* explains it, the planets are similar to a man slowly walking from West to East on the deck of a ship travelling in the opposite direction. The orbital periods of the planets are indicated in rough figures: 27 days and 8 hours for the Moon; Mercury, Venus, and the Sun in about a year; Mars in approximately 2 years; Jupiter in 12 years; Saturn in 30 years.⁸¹

Outside of the firmament is the *primum mobile*, invisible to the *Calendrier's* shepherd-astronomers, and this is the unmoving first mover "dessus lequel en est ung autre qui est de cristal, par sus lequel est le ciel imperial ou quel est le trosne de Dieu, desquels cieulx n'appartient pas a bergiers d'en parler, mais seulement du premier mobile et ce qu'il contient tout ensemble

⁷⁹ "The elements, and everything that is composed of them, are enclosed within the firmament, as the yoke of an egg is enclosed by the white," *Calendrier des bergers* (1493), fol. L₅^r-v^o.

⁸⁰ "The heavens are, rightly put, neither heavy nor light, hard nor soft, rare nor dense, hot nor cold, and have no taste or odor [...] they can cause heat here below by their light, their movement, and by their influences. [They] can neither grow nor shrink, nor be any shape but round, cannot transform or change, nor worsen or grow old, nor be corrupted or altered. The heavens and stars are of different nature than the elements, and the things they compose, which are mutable and corruptible," *Calendrier des bergers* (1493), fol. H₈^r.

⁸¹ "Each planet has its own movement contrary to the movement of the stars," *Calendrier des bergers* (1493), fol. I₁^r.

appelent le monde.”⁸² It would seem that while shepherds can be astronomers, they should not stray into theology.

Following Sacrobosco, the *Calendrier* proceeds to divide the terrestrial and celestial spheres with a set of lines: in the case of the latter, the two most important of these for our purposes are the celestial equator and the zodiac. In the *Calendrier*'s tactile explanation, the equator is “gresle comme ung fillet.” and the zodiac is “large en maniere d'une cincture large ou d'un chapeau de fleurs” (i.e. a wreath) (Figure 3).⁸³ Both are wrapped around the spheres, as it were. The “thin” equator is a line perpendicular to the axis on which the heavenly spheres rotate daily, which passes through the two poles. It intersects the ecliptic, the line at the centre of the “thicker” belt- or wreath-like zodiac, at an angle of 23° and 51 minutes (following Ptolemy's figure). The 360° zodiac “belt” is 12° wide in latitude, and centred on the ecliptic, the path travelled annually by the Sun and the other planets. Longitudinally, the zodiac is divided into twelve 30° segments, “le zodiaque large comme dit est au premier mobile aussi, est comme une cincture gentillement serree ou figure des ymaiges des signes entailles subtilement et bien compose,” these being Aries, Taurus, Gemini, Cancer, Leo, Virgo, Libra, Scorpio, Sagittarius, Capricorn, Aquarius, and Pisces.⁸⁴ He also divides the zodiac into four principal points: the spring equinox, where the sun reaches the point where zodiac and the equator cross, which is marked annually by the Sun's entry into the sign of Aries; the summer solstice, marked by its entry into Cancer; the fall equinox, marked by its entry into Libra and the second point at which it crosses the celestial equator; and finally the winter solstice, marked by its entry into Capricorn.⁸⁵

⁸² “Above which there is another that is made of crystal, and above this is the Empyrean Heaven where the throne of God is; it is not befitting of shepherds to speak of these heavens, but only of the first moved and what is contained all together within it, which is called the world,” *Calendrier des bergers* (1493) fol. H₈v^o.

⁸³ *Calendrier des bergers* (1493), fol. I₁r^o.

⁸⁴ *Calendrier des bergers* (1493), fol. I₂r^o.

⁸⁵ *Calendrier des bergers* (1493), fol. I₁v^o- I₂r^o.

Although it does not explain the system of deferents and epicycles that are used by Ptolemy and later astronomers to model the erratic motions of the planets, the *Calendrier* does briefly address the phenomenon known as the precession of the equinoxes, which causes the supposedly fixed firmament itself to move:

Bergiers congnoissent une variation subtile de ciel, et est car les estoilles fixes ne sont pas soubz les mesmes degres ou signes du zodiacque quelles estoient quant furent crees a cause du mouvement du firmament ou quel elles sont contre le premier mobile en cent ans d'un degre.⁸⁶

This slight but accumulating precession was, according to Ptolemy, first noticed in the second century BCE, and is the reason why the signs of the zodiac are no longer aligned with the constellations for which they were named. They became instead the geometrical constructs mentioned above, segments of a 12° belt centred on the ecliptic, divided at regular 30° intervals.

The *Calendrier* proceeds to define the meridian, horizon, tropics, and poles, and also offers a brief catalogue of bright stars. A brief geography, again drawn from Sacrobosco, is also provided, dividing the earth into seven climes, four of which are habitable: the heat of the torrid zone makes the area around the equator uninhabitable, and the cold of the extreme zones near the poles make them uninhabitable as well, “car aucuns bergiers y eussent passe,” a point which had been disproven by the time the *Calendrier* was published. The shepherd also illustrates how the heavens and seasons in other climes would differ from those of France, situated in the fourth clime in the northern hemisphere.⁸⁷

With these astronomical foundations laid, the section on judicial astrology begins, demonstrating how to divide the sky into the astrological houses and how these are laid out on the charts commonly used by astrologers. It classifies the planets as benevolent or malefic, and

⁸⁶“Shepherds know of a subtle variation of the heavens, and it because the fixed stars are no longer under the same degrees or signs of the zodiac as when they were created because of a movement of the firmament by which it moves relative to the primum mobile by a single degree every hundred years,” *Calendrier des bergers* (1493), fol. I₂r^o.

⁸⁷ *Calendrier des bergers* (1493), fol. I₄r^o-v^o.

states that each rules a day of the week and the different hours of the day. These are followed by (possibly mnemonic) verse, accompanied by woodcuts of the planets and their rulerships. It begins, “Tous bergiers scevent seurement / Les natures des planetes / Que Dieu a ordonnes et faictes / En les suivant dedens leurs signes / Tu trouveras belle doctrines / Qui te donneront advisement.”⁸⁸ It goes on to tell how some planets are sad, others joyous; some are fierce warriors, others gentle lovers, some are hot, others cold. Each specific planet then receives a poem describing the general qualities of its rulership in given houses and then specifying its natal properties for any born under its influence. As with the explanation of the horoscope chart, these counsels were likely intended to help their user gain a kind of astrological literacy rather than train him to interpret the motions of the planets himself. The practices of astrological judgement are considerably more complex, and will be described in the subsequent section.

Within the cosmos described by Sacrobosco and the *Calendrier des bergers*, astrology served to correlate astronomical phenomena, such as the motions of the planets, with various terrestrial phenomena, parts of the human body, humoral dispositions, diseases, individual inclinations, even world-historical events, which they are held to govern or influence. Beyond receiving special treatment in the section on the shepherd’s astrology, it also has echoes in other parts of the *Calendrier*.

The learned medical idea of sympathies between the celestial macrocosm and the microcosm of the human body, for instance, had also made its way into the health sections of the *Calendrier*, which begin with the observation that “Aucuns bergiers disent homme est ung petit monde par soy, pour les convenances et similitudes qu’il a au grant monde qui est agregacion des

⁸⁸ “All shepherds surely know / The natures of the planets / Which God has ordered and made / In following within their signs / You will find beautiful doctrines / That will give you counsel,” *Calendrier des bergers* (1493), fol. K₃v^o.

ix. cieulx, quatre elemens, et toute choses qui sont.”⁸⁹ It was also prominently included in another popular printed genre, the book of hours, where images of the zodiac man were offered with instructions for bloodletting preceding the liturgical calendar.⁹⁰ As these examples demonstrate, we find expressions of the macrocosm-microcosm sympathy, including its correlates for human health, as staple elements within some of the most widely disseminated genres of the age.

As for providing its reader with a picture of the cosmos, the *Calendrier des bergers* covers much the same ground as Sacrobosco, albeit with a different flavour: its explanations rely on tangible material objects, like eggs, strings, belts, wreaths, ships, etc. Even the quintessence is described negatively as lacking the kind of tactile and sensible qualities that are relied upon in the other analogies. Like Sacrobosco’s *De sphaera*, one could not read it and then hope to practice technical astronomy, but one could gain a general understanding of the shape of the cosmos and its motions and their influences on the earth below.

This cosmology provided the foundation for learned astrology. Although initially available only in Latin, its rudiments were available to vernacular readers by the end of the fifteenth century and disseminated in print. As the *Calendrier* itself notes, “la figure et la disposition du monde, le nombre et ordre des elemens, et les mouvemens des cieulx appartiennent a savoir a tout home qui est de franche condicion.”⁹¹

What were the consequences of providing this vernacular audience with an introduction to learned cosmology? At the beginning of *Les guerriers de Dieu*, Denis Crouzet argues that in the early sixteenth century seemingly innocuous and constantly reprinted publications such as the

⁸⁹ “All shepherds say that man is a little world by himself, for all of the accords and similarities he has to the larger world, that is the aggregation of the nine heavens and the four elements and all things that are,” *Calendrier des bergers* (1493), fol. H₁r^o.

⁹⁰ Harry Bober, “The Zodiacal Miniature of the *Très Riches Heures* of the Duke of Berry: Its Sources and Meaning,” *Journal of the Warburg and Courtauld Institutes* 11 (1948): 18-21.

⁹¹ “The image and arrangement of the world, the number and order of the elements, and the movements of the heavens deserve to be known by all free men,” *Calendrier des bergers* (1493), fol. H₇v^o.

Calendrier des bergers helped to inculcate literate French society with the basic tenets of learned astrology. These ideas then trickled down to the illiterate and semi-literate through word of mouth.⁹² Although it was perhaps the first, the *Calendrier des bergers* was far from the only text available which might have introduced the curious sixteenth-century reader to astrology: others include perpetual calendars, elementary treatises on calendrics, weather prediction, and astrological sympathies.⁹³ As Crouzet describes it, this dissemination and amplification of astrological knowledge would ultimately provide a vector by which learned astrological predictions might be widely published and read, then spread orally to the rest of sixteenth-century society. Crouzet exaggerates, however, when he declares that although such texts appear to affirm mankind's knowledge and domination of the temporal realm, "l'astrologie des bergers et des laboureurs," actually laid the groundwork for an astrology of panic, ultimately spreading the eschatological anxieties that would fuel religious violence later in the century.⁹⁴ Without risking overstatement, there seems to me little doubt that publications like the *Calendrier des bergers* provided a broad spectrum of French society with the necessary background to engage with learned astrology, be it in the form of private consultations and genitures (birth horoscopes) or annual prognostications.

2. *The astrologer's craft: The science of judgments.*

From the 1140s onward, learned astrologers in the west had the technical means to take into account a broad variety of celestial phenomena in their predictions, well beyond the lunar

⁹² "Ici, le livre est vraiment le vecteur d'infiltration, dans la société française, d'un savoir qui avant l'imprimerie n'était que du champ d'une culture savante et qui subitement devient une modalité de connaissance collective," Denis Crouzet, *Les guerriers de Dieu: La violence au temps des troubles de religion, vers 1525-vers 1610*, 2 vols. (Paris: Champ Vallon, 1990), 1:106.

⁹³ For examples see *La grant pronostication perpetuelle. Composee par les anciens* (s.l.: s.n., s.a.), 8°; *La grant et vraie pronostication ou revelation que Dieu revela au prophete Esdras, translatee d'ebriou en francoys par ung astrologue nomme samuel* (s.l.: s.n., s.a.), 8°; *Pronostication perpetuelle, composee & pratiquee par les experts anciens & modernes astrologues & medecine* (Paris: J. Bassaut, s.a.), 8°; and Jean Thibault, *Declaration de la dignite des planetes quilz ont sur tous les douze signes du zodiaque, et maisons de la Lune* (Paris: Jaques Nyverd, 1543), 4°.

⁹⁴ Crouzet, *Guerriers de Dieu*, 1:103. As Crouzet ominously puts it, "Des schèmes mentaux sont instaurés, facilitant l'intrusion d'une autre tension, celle, plus violente et puissante, d'un prophétisme astrologique... Les Temps dominé se fait Temps de l'angoisse" (1:106).

auguries and Easter computus of the early Middle Ages.⁹⁵ Indeed, in the twelfth and thirteenth centuries, almost 40% of all texts translated from Arabic into Latin were on astronomy and astrology, magic, or divination; in fact, translated treatises strictly on astrology outnumber even medical works two to one.⁹⁶ For pedagogical purposes, the most popular of these Arabic treatises was Alcabitius's *Liber introductoribus*, translated by John of Seville ca. 1130. By the Renaissance, Ptolemy's *Tetrabiblos*, coupled with the *Centiloquium*, a pseudo-Ptolemaic set of aphorisms that is often appended to it, had begun to surpass Alcabitius and other Arabic sources in authority. As the next chapter will discuss, recovering classical Ptolemaic astrology and purging it of Arabic accretions was a key project of astrological reform projects in the mid-sixteenth century.⁹⁷

Before exploring the specific techniques for creating a horoscope, it is useful to explore some of the ways that late medieval and early modern people categorized astrology, both morally and epistemologically.

a. Classifications of astrology.

According to Steven Vanden Broecke, the strict and even antagonistic division of astrology from astronomy with which we now live is of relatively recent construction, although it has some antecedents.⁹⁸ In the sixteenth century and before, the words were often used interchangeably. In his *Etymologiae*, Isidore of Seville offered a distinction that proved to be influential: he defined astronomy as the science of motions alone, and then divided astrology into two opposed branches: *natural astrology* described how paths of the sun, the moon, and the stars,

⁹⁵ Boudet, *Entre science et nigromance*, 52.

⁹⁶ Boudet, *Entre science et nigromance*, 35; 55.

⁹⁷ Erhard Ratdolt published Alcabitius first in 1482 and again 1485 and Ptolemy's *Tetrabiblos* in 1484. Both are available in modern critical editions: see Al-Quabisī, *The Introduction to Astrology: Editions of the Arabic and Latin Texts and an English Translation*, eds. Charles Burnett, Keiji Yamamoto and Michio Yano (London: Warburg Institute, 2004); and Claudius Ptolemy, *Tetrabiblos*, tr. F.E. Robbins, Loeb Classical Library no. 435 (Cambridge, MA: Harvard University Press, 1940).

⁹⁸ Steven Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology* (Leiden: Brill, 2003), 7-8.

influenced the seasons; but *superstitious astrology* sought to associated them with parts of the body and soul, make auguries, nativities, and predicting individual fates through the course of the stars.⁹⁹ Later writers such as Hugh of St. Victor and Thomas Aquinas distinguished between natural and impious or superstitious astrology based on whether or not it violated human free will or implied demonic intervention. In so doing, they emphasized the astrologer's moral intent in his predictions. Astrologers and astrological apologists did have a few stock escape clauses which could be deployed to evade charges of paganism or fatalism like these: the most popular was the dictum that "the stars incline, they do not compel," the assertion that the planets did not directly cause events below, but were instead intermediary causes between God and the world.¹⁰⁰ These criteria continued to shape the decisions over whether given practices were to be allowed or condemned well into the sixteenth century, notably among the theologians of the University of Paris, the theological watchdogs of late medieval Europe.¹⁰¹

The "superstitious" and the "natural" are normative categories made by religious authorities, who were typically hostile toward and interested in condemning what they thought were dangerous or impious practices. These categories thus tell us a great deal about what theologians thought about astrologers, but little about how astrologers understood their own practices. It should be noted that in spite of the existence of such categories, astrology was far from marginal. The pervasiveness of astrology in early modern society has been well established: it was widely practiced and accepted as valid by a majority of late medieval and early modern people.¹⁰² Indeed, the pedagogical tradition in which astrology was taught—typically in the context of the university arts curriculum and in medical training—used different categories altogether. As Steven Vanden Broecke has suggested, this tradition offers the most

⁹⁹ *The Etymologies of Isidore of Seville*, tr. Stephen Barney et al. (Cambridge: Cambridge University Press, 2006), 3:27.

¹⁰⁰ John D. North, "Comets, Necessity, and Nature," in *The Book of Nature in Early Modern and Modern History*, eds. Klaas van Berkel and Arie Johan Vanderjagt (Leuven: Peeters Publishers, 2006), 285.

¹⁰¹ Vanden Broecke, *The Limits of Influence*, 8-11.

¹⁰² *Ibid.*, 1.

fruitful source for building categories useful in analyzing the practices of early modern astrologers.¹⁰³

According to Vanden Broecke, astrology was broadly understood as the “science of the stars,” and divided into two branches: *the science of motions* and *the science of judgments*, roughly cognate with our modern notions of astronomy and astrology while lacking the normative qualities of Isidore’s distinction between natural and superstitious astrology. Both of these, in turn, had theoretical and practical components: the science of motions has a fundamental set of rules and canons which can be called *theoretical astronomy* as well as practical applications, such as the calculation of the motion of a given celestial body over a given time, called *practical astronomy*. Likewise, the science of judgments has a body of theoretical knowledge that can be called *astrological physics*, the rules of how celestial bodies influence conditions on earth; and *judicial astrology*, the astrology of localized judgements following these rules.¹⁰⁴

b. The main variables of judicial astrology.

For convenience, the interpretive side of the astrologer’s craft, judicial astrology (the science of judgments) can be divided into the analysis of three interlocking sets of variables, which I will use in the following exposition. The first is the positions of the planets relative to the signs of the zodiac. The second is the relation of the zodiac to the astrological houses established for a given place and point in time. The third examines the angular relations of the planets to one another, called their aspects. A fourth and final section will show how the astrologer correlated all of this data together in a horoscope chart.¹⁰⁵

¹⁰³ Ibid., 16-17.

¹⁰⁴ Vanden Broecke, *The Limits of Influence*, 17-19.

¹⁰⁵ In general, see Boudet, *Entre science et nigromance*, 57-67 and J.C. Eade, *The Forgotten Sky: A Guide to Astrology in English Literature* (New York: Oxford University Press, 1984). The Latin terminology is from Charles Burnett, “Astrology” in *Medieval Latin: An Introduction and Bibliographical Guide*, eds. by F.A.C. Mantello and A.G. Rigg (Washington: Catholic University of America Press, 1996), 369-382.

(i) *The zodiac*. As mentioned earlier, the zodiac is a band measuring 6° on either side of the ecliptic. It is divided into twelve equal signs, originally corresponding to constellations, with each taking up a 30° arc. It provides the basis for a coordinate system, with the ecliptic being the origin for latitude and the position where the ecliptic intersects with the equator (i.e. the first point of Aries, which the sun reaches on the spring equinox) serving as the origin of longitude.¹⁰⁶ These signs are classified according to a gender and elemental nature (Table 2.1) and seasonal attributes (Table 2.2).¹⁰⁷

Table 2.1: Elemental triplicities and genders of the signs.¹⁰⁸

Fire	Air	Earth	Water
<i>Hot and dry</i>	<i>Hot and moist</i>	<i>Cold and dry</i>	<i>Cold and moist</i>
Aries	Gemini	Taurus	Cancer
Leo	Libra	Virgo	Scorpio
Sagittarius	Aquarius	Capricorn	Pisces
<i>Masculine and diurnal</i>		<i>Feminine and nocturnal</i>	

Table 2.2: Qualities or modalities of the twelve signs.¹⁰⁹

Seasons	Mobile (or Cardinal)	Fixed	Common (or Mutable)
Spring	Aries	Taurus	Gemini
Summer	Cancer	Leo	Virgo
Fall	Libra	Scorpio	Sagittarius
Winter	Capricorn	Aquarius	Pisces

The seven planets are classified along similar lines. They are gendered either feminine and nocturnal or masculine and diurnal, except for Mars, which is masculine and nocturnal. They can also be classified as benevolent (Jupiter, Venus, the moon) or malevolent (Saturn and Mars).

Others are mutable: the sun is benevolent, unless it is in the same sign as another planet, and

¹⁰⁶ Eade, *The Forgotten Sky*, 5. As Eade notes, longitude would usually be measured from the first point of Aries, but from the beginning of the sign in which a body was located (i.e. Taurus 10°, not 40° from the first point of Aries).

¹⁰⁷ Boudet, *Entre science et nigromance*, 57. Tables 2.1-3 are from Boudet with some modifications.

¹⁰⁸ Boudet, *Entre science et nigromance*, 58.

¹⁰⁹ Boudet, *Entre science et nigromance*, 58. *Mobile signs* are so called because they mark the beginning of a seasonal change of temperature when the sun passes into it annually (i.e. the sun's entry into Aries begins spring, into Cancer begins summer, into Libra begins fall, and into Capricorn begins winter); *fixed signs* are the middle of a season, and *common signs* signify the end of a season.

Mercury takes on the virtue of the planet with which it shares the strongest aspect. They are also associated with specific elements and humoral temperaments. The sun and the moon are the two luminaries, and their influence was held to be more important because of the strength of their rays. For this reason, solar and lunar eclipses were especially portentous events.¹¹⁰

The positions of the planets within the signs of the zodiac provide the astrologer with the first collection of variables from which he will make his judgments, taking into account the assorted attributes enumerated above. How are these varied attributes and sympathies weighed in relation to one another? Which are more powerful or important? In order to determine this, the astrologer had recourse to a hierarchy of *dignities* and *debilities*, representing the respective strength of a planet's influence at a given moment, important in assessing which planets would most powerfully effect different types of sublunary matter. These are divided into two types: *essential dignities*, which are permanent and qualified by *potestates per natura* (i.e., the qualities of a planet within a given sign of the zodiac in and of itself); and *accidental dignities*, which are more ephemeral and called *potestates per accidentia* (i.e., how much strength a planet or point derives from its relative position in the houses of a chart and their aspects relative to other planets). Alcabitius describes five essential dignities, in declining order of importance: the planetary house, the exaltation, the triplicity, the term, and the decan or face.¹¹¹ To evaluate their relative powers on a given figure, a point system was devised, with points being granted for dignities and subtracted for corresponding debilities or detriments. Planets with high scores (dignities) have the most influence.¹¹²

The planetary mansion (*domicilium*) is the sign of the zodiac that it "rules," that is, in which the planet's peculiar qualities will be most sharply manifested here in the elemental realm. Each planet has two such mansions, one diurnal and the other nocturnal, except the Sun, which is

¹¹⁰ Boudet, *Entre science et nigromance*, 58.

¹¹¹ Boudet, *Entre science et nigromance*, 59.

¹¹² Ibid.; Eade, *The Forgotten Sky*, 60.

only at home in Leo, and the moon, only at home in Cancer. The planets also have two detriments (*detrimentum*) each in symmetrical opposition to the two houses, which lower the strength of their influence relative to that of other planets (Table 2.3).¹¹³

Table 2.3: Planetary mansions and detriments.¹¹⁴

<i>Planet</i>	<i>Mansion</i>	<i>Detriment</i>
Saturn	Capricorn and Aquarius	Cancer and Leo
Jupiter	Pisces and Sagittarius	Virgo and Gemini
Mars	Aries and Scorpio	Libra and Taurus
Sun	Leo	Aquarius
Venus	Taurus and Libra	Scorpio and Aries
Mercury	Gemini and Virgo	Sagittarius and Pisces
Moon	Cancer	Capricorn

The exaltation (*exaltatio*) is the second strongest dignity of a planet. According to Ptolemy, it is a sign, and according to Alcabitus, it is a particular degree within the sign that is most favourable to the planet. The sign or degree opposed to it is called its fall (*casus* or *descensio*). Each of the triplicities (*triplicitates*)—planets grouped in threes according to a common elemental nature—are likewise dominated by a particular planet, which varies according to night-time or day-time (Table 2.4). The fiery triplicity, for instance, has the Sun as its diurnal ruler and Jupiter is its nocturnal ruler. Each planet also has several terms (*termini*), zones of between two and twelve degrees of longitude spread throughout the zodiac. The most popular system of terms was that attributed to Hermes Tresmigistus, and was called “Egyptian.” The decans or faces (*facies*) are subdivisions of each sign of the zodiac, of which there are three per sign (each being 10°).¹¹⁵ A planet is allotted a certain amount of dignity for being situated in one of its terms or faces.¹¹⁶

¹¹³ Boudet, *Entre science et nigromance* 59.

¹¹⁴ Eade, *The Forgotten Sky*, 60-1.

¹¹⁵ Boudet, *Entre science et nigromance*, 60.

¹¹⁶ Eade, *The Forgotten Sky*, 67-8. I have not tabulated these because they are comparably far less important in astrological judgement than the mansions and triplicities within the hierarchy of essential dignities.

Table 2.4: Planetary natures.¹¹⁷

Planet	Elemental nature	Complexion	Day rulership*	Night rulership*
Saturn	Cold and dry	Melancholic	Earth triplicity	
Jupiter	Hot and moist	Sanguine		Fire triplicity
Mars	Hot and dry	Choleric	Water triplicity	Water triplicity
Sun	Hot and dry	Choleric	Fire triplicity	
Venus	Cold and moist	Phlegmatic	Air triplicity	
Mercury	Mutable/Common			Earth triplicity
Moon	Cold and moist	Phlegmatic		Air triplicity

* Refers to the triplicities in Table 1.

(ii) *The houses.* In addition to being divided by the zodiac, the celestial sphere is also divided into twelve houses (these houses are not to be confused with the planetary houses—the rulerships of the planets over signs of the zodiac—discussed above). The houses are superimposed over the zodiac and determine the accidental dignities of each planet. Exactly how this superimposition will divide the zodiac depends on the latitude of the astrologer's location and on the longitude of the ascendant (the point at which the zodiac intersects with the horizon at the moment of the horoscope): effectively, the houses are divisions of the zodiac as seen from the earth at the place and time of the horoscope in question. They are numbered counterclockwise from the eastern horizon. The divisions, reading counterclockwise, are called the cusps of the houses. The first six houses (I-VI) always fall below the horizon, and the second six above it (VII-XII). The cusp of the tenth house was called the *medium coeli*, because it is located in the middle of the visible heavens, as divided along a north-south line.¹¹⁸ There are a variety of approaches to calculating these divisions, and astrologers in the sixteenth century, as well as today, differ on which method is most accurate for “establishing the houses.”¹¹⁹ This is crucial because the placement of a planet or zodiac sign in a house will determine which part of the individual's life will be influenced by them (Table 2.5).

¹¹⁷ Eade, *The Forgotten Sky*, 65-6.

¹¹⁸ Eade, *The Forgotten Sky*, 41-42.

¹¹⁹ See John D. North, *Horoscopes and History*, Warburg Institute Surveys and Texts (London: The Warburg Institute, University of London, 1986).

Table 2.5: *The houses.*¹²⁰

House	Sphere of life	Alternative names
I	birth, life (<i>vita</i>)	<i>Horoscope</i>
II	possessions, money (<i>substantia, pecunia</i>)	<i>Inferna porta</i>
III	brothers (<i>fratres</i>)	<i>Dea</i>
IV	parents (<i>patres</i>)	<i>Imum coelum</i>
V	children (<i>fili</i>)	<i>Bona fortuna</i>
VI	illnesses (<i>infirmities</i>)	<i>Mala fortuna</i>
VII	wife, women (<i>uxor, mulieres</i>)	<i>Occidens</i>
VIII	death (<i>mors</i>)	<i>Mors</i>
IX	religion and travel (<i>fides, iter</i>)	<i>Deus</i>
X	honours (<i>honores</i>)	<i>Medium coelum</i>
XI	hope and friends (<i>spes, amici</i>)	<i>Bonus genius</i>
XII	animals and enemies (<i>animalia, inimici</i>)	<i>Malus genius</i>

Laid out in a chart, or *figura celi*, typically of the following configuration (Figure 4), the houses provide the form in which the astrologer enters all of his data.¹²¹

(iii) *The aspects.* The third and final set of variables deals with the angular relation of the planets one to another (Figure 5). These are conjunction ♌ (0°), sextile ♋ (60°), square ♎ (90°), trine ♊ (120°), and opposition ♋ (180°). Such alignments were rarely exact in the calculations of most astrologers, and different astrologers tolerated different margins for deviation, generally accepting any relation within a dozen or so degrees of these more exact figures.¹²² Opposition and square were held to be malign aspects, trine and sextile were benign, and Mercury, the sun, and the moon are common or mutable. These attributes are actualized with corresponding malign or benign planets: the “malignity” of Saturn and Mars, for instance, is actualized into “major infortune” by their being in opposition or square aspect vis-à-vis one another.¹²³

(iv) *Casting the figure.* The astrologer recorded the most important features of this data onto a hand-written form called a *figura celi* (Figure 4). The most popular configuration in the late medieval and early modern period is a square with a series of triangles constructed on each

¹²⁰ Burnett, “Astrology,” 373.

¹²¹ On the evolution of the diagrams, see North, *Horoscopes and History* 2.

¹²² Boudet, *Entre science et nigromance*, 64.

¹²³ Eade, *The Forgotten Sky*, 61-2.

side. It projects the three-dimensional configuration of the planets, the zodiac, and the houses onto a two-dimensional surface. The divisions on the form, which run from nine o'clock and moves counter-clockwise, are the houses. The boundaries are the cusps of the houses. The astrologer inscribes the most significant data along these. In the centre square, the time, date, and place for which the figure is cast. Data on the zodiac and the planets is also noted, including the precise angle at which the houses divide the zodiac. The degrees of the zodiac on which the cusps fall (i.e. how the houses cut the zodiac boundaries) are usually written on the boundary lines; the positions of the planets are usually marked by their symbol at a place in each house approximately corresponding to their longitude.¹²⁴

c. The four kinds of astrological judgment.

What kinds of questions can be answered by taking all of this into account? According to the common classification established by Albertus Magnus, there are four main branches of astrology. The first is *mundane astrology* (from *mundus*, pertaining to the world) sometimes called the astrology of revolutions (*de revolutionibus*), which pertains to whole countries or regions. The second is the astrology of nativities or genitures, called *genethliology*, by which the disposition of an individual person from the configuration of the planets at the moment of his or her birth is established. His or her fate in subsequent years could then be ascertained through horoscopes cast on the anniversary of his or her birth. The third kind of judgment were *interrogations*—questions on matters of immediate concern—for which the astrologer constructs a chart at the moment the question was asked in order to answer it for his client. This was widely considered to be the least exact of the four types of judgment. Finally, the fourth, called *elections*, determined the most propitious time to perform an activity. The activity could be

¹²⁴ Eade, *The Forgotten Sky*, 52.

anything, such as when to plant crops, let blood, begin a business venture, lay the cornerstone of a building, pass the baton of command to a general, or even crown a ruler.¹²⁵

The first and last of these categories, mundane and electional astrology, are of concern for almanacs and prognostications. Given the lengths of time involved and the size of the areas of effect in question, mundane astrology can be a task of bewildering complexity, even when compared to other forms of astrology: dozens of variables over a long period of time need to be taken into account. Astrologers were ingenious at simplifying their tasks, however: a reading like those provided in an annual prognostication could emphasize some features over others. As J.C. Eade notes, the most common way to reduce the number of variables was to chart the year's nativity (i.e., the moment when the year is born), that is, to cast a figure for the exact moment of the vernal equinox and then read the result as though it were a regular geniture.¹²⁶ The planet that is most important within this chart was held to be the "ruler" of the coming year, the *dominus anni* or "le seigneur de ceste presente annee." Next, he could follow the long Arabic tradition of conjunctionist astrology, which emphasizes the importance of rare conjunctions among the superior planets, Saturn, Jupiter, and Mars, which were believed to influence the mutation of dynasties and religions, as described in Albumasar's *De magnis conjunctionibus* and a host of other treatises.¹²⁷ As we shall see in the conclusion to this chapter, an imminent series of conjunctions could trigger profound anxieties among the astrologers, which were transmitted in turn to the general population. Drawing on Ptolemy, the astrologer might also emphasize other rare astronomical phenomena, such as lunar and solar eclipses, as the prognosticators of Antwerp did in 1529, a case that will be described in detail in the final chapter. For meteorological predictions and bloodletting elections, the astrologer would divide the zodiac into lunar

¹²⁵ H. Darrel Rutkin, "Astrology," in *The Cambridge History of Science*, vol. 3 "Early Modern Science" (Cambridge: Cambridge University Press, 2003), 543-4.

¹²⁶ Eade, *The Forgotten Sky*, 103.

¹²⁷ See John D. North, "Astrology and the Fortunes of Churches," *Centaurus* 24 (1980): 185-6.

mansions, an alternate form of establishing the houses. He might also rely on doctrines from Albumasar and Massahallah, which show the correspondences between different parts of the world and different peoples with the planets and signs of the zodiac.¹²⁸ They also often had recourse to the birth horoscopes of kings and cities.

As the next chapter will demonstrate, the astrology of revolutions is particularly well suited to print technology. Thanks to printing, its general forecasts could be provided to a general audience: as a medium, print could reach audiences of a corresponding scale to that affected by the astrology of revolutions. The other three forms of astrology are best suited to personal consultations, though geniture collections of famous people (effectively astrological biographies) also became a popular printed genre in the later sixteenth century.¹²⁹

3. *The astrologer's data: The science of motions in the age of print.*

Early modern astrology was thus a complex discipline, requiring the careful manipulation of a multitude of variables. How could an early modern astrologer gain access to such a complex body of data in the first place, even before applying these interpretive parameters? Astrological interpretation requires astronomical data.

This question brings us from the science of judgments to the science of motions, or what we would more familiarly deem astronomy. This requires an examination of the effect of printing on a late medieval astronomical genre, the ephemeris. Specifically, I shall be following the development and legacy of a single book, first published in 1474 and then again in many updated and extended editions by various astronomers and printers: this book is the 30-year celestial ephemeris of Regiomontanus. Its various editions span the first century of printing: by the time its final descendant expired in 1552, a veritable new age for the relationship between astronomy, astrology, and printing had begun. I shall argue that it served as a crucial resource for

¹²⁸ Boudet, *Entre science et nigromance*, 66.

¹²⁹ See Anthony Grafton, "Geniture collections: origins and uses of a genre," 49-68 in Marina Frasca-Spada and Nick Jardine, eds, *Books and the Sciences in History* (Cambridge: Cambridge University Press, 2000).

astrologers working in this first period and enabled the emergence of popular vernacular almanacs and prognostications. Although calculated in the German towns of Nuremberg and Tübingen, they were printed first there and then in Venice and Ulm, reaching an international audience, including France and the Burgundian Netherlands.¹³⁰

a. *The skies of the future in the pages of a book: Planetary tables and ephemerides.*

As suggested at the opening of this chapter, astrology seems to have been, on the whole, an indoor art more concerned with books, tables, and calculations than with the actual night sky. The iconography of astrologers sometimes testifies to this, giving us a glimpse of the spaces in which astrologers practiced their art. In late medieval iconography, they are typically placed outside, gesturing to the heavens with book or armillary sphere in hand, but by the seventeenth century the most famous Baroque depictions of astrologers, for instance those of Gerard Dou and Jan Vermeer, place them indoors, surrounded by books, either during the day or in candlelight far from any windows. As Anthony Grafton has noted, the typical astrologer's study was also a consulting room, where he would interpret figures for clients, and was as such a quasi-public space. He would, of course, keep his tools there, including the ephemeris, which is prominently displayed on a lectern in some images. Some served a practical function, such as the ephemeris, assorted treatises, an astrolabe; others were more pedagogical, useful in explaining a chart to a client, such as an armillary sphere. All of these, Grafton notes, also had an important symbolic function, akin to the furnishings of a modern doctor's office: they maintained professional and epistemological authority.¹³¹

¹³⁰ Beyond the ephemeris itself, the following section relies on Ernst Zinner, *Regiomontanus: His Life and Work*, tr. Ezra Brown (Amsterdam: North-Holland, 1990); and Noel Swerdlow, "Science and Humanism in the Renaissance: Regiomontanus's *Oration on the dignity and utility of the mathematical sciences*," in *World Changes: Thomas Kuhn and the Nature of Science* (Cambridge MA, 1993), 131-168.

¹³¹ Anthony Grafton, *Cardano's Cosmos: The Worlds and Works of a Renaissance Astrologer* (Cambridge and London: Harvard University Press, 1999), 22; Hervé Drévilion, *Lire et écrire l'avenir: l'astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996), 9-11. See also the articles on the CURA website by Patrice Guinard and Jacques Halbronn, "Documentation Iconographique Astro-Prophétique," Centre Universitaire de Recherche en Astrologie, <http://cura.free.fr/diap/26diap1.html#0> (accessed 10 April 2010).

Armed with an ephemeris, a small collection of interpretive treatises, and some mathematical competence, an astrologer could conceivably practice his art almost entirely from his study. Indeed, stepping outside or climbing onto his roof to observe the real night sky was a superfluous exercise: unless he was casting a geniture or an interrogation, both requiring a chart for the sky as it is at present, taking real observational measurements would in fact be completely useless. Even then, he would need tables to compute what was going on in the six houses below the horizon. Many of the predictions of judicial astrology are, after all, not concerned with the sky as it is now, but as it will be in the future. Modern philosophers have often complained that the techniques, instruments, and laboratory spaces of modern science alienate scientists from nature, their ultimate object of their study. My point here is that the very nature of astrological practice necessitates that technology and mathematical calculation mediate an understanding of nature: the astrologer works in a laboratory, as it were, surrounded not by the stars, but by man-made tables and instruments.

Understanding how this was possible requires examining two kinds of book that served more as equations and databases than texts: planetary tables and celestial ephemerides. It is useful to begin by briefly distinguishing between planetary tables, ephemerides, and almanacs, following the early modern usages. The name ephemeris is generally reserved for a detailed series of tabulated solar, lunar, and planetary positions running for several years.¹³² Most begin with the year in which they were composed, and provide the positions at regular intervals. In the late middle ages, five- to ten-day intervals are typical; by the early modern period, Regiomontanus offered daily figures for noon at his latitude.¹³³

While tables are, at least in theory, usable in perpetuity, an ephemeris is, by definition, *ephemeral*, and will only include data for a given period. Underlying any ephemeris is a set of

¹³² Owen Gingerich, "The Accuracy of Ephemerides 1500-1800," *Vistas in Astronomy* 28 (1985): 339.

¹³³ Poulle, 64-66.

computational parameters, usually embodied in a set of tables, such as the famous Alfonsine Tables. Produced at the court of Alfonso X of Castille (r.1252-1282), they had circulated throughout Europe in different versions by the early fourteenth century. The standard version was produced in Paris in the 1320s, and over the next two hundred years, they became the basis for almost all astronomical tables in Europe, adapted to different latitudes.¹³⁴ Indeed, through an analysis of error patterns, Owen Gingerich has shown that they served as the basis for ephemerides up to and including the printed versions of Regiomontanus and even of Johannes Stöfler. Because the Alfonsine tables were likewise based on Ptolemy, Gingerich even argues that “the best of the fifteenth- and early sixteenth-century ephemerides were based on procedures and mechanisms no more complicated than those of 150 C.E., when Ptolemy completed his *Almagest*.”¹³⁵

Planetary tables usually include four distinct parts: chronological tables, tables of mean coordinates, equation tables, and tables for different latitudes.¹³⁶ An analogy is here useful. Collectively, these are not unlike the modern computer program used by twenty-first century astrologers to compile astrological figures. They provide all of the mathematical data and equations needed to calculate the positions of the planets for a given time. In lieu of being instantly processed by a computer, of course, these would then be laboriously calculated by an astronomer in order to generate real data, such as the position of a given planet on its orbit, in celestial longitude and latitude, at a given time, past, present, or future. Thus, the difference between a planetary table and an ephemeris is roughly analogous to that between the computer program and the data generated from running the program. Tables provide all that is needed to calculate the positions of the planets at a given time, but do not provide the actual positions

¹³⁴ Noel Swerdlow, “Alfonsine Tables of Toledo and later Alfonsine tables,” *Journal for the History of Astronomy* 35.4 (2004): 479-484.

¹³⁵ Gingerich, “The Accuracy of Ephemerides,” 339. Gingerich argues that there were “absolutely no changes of mechanism and only minor changes of parameters.”

¹³⁶ Poulle, 55.

themselves. As can be imagined, the task of calculating the positions of each planet along the zodiac and the position of the divisions of the zodiac relative to the astrological houses at the viewer's latitude, is long, arduous, and filled with many opportunities for error.

The distinction between an ephemeris and an almanac is much cloudier. Almanacs and calendars of the type examined here were derived from the data in ephemerides for a single year; in some cases, however, the terms ephemeris and almanac are used interchangeably. For instance, Regiomontanus published his data first in Venice under the title of ephemerides; when they took up the project, however, Stöffler and Pflaum titled it *Almanach nova*, even though no change had occurred in the type of data being tabulated. Indeed, by 1532, when they published a new set of thirty-year tables, it was once again called *Ephemeridum opus*.¹³⁷

Though multiyear ephemerides are sometimes called almanacs, single-year almanacs or calendars are never referred to as ephemerides, likely because they do not provide detailed, day-by-day data. Cheap annual almanacs, usually printed in quarto, were almost completely derived from ephemerides, most being entirely composed from their data. Indeed, annual almanacs can be understood as short-lived digests of the much more complex collection of data offered by a multi-year ephemeris, but rather than providing all of the data, they simplified and tailored it to the interests of their audience.¹³⁸ As the following chapter will discuss, the almanacs that were annually distributed on the streets of early modern cities evolved from learned medical almanacs, indicating propitious times for bloodletting and administering purgatives; by the end of the fifteenth century, however, they were also marking elected times for a number of other tasks, such as planting crops, alongside meteorological forecasts. For now, I shall focus on

¹³⁷ Johann Stöffler, *Almanach nova plurimis annis venturis inservientia* (Ulm: Johann Reger, 1499), 4°; Johann Stöffler, *Ephemeridum opus Joannis Stoeffleri [...] a capite anni redemptoris Christi 1532 in alios 20 proxime subsequentes* (Tübingen: H. Morhart, 1531), 4°.

¹³⁸ Gingerich, "The Accuracy of Ephemerides," 339.

ephemerides and tables, with annual almanacs being treated in depth in the next chapter, which will provide a close look at French vernacular almanacs before 1555.

What would an astrologer find in the pages of the ephemerides to help him establish his figure? A typical two-page opening tabulates a dizzying amount of data (Figure 6). On the first column of the left page are calendar dates, along with Sundays and feast days (both movable and fixed), as in a simple calendar. The true positions of the sun, moon, the planets Saturn, Jupiter, Mars, Venus, and Mercury and the lunar nodes (where the moon crosses the ecliptic), sometimes called the Dragon's Head and Tail, are offered for noon of each day. On the right page are the positions of the sun relative to the moon, the lunar phases (given to the minute), the moon's aspect relative to other planets, and the aspects of the planets relative to each other (both given to the hour). Ephemerides had originally included the data for each planet separately, so that if an astrologer wanted to compare the one planet's position relative to another, he would have to leaf back and forth between different parts of the book. As Ernst Zinner has noted, however, Regiomontanus drew on an important formal innovation from earlier in the fifteenth century: he grouped the data by time rather than by heavenly body. In this way, the position of all of the planets at noon on a given day could now be seen at a glance, as could their aspects, constituting a dramatic increase in ease of use for astrological purposes. On top of this, where earlier ephemerides provided daily positions for the sun and the moon, they usually only provided the positions for the planets every four to ten days; Regiomontanus, by contrast, offered them daily as well.¹³⁹ In effect, then, Regiomontanus's ephemeris provided its users with the skies of the future, printed in the pages of a book for astrologers to conveniently read and interpret.

Assuming the accuracy of the data, this was an enormous boon to astrologers. Of course, this did not mean that astrologers no longer needed to look up to the sky, or that they no longer

¹³⁹ Zinner, *Regiomontanus*, 117-118.

worked through the tables themselves: it simply meant that the practice of learned astrology was opened up to a much broader population because most of the astronomical legwork was already done for them. As far as erecting the figure is concerned, with a copy of Regiomontanus's ephemeris, all they needed was a working knowledge of Latin and elementary astronomical training. As we shall see, the ephemerides even included tables for how to establish the houses and adjust lunar positions to different latitudes; at this point, assuming he had not made any errors in establishing the houses for his latitude, and that he had corrected any errors in his printed ephemeris, all the astrologer had to do is interpret the figure. This, however, was a different matter: two astrologers may erect the same chart, but what parts of it they emphasize could be widely divergent, given the plurality of astrological doctrines available.

With the ephemeris, then, the astrologer could interpret years in advance, and could even make a rough geniture very rapidly. As Gingerich has shown, any figure based on the ephemerides rested on old tables, i.e. the Alfonsine Tables, and ultimately Ptolemy's *Almagest*.¹⁴⁰ The positions they predicted might be before or in advance of the observed positions of planets, and were sometimes off by up to 5°, hence Regiomontanus's calls for reform and the monumental efforts of the later sixteenth century. Generally, the ephemerides nonetheless allowed astrologers to meet the tasks expected of them rapidly and efficiently, if not always accurately, when compared to real observations.¹⁴¹

b. Regiomontanus: Printing and astronomical reform.

At the beginning of 1471, Regiomontanus moved to Nuremberg in order to undertake a project he had originally proposed to Matthias Corvinus, the King of Hungary. Influenced by his time in the king's library and by a knowledge of Greek acquired from Cardinal Bessarion, he ambitiously proposed to reform mathematics and astronomy. Regiomontanus knew that he would

¹⁴⁰ Gingerich, "The Accuracy of Ephemerides," 339-342.

¹⁴¹ Grafton, *Cardano's Cosmos*, 29.

not be able to do this alone, however. On July 4, 1471, he wrote a letter to Christian Roder in order to enlist his help. Roder was one of the leading mathematicians in Europe—indeed, Regiomontanus declared him to be the only competent astronomer in all of Germany—and was then rector of the University of Erfurt.¹⁴²

In the letter, Regiomontanus offered a series of thirty-six mathematical and astronomical questions for edification, and to stimulate Roder's interest, asked for a catalogue of books in the Erfurt library, and also outlined his plans to reform astronomy. As Paul Lawrence Rose describes it, Regiomontanus's programme had three axes: first, a renewed interest in observational astronomy and the correlation of data generated from tables with real observations; second, the recovery of the classical basis of astronomy in Ptolemy and others through critical editions and translations from the Greek. The third, which complemented both, was printing.¹⁴³ The key feature Regiomontanus associated with printing was reliability: his intent in printing carefully checked editions of these works was to free readers from faulty texts. He also declared, in this letter, that he would print celestial ephemerides, which he would compute to cover thirty years.¹⁴⁴ Not long after writing his letter to Roder, Regiomontanus set up a printing press in his Nuremberg house, hired a typesetter, and began making trips to Italy to collect manuscripts. After printing a calendar and a few titles, he issued a sheet with two columns listing all of the works he intended to publish (including a number of astrological works), variously called the prospectus, programme, or tradelist, with the heading "These works will be produced in the city of Nuremberg under the supervision of Johannes of Königsberg."¹⁴⁵

¹⁴² Swerdlow, "Regiomontanus's *Oration*," 154-5.

¹⁴³ Paul Lawrence Rose, *The Italian Renaissance of Mathematics: Studies on Humanists and Mathematicians from Petrarch to Galileo*, Travaux d'Humanisme et Renaissance 145 (Geneva: Droz, 1975), 104.

¹⁴⁴ Swerdlow, "Regiomontanus's *Oration*," 155. Roder never wrote back; he was perhaps, as Zinner has suggested, intimidated by the difficulty and volume of the mathematical problems Regiomontanus had proposed in the letter, and simply did not respond in order to save face. See Zinner, *Regiomontanus*, 107.

¹⁴⁵ Swerdlow, "Regiomontanus's *Oration*," 155-6. The earliest works he produced were his teacher Puerbach's *Theoricae novae planetarum*, Manilius' astrological poem, the *Astronomica*, and a 57 year calendar,

In both mathematics and astronomy, his primary concern was with correcting errors and freeing readers from faulty texts by issuing accurate, uniform texts for the benefit of all astronomers and mathematicians. Regiomontanus, it would seem, was an early believer in what Elizabeth Eisenstein has since called typographic fixity. Indeed, in Eisenstein's reading, Regiomontanus had crossed a "historical great divide" when he moved to Nuremberg and set up his press. The lives of great thinkers had been unduly cut short before, she notes, as Regiomontanus's itself was when he died at the age of 40 in 1476; but in this case, the project of reforming mathematics and astronomy marched on, in spite of his death, thanks to the printing press. This is all true, to some extent: the flow of ephemerides has never stopped.¹⁴⁶ Print had, of course, not solved every problem so easily, especially in a project like that which Regiomontanus undertook with the ephemerides. It was, after all, a very big book, containing 896 pages and probably 300,000 numbers in the original 1474 edition, by Ernst Zinner's estimation. Errors were bound to have been made; indeed, all copies of the 1474 edition of the ephemerides show handwritten corrections, probably made by Regiomontanus himself while they were still in house, to lunar positions in 1474, 1479, and 1498, as well as the positions of Jupiter for January and February of 1491.¹⁴⁷ In a disputation against the errors of a work by another astronomer, he would later observe that printing could just as easily multiply errors and bad translations as it could contribute to the humanist *renovatio litterarum*, especially in the mathematics and astronomy.¹⁴⁸

It must be admitted, of course, that Regiomontanus's letter to Roder does indeed reflect a faith in at least the potential benefits of typographic fixity, shared by many contemporaries; this

marking lunar, solar and ecclesiastical events, in both Latin and German editions. On the various names for the prospectus, see Zinner, *Regiomontanus*, 109.

¹⁴⁶ Elisabeth Eisenstein, *The Printing Press as an Agent of Change*, vol. 2 (Cambridge: Cambridge University Press, 1979): 586-7.

¹⁴⁷ Zinner, *Regiomontanus*, 118.

¹⁴⁸ Olaf Pedersen, "The Decline and Fall of the Theorica Planetarum: Renaissance Astronomy and the Art of Printing," *Studia Copernicana* 16 (1978): 157-185, 177.

faith may have been tempered by the actual process of printing his ephemeris and by observing the ways that uncorrected texts and tables could be quickly and thoughtlessly disseminated through printing. Corrections were, of course, a key part of what he hoped would come of the project, but in-house corrections were due to calculation mistakes in using the tables; what he hoped for was that owners of a copy of his ephemeris, presumably competent observational astronomers (Regiomontanus perhaps gave them too much credit) would correlate the ephemeris data and data taken from direct (and preferably precise) observations of the heavens. This new data on planetary motions, he hoped, would provide a foundation for a reform of the tables themselves, and from there reformed ephemerides. In spite of this, the correction of calculation errors in the table-derived data itself would be a persistent project for later generations: in 1530s Antwerp, the urban prognosticator Gaspard Laet would censure his competitors for being unable to correct the errors in their ephemerides.¹⁴⁹ In publications like the ephemerides and other mathematical works, astronomers and mathematicians seem to have been deeply concerned about the accuracy of their books.¹⁵⁰ Laet and others had noticed, it would seem, that the data in the printed ephemerides they used was not necessarily sure and stable.

c. The reception and use of the ephemerides among the astrologers and printers.

For what ends were these tables and ephemerides actually used? The tempting narrative, provided by Eisenstein, is to take Regiomontanus's publishing program and his intentions for the ephemerides as early cases of printing being used to disseminate and proliferate accurate scientific knowledge. Though projects to reform astronomy through the pooling of collective observations did eventually get off the ground, I would like to emphasize the role of its immediate reception instead, a reception that was at some odds with Regiomontanus's intentions.

¹⁴⁹ Jean Thibault, *Apologie de Maistre Thibault, [...] et ce contre les invectives daucuns pronostiqueurs* (Antwerp: s.n., 1530) 4^o, fol. C₂^o.

¹⁵⁰ Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making* (Chicago: Chicago University Press, 1998), 5-6.

Indeed, beginning with Erhard Ratdolt, later generations of printers, always careful to respond to the interests of their markets, began adding more and more astrological material to the ephemerides.¹⁵¹ Regiomontanus's book was indeed an important resource, but not exclusively or even primarily for astronomical reform. As I hope to suggest, the ephemerides instead became the key resource that the prognosticators used to make their predictions. Their wide margins certainly allowed for the insertion of all kinds of observational data from the planetary motions themselves to weather and public health,¹⁵² but my suspicion is that they were not generally being used retroactively to correlate events with celestial configurations, or to prepare for observations of rare astronomical phenomena, but rather proactively to predict the effects of future ones. An in-depth investigation of the uses of ephemerides by astronomers and astrologers, based on marginal annotations, is of course beyond the scope of the present project, but may be well worth undertaking. Zinner suggests the ephemerides also had manifold pedagogical uses in the universities, where they were often lectured upon, as well as in navigation and cartography, where their data could be used to establish a location's precise longitude and latitude.¹⁵³

The strongest proof of the astrological reception of the ephemerides is in the progressive inclusion of more and more astrological material in later editions. After providing instructions on the layout of the ephemeris tables and a brief crash-course in the basics of judicial astrology, Regiomontanus's opening commentary to the 1474 ephemeris concludes with the following advertisement on the manifold uses of his ephemerides:

Quantas commoditates prebeant res ille ad exercitia medicorum multimoda, ad genituram humanam, suamque revolutionem. Item ad aeris mutationes ad principia

¹⁵¹ Zinner, *Regiomontanus*, 119.

¹⁵² *Ibid.*, 118.

¹⁵³ Zinner, *Regiomontanus*, 119.

operum que vulgo dicuntur electiones, ad aliosque usus civiles innumeros, proprio de incepto commentario abunde explicabitur.¹⁵⁴

Regardless of his convictions of what astrologers ought to know in order to live up to their title, he was quite aware of the manifold astrological uses his ephemerides would serve, and must have known that they would offer a kind of cheat to the less competent. The astrological commentaries which he promised were released in later editions, beginning in 1481 with an extensive set of rules for bloodletting and planting added by one Bartholomäus Mariensüs for the Venetian edition published by Ratdolt in 1481.¹⁵⁵

Before long, the ephemerides did much more than simply supply astrologers with their working data. By the time the project of printing new ephemerides was taken up by Johannes Stöffler and Jacob Pflaum in 1499, the ephemeris, now under the title *Almanach nova plurimis annis venturis insequentia*, was loaded with astrological material. Well beyond Regiomontanus's page and a half summary of judicial astrology (which was nonetheless still included), it now included a veritable astrological handbook of over 30 pages with instructions and tables for various types of astrological judgement.¹⁵⁶ These include guidelines for astrometeorology and establishing the lunar mansions;¹⁵⁷ canons for elections in phlebotomy, pharmacy (i.e. the administration of purgatives, emetics, etc.), planting crops, trees, and vines; and canons for electing propitious days on which to initiate projects and business.¹⁵⁸ It also included a blank of

¹⁵⁴ "How many conveniences these matters supply for the exercise of physicians in so many ways, and to [the establishment of] a human geniture and its revolution. Likewise for the mutations of the air, and for beginning works, which are commonly called elections, and other innumerable civil uses, which will be abundantly explained subsequently in a special commentary," Stöffler, *Almanach nova 1499-1532*, fol. 4r^o. This passage is also highlighted by Zinner, 118. Regiomontanus's remarks would be preserved in later editions even after the subsequent commentaries were provided.

¹⁵⁵ Zinner, *Regiomontanus*, 119.

¹⁵⁶ Stöffler, *Almanach nova 1499-1532*, "Prognostica in tabulis ex prolixis in compendium redacta, ysaogia in Astrologiam Judiciariam" (fol. 8r^o), followed by a "Schema aspectum" (fol. 9r^o) and an explanation of the major planetary aspects.

¹⁵⁷ Stöffler, *Almanach nova 1499-1532*, "De aeris mutatione" (fol. 11v^o).

¹⁵⁸ Stöffler, *Almanach nova 1499-1532*, "Electiones in initiis operum" (fol. 12v^o); "Pro deiectione sanguinis election" (fol. 13r^o). "Electio pro farmatia" (fol. 13v^o); "Electiones in seminum iactu: arborum et vinearum cultu" (fol. 14r^o).

the *figura celi* that most astrologers used as a kind of form in which to enter their basic astronomical data.¹⁵⁹

On top of this, they included canons on establishing the houses, followed by an extensive “Table of Houses” at three degree intervals of latitude from 42°-54° North (42°, 45°, 48°, 51°, 54°).¹⁶⁰ These tables are usable for cities on the latitude of Rome in the south to the border of Denmark in the north, covering the entirety of the Empire and any places east or west along the same latitudes (e.g. Northern Spain and Italy; all of France and Poland, most of England). Why include tables for so many latitudes? A Latin ephemeris like this one was designed for an international European market, to be distributed at the major book fairs in Frankfurt and Lyon. Calculating the houses from scratch would be cumbersome for astrologers, hence the tables drawn up for specific latitudes.¹⁶¹

There was of course nothing to stop mariners or geographers from using the ephemerides for navigation or determining latitudes, but no instructions on these uses were included, and the presence of so many astrological treatises and tables with exclusively astrological uses strongly suggests that the ephemerides were being used primarily to do astrology. Indeed, they were probably the main resources for astronomical data used by prognosticators like Jean Thibault and his rival Gaspar Laet.

How would Regiomontanus have felt about these uses? He disliked the way that astrologers prized the Alfonsine tables as “a gift from heaven” and deplored those astronomers who never left their chambers to observe the heavens for themselves.¹⁶² Examining his *Oration on the dignity and utility of the mathematical sciences*, read at the University of Padua seven years before his letter to Roder and the initiation of his printing project, offers further hints of his

¹⁵⁹ Stöffler, *Almanach nova 1499-1532* fol. 15r^o.

¹⁶⁰ Stöffler, *Almanach nova 1499-1532*, “Canon de domibus celi fabricandis” (17r^o).

¹⁶¹ Eade, *The Forgotten Sky*, 47.

¹⁶² Zinner, *Regiomontanus*, 104.

feelings toward astrological practitioners without astronomical competence. Although he praises judicial astrology for its “immeasurable benefits” to mortals, declaring it to be “the highest and most valuable of the mathematical sciences,” he censures its current incompetent practitioners:

It has, alas, fallen into disrepute owing to its practice by fools and charlatans. If you wish to apply knowledge of the heavens to useful ends, you will find nothing more advantageous if you profess it worthily, for if you instead pursue nonsense of, so to speak, the follies of old women (*aniles quasdam delirationes*), you will have only yourself to blame if no one has faith in you. For you will be a laughing stock if you but skim over scarcely the first rudiments of John of Sacrobosco and the first parts of al-Quabīsi, not even reaching his treatment of projections and rays, and then straightaway proclaim yourself an astronomer. O ridiculous man! O impudent men who, when they exhibit themselves to others expose their laziness to public shame!¹⁶³

It should still be remembered that he concluded his commentary to the 1475 ephemeris by touting its advantages for any number of astrological activities, but given these convictions one might suppose that Regiomontanus would have been dismayed with the uses that his ephemerides were subject to at the hands of novice astrologers.

What then of Regiomontanus’s hopes that his printed ephemerides would help reform astronomy? As Gianna Pomata has suggested, observations were always subservient to the goal of prognostication.¹⁶⁴ Nonetheless, his project for a reformed astronomy through the collation of observational data with the ephemerides did eventually get off the ground. Indeed, Pomata has argued that astronomical projects like that of Regiomontanus were the cradles of the *observationes* genre, collections of observations that were intended to be circulated and collated through printing and handwritten letters.

It was not until 1544 that this dimension of Regiomontanus’s printing project truly bore fruit. This came when Johannes Schöner published the *Nachlass observationes*, including the observations of four generations of astronomers, including those of Regiomontanus himself, his

¹⁶³ Translated by Noel Swerdlow in “Regiomontanus’s *Oration*,” 152.

¹⁶⁴ Gianna Pomata, “Observation Rising: Birth of an Epistemic Genre, ca. 1500-1650” in *Histories of Scientific Observation*, ed. Lorraine Daston and Elizabeth Lunbeck (Chicago: University of Chicago Press, forthcoming 2010), 6.

teacher Puerbach, his student Bernard Walther, and Johannes Werner. Schöner offered these alongside an exhortation to further observation, supplementing the publication with instructions by Regiomontanus on how to construct astronomical instruments. According to Pomata, this is an early instance of published observations being used to promote further contributions to a collective empirical project, instead of merely being shared within a master's immediate circle of friends and students.¹⁶⁵

These would ultimately grow into the astronomical and astrological reform projects of the late sixteenth century: on the one hand, observations would be used to amend tables and ephemerides so that these would be more accurate when compared to the actual celestial motions, and on the other, they permitted the correlation of real sublunary events with celestial configurations, making it possible to lay new empirical laws for astrological prediction. As Noel Swerdlow notes, however, this project is one which took the combined labours of Tycho Brahe, Johannes Kepler, various assistants, and nearly fifty years to accomplish.¹⁶⁶ As such, a full-fledged use of the ephemerides for a project of collective empiricism was still generations away: in the meantime, their most common and important use was probably astrological.

d. The printed ephemerides after Regiomontanus.

As Gaspar Laet suggested in his criticism of Thibault and other competing prognosticators, the ephemerides produced by Regiomontanus and his successors would themselves come to be revered as a "gift from heaven" by the prognosticators, who would likewise use them as a short-cut around taking their own observations and participating in a collective effort to reform astronomy. Noting that the latest edition of the ephemerides, updated in 1499 by Stöffler and Pflaum, was about to expire, his rival Thibault reported, "Ils disent que aucuns doibvent bien prier a dieu qu'il ressuscite aucun qu'il puisse faire des nouveaulx

¹⁶⁵ Pomata, 5-7.

¹⁶⁶ Swerdlow, "Regiomontanus's *Oration*," 155.

Ephemerides ou aultrement leur astrologie sera fine.”¹⁶⁷ As it turned out, no resurrections were necessary: Johannes Stöffler, the Tübingen astronomer who had taken up Regiomontanus’s project decades earlier, still had a few years of life left in him and reissued a newly computed ephemeris, good up to 1552.

This was not the first time astronomers and printers had taken up Regiomontanus’s project. After his first efforts in 1474, subsequent editions of the ephemerides were printed by Erhard Ratdolt, first in Venice and then in Augsburg from 1487 onward. Following Gilbert Redgrave, R.T. Risk has even suggested that the reason Ratdolt persistently printed Regiomontanus’s work is that when the astronomer began his project by printing the ephemerides and his calendar out of his house in 1474, Ratdolt was already working for him as a typesetter.¹⁶⁸ As mentioned above, Regiomontanus’s ephemerides expired in 1506, so Johannes Stöffler and Jacob Pflaum prepared a continuation, published first by Johann Reger in Ulm and later with Petrus Liechtenstein in Venice.¹⁶⁹ As Gingerich notes, Stöffler became professor of mathematics at the University of Tübingen relatively late in life but already enjoyed a steady revenue through his virtual monopoly over the updated ephemerides, continuing them through to 1531. He was considered Regiomontanus’s successor and was “the most successful ephemeris-maker of his day,” thanks in part to this pedigree.¹⁷⁰ Indeed, because these later editions retained Regiomontanus’s prefatory material, they were sometimes believed by readers to have been calculated by him as well.¹⁷¹ While at Tübingen, Stöffler extended his calculations up to 1551.

¹⁶⁷ “They [Laet and his colleagues] say that many [prognosticators] should pray to God that he resurrect someone who can make new ephemerides or their astrology will be finished,” Thibault, *Apologie*, fol. C₂r^o.

¹⁶⁸ R.T. Risk, *Erhard Ratdolt Master Printer* (Francestown, NH: Typographeum, 1982), 11-13.

¹⁶⁹ Owen Gingerich, “Crisis versus Aesthetic in the Copernican Revolution,” *Vistas in Astronomy* 17 (1975): 85-94, 91.

¹⁷⁰ Gingerich, “Crisis versus Aesthetic,” 88.

¹⁷¹ Zinner, *Regiomontanus*, 124.

These were edited by his professorial successor, Phillip Imsser, and posthumously published under the title *Ephemeridum opus* in 1531 by Liechtenstein in Venice.¹⁷²

Setting an ephemeris was no small order. As noted earlier, the 1474 edition was printed in folio and containing 896 pages and probably 300,000 numbers.¹⁷³ By Stöfler's 1499 edition, printed in Ulm by Reger, it had shrunk from folio to the cheaper (and handier) quarto format, but was still 992 pages long. On top of this, any printer taking on the task of printing the ephemerides would need engravers familiar with mathematical diagrams, as well as a specific font for astronomical and astrological symbols (Table 6).¹⁷⁴

<i>Signs of the Zodiac</i>							
♈		Aries		♎		Libra	
♉		Taurus		♏		Scorpio	
♊		Gemini		♐		Sagittarius	
♋		Cancer		♑		Capricorn	
♌		Leo		♒		Aquarius	
♍		Virgo		♓		Pisces	
<i>Planets</i>				<i>Aspects and nodes</i>			
<i>Luminaries</i>		♿	Mercury	♌	Conjunction	♁	Dragon's Head
☉	Sun	♀	Venus	♍	Sextile		Dragon's Tail
☾	Moon	♂	Mars	♎	Square		
		♃	Jupiter	♏	Opposition		
		♄	Saturn	♐	Trine		

While there were challenges, there was also enough demand to warrant the investment, and if the inferences above are justified, then much of this demand was thanks to astrologers. The ephemerides were so popular that eleven more editions were sold between 1481 and 1500, each leaving out the expired years and including corrections.¹⁷⁵ Regiomontanus's calculations extended to 1506, and Johann Stöfler's first update, the *Almanach nova plurimis annis venturis*

¹⁷² Gingerich, "Crisis versus Aesthetic," 86, 91.

¹⁷³ Zinner, *Regiomontanus*, 118.

¹⁷⁴ Stöfler, *Almanach nova* (1499), fol. 4v^o.

¹⁷⁵ Zinner, *Regiomontanus*, 119. See also Ludwig Hain, *Repertorium bibliographicum* (Stuttgart: J.G. Cotta, 1831), nos. 13790-13794, 13797-8; and *The British Library Incunabula Short Title Catalogue*, <http://www.bl.uk/catalogues/istc/index.html> (accessed April 10 2010).

inservientia, continued to 1531, and was first printed in Ulm by Johann Reger in 1499.¹⁷⁶ Petrus Liechtenstein in Venice then printed at least six editions of it, each subsequent edition omitting the years that had already passed, in 1504, 1507, 1513, 1518, 1521, and 1522.¹⁷⁷ To pick up after it expired in 1532, an *Ephemeridum opus Joannis Stoeffleri*, now covering the period of 1532-1551, was first printed in 1531 by Hulderich Morhart in Tübingen, and then in Paris by Prato in 1533.¹⁷⁸ At least two subsequent editions, edited posthumously by Stöffler's colleague Petrus Pitatus, were printed in Tübingen in 1544 and 1552, under the title *Almanach novum P. Pitati. Supra ultimas hactenus in lucem editas J. Stoeffleri ephemeridas 1551 ad annum 1556*.¹⁷⁹ This adds up to nine editions for Stöffler's ephemerides between 1499-1551, and two more published posthumously to cover 1551-1556.

4. *An effect of the ephemerides on early modern society: The deluge of February 1524.*

Tucked deep in the ephemeris, on the summary page for 1524, was the following warning, standing in place of the usual eclipse notice:

Hoc anno nec solis nec lune eclipsim conspicabimur sed presenti anno errantium siderum habitudines miratu dignissime accident. In mense enim Februario 20 coniunctiones cum minime, mediocre, tum magne accident, quarum 16 signum aqueum possidebunt. Que universe fere orbi climatibus regnis provinciis statibus dignitatibus brutis beluis marinis cunctisque terre nascentibus indubitatem mutationem variationem ac alterationem significabunt, talem profecto qualem a pluribus seculis ab historiographis aut natu maioribus vix percepimus. Levate igitur viri Christianismi capita vestra.¹⁸⁰

¹⁷⁶ Stöffler, *Almanach nova* (1499).

¹⁷⁷ These figures and those that follow are tentatively derived from the online catalogues of the British Library, <http://catalogue.bl.uk> (April 10 2010); the Bibliothèque nationale de France, <http://catalogue.bnf.fr> (April 10 2010); and the Bayerische Staatsbibliothek, <http://www.bsb-muenchen.de> (accessed April 10 2010).

¹⁷⁸ Johann Stöffler, *Ephemeridum opus Joannis Stoeffleri [...] a capite anni redemptoris Christi 1532 in alios 20 proxime subsequentes* (Tübingen: Hulderich Morhart, 1531), 4°.

¹⁷⁹ Petrus Pitatus, *Almanach novum P. Pitati. Supra ultimas hactenus in lucem editas J. Stoeffleri ephemeridas 1551 ad annum 1556* (Tübingen: s.n., 1544), 4°.

¹⁸⁰ "In this year we will see neither a solar nor a lunar eclipse, but most wondrous positions of the planets will occur. For in February there will be 20 small, medium, as well as great conjunctions, sixteen of which will occupy a watery sign. These will signify indubitable change, variation, and alteration for almost the entire world, climes, kingdoms, provinces, estates, dignitaries, brutes, sea-creatures, and crops, such as we have rarely heard for many centuries from historiographers, or our ancestors. Therefore lift up your heads, you Christian men," translation from Vanden Broecke, *The Limits of Influence*, 83; orig. in Stöffler, *Almanach nova* (1499), fol. 389r°.

Twenty planetary conjunctions in one month, sixteen of which would occur in an aqueous sign, would definitely be enough to lift the heads of the prognosticators. Most prominent among them was a Saturn-Jupiter conjunction on February 1st, followed by conjunctions of Saturn and Mars, as well as Jupiter and Mars, on February 5th. Indeed, the reception of this notice by the prognosticators would provoke what Anthony Grafton has called the “first media event of modern times.”¹⁸¹

Though Stöffler does not say a word about a deluge, the conjunctions had been interpreted (anonymously) by the famous Italian astrologer Luca Gaurico as the causes of a second biblical deluge from as early as 1507.¹⁸² This interpretation was commonplace by the late 1510s,¹⁸³ and by the 1520s it had become enmeshed in political intrigues and the first pamphlet events of the Reformation, where it mingled with the Joachimite prophetic tradition.¹⁸⁴ By 1524, the deluge prediction had produced approximately seventy surviving pamphlets, some catastrophist, others consolatory.¹⁸⁵ All reflect a variety of different political and religious allegiances, as well as different astrological positions.¹⁸⁶

These predictions quickly spread to universities and courts, as well as the streets and marketplaces of early modern cities, especially in the Empire. As Ottavia Niccoli has shown, they descended along the social and cultural hierarchy in the form of Latin treatises supporting or criticizing the predictions, epistolary communications, annual prognostications in the vernacular, and finally oral transmission or public rumour. Documents survive to chronicle all of these, with

¹⁸¹ Grafton, *Cardano's Cosmos*, 54.

¹⁸² Paola Zambelli, “Many ends for the world: Luca Gaurico instigator of the Debate in Italy and Germany,” in *Astrologi hallucinati: Stars and the End of the World in Luther's Time*, ed. Paola Zambelli (Berlin and New York: Walter de Gruyter, 1986), 246.

¹⁸³ Vanden Broecke, *The Limits of Influence*, 83.

¹⁸⁴ On the role prophetic tradition inspired by Joachim of Fiore in the 1524 debates and in the Reformation, see Diedrich Kurze, “Popular Astrology and Prophecy in the fifteenth and sixteenth centuries: Johannes Lichtenberger,” and Helga Robinson Hammerstein, “The Battle of the Booklets: Prognostic Tradition and the Proclamation of the Word,” in *Astrologi hallucinati*, 177-93; 129-51.

¹⁸⁵ For a summary of the consolatory arguments, see Vanden Broecke, 82-111.

¹⁸⁶ Zambelli, “Many ends for the world,” 239.

the exception of the last, which Niccoli infers from descriptions of the public panic that ensued.¹⁸⁷

Some people bought boats and skiffs to ride out the flood; others moved their possessions to the upper stories of their houses; the rich even fled the cities altogether for the mountains, as in times of pestilence.¹⁸⁸ The idea of a flood quickly became equated with divine punishment, of which the conjunctions would only be secondary causes; the true cause was human sinfulness and the spread of the Lutheran heresy.¹⁸⁹ Collective efforts to avert the catastrophe were initiated: religious rites and processions were held, and civil authorities made rounds to calm the public. Indeed, Carnival rites in Venice, Rome and Modena used laughter to combat the deluge anxieties and to question power, astrological and otherwise.¹⁹⁰

The predictions made their way into France as well, provoking a variety of reactions. In his *Chronique Parisienne*, Pierre Driart observes:

Il estoit bruit que les astrologiens disorient et meme que on le trouvoit par escript qu'il se feroit de merueilleuses choses en beaucoup de manieres, et singulierement qu'il seroit sy grosse on gaignoit fort en beaucoup de lieux tant que en d'aucunes villes de ce royaume de France (comme on disoit), l'on y avoit mis police, et se attendoient plusieurs personnes de mourir, et ne chailloit à beaucoup de faire leurs apprehensions jusqu'à ce qu'il veissent la fin dudict moy pour experimenter les parolles par cy devant dictes.¹⁹¹

¹⁸⁷ Ottavia Niccoli, *Prophecy and People in Renaissance Italy*, tr. Lydia G. Cochrane (Princeton, NJ: Princeton University Press, 1990), 142.

¹⁸⁸ Niccoli, *Prophecy and People*, 145-6.

¹⁸⁹ Niccoli, *Prophecy and People*, esp. 147-49.

¹⁹⁰ Niccoli, *Prophecy and People*, 152-66.

¹⁹¹ "There was rumour that the astrologers were saying—and it could even be found in writing—that there would be marvelous things made in many ways, and singularly that it [the Deluge] would be so huge that we would be grinding our teeth hard in many places and well as towns in this kingdom of France (as we said); policies had been put in place, and it was expected that many people would die, and many were advised to take heed until the end of said month [February] when it finally came that we could judge the words aforesaid by experience," Pierre Driart, "Chronique Parisienne de Pierre Driart, chambrier de Saint-Victor (1522-1535)," in *Mémoires de la société de l'Histoire de Paris et de l'Île de France*, vol. 22 (Paris: Champion, 1895), 87-8. Quoted in Crouzet, *Guerriers de Dieu*, 1:113.

Crouzet cites this passage as evidence that the 1524 predictions had reached the level of oral rumours in Paris.¹⁹² As early as 1520, the deluge predictions had reached the French court, where Jean Thénaud, an astrologer serving Lousie of Savoie and other members of the royal family, authored a manuscript dialogue refuting them. As Anne-Marie Lecoq has shown, Thénaud likely wrote it to assuage the concerns of his patrons. In it, he has one of the staunchest critics of the conjunctions, the Louvain astrologer Albert Pigghe, respond to the concerns of the protagonist, a pilgrim accosted by the predictions of an alarmist astrologer.¹⁹³

How did the deluge prediction spread in France? The only mention of the deluge in a surviving French prognostication that I have been able to find is a brief notice attached to Henry de Fine's *Prenostication nouvelle de Louvain pour lan mil cinq cens .xxiiij*. Prudently, De Fine was unwilling to stake his reputation on such a risky prediction: his prognostication neither predicts the deluge nor repudiates those who did. His printer seems to have had different interests to serve, however. Perhaps motivated by the boost in sales that such sensationalist predictions could entail, a page of supplementary material was prominently advertised on the cover of the prognostication: "...Item est icy mis et adjouste en la fin de ceste presente Le grant Deluge futur, ainsi comme Maistre Conrard d'Alvaro docteur en astrologie a l'Universite de Coulogne la mis et escript en sa prenostication."¹⁹⁴ The material by d'Alvaro takes a clear and precise position on the deluge predictions, framing itself as a response to a question:

¹⁹² Crouzet, *Guerriers de Dieu*, 1:113. Although it may be true that the prediction was being disseminated orally, the precise wording used by Driart in his *Chronique* is drawn directly from D'Alvaro's printed prediction below, a fact which goes unnoticed by Crouzet.

¹⁹³ Anne-Marie Lecoq, "La grande conjunction de 1524 démythifiée pour Louise de Savoie: Un manuscrit de Jean Thénaud à la Bibliothèque nationale de Vienne," *Bibliothèque d'humanisme et Renaissance* 43 (1981) 37-60; and "D'après Pigghe, Nifo et Lucien: le rhétoriqueur Jean Thénaud et la déluge à la cour de France," in Paola Zambelli, ed., *'Astrologi hallucinati': Stars and the End of the World in Luther's Time*, (Berlin and New York: Walter de Gruyter, 1986), 215-237.

¹⁹⁴ "Item, here attached at the end of this present [prognostication] is The Coming Great Deluge, as put into writing by Master conrad d'Alvaro of the University of cologne in his prognostication," Henry de Fines, *Prenostication nouvelle de Louvain pour lan mil cinq cens .xxiiiij*. [...] *adjouste en la fin* [...] *Le grant Deluge futur, ainsi comme Maistre Conrard dalvaro docteur en astrologie a l'universite de coulogne la mis et escript* (s.l.: s.n., [c.1523]), 4°, fol. A,1r°.

On me pourroit demander, 'Nostre maistre, en quel temps et en quel lieu sera ledict deluge? Sera il general ou particulier, durera il longuement, quelles villes et citez seront en danger?' Pour souldre ces demandes je dis et respons selon la commune opinion des Astrologues que ledict Deluge prendra son origine le ii. jours du moys de Febvrier. M.cccccc.xxiiii., a dix heures xviii. minutes. Et lors tous les corps celestiaulx ce commenceront a mouvoir et se conjoindront ensemble en signes humides et aquatiques. Et des lors envant les fenestres du ciel seront ouvertes en aucuns lieux et commencera l'eaue a tomber du Ciel en si grosse habondance quil est impossible de le scavoir narrer, et seront les gouttes deau si grosses et enflees que une seule pourra abatre et enfonder ung gros adifice.¹⁹⁵

In spite of these dire predictions, d'Alvaro declares that the deluge will not be universal, and will only effect particular places, offering an extensive list of cities and countries, typically those in coastal areas. D'Alvaro's interest in making these predictions is not simply to inform those of his readers living in coastal areas of their impending doom, however. Like many prognosticators, he underlines the importance of free will and divine grace.

Et la cause principale qui ma main d'escripre de ceste maitiere sa este pour enhorter le peuple de faire penitence et de suplier a Dieu le createur quil ne vueille permettre que ces perilleuses constellations ne viennent a effect et que ledict Deluge ne tombe sur nous: mais je vueille convertir et envoyer sur les Machometistes et payens ennemys de la saincte foy Catholique.¹⁹⁶

Far from being fatalistic, the future predicted through astrology can be altered by human faith and piety. In this case, the deluge prediction served less a warning of imminent disaster and more as a timely call for spiritual reform, coupled with an expression of hostility towards a more universal enemy.

¹⁹⁵ "One might ask, 'Master, in what time and place will said deluge be? Will it be general or particular, will it last for a long time, which towns and cities are in danger? To assuage these concerns I say and respond according to the common opinion of the astrologers that said deluge will take its origin on the 2nd day of the month of February, 1524, at 10:28. And then all the heavenly bodies will begin to move and to conjoin in humid and aqueous signs. And at that moment the windows of heaven will be opened in many places and water will begin to fall from the sky in such great abundance that it is impossible to describe, and the drops of water will be so large and swollen that one alone will be enough to crush a large building," De Fines, *Prenostication nouvelle de Louvain pour 1524*, fol. A₄r^o.

¹⁹⁶ "And the principal cause of my hand in writing of this matter has been to exhort the people to do penance and beg God the creator so that he might not wish to let these perilous constellations come to effect and that said deluge not fall on us: but I wish to divert it and send it upon the Mohammedans and pagans, enemies of the Holy Catholic Faith," De Fines, *Prenostication nouvelle de Louvain pour 1524*, fol. A₄r^o.

D'Alvaro was writing in Germany, where the flood predictions were considerably more dire and widespread than in France, owing perhaps to the eschatological anxieties called up by the Reformation. Indeed, German prognostications, typically called *practicæ*, also gave these predictions a visual manifestation, drawing on the dense tradition of astrological iconography. Among the most expressive was that used in Leonhart Reynmann's 1524 *Practica uber die grossen und manigfeltigen Coniunction der Planeten*, published in Nuremberg (Figure 7). The title page shows the conjunctions of the planets, represented by their symbols, taking place within a giant fish in the sky, Pisces. Saturn and Jupiter, whose conjunction was most rare, are also personified in the field below. On the left, Saturn, typically represented as an old cripple carrying a scythe, leads a band of armed peasants. They are poised against the forces of Jupiter on the right, including bishops, the pope, and the Holy Roman Emperor. The two figures on the hilltop in the background, with pipe and drum, prefigure imminent warfare. Finally, the water flowing from Pisces in the sky illustrated the threat of an imminent second deluge, which will sweep away human civilization, represented by the village being drowned.¹⁹⁷ The deluge also made its way into the imagination of Albrecht Dürer, who reports having had an apocalyptic dream of its occurrence, which he represented in a watercolour of entire cities being drowned, alongside a written description.¹⁹⁸

In spite of all of this clamour, the deluge never came. Niccoli suggests that this failure cast a negative light on astrologers; Thibault's *Apologie* against Laet certainly agrees, and includes a description of the ridicule that unnamed Louvain astrologers faced when the deluge failed to materialize.¹⁹⁹ I agree with Anthony Grafton, however, when he suggests that Niccoli is exaggerating when she argues that the carnival celebrations and the "non-event" of the deluge

¹⁹⁷ Robert Scribner, *For the Sake of Simple Folk: Popular Propaganda for the German Reformation* revd. ed. (Oxford: Clarendon Press, 1994), 123-5.

¹⁹⁸ Andrew Cunningham and Ole Peter Grell, *The Four Horsemen of the Apocalypse: Religion, War, Famine and Death in Reformation Europe* (Cambridge: Cambridge University Press, 2000), 76-8.

¹⁹⁹ Thibault, *Apologie*, fol. A3r^o.

somehow discredited astrological prediction more generally among the people. He suggests that astrology, like prophecy, is “virtually immortal” and has the power to withstand any localized shocks when events contradict the predictions.²⁰⁰ Indeed, the failure of the deluge to materialize can easily be chalked up to an error in astrological judgment. Stöffler only mentioned catastrophes, and the doctrines of Albumasar emphasized the impact of conjunctions on religion. The German Peasant’s War and the spread of the Lutheran Reformation could easily be construed to have borne the disaster out. From the French perspective, others argued (retrospectively) that the capture of François I after his deadly defeat by Charles V at the Battle of Pavia had been foretold by the conjunction.²⁰¹ Likewise, its failure to occur could be explained as divine intervention of the same kind that D’Alvaro implored his readers to pray for. Indeed, this seems to have been one of the more popular explanations among later learned commentators.

The case of Jean Bodin is instructive. Bodin continued to have faith in the doctrine of great conjunctions of the superior planets even in 1584 when he published *Les six livres de la République*, just as another conjunction was about to occur. There he affirmed with clockwork precision that conjunctions of the superior planets recurred every 20, 240, and 960 years:

lequel nombre si on tire, en retrogradant des ans du monde, quand une grande conjonction est advenue on trouvera quasi semblables effects et changements, si Dieu par sa puissance ne retient les effects des causes celestes, comme il a promis que le deluge n’advierroit pas plus, et a tenu sa promesse: car combien que la grande conjonction de Saturne, Jupiter et Mars advinst au signe des Poissons l’an M.D.XXIII alors que tous les astrologues d’Asie, d’Afrique, et d’Europe predisoyent le deluge universel, et qu’il se trovast plusieurs mescreans qui firent des arches pour se sauver: et mesmes à Toulouse le President Auriol, quoy qu’on leur preschast las promesse de Dieu, et son serment de ne faire plus perir les hommes par le deluge. Il est bien vray que l’annee apporta de grands orages, et inondations d’eaux en plusieurs païs, si est-ce qu’il n’advint point de deluge.²⁰²

²⁰⁰ Grafton, *Cardano’s Cosmos*, 54-5.

²⁰¹ M.A. Screech, ed., *Pantagrueline prognostication pour l’an 1533*, Textes littéraires Français (Gê nève: Librairie Droz, 1974), xvi, n15.

²⁰² “If we draw this number, retrograding the years of the world, when a great conjunction has happened we would find almost the same effects and changes, if God by his power does not hold back the effects of the celestial causes, as when he promised that the deluge would not happen again, and held to this promise: for the great

Bodin then proceeds to outline a set of events that might be considered to have borne out the prediction, including a number of local floods and storms, the German Peasant's War, the defeat of François I, and the capture of Rhodes by the Turks. For Bodin, the reason a second universal deluge did not occur is quite clear: although mandated by the order of nature, God's supernatural intervention prevented it. The promise to which he refers is from Genesis 8:21 where following the deluge, God makes a covenant with Noah that he will never again send a deluge to destroy all life, a promise that is further confirmed in Isaiah 54:9. Auriol is thus censured by Bodin for his lack of faith in God's covenant, manifested by his construction of a new ark.²⁰³ As we will see in the next chapter, this reasoning was fairly common among the astrologers: their predictions were always based on the normal order of nature and could be changed by divinely-mandated supernatural events.

Pierre Bayle, writing over a century later, took a wholly different stance on the conjunctions and Bodin's views in his 1697 *Dictionnaire Historique et Critique*. In an eight page article on Stöffler, more than half of which is about the deluge controversy, he corrects a number of factual errors in Bodin's account and declares:

Prenez garde que Bodin, home crédule, et infatué d'astrologie, répare le mieux qu'il peut la honte de Stöffler; car d'un côté il fait entendre que s'il n'arriva pas un second déluge l'an 1524, ce fut à cause que Dieu l'empêcha pour ne manquer pas à sa promesse; et de l'autre, il étale les malheurs dont la chrétienté fut affligé après cette conjunction des planètes; et, pour trouver mieux son compte, il recourt à des faussetés.²⁰⁴

conjunction of Saturn, Jupiter, and Mars came in the sign of Pisces in the year 1524, when all the astrologers of Asia, Africa, and Europe were predicting the universal deluge, and one could find many miscreants making arks to save themselves: and even at Toulouse, President Auriol, regardless of having heard the God's covenant preached, and his pledge to never again make men perish by the deluge. It is quite true that the year brought great storms and flooding in several countries, even if there was no deluge," Jean Bodin, *Six livres de la république* (Lyon: Gabriel Cartier, 1608), 4:550.

²⁰³ Pierre Bayle corrects this account, noting that Auriol was simply a regent doctor in canon law, not a president of the Parlement de Toulouse. Pierre Bayle, *Dictionnaire historique et critique*, revd. ed., (Geneva: Slatkine Reprints, 1969 [Paris, 1820-1824]), 13:510.

²⁰⁴ "Beware that Bodin, a credulous man infatuated by astrology, repairs Stöffler's shame as best as he can; for on the one hand he declares that if there was no second deluge in 1524, it was because God prevented it so as not to go back on his promise; and on the other, he lays out the misfortunes that struck Christendom after this planetary conjunction; and, so as to better settle his account, he resorts to falsities," Bayle, *Dictionnaire*, 13:511.

By the late seventeenth century, Bayle does not even feel the need to refute the first point about supernatural intercession, although he offers a number of corrections to the second (nowhere does he notice that Stöffler never specified that the conjunction would produce a deluge, in spite of these corrections, it should be noted). To even conceive of celestial influence as a normal part of nature is unquestionably wrong and superstitious for Bayle, and need not even be addressed in his criticism of Bodin. This small example demonstrates a point made in greater detail by Hervé Drévilion, that the decline of astrology among the learned is a phenomenon of the seventeenth century, not the sixteenth, in spite of the 1524 debate.

All of this arose from Stöffler's ephemerides, which made no mention of a deluge at all. Though they might strike the modern reader as something of a timebomb set twenty-five years earlier when the ephemeris was first published in 1499, the observations of Stöffler and Pflaum for February of 1524 are perhaps best understood as an early-warning system. As the following chapter will demonstrate, the astrologers believed that, rather than causing social chaos and mass anxieties, their predictions were offered for the benefit and utility of the general public. Given the gravity of the conjunctions, to not take special note of them in the ephemeris would have been tantamount to professional irresponsibility. Prognosticators and almanac makers were reliant on their data, which in turn led them to interpret the effects of the event, which Stöffler had left ambiguous. Some, such as Gaurico, made the obvious elemental correspondences between Pisces and water, and jumped to alarming conclusions, which were then widely disseminated. Either way, the widespread anxieties they provoked in early modern society are an enduring testament of the astrological uses to which the ephemerides were put.

5. *Conclusion.*

All of this, from the publication of ephemerides for astronomical reform to the polemic surrounding the 1524 media event, would have been quite unlikely before printing. Generally

speaking, historians of print culture have been interested in books, typically as carriers of texts. This discussion has revealed some of the potential in exploring books that provided their users (rather than readers) with something else, namely raw data conveniently tabulated for interpretation, in the case of ephemerides. These books were used in the practice of a much older art, one that itself gained an entirely new expression thanks to the new possibilities for ephemeral productions opened by print culture: the annual almanac-prognostication, yet another print object whose uses and material status evade being categorized simply as text or book. This print-object will be the subject of the next chapter, which will focus on French vernacular almanacs and prognostications.

Alongside other printed works, the ephemerides also opened the practice of astrological judgement up to those who did not have access to advanced mathematical and astronomical training: originally restricted to those who attended formal lectures in mathematics and in schools of medicine, a talented novice could now work his way through these texts and gain easy access to celestial data. Indeed, with the addition of the astrological treatises by Bartholomäus Mariensüs and others, the ephemerides of Regiomontanus and his successors provided a comprehensive resource to astrologers. Indeed, within the history of renaissance astrology and early modern cultural and intellectual history more generally, insufficient attention has been paid to the power unleashed by these printed ephemerides: they gave their users a crucial resource for making authoritative predictions of future events, and opened the astrologer's craft up to far more practitioners than before. Indeed, mundane astrology of the kind circulated in the almanacs and prognostications would have been nearly impossible without something like an ephemeris, given the number of variables it sought to analyse over a vast span of time. More than simply giving almanac-compilers a source from which to craft digests of annual data suited to particular

ends (medical, agricultural, etc.), this created an entirely new type of astrological practitioner within print culture itself, which might we might call the print prognosticator.²⁰⁵

In his letter to Roder on reforming astronomy, Regiomontanus described his desire to be untroubled by the violent conflicts of his age (notably the Turkish invasion of Hungary, which he had just fled), inviting Roder instead to fight a different war with him:

Let others tame the madness of armed conflict; then we might struggle in our own way, that is, not in the tournament, but by dedicated study of books; our weapons, not the warrior's belt, nor the spear, nor the battering ram, nor the catapult, but the instruments of Hipparchus and Ptolemy; I have just cast some of these out of brass; they are handsome, enormous, and eminently suited for observing the stars.²⁰⁶

Used for astrological purposes, the ephemerides he eventually produced as part of this project had the effect of creating an increasingly competitive prognostic field in print culture: they became the key armament of astrologers, who often rallied their predictions, at some risk to themselves, to political and religious causes, making astrological prognostications an important theatre in the propaganda battles that would be fought through print over the next century, from the Reformation to the rise of absolutism.²⁰⁷

Indeed, perhaps in response to the renewed public interest in astrology brought about by the sensationalist prognostications of Nostradamus, by the 1550s numerous vernacular ephemerides and astrological handbooks were being printed, notably Oronce Finé's handbook on the use of ephemerides (1551), and Claude Dariot's famous *Introduction au jugement des astres* (1558), mentioned at the beginning of this chapter. With these and other "books of secrets," the social secrecy surrounding the craft further evaporated as Latin was no longer a requirement for

²⁰⁵ The title "urban prognosticators" is used by Vanden Broecke, 143. The distinction is with the other main contexts in which early modern astrologers practice, namely the university and the court. The term "print-prognosticator" is my own invention.

²⁰⁶ Quoted and translated in Zinner, 103.

²⁰⁷ See for example Robin Bruce Barnes, "Hope and Despair in Sixteenth-Century German Almanacs," in *The Reformation in Germany and Europe: Interpretations and Issues*, special vol. of *Archiv für Reformationsgeschichte*, ed. Hans R. Guggisberg and Gottfried G. Krodel, (Heidelberg, 1993): 440-461; Patrick Curry, *Prophecy and Power: Astrology in Early Modern England* (Princeton: Princeton University Press, 1989); and Drévilion, *Lire et écrire l'avenir*, esp. 68-93.

learning to use the tables or master the rudiments of astrological judgement. The ephemerides contributed to the transformation of what had been a secret, esoteric art, open to a few initiates with advanced mathematical and astronomical training, into an exoteric predictive science, open to any talented novice with moderate mathematical abilities and the patience to work through the tables. The 1524 case offers an example of the broader implications of this transformation, but as I shall suggest in the final chapter, it was also manifested in far more localized conflicts with rival practitioners, medical faculties, and civil authorities, all of whom had a vested interest in monopolizing knowledge of the future.

Chapter Two, French vernacular almanac-prognostications, 1497-1555:

An ephemeral printed genre between Renaissance and Reformation

Even after having interpreted the horoscope for the sun's entry into Aries, taken account of any eclipses, and prepared weather predictions based on the lunar cycles, the prognosticator's was far from over. With the hard astrology done, he then had to organize and summarize his predictions so that they would fit on four in-quarto printed sheets, the standard format for the genre in the first half of the sixteenth century. Throughout, he would also need to persuade his audience of the value and accuracy of his predictions. In some cases he might make a special effort to arouse their curiosity, all the more difficult as the sixteenth-century print world became flooded with these pamphlets and competition mounted between rival prognosticators. Given the ambiguous legal and theological status of astrology in the first half of the sixteenth century, however, he might also beware of making his predictions too inflammatory, especially on political, social, or religious questions, lest offended authorities retaliate against him.

By this stage, most prognosticators would have begun collaborating with printers as well; some were contracted to produce the prognostication from the start. The printer too had a series of concerns in issuing an almanac-prognostication. Like the prognosticator, he would be concerned that it not draw any reprisals from secular or religious authorities, who might fine him or confiscate his stock. If the prognostication was potentially inflammatory (but also marketable), the printer would not include his name or address (nor those of the bookseller) in order to make it more difficult for the authorities to track the pamphlet to its source. Furthermore, he would want to maximize profits from his investment: generally, this meant keeping it short and thus cheap.

In this chapter I will explore some of these issues in order to trace the production of almanac-prognostications in the French vernacular from about 1497, the year for which the earliest surviving almanac-prognostication was printed in Paris, through to 1555, when the

earliest surviving almanac-prognostication by Michel de Nostredame was published.²⁰⁸ As I will demonstrate, many features of the genre remained relatively static over this period, and 1555 marks both a logical stopping point as well as a watershed moment in the history of the genre: French almanac-prognostications published after Nostradamus's stand either in conscious opposition or active imitation of the radical redefinition he brought to the genre.

I will begin by offering (1) a short description of the corpus of sources used in this study—40 almanacs and prognostications from the period—and a summary of some of its limitations. I will then (2) briefly situate my work within the existing historiography of early modern almanacs. This is followed by (3) a brief account of the late medieval origins of the genre in university-produced medical almanacs.

With this groundwork laid, I will provide a summary analysis of the almanac corpus from a variety of angles. First, I will explore (4) their geographical origins through a breakdown of the major centres of production in the first half of the sixteenth century. As Rabelais's concerns in the 1533 *Pantagrueline prognostication* suggest, the majority of almanac-prognostications in the French market were being published in cities near the French border, especially Antwerp and Geneva. Significant production of almanac-prognostications within France's borders does not begin until midway through the period, in the 1530s, and only surpasses those coming into France from abroad with Nostradamus. As I will suggest, the effective censorship of astrological literature in Calvinist Geneva opened a vacuum in the market, which permitted the meteoric rise of Nostradamus (and his Lyon printers) in the 1550s.

²⁰⁸ Like any chronological frame, 1496-1555 is of course artificial (but satisfactory for my purposes in this thesis). While 1496 is the publication date of the first surviving almanac-prognostication printed in France, at least one had been printed earlier in Antwerp by the same author, which I was not able to examine: Jaspar Laet, *Prognosticationes de anno 1493* (Antwerp: Gerard Leeu, 1492), 4°. Likewise, although the earliest surviving Nostradamus almanac was published for 1555, evidence suggests he had published others as early as 1550, although his characteristic innovations first appear in the 1555 piece. See Robert Benazra, "Les Pronostications et Almanachs de Michel Nostradamus," *Centre Universitaire de Recherche en Astrologie*, ed. Patrice Guinard, <http://cura.free.fr/docum/20benaz2.html> (accessed April 1 2010).

At the heart of the chapter is (5) an extensive analysis on the apologetics necessitated by the publication and widespread distribution of astrological prognostications, especially those employed in the prefatory material with which astrologers often began their prognostications. It explores the rhetorical requirements needed to appease several different readerships, including (a) convincing readers that astrology is compatible with Christian religion; (b) persuading them of the accuracy of astrological predictions, both in general and of the specific predictions contained in the prognostication; and (c) avoiding predictions that might aggravate local authorities and interfere with printing privileges from religious and secular authorities.

This is followed by (6) a structural breakdown of the order of presentation in the two most prevalent almanac styles, from Louvain and Geneva. This is coupled with a related discussion of their material formats, emphasizing the utility and affordability inherent in the formats in which printers issued these publications. A final section (8) describes the transformations that the genre underwent with Nostradamus in the 1550s, analyzing a letter sent to him by his printer, Jean Brotot of Lyon. These transformations provide the grounds for the chapter's conclusion, which reflect on the causes and effects of Nostradamus' sudden rise in the context of the tension within the genre between relatively sober medical-humanist utility and sensationalist Reformation prophecy.

Throughout the chapter, I have endeavoured to intersperse macro-level bibliometric data—the quantitative mapping of centres of production and distribution, citation rates, and generalized models of common content structures—with the testimony of the astrologers from their prognostications and, in one case, the testimony of a printer. I have also endeavoured to provide examples from both the early phase and the later phase of the fifty-year span here encompassed. Finally, I should also note that though this chapter can be read in and of itself as a description of the genre over this time span, it is also designed in part to provide a background to

the story of Jean Thibault in Chapter Three (much as Chapter One provides the technical-astrological background for understanding the almanacs and prognostications described below).

1. *Sources and limitations.*

The bibliographical foundation of this chapter is a corpus of thirty-five annual almanac-prognostications printed in French from the period 1497-1555. It is prudent to remind the reader at the outset of the limitations imposed by the nature of this corpus on my conclusions. Annual almanacs and prognostications are, by their very definition, ephemeral print. They are produced annually and expire annually: most were likely thrown out, re-pulped, or used like cardboard to stuff the bindings of other less ephemeral books.²⁰⁹

The corpus of those that have by chance survived to the twenty-first century almost certainly represents the merest fraction of the total of those produced in the sixteenth century. Likewise, the corpus that I have assembled here, although it represents my best effort to locate, catalogue, and examine as many of those that have survived as possible is nonetheless incomplete. Over the past twelve months, I have already discovered evidence of half a dozen in other libraries, not to mention hints from the catalogues of rare book vendors that even more are still floating around on the antiquarian book market. I should also note that my corpus only includes relatively complete copies (i.e. those where at least half of the original almanac-prognostication has survived intact), although the Bibliothèque nationale de France alone contains the tattered fragments of at least a dozen others, too fragmentary (one sheet or less, and seldom with any information on the printer or prognosticator) extracted from bindings when much of the collection was re-bound in the nineteenth century.²¹⁰

²⁰⁹ See Claude Dalbante's article on the recovery of fragments of an almanac-prognostication from a Lyon bookbinding: "Deux impressions de Clauda Carcan, Lyon 1533," in *Gutenberg Jahrbuch* (1955): 126-32. The almanac described is s.n., Fragments [Almanach pour 1534] (Lyon: Clauda Carcan, [ca.1533]), 4°, BM Lyon Part-Dieu, Rés 160988.

²¹⁰ Personal communication from Nicholas Petit, Conservateur en chef de la Réserve, Bibliothèque nationale de France. See the fragments bound together in a slim volume, under the call number RES P-V-357 (1-7) at the Bibliothèque nationale. Numbers 4, 5, and 6 are late fifteenth century pieces in Latin. Number 7 contains a

2. *Historiography.*

Up until very recently, most accounts of annual almanacs have focused on the seventeenth-century permutations of the genre in England and France. Keith Thomas first drew attention to the social ramifications of printed astrological predictions almost forty years ago in *Religion and the Decline of Magic* (1971), and since then, the seventeenth-century English almanac tradition has continued to receive sporadic treatment by scholars such as Bernard Capp (1975), Patrick Curry (1989), and Louise Curth Hill (2008).²¹¹ In spite of the meteoric popularity of the genre throughout the troubles of the English Civil War and Interregnum, it should be remembered that England was a late-comer to astrology, and that many of the developments there, including the almanac genre, are prefigured by almost a century on the continent.²¹²

In French historiography, scholarly attention was drawn to the almanacs in the late 1960s due to their presence in the *Bibliothèque bleue*, which came to be the focal point of a brief cross-fertilization of interest in “l’histoire des mentalités” on the one hand and “l’histoire du livre,” on the other. Both were emerging in the new research paradigms fostered by the *Annales* school, and shared a desire to somehow democratize what were increasingly seen as the stale and elitist interests of traditional intellectual and cultural history; and both were linked to an even broader Marxist social-historical ambition to rescue “the culture of the greatest number” from the often condescending generalities that traditional intellectual, political, and cultural history had attributed to it.

series of individual fragments from different French prognostications and almanacs, all in quarto and in gothic characters, likely from the period studied in this chapter. Numbers 1, 2, and 3 are each the remains of a single prognostication. According to the type, number 1 was printed by Claude Garnier in Limoges. Number 2 is for either 1502 or 1512 because both years had lunar eclipses on October 15. Number 3 is for 1518 or 1537, again according to the astronomical data. The fragments of a quarto prognostication pour 1512 also exist, printed in Paris and recovered from an old binding, under the call number RES M-V-3.

²¹¹ Keith Thomas, *Religion and the Decline of Magic: Studies in Popular Beliefs in Sixteenth and Seventeenth Century England* (New York: Scribner, 1971); Bernard Capp, *Astrology and the Popular Press: English Almanacs, 1500-1800* (London and Boston: Faber, 1979); Patrick Curry *Prophecy and Power: Astrology in Early Modern England* (Oxford: Polity Press and Princeton: Princeton University Press, 1989); and Louise Hill Curth, *English Almanacs, Astrology and Popular Medicine, 1550-1700* (Manchester and New York: Manchester University Press, 2007).

²¹² Capp, *Astrology and the Popular Press*, 23-28.

Generally, the term *Bibliothèque bleue* is used to describe a corpus of cheap popular books published for mass audiences from the seventeenth century to the nineteenth century, especially from printers in the city of Troyes. These booklets were distributed by wandering peddlers or “colporteurs” in city-streets and nearby villages. Covering everything from chivalric romance to fairy tales, and from social self-help to medical and culinary advice, these little blue books seemed to offer historians just what they were looking for: a peek at the culture of the masses in a bygone age.

Historical interest in the *Bibliothèque bleue* corpus was fairly short-lived. It reached its peak in the late 1960s with the publication of monographs by Robert Mandrou (1964; revd. ed. 1975) and Geneviève Bollème (1969), the reprinting of several longer works and anthologies by Montalba in a *Bibliothèque bleue* series, and the later work of Robert Muchembled.²¹³ The hope behind these studies was that in lieu of the living oral cultures that once existed in early modern Europe, largely silent in the documentary record, the *Bibliothèque bleue* could offer a kind of surrogate access. The models favoured by these scholars, either of reading the *Bibliothèque bleue* as a spontaneous expression of popular culture from below (Bollème) or as a hegemonic acculturation and civilization of the popular classes from above (Muchembled) have since been problematized by Carlo Ginzburg and Roger Chartier.²¹⁴

As the history of mentalities matured, it became a history of popular religion, focusing on rituals and localized communities, being more interested with manuscript sources such as

²¹³ Robert Mandrou, *De la culture populaire aux XVIIe et XVIIIe siècles: la Bibliothèque bleue de Troyes*, 2nd ed. (Paris: Imago, 1975); Geneviève Bollème, *Les Almanachs populaires aux XVIIe et XVIIIe siècles: essai d'histoire sociale* (Paris: Mouton, 1969); and Robert Muchembled, *Culture populaire et culture des élites dans la France moderne XVe-XVIIIe siècles: essai* (Paris: Flammarion, 1978).

²¹⁴ Carlo Ginzburg provides a critical review of these approaches in *The Cheese and the Worms* (Baltimore: Johns Hopkins University Press, 1992), xiv-xvi. For further developments, see two articles by Roger Chartier: “Culture as Appropriation: Popular Cultural Uses in Early Modern France,” in *Understanding Popular Culture: Europe from the Middle Ages to the Nineteenth Century*, ed. Steven L. Kaplan, (Berlin and New York: Mouton, 1984), 229-55; and Ch. 4 “Popular Appropriations: The Readers and their Books,” in Chartier’s *Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer* (Philadelphia: University of Pennsylvania Press, 1995), 83-97.

inquisition records than printed books, and overall drawing more from anthropology than book history. By the 1980s, early modern popular culture came to be identified with the work of historians such as Natalie Zemon Davis and Carlo Ginzburg on witchcraft, charivaris, carnival; and the effects of the Reformation on the everyday life of ordinary people, from interreligious violence to the Catholic inquisition and protestant discipline. Likewise, the direction of book history since the 1970s has complicated attempts to use ostensibly “popular” literature as a means to access popular culture. This is especially prominent in Chartier’s notion of “reading as appropriation,” influenced by Michel de Certeau and partly directed against the approaches of Mandrou, Bollème, and Muchembled.²¹⁵ Chartier proposes that “what is called for is a social history of the uses and understandings of texts by communities of readers who, successively, take possession of them.”²¹⁶

The only significant discussion of almanacs since the heyday of interest in the *Bibliothèque bleue* is Hervé Drévilion’s *Lire et écrire l’avenir: l’astrologie dans la France du Grand Siècle 1610-1715* (1996).²¹⁷ Drévilion provides a well-researched cultural and intellectual history of the decline of academic astrology in France against the background of its mounting popularity in cheap pamphlets. He proposes that the “vulgarisation” of astrology incited the learned and court elites to turn away from it. In my opinion, however, a full understanding of how perceptions of astrology changed in the seventeenth century should rest on an appraisal of its widespread practice by learned physicians in the sixteenth, especially in the form of the popular annual prognostications which are so crucial to Drévilion’s thesis.

At any rate, by the seventeenth century, in both France and England, the almanac had developed into a different animal than its sixteenth-century predecessors: most examples of the

²¹⁵ An important forerunner to Chartier’s views on popular culture and the book is Michel de Certeau, Dominique Julia, and Jacques Revel, “La beauté du mort: le concept de culture populaire,” in *Politique aujourd’hui* (December 1970), 3-23.

²¹⁶ Chartier, *Form and Meaning*, 97.

²¹⁷ Hervé Drévilion, *Lire et écrire l’avenir: l’astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996).

genre had accrued a veritable miscellany around the basic astronomical and religious calendar, including practical advice (home remedies, recipes, etc.), humour, poetry, songs, short stories, all built around an astronomical and religious calendar. Needless to say, beyond the almanac itself, none of these features are common in examples of the genre from the first half of the sixteenth century. During this period, the almanac proper was almost always appended to an extensive (and often quite learned) astrological prognostication. Though prognostications continued to be included in seventeenth-century almanacs and disappeared only in the eighteenth century, they were no longer the product of university-educated intellectuals, who by the end of the seventeenth century had come to spurn astrology. They were instead the product of a new vernacular astrological tradition, of which Jean Thibault may be an early exemplar.

Scholarship on sixteenth-century French almanacs and prognostications is rare, but a small body of specialized studies does exist, beyond the examples already covered in my introduction. These include short notices announcing the discovery of surviving editions (typically in old book bindings), and a collection of articles by Charles Perrat and M.A. Screech, which are mainly devoted to contextualizing the *Pantagrueline prognostication* and other works by François Rabelais.²¹⁸ These laid the groundwork for M.A. Screech's critical edition of the *Pantagrueline prognostication* and Rabelais' other almanacs for 1533, 1535, 1541, and 1544 (1974).²¹⁹ Screech's edition also includes three other contemporary prognostications for comparison, including two by Henry de Fine (1518 and 1533) and Jean (Joannes) Laet (1533),

²¹⁸ See Lucien Scheller, "Une prenostication inconnue de Rabelais," *Bibliothèque d'humanisme et Renaissance* 8 (1946): 119-28; Charles Perrat, "Sur un tas de prognostications de Louvain," in *François Rabelais : Ouvrage publié pour le quatrième centenaire de sa mort 1533-1953* (Geneva: Librairie Droz, 1953), 60-73; V.L. Saulnier, "François Rabelais, patron des pronostiqueurs: Une pronostication retrouvée," *Bibliothèque d'humanisme et Renaissance* 16 (1954): 125-35; Claude Dalbanne, "Deux impressions de Clauda Carcan, Lyon 1533," *Gutenberg Jahrbuch* (1955): 126-32; Ernest Wickersheimer, "La *Prenostication nouvelle* pour 1504 de Bernard de la Forest et la *Grant prenostication nouvelle* pour 1515 de Wenceslas Fabri," *Bibliothèque d'humanisme et Renaissance* 17 (1955): 395-404; and M.A. Screech, "Some aspects of Rabelais's *Almanachs* and of the *Pantagrueline prognostication* (Astrology and Politics)," *Études rabelaisiennes* 11 (1974): 1-7.

²¹⁹ M.A. Screech, ed. *Pantagrueline prognostication pour l'an 1533* (Genève: Librairie Droz, 1974).

the originals of which are included in my bibliographies.²²⁰ Few have studied Rabelais's astrology in any depth since Screech, with the exception of a recent article by Jean Dupèbe (1999). As Dupèbe notes, scholarship on Rabelais's almanac-prognostications has demonstrated beyond the shadow of a doubt that he was a serious practitioner of medical astrology and published serious medical almanacs for medical elections.²²¹ Based on Rabelais's works and the comments of his contemporaries, Dupèbe is able to infer that he had traditional medical training that included astrological medicine, and that toward the end of his life he was greatly influenced by his reading of Marsilio Ficino, whose Neoplatonic cosmology had an important place for astrology.²²² Far from being a general attack on all astrology, his criticisms in the *Pantagrueline Prognostication* and the *Tiers livre de Pantagruel* (1546) were leveled against superstitious uses of astrology not in keeping with Christian principles and the supposed imprudence and ignorance of the "vulgar prognosticators" (who were frequently criticized by university astrologers).²²³

All this to say: the learned sixteenth-century foundations of such prognostications are not discussed in the existing scholarship on early modern almanacs, nor are the ultimate medieval origins of the genre. Cheap vernacular print was available on the streets of early sixteenth-century Antwerp, Geneva, Lyon, and Paris long before street vendors peddled the Troyenne *Bibliothèque bleue* in the 1650s. However popular they became, it should also be remembered that the almanacs grew out of an academic medical genre. It is my hope that this chapter will serve as an introduction to these sixteenth-century antecedents to the almanacs of the

²²⁰ The prognostications included in Screech's edition of the *Pantagrueline prognostication*, coupled with the 1497 Laet prognostication from the online Bibliothèque virtuelle humaniste of the Université François Rabelais de Tours, are the only examples of the genre available to readers who do not have access to the originals held in European libraries. See Gaspard Laet, *Prenostication de Louvain de Jaspas Laet de Borckloen de l'an 1497* (Paris: [Pierre Le Caron], [ca. 1496]), 4^o, Bibliothèques Virtuelles Humanistes, <http://www.bvh.univ-tours.fr/Consult/index.asp?numfiche=234> (accessed October 16 2009).

²²¹ Jean Dupèbe, "Rabelais, médecin astrologue du *Pantagruel* au *Tiers Livre*," in Franco Giaccone ed., *Le Tiers Livre: Actes du colloque international de Rome (5 Mars 1996)*, Études rabelaisiennes 37 (Geneva: Droz, 1999), 71-72.

²²² Dupèbe, "Rabelais, médecin astrologue," 96-97.

²²³ Dupèbe, "Rabelais, médecin astrologue," 86.

Bibliothèque bleue, bridging some of the gap between learned late medieval astrology and the increasingly popular vernacular astrology of the seventeenth century.

3. *The origins of the genre: Late medieval medical almanacs.*

The most important lacuna in the historiography of early modern almanacs was, until recently, the absence of any significant discussion of the origins of the genre. The work of Steven Vanden Broecke suggests that popular mass-market almanacs and prognostications of the kind described in this chapter grew out of an established medieval academic genre of medical almanacs.²²⁴ In Louvain, the first annual prognostication was published at the end of 1430 by Joannes Vesalius, a professor of medicine at the University of Louvain, at the request of the town council. After compiling his predictions for the coming year, Vesalius read them publicly to the university community before New Year's Day 1431. Beyond including a general prediction for the coming year, the genre emphasized astro-medical elections of propitious times for bloodletting and purging, and was likely copied and circulated in manuscript for the use of the local medical community. Vesalius probably prepared prognostications such as these throughout the rest of his tenure at the University, and was succeeded by Joannes Spierinck.²²⁵

Evidence of similar practices in France has also survived, described in a short article by Thérèse Charmasson: a manuscript at the Bibliothèque nationale testifies to a disputation in Paris between rival physicians over the compilation of a medical almanac for 1437.²²⁶ In Italy as well, the medieval genre of the *tacuinus*, a tabulation of astro-medical data comparable to the almanac

²²⁴ For a general introduction to late medieval medical astrology, see Roger French, "Astrology in Medical Practice," in Luis García Ballester et al. eds., *Practical Medicine from Salerno to the Black Death* (Cambridge: Cambridge University Press, 1994), 30-59.

²²⁵ Steven Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology* (Leiden: Brill, 2003): 30-1. Joannes was the great-grandfather of the famous Andreas Vesalius, author of *De corporis humani fabrica* (1543).

²²⁶ Thérèse Charmasson, "L'établissement d'un almanach médical pour l'année 1437," *Comptes-rendus du 99e Congrès national des sociétés savantes, Section des sciences, fasc. V* (Paris, 1976): 217-34. See also Danielle Jacquart, "Médecine et astrologie à Paris dans la première moitié du XIVe siècle," in *Filosofia, scienza e astrologia nel trecento europeo*, ed. Graziella Federici Vescovini and Francesco Barocelli (Padua: Il Poligrafo, 1992), 121-34.

was likewise merged with prose judgments.²²⁷ A similar process is probably behind the German version of the almanac-prognostication, the *practica*. As Vanden Broecke has aptly described it, the joint genre of annual almanacs and prognostications was born of a fusion of astronomical data, medical prognosis, and astrological judgment.²²⁸ This fusion is not specific to Louvain: it seems to have occurred elsewhere in Europe, notably Germany and Italy, in the mid-to-late the fifteenth century. Most importantly, it occurred either slightly before or in tandem with the introduction of printing technology.

So far as the cases of Vesalius and Spiernick are concerned, the genre was geared toward serving the interests of the university, the local medical community, and the Louvain town council. In Spiernick's case, he also provided Duke Charles the Bold and certain members of the Burgundian court with consultations during political crises. As Vanden Broecke observes, the distribution of astrological predictions was regulated in these cases by the material constraints of manuscript circulation and the social secrecy which royal patronage necessarily implies. In the first case, these almanacs could only be duplicated by other members of the medical community who either gained access to a copy or by those in attendance at its initial reading. In the second case, the consultations contained sensitive information that would be kept secret within the inner circle of the Duke unless their publication served a specific propaganda aim.²²⁹

These patterns of limited circulation and social secrecy were transformed in 1475 with the appearance of Joannes Laet's *Pronosticationes* for 1476. This transformation corresponds closely with the arrival of the first printer in Louvain, Joannes de Westfalia, who printed Laet's 1476 prognostication and those for subsequent years up to at least 1485. Though Laet was not a member of the faculty, he held a medical degree from Louvain and enjoyed the powerful support of two local prince-bishops, Louis de Bourbon and Jean de Homes. Indeed, Vanden

²²⁷ Vanden Broecke, *The Limits of Influence*, 32.

²²⁸ *Ibid.*

²²⁹ *Ibid.*, 33-36.

Brocke has suggested that the university sought to prevent itself from being publicly associated with Laet's prognostications after 1478 in order to avoid possible political entanglements.²³⁰ Laet was the first prognosticator in Louvain to disseminate his predictions through print, a vocation which his son Gaspard (who also studied at Louvain) would later take up. Indeed, Gaspard is the author of the first surviving vernacular prognostication printed in France, which Pierre Aquillon has suggested was pirated from an Antwerp edition.²³¹ Indeed, by the time this almanac-prognostication was published, the genre had achieved a standard structure and material format that would be used for the next fifty years.

4. *Centres of production.*

Before moving into the more localized questions raised by the corpus of sources, it seems prudent to begin with a macro-level description of the sources over time. To start, this entails providing a sketch of where French almanac-prognostications were being printed (based on the corpus of 36 that I have assembled). It should be noted, however, that few almanac-prognostications include the name of their printers or the address of the bookseller, indicating instead the city or region for which the predictions were produced on the first page, e.g. "Calculee sur le meridien d'Anvers." Indeed, few of the prognostications between 1500 and 1550 include a printing privilege; these only become common at mid-century with the growing regulation of the book trade brought about by religious conflict. Short of a painstaking analysis of the type and woodcuts, it is impossible to know just who was printing many of the prognostications before the 1550s.

a) *Antwerp.* Antwerp was the most important centre for the production of prognostications in the period, with 14 of the 36 printed there. Of these, twelve were produced

²³⁰ Ibid., 39-40.

²³¹ Pierre Aquillon "Dans un tas de prognostications de Louvain: une impression inconnue de Pierre Le Caron (1496)," in *L'Intelligence du passé: les faits, l'écriture et le sens. Mélanges offerts à Jean Lafond par ses amis*, eds. Pierre Aquillon, Jacques Chupeau, and François Weil (Tours: Publications de l'Université François-Rabelais, 1988), 18. Laet later included a special woodcut as a mark of authenticity in his official prognostications.

by local physicians in Antwerp or Louvain, including Henry de Fines (for 1518, 1524, and 1533); Jacques de Caestre (for 1531), which includes a privilege and identifies Guillaume Vosterman as the printer; Jacques Sauvage (for 1547, 1551, and 1552); Pierre de Moerbeke (for 1554); and successive generations of the Laet family (Gaspard le Jeune for 1502, 1533, 1537; and Alphonse for 1553, 1554); Those for the 1550s by Sauvage, Laet, and Moerbeke, as well as a few from earlier on, all include privileges and the names of their printers: Michel de Hoochstraten for Laet (1537); Henry Pierre de Middleburg (1547) and later Jehan Liesveldt printed Jacques Sauvage (1551 and 1552); and Martin Nuyts (1553) and Jan Wynrychx (1554) printed Alphonse Laet; and Henry Pierre de Middleburg (who previously printed Sauvage) printed Moerbeke (1554). The last prognostication of the 14 printed in Antwerp is not of local origin: it is a French translation of the German Johannes Carion's twelve-year prognostication for 1529-1540, written in Berlin.

b) *Geneva*. The next largest centre of production based on surviving prognostications is Geneva, with 8 for the years 1508 to 1536, almost all translated into French from Italian or German. The two earliest are from Italy: the Roman Haly Nivord's prognostication for 1508, and the Pavian Ludovic Asperne's for 1509. From the Low Countries, there is a (possibly pirated) edition of George Tannstetter's *Pronostication de Louvain* for 1513. The rest are German in origin: Johannes Stabius's prognostication for 1523, printed by Jacques Vivian; Anthoine Breloch's for 1533, printed by Gabriel Pomar; Hippolyte Leander's for 1535; and Johannes Carion's for 1534 and 1536, the first of which was printed by Wygand Köln.

c) *France*. Paris, Lyon, and Rouen come next, each with 3 prognostications. For Paris, the first is the (pirated) Laet prognostication for 1497 printed by Pierre Le Caron, the earliest French prognostication included in my study. After a long pause in production (or a gap in survivals), there are two by Jean Thibault that survive, for 1531 and 1542. The first was printed by Jacques Nyverd (the second probably was as well), who appears to have been granted a

privilege for them, sometime after Thibault's troubles with the Faculty of Medicine. For Rouen, there are the prognostications first of Guillaume d'Amours (for 1509 and 1517), printed by Jean du Moulin, and of Jean Touraille (for 1542), printed by Guillaume de la Motte.²³² Finally, for Lyon there are the two surviving almanacs and prognostications of Rabelais (for 1541 and 1544), and the first surviving Nostradamus prognostication (for 1555) printed by Jean Brotot. The remaining 5 here examined come from scattered locations in the French provinces and along France's borders, including Lille (1503), Metz (1511), Limoges (1542), and Agen (1552). Only the last of these includes the name of its printer, Arnaud Villote.

Ultimately, this means that of the 36 French-language almanac-prognostications that have survived from the period 1496-1554, only 8 were printed within the borders of the kingdom of France. How can this curious fact be accounted for? It is difficult to draw hard conclusions from the sources because so few (relatively speaking) have survived. From the scattered dates of the prognostications from individual astrologers here mentioned, it can be assumed that some (if not most) also published in the intervening years, and that these predictions have not survived. Indeed, some even make direct reference to prognostications from previous years (which have not survived) to observe whether or not their predictions have been confirmed. All of this to say: the corpus here assembled probably represents a mere fraction of the total output of the period in question. With this caveat, however, I would like to propose a hypothesis.

To begin, the flow of ephemeral print that emerges from this picture is one that moves from the periphery of France inward, much as Rabelais describes it in the quotation from the 1533 *Pantagrueline prognostication* which opens my thesis.²³³ This influx of prognostications over the French border can be situated within the general flow of French vernacular print

²³² A third prognostication by Amours for 1518 is held at the Wellcome Institute. Guillaume Amours, *[Pronosticati]on nouvelle lan mille cinq cens XVIII [compo]see sur le climat de France* ([Rouen]: [J. Du Moulin], [ca. 1517]), 4°, 2 fols., Wellcome Institute, EPB / B 283/B. I was unfortunately not able to examine it for this study.

²³³ François Rabelais, *Pantagrueline prognostication pour l'an mil. D. xxxiii*. (Lyon: [François Juste], 1533), 4°, fol. A₁r°.

described by Francis Higman in his work on French Reformation printing from 1520-1562.²³⁴ Throughout the first half of the sixteenth century, publications produced outside of the jurisdiction of French authorities played a major role in the French market, notably those coming off the presses of Geneva and Antwerp.²³⁵ The reasons why French Reformation pamphlets and astrological prognostications were produced by printers in these cities for readers in France are not identical, but do complement one another, as I hope the following account suggests.

I will begin by suggesting a division between a northern and a southern French market. Beyond being supported by the primacy of Paris and Lyon in the French book trade, such a division is also supported by an astrological point: based on the tables of Stöffler's ephemerides, a latitude variation of as much as 3° was acceptable to astrologers interested in establishing the houses, meaning a figure cast for Louvain at 50°52'N could be applied with reasonable accuracy to Paris as well, at 48°50'N. For an especially sloppy astrologer, even a figure for Antwerp at 51°13'N might barely pass for Paris. Lyon however, at 45°46'N, would be beyond the pale for a Louvain astrologer (at least for those conscientious to make accurate predictions according to even the loosest rules of their craft). This would necessitate the use of predictions made for similar latitudes in Germany, Switerland, and Northern Italy.²³⁶

With this basic division in place, the first question to be answered about the northern market is why virtually no prognostications were printed in Paris, in spite of the city's long tradition in printing and its primacy in the French book trade. Paris was a climate inhospitable to the emergence of a local prognostic culture for two important reasons: first, attempts at censorship from the university, whether by the faculties of Theology or Medicine, which the next chapter will explore in detail; and second, the domination of the northern prognostic market by

²³⁴ Francis Higman, "French-speaking regions 1520-62," in Jean-François Gilmont, ed. *The Reformation and the Book*, tr. Karin Maag (Aldershot: Ashgate, 1998), 105-53.

²³⁵ Higman, "French-speaking regions 1520-62," 151.

²³⁶ Stöffler, *Almanach nova* (1499), "Canon de domibus celi fabricandis," fol. 17r°.

the virtually trademarked “Louvain prognostications” and their Antwerp printers, who began issuing prognostications in French as a means of expanding their market and guarding against pirates by the end of the fifteenth century.²³⁷ Indeed, the only prognostication printed in Paris before the arrival of Jean Thibault in the 1530s was an edition of Gaspar Laet’s *Prenostication de Louvain*, pirated by Pierre Le Caron. When Thibault arrived, the surprise of the university and civil authorities suggests that this was the first time they had confronted a prognosticator locally. These were the main impediments against the emergence of any prognosticators in Paris throughout the period in question.

In lieu of production in Paris, the so-called “Louvain prognosticators” and their Antwerp printers appear to have dominated the northern French market until the end of the 1530s. The breakdown offered above suggests that the stifling of a Parisian prognostic community had another interesting effect, however. Indeed, it is conspicuous that the earliest surviving prognostications authored by a native French prognosticator and printed in a northern French city came off the presses of Rouen. Likewise, border towns such as Lille and Metz were also able to print their own prognostications. Even then, none of these local centres was very far from the shadow of Louvain: most of these provincial and border prognosticators learned their astrology, as well as medicine, at the University of Louvain. Some, such as Guillaume Amours, even advertised this on the front pages of their prognostications as a mark of quality.

The situation in southern and central France was similar. Readers in these areas most probably received their prognostications in translations from German or Italian originals, legitimately or illegitimately republished by Genevan printers. An example of the mechanics behind this is illustrated in the prologue to Johannes Stabius’s prognostication for 1523. Stabius describes how the Genevan printer Jacques Vivian, wishing to publish a prognostication for the French market, contracted him to produce a prognostication in Latin, which Vivian would then

²³⁷ Aquilon, “Dans un tas de prognostications de Louvain,” 18.

translate into French. Stabius frames this explanation as a discussion with a neighbour who came to visit him as he was preparing the prognostication:

Advint ung jour ainsy qu'estois sur mes livres pour avoir le vray judice de la presente pronostication que ung de mes voysins, homme vieulx ung peu lettre, me vint voir et apres plusieurs postz me demanda sur quelle mattieres je prenois tant de peine, au quel respondy que a la requeste d'ung homme de bien estois apres pour faire une pronostication laquelle ne laisois pas volentier, mesmeman pource qu'il la veult porter en ce pais de Gaules la au les gens comme jay entendu sont pour la plus part ennemis de ceste science. Neanmoins que je m'en acquicterois puisque je lavois promis.²³⁸

The neighbour goes on to suppose that this might be because the French find astrology impious.

Stabius responds with a defence of astrology, arguing that it is perfectly compatible with Christian doctrine.

Within a few years, even the printers of Geneva would probably disagree about astrology's compatibility with Christian doctrine, or at the very least would think twice about printing prognostications. The last French prognostication printed in Geneva is Johannes Carion's for 1536. After this, the Genevan press is silent when it comes to prognostications: with the ascent of Jean Calvin in the late 1530s, astrology fell under suspicion. Consequently, rather than being the "port of entry" for German prognostications into France, the only books on astrology published by the Genevan presses were repudiations of the science, notably Calvin's extensive *Avertissement contre l'astrologie judiciaire* (1548).²³⁹ Indeed, Max Engammare has described the rise of a distinct genre in the 1550s that filled the gap left by the almanacs in the

²³⁸ "There came a day where I was working with my books to achieve the true judgement of this prognostication when one of my neighbours, an old somewhat lettered man, came to see me and after several comments asked me with what matters I was taking such pains, to which I responded that at the request of an honourable man I was making a prognostication, a task which I did not take up without reservations because he wanted to carry it to the land of the Gauls, where I have heard people are for the most part enemies of this science. In spite of this, I will provide it to him because I had promised as much." Jehan Stabius, *La grant pronostication nouvelle Avec les appertions pour Lan Mil. CCCCC.xiii. [...] translatee de latin en francois* (Geneva: Jaques Vivian, ca. 1522), 4°, fol. A₁v^o.

²³⁹ Jean Calvin, *Avertissement contre l'astrologie judiciaire*, ed. Olivier Millet (Geneva: Droz, 1985).

Genevan printer's repertoire: the Reformed *calendrier historique*, a religious calendar purged of astrological content.²⁴⁰

It is no coincidence that Geneva ceased printing almanac-prognostications at the same time as the printers of Lyon began to: they were obviously filling a market vacuum that had opened. Indeed, the end of astrological publishing in Geneva may be a key factor behind the rise of a native prognostic culture in southern France, first in provincial towns such as Limoges, Agen, and Salon-en-Provence, and then centralized in Lyon after the popularity of Nostradamus established the city as the centre for the production of French prognostications for the next half-century. Lyon was the second-largest city in France, the only other significant printing centre, and was free of direct supervision by the authorities of a Parlement or a university.²⁴¹ These features made the environment there quite congenial for printers and prognosticators wishing to fill the vacuum left by the withdrawal of the Genevan presses from astrological printing.

The flow of prognostications into France from Geneva can also be contextualized in what Andrew Pettegree has called the "pamphlet moments" of the sixteenth-century. According to Pettegree, such moments occur when curiosity and demand for a new literature lead printers to flood the market with it, collapsing the normal mechanisms of control "not unlike the bubble of a rising stockmarket."²⁴² Indeed, the German prognostications that flowed through Geneva in the 1520s and 30s prefigure the later flow of Calvinist evangelical print into France, and serve to situate the prognostications within the broader context of Reformation print phenomena. These translated *practicas* are the likely vectors by which the apocalyptic astrology that had emerged in

²⁴⁰ Max Engammare, *L'ordre du temps: l'invention de la ponctualité au XVI^e siècle*, Cahiers d'humanisme et Renaissance 70 (Geneva: Droz, 2004), 127-79. The banning of almanacs and prognostications was formalized by 16 September of 1558 at the latest, when Conrad Badius mentioned it in a letter to Laurent de Normandie. See Bibliothèque publique et universitaire de Genève, Ms. fr. 3871/1, fol. 131; and Archives de l'État, Registres du Conseil 54, fol. 286^r. Cited in Rodolphe Peter and Jean-François Gilmont, eds., *Bibliotheca Calviniana: les œuvres de Jean Calvin publiées au XVI^e siècle* (Geneva: Droz, 1991), no.58/5, 681.

²⁴¹ Higman, "French-speaking regions 1520-62," 108.

²⁴² Andrew Pettegree, *Reformation and the Culture of Persuasion* (Cambridge: Cambridge University Press, 2005), 149.

Germany, which used the genre as a platform in religious and political pamphlet wars, made its way into France.²⁴³ This function would continue in native French prognostications, even after the flow of translated German prognostications through Geneva was cut off.

If, as Rabelais suggested, France was indeed receiving its prognostications from abroad and almost exclusively from places within the rough borders of the Holy Roman Empire, another question remains: did they contain predictions that might upset the social order sufficiently enough that censorship ought to be imposed, as he (perhaps half-jokingly) proposes? Although the prognostications produced by astrologers of the Louvain school are on the whole fairly mild, focusing on weather prediction and health, their printers in Antwerp were not averse to translating and disseminating some of the more alarmist predictions coming out of Germany, then at the height of the Reformation. Like the Genevan printers, they served as vectors through which more alarmist predictions could flow into France from the Holy Roman Empire. Recall, for instance, Henry de Fine's prognostication for 1524, which itself did not contain any discussion of the so-called "deluge prediction," but included a translated copy of the prediction from the Cologne professor Conrad d'Alvaro.²⁴⁴ The same is true of Johannes Carionis's multi-year prognostication for 1529, which is second only to d'Alvaro's note in its alarmism among French prognostications before Nostradamus. Warning the Christian princes of Europe to unite, Carionis predicted that "le Turc" would become "Empereur sur les chrestiens" by the year's end, based on his interpretation of the total eclipse of October 17th.²⁴⁵ Although Carionis himself addresses his prologue from Berlin, its appeal was recognized by the Antwerp printers, who

²⁴³ This phenomenon is described in a seminal article by Robin Bruce Barnes, "Hope and Despair in Sixteenth-Century German Almanacs," in *The Reformation in Germany and Europe: Interpretations and Issues*, special vol. of *Archiv für Reformationsgeschichte*, ed. Hans R. Guggisberg and Gottfried G. Krodel (1993): 440-61.

²⁴⁴ Henry de Fines, *Pronostication nouvelle de Louvain pour lan mil cinq cens .xxiii. [...] adjouxtte en la fin [...] Le grant Deluge futur, ainsi comme Maistre Conrard d'Alvaro docteur en astrologie a l'Universite de Coulogne la mis et escript* (s.l: s.n., [ca. 1523]) 4°, fol. A₄r°.

²⁴⁵ Johannes Carionis, *Pronostication ou signification et manifestation des influences des veritable cours celestes [...] calculee sus .xii. annees [1529-1540] Parlans de tous Pays et estatz comme vous verrez cy apres en ceste Pronostication Nouvellement Traduyte Dallemant en Francoys* (Antwerp: s.n., ca.1528), 4°, fol. A₁v°.

translated it and adorned its cover with a large woodcut illustration; prudently, the printer did not include his name, simply marking "Imprimee a Anvers" in the colophon.²⁴⁶

Was a censorship project of the kind Rabelais toyed with even possible in the period? Whatever will there might have been to censor, the practical mechanics of book-banning in the decentralized political environment of early sixteenth-century France were less than efficient. In France, most calls for censorship came from the Paris Faculty of Theology, but their enforcement was dependent upon the cooperation of secular authorities. It was possible to ignore lists published by the faculty, so long as they were not enforced by the coercive power of the Parlement's armed officers, arrests, confiscation, fines, and prison terms. In order for censorship to be effective, Francis Higman suggests that the monarch, the Paris faculty of theology, and the Parlements all needed to act in conjunction. These three authorities would not cooperate until the problems associated with the trade in heretical books had grown to a significant size, i.e. after the reformation had gained the support of a large and visible segment of the population.²⁴⁷ Before this occurred, censorship was effective only in Paris, even then, only under ideal conditions. The 1551 Edict of Châteaubriant was the major effort by French authorities to establish control over the book trade. It condemned all books from Geneva, forbade anything appearing in the catalogue of censored books, established a visitation system to regulate bookshops, and banned the sale of books by itinerant colporteurs.²⁴⁸ Even then, as Higman notes, censorship could not actually stop the trade in forbidden books: it could only make it dangerous.²⁴⁹ At any rate, the circulation of prognostications seems not to have concerned officials as much as the spread of

²⁴⁶ Carionis, *Pronostication* [1529-1540], fol. A₄^{ro}.

²⁴⁷ Higman, "French-speaking regions 1520-62," 149-51. See also Francis Higman, *Censorship and the Sorbonne: A Bibliographical Study of Books in French Censured by the Faculty of Theology of the University of Paris, 1520-1551* (Geneva: Droz, 1979).

²⁴⁸ Higman, "French-speaking regions 1520-62," 124.

²⁴⁹ Higman, "French-speaking regions 1520-62," 149-52.

the Reformation did, as the early measures taken against the protestant book trade following the 1534 Affaire des Placards demonstrate.²⁵⁰

In spite of Rabelais's concerns, prognostications continued to flow into France throughout the period, sating the curiosity of French readers to know what the future might hold. As the following chapter will demonstrate, the will to censor prognostications was sometimes strong enough in Paris to make it difficult for prognosticators publishing there, but did not concern authorities enough for them to try to ban their import wholesale. In spite of Jean Thibault's forays into the Parisian market (which, it bears mention, may have had royal support), the foreign domination of the French prognostic market would be largely unchanged until the 1550s: it would consist of a stable flow of weather-and-health-oriented almanacs and prognostications from the Louvain physicians, peppered with periodic crossovers from the Reformation "pamphlet moments" shaking the German market, in which prognostications played an important part. This would only change when Nostradamus's largely prophetic prognostications took the European print market by storm. Until then, the flow of prognostications from abroad into France confirms the appraisals of Rabelais and of the German astrologers Johannes Stabius and Laurence Tubbe, who remarked in a letter to Nostradamus that France was a land inhospitable to astrologers. Tubbe noted this to be especially true of France's universities, where the art was not revered; as I will show in the following chapter, it was such largely because of prevailing attitudes at the University of Paris.²⁵¹ If the hostility of some authorities was unwavering, the prognosticators could, at the very least, strive to persuade other elements of their readership of the validity of their predictions and the compatibility of astrology with Christianity. It is to this question that I will now turn.

²⁵⁰ Robert Hari, "Les placards de 1534," in *Aspects de la propagande religieuse*, ed. Gabrielle Berthoud (Geneva: Droz, 1957), 79-142.

²⁵¹ Jean Dupébe, ed. *Nostradamus : Lettres inédites* (Geneva: Droz, 1983), 13. "Omnia mea reliqui in Germania neque putaram hanc pulcherrimam patrem philosophiae adeo negligi in academiis Gallicis," Lettre XVIII 29r°, 63.

5. *Prognosticators and their publics.*

As I suggested above, the transition to a printed format intended for mass distribution posed important challenges to astrologers, especially when compared to the social secrecy implied by private consultation, the main sphere of late medieval astrology. When publishing his predictions for the utility of the general public, the prognosticator was also opening himself up to the scrutiny of his peers and of the authorities. As such, publishing predictions in print was a calculated risk: it had the potential to endanger the astrologer's professional reputation, livelihood, and even his life.

How could astrologers mitigate these risks? The most important means have to do with the rhetorical strategies he would need to use in order to assure his increasingly broad and diverse audience of (a) the spiritual and theological legitimacy of astrology, and (b) the epistemological credibility of their specific predictions and the textual authorities on which they were based. These two concerns are typically addressed in the one-to-two-page prologues offered by the prognosticators. A third challenge (c) is posed by the threats to secular and religious authorities that prognostications on social and political questions could conceivably involve, and is usually mitigated by the general tone of the predictions, which, as I will suggest, was typically mild.

I will begin by exploring how the prognostications confronted the religious challenges in their prologues. The two most frequently used proof texts in the corpus offer persuasive answers to how such theological and religious criticisms could be evaded. Further, they also reveal a great deal about how the prognosticators themselves (rather than theological authorities) understood the sometimes ambiguous relationship between astrology and Christianity.

a. *On the religious legitimacy of astrology.*

i. *Against astral paganism: "The heavens are telling the glory of God" (Psalm 18).*

The charge of astral paganism marks a useful point to begin. For an outsider, ascribing powers to planets named after ancient pagan deities might seem dangerously close to breaking the First Commandment, as Luc Racaut has noted.²⁵² From the perspective of astrologers, however, such an accusation was based on a misunderstanding, one which, from the Middle Ages onward, they were careful to correct given its important stakes. Indeed, all prognostications are careful to describe the motions of the planets, like everything in nature, as creations subject to God's will, and some take special pains to clarify the mechanics behind this point.

In the earliest surviving French prognostication, the Louvain astrologer Gaspard Laet justifies his art through recourse to a Christian reading of Plato, distancing astrologers from such charges of astral paganism. Platonic ideas had, of course, been amenable to Christianity virtually since its inception, and Plato had been assimilated into the Christian tradition as a proto-Christian prophet by Clement of Alexandria. In the *Timaeus*, Plato describes the motions of the firmament and the "lesser gods" (the planets) as visible manifestations of the thoughts of the cosmos itself, which he held to be animate in both senses of the term (i.e. moving and being possessed of a soul), a description which was christianized to understand the planets not as pagan deities with their own agency but instead as manifestations of the divine mind:

Comme Plato declare in *Thimeo* disant, '*Eaque a nobis deus sciri voluit scripsit in celo quasi in libro,*' laquelle chose est a entendre, ce que Dieu a voulu que les creatures sceuvent des choses advenir a il escript comme en ung livre. Et celui qui celui livre scait bien entendre peut scavoir les choses advenir.²⁵³

²⁵² Luc Racaut, "A Protestant or Catholic Superstition? Astrology and eschatology during the French Wars of Religion," in Helen Parish and William Naphy, eds. *Religion and Superstition in Reformation Europe*, Studies in Early Modern European History (Manchester: Manchester University Press, 2002), 155.

²⁵³ "As Plato declares in the *Timaeus*, '*Eaque a nobis deus sciri voluit scripsit in celo quasi in libro,*' which means, what God wants creatures to know of things to come is written in the sky as in a book. And the one who knows how to read this book can know of things to come," Laet, *Prenostication pour l'an 1497*, fol. A₁r^o. I assume the passage to actually be from a commentary as I have not been able to locate it in modern editions of the *Timaeus*.

For those mortals who knew how to read them (i.e. astrologers), these "instructions" could provide an idea of what fate has in store. Understanding the stars as signs of a divinely ordained future is also well in line with Augustine, who condemned understanding the planets as causes but carefully endorsed understanding them as signs in the fifth book of *De civitate Dei*, which is largely concerned with astrology.²⁵⁴ Other prognosticators also justified their art through the loftiness of its subject. Citing Ovid's account of the creation of man in the *Metamorphoses*, the anonymous Metz prognosticator of 1511 wrote, "Dieu ait cree l'home la teste en hault envers les cielz pour mieulx et plus facilement contempler yceulx cielz qui sont le siege de leur Createur. Et ait cree les bestes la teste en bas et vers la terre, car ilz n'ont mestier de telle contemplation."²⁵⁵ God himself, it would seem, crafted man for contemplating the heavens, a calling which is here understood to include astrology.

If pre-Christian wisdom was not enough to justify the divine origin of astrological knowledge, prognosticators could appeal to Scripture in order to make much the same point. The most common passage that was quoted to this end is Psalm 18, which first appears in Thurien Blouet's prognostication of 1503:

Le nom de celui soit beneis qui crea le ciel et la terre, et singulierement doit estre beney a cause des operations qui par luy se font par le mouvement des planettes et estoilles, comme dist David le prophete en la .xviii. Psalme de son Psautier: '*Celi enarrant gloriam dei, et opera manuum eius annunciat firmamentum,*' c'est a dire que les cieulx monstrenet la gloire de Dieu, et le firmament anonche ses euvres. Ce

²⁵⁴ St Augustine, *City of God*, tr. Henry Bettenson, ed. David Knowles (New York and London: Pellican, 1972), 5:1, 180. Augustine's point is that even if God caused all events in the world below through the stars (including murders for instance), he would be evil and unjust. If the stars predicted but did not produce events below, astrology would be philosophically acceptable; but according to Augustine, the astrologers always say they cause the events below, and do not merely signify them. Further, he charges, they are unable to address basic concerns such as the twin geniture dilemma. Cf. Racaut, "Astrology and eschatology during the French Wars of Religion," 154-5.

²⁵⁵ "God had made man with his head on top toward the heavens that he might better and more easily contemplate the heavens which are the seat of the Creator. And he made beasts with the heads below and toward the earth, for they have no calling toward such contemplation," *Pronostication Nouvelle pour Lan Mil .V. cens & .XI. carculee au vray midy de la Noble Cite de Metz* (Metz: s.n., [ca. 1510]), 4^o, fol. A₂r^o-v^o. Cf. Ovid, *Metamorphoses* 1:77-88.

mesmes apreuve Aristote quy enseigne que ce monde inferiore est gouverne par le ciel et par les planettes, et etoilles.²⁵⁶

The psalm is quoted as a scriptural proof-text for astrology in no less than five prognostications. It serves as a defence against including astrology under the general Deuteronomical prohibitions against magic, divination, and worshipping the stars by understanding astrology as a science aimed at contemplating the beauty of God's creation and "hearing" his glory proclaimed by the stars.²⁵⁷ The first four verses read,

The heavens are telling the glory of God; and the firmament proclaims his handiwork. Day to day pours forth speech, and night to night declares knowledge. There is no speech, nor are there words; their voice is not heard; yet their voice goes out through all the earth, and their words to the end of the world.²⁵⁸

Indeed, the "unheard voice" of the firmament mentioned in the psalm is even open to being read as the pervasive but invisible rays of a divinely-mandated astral influence on the elemental world below. Psalm 18, usually quoted from the Vulgate, "*Caeli enarrant gloriam Dei, et opera manuum eius annuntiat firmamentum,*" is the second most frequently-quoted proof text for astrology, appearing in five of the prognostications I have examined, but it is by no means the only passage of Scripture to be quoted in the prognostications. In some cases, Scripture is more frequently quoted than astrological authorities such as Ptolemy and Albumasar, to a variety of ends ranging from apologetics to the prophetic.²⁵⁹

As this example shows, the prognosticators articulated well-reasoned responses, often relying on scripture itself, in order to allay religious criticisms of the predictions by clarifying

²⁵⁶ "The name of him who created the heavens and the earth be blessed, and must singularly be blessed because of the operations which are made by him through the motions of the planets and stars, as David the prophet says it in the eighteenth Psalm of his Psalter: '*Celi enarrant gloriam dei, et opera manuum eius annuntiat firmamentum,*' that is to say that the heavens show the glory of God, and the firmament announces his works. This is also approved by Aristotle, who teaches that the inferior world is governed by the heavens, the planets, and the stars," Thurien Blouet, *Pronostication pour 1503* ([Lille]: s.n., c.1502) 4°, fol. A₁r^o.

²⁵⁷ See esp. Deut. 17:2-6 and 18:10-11.

²⁵⁸ Psalm 18:1-4 (NRSV). The Vulgate reads, "*Caeli enarrant gloriam Dei, et opera manuum eius annuntiat firmamentum. Dies diei eructat verbum, et nox nocti indicat scientiam. Non sunt loquelae, neque sermones, quorum non audiantur voces eorum.*"

²⁵⁹ See Blouet (1503), Amours (1509), Metz (1511), Leander (1535), and Carion (1536) in the bibliography.

that their astrology can be unproblematically reconciled with Christianity. As Blouet's remark about the relationship between the heavens and the elemental world demonstrates, they were also careful to buttress this legitimation of astrology to their readership by explaining how it fit within the Aristotelian account of the natural world, typically citing *De caelo* and *De generatione et corruptione*. Celestial influences on the sublunary realm are merely secondary causes effected by the prime mover, equated with God in medieval and renaissance natural philosophy. To quote the French astrologer Antoine Caron, God alone "est premier moteur et gouverneur."²⁶⁰ Claude Fabri's prologue to his 1551 prognostication offers a further elaboration of this point:

Le grand Architipe et Monarche du monde c'est Dieu omnipotent, lequel par sa bonte infinie a cree les Cieulx et les Elements pour nostre utilite; les signes du Zodiaque, Estoilles fixes, Planettes, le Soleil, la Lune, sont cause de vie à toutes choses corporelles vivantes en ce monde. Et principalement quand sont en bonne et convenable application des aultres Planettes et Estoilles fixes : car autrement sont cause de corruption en ce monde inferieur, lequel est gouverne par le monde celeste, ainsi come dict Aristote.²⁶¹

Generation and corruption are linked to the differing patterns of celestial influence, which is ultimately moved by God.

Antonine Caron's prologue to his 1547 prognostication offers another indicative example of this. Like Laet and Blouet, Caron begins by assuring his readers that astrology is quite licit and consists of interpreting astral messages from God. It is assuredly not a species of illicit divination, as critics jealous of astrologers might argue:

Combien la science d'astrologie soit la plus noble entre toutes les aultres, a cause de son sujet qui est le ciel, la plus haulte et plus esmerveillable partie en la nature. Toutesfois y a tousjours eu des envieus et detracteurs, gens ennemys de lettres et toutes bonnes sciences qui ont mesprise les Astrologues comme devineurs, resveurs, et inutiles presideurs [*sic*, prediseurs] des choses advenir, quasi comme s'ilz tenoyent

²⁶⁰ Antoine Caron, *Prognostication Nouvele pour Lan Mil cinq centz quarante sept. Composee a l'utilite de tous studieux dhonestes disciplines* (s.l.: s.n., ca.1540), 4°, fol. A₁v°.

²⁶¹ "The great archetype and monarch of the world is God omnipotent, who by his infinite goodness has made the heavens and the elements for our use; the signs of the zodiac, fixed stars, planets, the sun, the moon, are the cause of life for all corporeal things living in this world. And so it is predominantely when they are good and properly applied to the other planets and fixed stars: for otherwise they are the cause of corruption in this inferior world, which is governed by the celestial world, as Aristotle says," Claude Fabri, *Vraye Prognostication Nouvelle [...] pour l'An Mil cinq cens Cinquante Deux* (Agen: Arnauld Villote, [ca.1551]), 4°, fol. A₁v°.

la disposition du temps en leur main, ou comme s'ilz avoyent parle a Dieu. Mais si l'on prend affection de la parolle de raison, l'on les dira plustost annunciateurs des predictions que Dieu envoie par les corps celestes et constellations, dont luy seul est premier moteur et gouvernateur, que prediseurs et devineurs.²⁶²

Caron then provides a summation of the prestige and usefulness of the craft, underlining the solace about the otherwise uncertain future that it can provide to everyone from kings to common people:

Et pource que la science a este depuis long temps, dont il n'est memoire du contraire, en prins et estime entre les Philosophes, et depuis receue des Roys, Princes, et Republicques, et parvenue jusques a noz jours, et en l'aage ou nous sommes, si que l'on a de coustume d'en traicter es Almanachs et prognostications a l'utilite et soulagement d'ung chascun en particulier, et de tous en general.²⁶³

Caron's prologue also evidences a belief, common among the prognosticators, that their predictions were public declarations for the utility and benefit of all. Indeed, most cite civic duty or divine calling as the main reason they publish their predictions. Blouet asserts that he calculated his "a l'onneur de Dieu et a la consolation du peuple," so using the understanding of the stars that God has given him for the benefit of all.²⁶⁴ The German prognosticator Johannes Stabius likewise declares he prepared his for "l'honneur de Dieu et l'utilite des Crestiens."²⁶⁵

All this to say: according to these practitioners, astrological knowledge was permissible for Christians, could be justified through Scripture, was deemed to fit within an Aristotelian account of the natural world, and was useful to human civilization. These last few points from

²⁶² "How noble is the science of astrology among all the others, because its subject is the heavens, the highest and most marvelous part of nature. However, it has always had enviers and detractors, people who are enemies of literature and all good sciences who scorn astrologers as diviners, dreamers, and useless predictors of future things, as though they hold the disposition of time in their hands, or as though they have spoken to God. But if we become fond of the word of reason, we would call them announcers of the predictions that God has sent through the heavenly bodies and constellations, of which he alone is the governor and first mover, rather than predictors and diviners," Caron, *Prognostication Nouvelle pour L'an 1547*, fol. A₁v^o.

²⁶³ "And because this science has for a long time (for which there is no memory of the contrary) been prized and esteemed by philosophers, and received by kings, princes, and republics, and has reached all the way to our days, to the age in which we live, we have the custom of treating it in almanacs and prognostications to the solace and usefulness of each individual and all in general," Caron, *Prognostication Nouvelle pour L'an 1547*, fol. A₁v^o.

²⁶⁴ "To the honour of God and the consolation of the people," Blouet, *Pronostication pour 1503*, fol. A₁r^o.

²⁶⁵ "The honour of God and the utility of Christians," Stabius, *La grant pronostication nouvelle pour 1523*, fol. A₁r^o.

Caron, Blouet, and Stabius raise another crucial element common to these “astrological apologies”: astrology, like healing, carries with it an ethical imperative. Like healing, prognostication was in part a duty owed to the general public by the learned. It should here be remembered that most prognosticators were physicians by training, and likely carried the notion over from medicine. As Fabri explains,

Et pource si nous voulons scavoir les inclinations et effaictz des celestes constellations (comme appartient à un bon Medecin et Astrologue) pour secourir à ceulx qui ont besoing, [...] Car un bon Medecin est cause de prolonger la vie et eviter la mort, et pour cognoistre les mauvaises Années, nous voyons que une années n'est point semblable à l'autre à cause des influences celestes.²⁶⁶

The reality of celestial influence on both nature and the human body, coupled with the ethical injunctions of medical practice, give Fabri his reason for prognosticating.

ii. Against astral fatalism: “The wise man shall have dominion over the stars” (Ptolemy)

As the preceding examples demonstrate, astrology can be reconciled with Christianity by understanding it as being founded on the interpretation of celestial influences that have God as their ultimate mover. Further, astrological prognostication was sometimes even described as an ethically mandated mission, on similar terms as healing, with the goal of warning and even comforting the general public. But were astrological forecasts simply interpreting an inevitable predetermined fate, and if so, do the assumptions of astrology preclude free will? Could the future events predicted by the prognosticators be avoided, and if so, how?

Here again the prognosticators were careful to avoid dangerous misunderstandings of their predictions. The Louvain prognosticator Henry de Fines, for instance, qualified his by noting “ces effectz seront causes apres Dieu tout puissant quil peult remedier par sa bonne volonte, car

²⁶⁶ “And because if we want to know the inclinations and effects of the celestial constellations (as is fitting for a good physician and astrologer) to help those who are in need, as Ptolemy says in the second part of his *Tetrabiblos* [...] and all the other ancients who have shown us the way of knowing high and low, *de generatione et corruptione*, and whether the heavenly bodies are good, bad, or mediocre to warn and save us from our hindrances. For a good physician has as his cause to prolong life and avoid death, to recognize bad years, as we see that no one year is quite the same as another because of celestial influences,” Fabri, *Vraye Prognostication Nouvelle pour 1552*, fol. A₁v^o.

les planettes et estoilles ne sont point neccessaires causes, mais seulement incline l'esperit."²⁶⁷

This apology is adapted from a common medieval aphorism, "*Astra inclinant, non necessitant.*"²⁶⁸ Many prognosticators relied on an even more common shorthand, an aphorism attributed to Ptolemy: "*Vir sapiens dominabitur astris.*"²⁶⁹ The passage appears in eight prognostications within the corpus.²⁷⁰ Some simply placed it on the last page as a parting reminder; others included it in their prologues and offer more detailed interpretations. For instance, the Italian astrologer Ludovic Asperne used the aphorism to affirm that because of free will humans were even more beautiful than the stars, and that through their prayers any malicious influences could be negated:

Dieu a adorne le ciel de belles estoilles, planettes et signes celestes, mais encore a il adorne la terre de plus belles choses et plus precieuses, c'est a savoir des hommes qui ont ame raisonnable et par la priere de l'homme toute la malice des estoilles est anichillee [*sic*], car l'homme juste domine les estoilles.²⁷¹

Indeed, free will and the possibility of repentance are often linked to a further possibility. Even when the aphorism is not specifically quoted, prognosticators are quite willing to admit that divinely mandated supernatural occurrences can always contravene the natural order on which astrological predictions are based:

Donc pour conclure mon œuvre, en toutes ces choses precedentes ainsy dittes selon les inclinations natureles, je nay ne veuil attribuer quelque choses a la necessite advenir, mais a la sensualite et francq arbitre es choses dessusdittes peult convenir a layde de Dieu qui peult muer le mal et augmenter le bien, par les prieres [*sic*]

²⁶⁷ "These effects will be caused by God almighty, that he might remedy them by his good will, for the planets and stars are not necessary causes, but only incline the spirit," Henry de Fine, *La grande prenostication de Louvain [...] pour ceste presente annee Mil cinq cens et .xviii.* (s.n.l.d., ca. 1517), 4°, repr. in M.A. Screech et al. ed., *Pantagruéline prognostication pour l'an 1533* (Geneva: Droz, 1974), 81-97: 84.

²⁶⁸ "The stars incline, they do not compel," Jim Tester, *A History of Western Astrology* (Woodbridge: The Boydell Press, 1987), 2.

²⁶⁹ "The wise man will dominate the stars." I have not been able to locate the source for the aphorism. It does not appear in modern editions of Ptolemy's works and is probably a medieval pseudo-Ptolemaic attribution.

²⁷⁰ See Nivord (1508), Asperne (1509), Stabius (1523), Fine (1524), Belochs (1533a), Leander (1535), (1547), and (1551) in the bibliography.

²⁷¹ "God adorned the heavens with beautiful stars, planets, and celestial signs, but he adorned the earth with things even more beautiful and precious—that is, men, who have a reasonable soul and through whose prayers all the malice of the stars is annihilated, for the righteous man will dominate the stars," Ludovic Asperne, *La prenostication de pavye faicte par maistre Ludovic Asperne grant astrologue pour ceste annee mil cinq cens et neuf* (s.l.: s.n., [ca.1508]), 4°, fol. A₁v^o.

abstinences et fructueuses œuvres des personnes devotes et conversion des pechiez.²⁷²

Here the prognostications served not only to warn people of what will happen, but to warn them of what might happen unless they repent. The Italian astrologer Haly Nivord, for instance, declared “par les corps celestes nous avons plusiers et diverses congnoissance des choses advenir, non pas que ce soit jugement diffinitif, mais demonstratif, *quia vir iustus dominabitur astris*.”²⁷³ Jaques de Caestre likewise opens by explaining the planets as secondary causes, and that the purpose of the prognostication is to warn people to pray for God’s mercy that he might avert bad things to come, as well as to thank him for what good will come: “Pour ce donc donneray a entendre a quoy les estoilles ceste annee le plus seront incline, affin que puissions pryer Dieu qu’il luy plaise par sa misericorde de oster tous maux de nous, et le bon avec une singuliere remerciation recepvoir.”²⁷⁴

All of these readings of the aphorism counter the charge of astrological fatalism by conceding the possibility of divine intervention. Astrological prognostications, far from being fatalistic, are thus conditional: they are offered to convince people to pray to God and admonish him to take supernatural intervention into nature. Indeed, God’s absolute dominion over nature means that he can, through supernatural intervention, alter the course of events prefigured by the stars. As the last chapter demonstrated, even Conrad d’Alvaro qualified his dire 1524 flood prediction in this way, noting that he published it so that people might repent, pray for

²⁷² “So to conclude my work, in all the things said above according to natural inclinations, I do not wish to attribute anything to future necessity, but rather the senses and free will can contravene the things said above, with the help of God, who can change the bad and augment the good, by prayers, abstinence, and good works from pious people and the confession of sins,” Blouet, *Pronostication pour 1503*, fol. A₆r^o.

²⁷³ “By the heavenly bodies we have a broad understanding of things to come, though this is not a definitive judgement of what will come, but is rather demonstrative, *quia vir iustus dominabitur astris*,” Nivord, *La grant prenostication nouvelle de Rome pour 1508*, fol. A₁v^o.

²⁷⁴ “For these [reasons] then I shall give understanding of what the stars this year shall be most inclined toward: so that we can pray to God that it might please him through his mercy to remove all evils from us, and that we might receive the good with a singular thanks,” Jacques de Caestre, *Pronostication de l’an .M.CCCCC. et .XXXI. Calculee sur le meridian de la reonomie ville d’Aanvers* (Antwerp: Guillaume Vosterman, ca.1530), 4^o, fol. A₁r^o.

forgiveness, and implore God to avert the catastrophe and rain it down on “the Turk” instead.²⁷⁵

Does this mean that all prognostications are simply possible accounts of what *could* come?

Answering this question brings us toward the epistemology of prediction, and provides closure to this question. As far as supernatural events go, Johannes Stabius’s prognostication clarifies that astrologers can predict the future only when they are not involved; any time God intervenes in the normal order of nature, the astrologers will not “see it coming” in the stars.²⁷⁶ Stabius offers a few scriptural examples: “Le feu qui abisma les cinq cites de Sodome et Gomore, et la tempeste que tua le bestial au bon Job, advindrent par le voloir de Dieu supernaturellement. Et en semblable cas l’astrologue ne peult rien cognoistre.”²⁷⁷ Humans can only achieve foreknowledge of these kinds of supernatural events through divine revelation.

b. The epistemological credibility of the prognostications

Beyond providing for the possibility of divine intervention into the usual workings of the natural world, the prognosticators also acknowledged other limits to what their science could purport to know. Alphonse Laet (the fourth astrologer in the Laet line) began his 1553 prognostication by paraphrasing Hippocrates: “l’art est fort difficile et le temps de la vie est corte,” applying the dictum to astrology as well as medicine because, as many prognosticators affirm, no good physician can practice without first learning astrology.²⁷⁸ This was no mere platitude for Laet: he declared that the epistemological failings of his age in astrology were historically contingent and a result of the shrinking of human life spans since the Great Deluge:

²⁷⁵ De Fines, *Prenostication nouvelle de Louvain pour 1524*, fol. A₄^r.

²⁷⁶ A protracted debate in the 1460s and 70s at the University of Louvain on the question of “future contingents” had already come to much the same conclusion. See Vanden Broecke, *The Limits of Influence*, 46-53.

²⁷⁷ “The fire that ruined Sodom and Gomorrah, and the storm that killed the beast in the good Job, came about by the will of God supernaturally. And in these and similar cases the astrologer can know nothing,” Stabius, *La grant pronostication nouvelle pour Lan 1523*, fol. A₁^v.

²⁷⁸ “The art is very difficult and the time of life is short,” Alphonse Laet, *Prognostication de l’an de nostre Seigneur M.CCCCCL et.III. Calcule par Maistre Alfonse Laet, Medecin et amateur de l’art de Astrologie* (Antwerp: Martin Nuyts, ca.1552), 4^o, fol. A₁^r. Cf. *Hippocratic Writings*, ed. G.E.R. Lloyd, tr. John Chadwick (London and New York: Penguin, 1983), 206.

Car elle est certain encoire que les Astrologiens non sont pas tous certains, non la sachant parfaitement, comme les anciens du temps passe, lesquelz devant les temps de Noe vivoient, v. ou vi. ou sept ou viii. cens voire mil ans, aiant oportunité par ceste longue vie de considerer les cours du ciel et des estoilles et leur operation, ce que nous austre ne povons faire pour la corte vie que ne dure que cent ans pour le plus, et l'annee grande dure six cents ans.²⁷⁹

When men could conceivably live to see the beginning and end of an entire six-century *annus mundus*, astrology could be a perfected science: the art was long, but so too was human life before the biblical deluge. The comparative brevity of life in his own age did not dissuade Laet from prognosticating, however. In his prognostication for the following year he declared:

Mais avons nous de nous ayder de ce que ont escript nous antecessours, ajoutant tousjours quelque chose de nostre en tant que nous voulons faire nostre devoir, et par ainsy nous avons tenu pour bon de suyvre et perseverer nostre ancienne coustume de Prognostiquer et de monstrier les choses utiles a nous amys et le comun people.²⁸⁰

As Vanden Broecke has shown, the notion that it would take both a recourse to the writings of the ancients as well as the work of generations of collective observation to re-perfect astrology is characteristic of the Louvain school at mid century, and bears a similarity to Regiomontanus's dream of astronomical reform in the 1470s. The idea of a perfected antediluvian astrology, however, was far older, dating back at least to Albumasar in ninth century Baghdad. Echoing the Hermetic notion of a *prisca theologia*, Albumasar had declared in the preface to his astronomical tables that astrology has been divinely revealed to man in remote antiquity, but had since been forgotten. He argued that his tables, however, were based on some that had been found in

²⁷⁹ "For it is still certain that astrologers themselves are not yet completely certain, not knowing [their art] perfectly as the ancients did in ages past, who before the time of Noah lived five, six, seven or eight hundred years, even a thousand years, having the opportunity in this long life to consider the whole course of the heavens and the stars in their operations, which we cannot do because of our short lives, which last at most one hundred years, when the great year lasts six hundred," Laet, *Prognostication de 1553*, fol. A₁r^o.

²⁸⁰ "But we have the writings of our predecessors to help us, always adding something of our own so as to do our duty, and in so doing we have held fast and followed our ancient custom of prognosticating and showing useful things to our friends and to the common people," Alphonse Laet, *Prognostication de lan de nostre Seigneur Jhesu Christ M.CCCCCL.et.III. Calcule et composee par Maistre Alfonse Laet amateur de l'art d'astronomie* (Antwerp: Jan Wynryx, ca.1553), 4^o, fol. A₁r^o.

Isfahan, where they were hidden before the Flood, and that, in an exoteric spirit, he had decided to make them known again to the learned public.²⁸¹

Most astrologers appear not to have taken Albumasar's claims very seriously, however. Renaissance astrologers recognized Claudius Ptolemy, whom they often called "prince of the astrologers" (confusing him with a Hellenistic king), to be more authoritative. Ancient Egypt, associated with the *prisca theologia*, was believed to be much closer to the fount of an ancient astrological revelation than Albumasar, a Muslim who wrote in ninth-century Baghdad. My analysis of the prognostications suggests a considerable interest in recovering the pristine wisdom of the ancients, purged as much as possible from any medieval accretions. Indeed, this is well in line with what Vanden Broecke and Ornella Faracovi identify as one of the key characteristics of sixteenth-century astrology: the recovery of the supposedly more authentic Ptolemaic astrology of antiquity and the concurrent rejection of medieval Arabic astrology. Needless to say, this project is a particular manifestation of a much more general humanist effort to recover the texts of the classical antiquity.²⁸² Likewise, similar reactions against Arabic authorities were occurring in other branches of renaissance medicine.²⁸³

The availability of new Latin translations of Ptolemy's *Tetrabiblos* served as an important motive for abandoning the Arabic astrologers. The *Tetrabiblos* was first made available in a partial translation by Joachim Camerarius, published in Nuremberg in 1535, a complete version by Antonio Gogava in Louvain in 1548, and others by Camerarius and Melanchthon with further annotations. Following the standards of humanist scholarship, these translations were made exclusively from Greek originals, excluding medieval Arabic versions

²⁸¹ Kocku von Stuckrad, "Astrology III: The Middle Ages," in Wouter Hanegraaff ed., *Dictionary of Gnosis and Western Esotericism* (Leiden and Boston: Brill, 2005), 121.

²⁸² Ornella Faracovi, "Astrology IV: 15th-19th Century," in Hanegraaff ed., *Dictionary of Gnosis and Western Esotericism*, 130-35; and Vanden Broecke, *The Limits of Influence*, 2-4.

²⁸³ See Peter Pormann, "La querelle des médecins arabistes et hellénistes et l'héritage oublié," in *Lire les médecins grecs à la Renaissance: aux origines de l'édition médicale, Actes du colloque international de Paris (19-20 septembre 2003)*, ed. Véronique Boudon-Millot et Guy Cobolet (Paris: De Boccard, 2004), 113-41.

and commentaries.²⁸⁴ According to Faracovi, “the reformist current of 16th-century astrology was due to these translations, as it tried to include in the humanist *restitutio litterarum* the rediscovery of the authentic nature of Ptolemaic astrology, considered as the highest expression of the art in antiquity.”²⁸⁵ As I will demonstrate, the fruits of this project (including its impact on the epistemological authority allotted to various astrological texts) are evident in the changing citation patterns of the prognosticators.

Beyond civil and ecclesiastical authorities, the prognosticators also needed to keep a third audience in mind when they compiled their data and provided their interpretations: rival astrologers. Indeed, astrologers were typically the harshest critics of their craft and of the perceived shortcomings of their fellow practitioners. This implies much more than harmless learned squabbling, however: astrologers published their corrections and indictments, publicly discrediting their rivals, as the case of Jean Thibault and Gaspar Laet demonstrates. They could even use whatever sway they might have with their patrons or local authorities against one another, as the following chapter will show.

For rival astrologers and learned readers more generally, it is in these citations that the burden of proof rested. After all, virtually all prognostications include extensive and precise astronomical documentation for their predictions; in most prognostications, celestial events, including the phases of the moon, the sun’s entry into Aries, and the occurrence of lunar and solar eclipses, are all precisely provided to the hour and often even to the minute. The vast majority of this data would be drawn from common ephemerides such as Stöffler’s and could thus be verified by them and the tables on which they were based.²⁸⁶ These did not, however,

²⁸⁴ Faracovi, “Astrology IV: 15th-19th Century,” 130; 134.

²⁸⁵ Faracovi, “Astrology IV: 15th-19th Century,” 130.

²⁸⁶ As in the case of Laet’s criticism of Thibault, prognosticators were of course criticized from time to time for failing to correct errors in the ephemeris data (which could itself be compared to the tables). This “internal verification” might not, of course, always have stood up to the “external verification” provided by the astronomical phenomena themselves when they finally occurred: these could deviate from the predictions in the ephemerides by

constitute proofs of the effects the astrologers assigned to them: for this, the astrologer would need to stake a claim based on an interpretive authority.

*Table 3.1: Citation rates in prognostications before and after 1524.*²⁸⁷

<i>Astrological authorities</i>	Published between 1497-1524		Published between 1525-1555	
	<i>No. of prognostications which cite/total</i>	<i>Percentage of prognostications which cite</i>	<i>No. of prognostications which cite/total</i>	<i>Percentage of prognostications which cite</i>
<i>Ptolemy</i>	8/12	67%	14/23	61%
<i>Albumasar</i>	9/12	75%	6/23	26%
<i>Haly Abenragel</i>	7/12	58%	0/23	0%
<i>Aristotle</i>	2/12	16%	5/23	22%

The citation rates of the four most commonly referenced authors in thirty-five prognostications from 1497-1555 demonstrates a definite shift in the popularity of certain authorities, likely reflecting a change in how they were valued by the astrologers. While citations of Ptolemy remain relatively constant throughout both periods (67% of prognostications cite him as an authority before 1524, and 61% of those published after 1524 cite him), those of the Arabic astrologers Albumasar and Haly Abenragel experience a sharp drop in prognostications after 1524, with the former dropping from 75% to 26%, and the latter dropping to zero. The use of 1524 as the dividing line is based on Vanden Broecke's argument that the deluge prediction was one of the crucial crises of the discipline that motivated its reevaluation, especially in the university. Briefly, Vanden Broecke reads Pico della Mirandola's *Disputationes adversus astrologia divinatricem* (1496) as a response to the emerging genre of printed astrological prognostications, which typically cited Albumasar and other medieval Arabic authorities that had been translated in the twelfth century and then printed by Erhard Ratdolt and others at the end of

up to several hours and by margins of up to 5°. See Owen Gingerich, "The Accuracy of Ephemerides 1500-1800," *Vistas in Astronomy* 28 (1985): 339.

²⁸⁷ Ptolemy includes citations of the *Tetrabiblos* (sometimes called *Quadripartitum* or *Apotelesmatika*) and the pseudo-Ptolemaic *Centiloquium*; Albumasar includes *De magnis coniunctionibus* and his *Introductorium*; Haly Abenragel is always cited from his *De iudiciis astrorum*; the two works by Aristotle cited are *De generatione et corruptione* and *Meteorologica*. These citations are far from precise, and include more general invocations (i.e. the mention of a name or work in connection with a doctrine, or as part of an enumeration of authorities the prognosticator purports to have consulted), as the prognosticators rarely cite by chapter and verse.

the fifteenth. The immediate catalyst for Pico's critique was likely Johannes Lichtenberger's 1488 *Pronosticatio* and the Italian imitations of it that appeared in the 1490s. Lichtenberger's book was an analysis of a conjunction of Saturn and Jupiter in Scorpio that had occurred four years earlier in 1484 combined with prophetic elements inspired by Joachim of Fiore and his followers.²⁸⁸ According to Vanden Broecke, the problems raised by Pico had been discussed for some time, and were further exacerbated during the controversies over the 1524 deluge predictions, which similarly rested their authority on Arabic conjunctionist astrological authorities.²⁸⁹ These crises ultimately led to the emergence of a culture of humanist astrological reform, which the prognosticators themselves began to imitate.²⁹⁰ As the citation rates suggest, this imitation is characterized in part by a devaluation of previously significant Arab authors, and a growing exclusive reliance on classical sources such as Aristotle and Ptolemy.

The humanist predilection for classical authorities may not be the only factor behind this shift. Referring to the main tenets of astrological judgement, Johann Carion writes in his multi-year prognostication about how he has not followed the astrology of "Sarrazins et Arabiens," arguing:

Parquoy je suis plus certain que tous les aultres [...] et par la grace de Dieu je puis mieulx escrire que eulx. Non point mon bon seigneur que veuille seduire les fidelles en leur escripvant la science des payens et poetes, et quant mes livres alcunesfoys signifient les choses advenir veritablement, on les peult croire qui veult.²⁹¹

Carion argues against Arab authors on the basis that they are not Christian, but he discards Ptolemy as well, suggesting instead that it is the grace of God guides his prognostication. This experiment was short lived, however: in his prognostications for 1534 and 1536, he cites Ptolemy quite amply.

²⁸⁸ Vanden Broecke, *The Limits of Influence*, 60-3.

²⁸⁹ *Ibid.*, 81-111.

²⁹⁰ *Ibid.*, 137-46.

²⁹¹ "Which is why I am more certain than all the others, [...] and by the grace of God I can write better than them. My lord, I do not at all want to seduce the faithful by writing to them the wisdom of pagans and poets, and when my books give true tidings of things to come many times, any who wishes to may believe in them," Carionis, *Pronostication sus .xii. annees* [1529-1540], fol. A₁v^o.

Beyond jettisoning astrological authorities altogether (as Carion and later Nostradamus do), some prognosticators openly discussed the epistemological limitations of their craft. The Louvain astrologer George Trannstetter, for instance, declared his hope that there are no errors in his prognostication, apologized in advance if any were found, and also noted that he would be happy to respond to any criticisms of his judgement publicly before the masters and faculty of Louvain.²⁹² What then do astrologers purport is knowable to their science, and by what means? After underlining the possibility of supernatural events, Stabius argues that anything properly natural is within the purview of the prognosticator:

Mais en toutes aultres choses comme pluye, geles, tempeste, guerre, famine, peste, malheur ou bonheur qui adviengnent par le court de nature sellon l'influence des corps celestes par lesquelz sont gouvernees toutes choses inferieures, l'astrologue par sa science facilement peult faire judice veritable. Or ne fault pas entendre que ce que l'astrologue hora dict estre advenir sur ung lieu, tel jour, en telle sorte, qu'il adviegne ainsy partout, car [...] les influences celestes ont puissance sur les choses inferieurs plus ou moins sellon quelles accordent ou resistant aux dit corps celestes. Quant je diray en ma pronostication ung tel jour nous haurons une appertion de Saturne en signe aquatique que nou donerra grosses pluies et durables, il ne sentent pas que par tout en ung mesmes temps et autant en ung lieux que aultre doibie [*sic*, doit] pleuvir, mais sentent que icelle appertion sera son court partout non pas egalement car les contrees ne sont pas egales, la ou l'air et la terre se trouveront donnees a humidite sera grosses pluies, la ou ilz seront disposes a froit il sera neige, et la out seront disposes a chaud et sec ne pleuvra guaire ou rien.²⁹³

He does, however, allow for the variability of place and time in general astrological predictions.

Carion makes a similar argument for the horoscopes of cities:

Aussi n'est point possible en la science de Astronomie de pouvoir avoir discerner les villes et villages, ou de pouvoir scavoir soubz quell signe qui sont, comme on fait de

²⁹² George Trannstetter, *La grande prenostication de Louvain pour Lan mill cinq cens et treze* (s.n.l., [ca. 1512]), 4^o, fol. A₁r^o.

²⁹³ "But in all other things, such as rain, frost, storms, war, famine, plague, good and bad fortune that comes by the course of nature according to the influence of the heavenly bodies by which inferior things are goverened, the astrologer can, through his science, make true judgements. This should not be understood, however, to mean that the astrologer will have declared [something] ∞ occur in a such a place, at such a time, in such a way, or that it will occur thusly everywhere, for [...] celestial influences have power over inferior things more or less according to their agreement or resistance to the said celestial bodies. When I declare in my prognostication that on a given day we will have an entry of Saturn into an aqueous sign that will give us heavy and longlasting rains, they will not be felt by everyone all at once, as much in one place as another, but the entry will not be felt equally because not all countries are the same: where the air and earth is prone to humidity there will be heavy rains, where it is disposed to coldness there will be snow, where it is disposed to heat and dryness it will scarcely rain, if at all," Stabius, *La grant pronostication nouvelle Avec les appertions pour l'an 1523*, fol. A₁v^o.

la Nativite de la personne quant on scet le temps, l'heure et mynute qu'il est ne, comme moymesmes j'ay experimente plusieurs foys.²⁹⁴

All of this demonstrates that the prognosticators openly admitted the epistemological limitations of their craft.

c. Privilege, patronage, and the political consequences of prognostication.

Astrologers could and often did face threats and litigation for their activities at the hands of both secular and religious authorities. As early as 1474 in Italy, astrologers such as the Bologna professor Girolamo Manfredi were being threatened with violence by civil authorities and local rulers if their predictions upset the established order: the Duke of Milan, Gian Galeazzo Sforza, sent Manfredi a letter threatening to send men to cut him into pieces unless he began making prognostications that were more favourable to the duke.²⁹⁵

The case of Simon de Phares, a successful astrologer living in Lyon at the end of the fifteenth century, likewise illustrates the risks of practicing astrology vis-à-vis church authorities. After organizing an astrologically-themed procession for French King Charles VIII's entrance into Lyon on All Saints Day in 1490, Simon went on to provide the king with private astrological consultations. In spite of (or perhaps because of) the favour of Charles VIII, Simon was censured by the local archbishop and forbidden to practice astrology. Simon appealed to the Parlement de Paris in 1491, which led to the confiscation and examination of two hundred volumes from his personal library by the Paris Faculty of Theology. In spite of a letter of support from the King, he was nonetheless condemned on the recommendation of the faculty and eleven books from his collection were censored, as were the printers of judicial-astrological texts.²⁹⁶

²⁹⁴ "It is also not at all possible in the science of astronomy to be able to discern [the fate of] towns and cities, or to be able to know what sign they are under, as we can when we cast a nativity for a person when we know the time that he was born by hour and minute, as I myself have done several times," Carionis, *Pronostication sus .xii. annees* [1529-1540], fol. B₄v^o.

²⁹⁵ H. Darrel Rutkin, "Astrology," in *The Cambridge History of Science*, vol. 3 "Early Modern Science" (Cambridge: Cambridge University Press, 2003), 541-61: 542.

²⁹⁶ Jean Patrice Boudet, *Le Recueil des plus célèbres astrologues de Simon de Phares, édition critique et commentaire*, 2 vols. (Paris: Honoré Champion, 1997-1999), 2:9-10. These events prompted Simon de Phares to produce a three-part apologetic treatise for the king justifying his art and distinguishing it from the superstitious arts

Simon de Phares's case was far from isolated, and seems to have helped set the tone in Paris against astrology for both astrologers and their printers. Beyond the cases of Thibault and later Michael Servetus, which will be discussed in the next chapter, the astronomer and mathematician Oronce Finé was imprisoned for an imprudent prediction, although he was later released and was appointed chair of mathematics at the Collège de Navarre.²⁹⁷ As these examples demonstrate, Nostradamus was well-justified in his fear that he might be beheaded for his imprudence upon being called to court by Henri II and Catherine de' Medici after ambiguously suggesting in a published prognostication that the king might be the subject of some kind of plot.²⁹⁸ Political and religious authorities were probably the most dangerous audience that prognosticators needed to keep in mind. Such risks might pay off, however: as Nostradamus's example clearly demonstrates, an imprudent prediction might also gain an astrologer the attention he needed to secure court patronage. Likewise, princes and their courts could also gain a measure of control over the message of the prognosticators by bringing them into their inner circle. In spite of the increasing regulation of the book trade in France after the 1551 Edict of Châteaubriant, Nostradamus's prognostications after 1555 bore the marks of official endorsement, crucial to both patron and client: printing privileges and dedicatory letters to members of the royal family. By and large, however, most prognosticators were not so daring: they carefully avoided any unwanted attention by publishing only positive predictions, restricting themselves to good-natured remarks about the ruler's health, counselors, and the general prosperity of the kingdom.

of magic and divination, called the *Elucidaire*. The first part was completed before Simon's death in 1494, and it is today known as the *Receuil des plus célèbres astrologues*.

²⁹⁷ Lynn Thorndike, *A History of Magic and Experimental Science* (New York: Columbia University Press, 1923-1958), 5:285. Thorndike includes ample evidence of conflicts surrounding astrologers at Paris in this period, which will be discussed in the following chapter.

²⁹⁸ Pierre Brind'Amour, *Nostradamus astrophile: Les astres et l'astrologie dans la vie et l'œuvre de Nostradamus* (Ottawa: Les Presses de l'Université d'Ottawa, 1993), 63.

6. *Two standard structures: the Louvain and German models.*

But with these prefatory apologies for astrological prediction made, typically in their prologues, what did they then go on to prognosticate? The exasperated comments of Robin Bruce Barnes, who has examined hundreds of German almanacs and prognostications from between 1480 and 1630, provides a useful point from which to begin:

They contained only those forecasts that their astrologer-authors felt fairly safe in making for the coming year. Not surprisingly, they were filled with near-platitudes, equivocation, and the artful hedging of bets. Moreover, large portions of these works consist of incredibly tedious astrological and meteorological detail, as well as mind numbing repetitions of stock formulae.²⁹⁹

According to Barnes, these features make it easy to identify deviations in those produced by specific authors or across time as we shall see in the following section with Nostradamus.

However, to focus exclusively on political eschatological prophecy in the prognostications is to miss the most fundamental attributes of the genre, notably in the more mundane, everyday functions it fulfilled for its readers. Indeed, the relative stability of most of their contents over time testifies, albeit indirectly, to a stable pattern of concerns from their audience, or at least from the perceived audience that printers and prognosticators were addressing. These concerns, evidenced by the key subdivisions of most prognostications, include astronomical and ecclesiastical timekeeping and weather forecasts, both crucial to virtually all forms of human occupation and work. It bears mention that even Nostradamus, for all his prophetic furor, also provides this essential data in his almanacs. Likewise, the three more specialized sections, which included regional predictions for health, harvest, and warfare, reflect the most persistent anxieties of the age. Only once these common utilitarian grounds are covered should an analysis of the almanac-prognostications begin to explore the more flamboyant ways that their authors sought to attract readers.

²⁹⁹ Barnes, "Hope and Despair," 442.

a. *The almanac proper: Calendric, astronomical, and medical data.*

The foundation of these uses was in the almanac itself. These always include a basic section on mobile feast days, typically on their title page (for the German translations coming through Geneva) or on the last page (with those coming from the Louvain tradition). These include the Golden Number (1-19) and the Dominical Letter (a-g), the two reference points needed for computing when mobile feast days will fall. These are followed by the specific dates for the feasts in a given year, typically including Septuagesima Sunday, the beginning of Lent (Ash Wednesday), Easter, Major Rogation, the Feast of the Ascension, Pentecost, Trinity Sunday, and Advent. These are followed by the year's major astronomical events: solar and lunar eclipses and great conjunctions of the superior planets, Mars, Jupiter, and Saturn, which are indicated in times precise to the minute. The eclipses are often illustrated with woodcuts. Though this largely calendric data appears to have been the bare minimum for almanac tables, many offered a great deal more. Almost all of those printed in Antwerp, compiled by Louvain-educated physicians and bearing the "prognostication de Louvain" trademark, also include medical elections for the administration of purgatives and for bloodletting. These sections testify to the medical-academic origins of the Louvain almanacs, discussed above.

b. *Prognosticating the weather.*

Turning to the "prognostications" themselves (that is, the four-to-five page prose predictions that precede or follow the almanac table), two general formats appear, which I have labeled the "Louvain model," by far the most common of the two, and the "Genevan Model," made up of translated German *practicæ*. The following table provides a useful structural breakdown of their major differences:

Table 3.2: Two common structures for almanac-prognostications, 1496-1555.³⁰⁰

<i>Louvain model</i>	<i>Genevan (German) model</i>
1. Dedication and prologue	1. Cover illustration, almanac data (non-medical)
2. Eclipses and the Lord of the Year	2. Prologue and dedication
3. Weather forecasts:	3. Eclipses and Lord of the Year
a. Seasonal	4. Sickness and health**
b. Monthly (lunary)	5. Mars and warfare**
4. Harvest and commodities futures**	6. Harvest and commodities futures**
5. Sickness and health**	7. Social orders and occupations
6. Mars and warfare**	8. Regional predictions
7. Localized predictions**	9. Seasonal weather forecasts
a. Countries	10. Monthly weather forecasts (lunary)
b. Rulers*	
c. Cities*	
8. Social orders and occupations**	
9. Almanac table (incl. medical elections) and calendar data on final sheet	

* Section sometimes omitted, especially toward the end of the period.

** Order sometimes varies.

Beyond the structural differences, the Genevan almanac-prognostications also have another peculiar feature: in addition to putting the basic almanac data on the first page, they all include vivid woodcuts illustrating the year's planetary ruler (or rulers), the planets that will have the greatest influence on the year based on the Aries ingress horoscope. Cover illustrations are rare among the far more sober Louvain almanac-prognostications, which usually include a moderately large eye-catching type for the title but then break down into tight small-case prose quite quickly, with pillcrows and indentations delineating the various sections. The four prognostications following the German almanacs have comparably larger type and far more blank space on each page than their Louvain counterparts. One interesting exception to this is Jean Laet's 1497 prognostication, which includes an image of the horoscope for the year's Aries ingress as its cover illustration.³⁰¹

³⁰⁰ These structures are applicable, with few variations, to the following almanac-prognostications from the corpus: *Louvain model*: Gaspar Laet, 1497 and 1502; Blouet 1503; Amours 1509a; Metz 1511; Translecter 1513; Amours 1517; Fines 1518, 1524 and 1533b; Caestre 1531a; Thibault 1531b and 1542a; Jean Laet 1533c and 1537; Villiers 1542c; Sauvage 1547b, 1551, and 1552b; Alphonse Laet 1553 and 1554b. *Geneva model*: Stabius 1523; Brelochs 1533a; Carion 1534 and 1536.

³⁰¹ Laet, *Prenostication pour l'an 1497*, A, r^o.

Because the prologues, usually a page and a half long, were discussed in considerable detail in the last section, I will move straight from the cover to the sections concerning weather. The more general seasonal weather predictions are often based on a horoscope case for the Sun's entry into one of the mobile signs of the zodiac, so called because they mark the beginning of a seasonal change of temperature when the Sun passes into it annually (see Chapter One). The Aries ingress horoscope is an exception, since it is assumed to affect the disposition of the entire year and is frequently used as a reference point for the predictions on more specific questions addressed later in the prognostication. The others usually predict little more than whether the season will be unusually hot or cold, wet or dry. The monthly weather forecast, which follows from these (proceeding from the general to the particular), details the lunar phases alongside the "mutation des temps," either expressed ambiguously as moments the weather is likely to change, or describing more specifically what it will change to.

c. *Predictions of general affairs: Dearth and plenty, health and disease, war and peace.*

It seems prudent, beyond discussing these structural features in the abstract, to also provide a more specific look at how such sections might play out in an individual prognostication. I will take the predictions concerning (i) crops, (ii) diseases, and (iii) warfare from the 1497 *Prenostication* of Jean (Joannes) Laet as an example. As I have already mentioned, it is the earliest example of the genre in French I have been able to find, and closely follows the prevalent Louvain model described above. Throughout I will explain some of the ways that these predictions responded to the material realities of life in early modern Europe, derived from Andrew Cunningham and Ole Peter Grell's *The Four Horsemen of the Apocalypse: Religion, War, Famine and Death in Reformation Europe* (2001). Though Cunningham and Grell make larger points about population pressure and the role of eschatological expectations in the reformation context, I will mainly be drawing on what they have to say about these everyday material conditions. After briefly summarizing Laet's predictions, in each of the three areas I will

sketch the general conditions at the beginning of the early modern period in order to show what kinds of concerns they may have been responding to.³⁰²

i. Agriculture and commodities futures.

Following his initial seasonal and monthly weather predictions, Laet moves into his sections on agricultural fertility, diseases and war, followed by his localized predictions for specific rulers, kingdoms, and cities. He begins his section on commodity prices and agricultural fertility, “Maintenant je vueil parler des choses donc la vie humaine est nourite sur terre celle serons cheres ou non,” with bad news. Though the beginning of the year will be fertile, Laet notes that a lunar eclipse in Leo (a fiery sign) on January 18 foretells dryness by mid-year, according to Messahalla, and will cause little fruit to grow in trees, according to Albumasar. From Ptolemy’s *Tetrabiblos*, Laet predicts that the conjunction of Jupiter and Mars in a fiery sign on February 4th will cause rainclouds and corruptions of the air. Haly Abenragel is then cited to show that the death of vegetation which occurs in any new moon following a period of dryness will be augmented by the fact that Saturn and Jupiter will also be in fiery signs.³⁰³

Overall, following conventional rules of correspondence between celestial and sublunary realms, Laet proposes that a series of eclipses and planetary conjunctions occurring in the fiery signs of the zodiac (Aries, Leo, and Sagittarius) suggests dryness on the earth. The drought will cause a rise in the price of wheat, he notes, but not everywhere: Rome, Italy, Hungary, Spain, and Germany, for instance, will see a fertile year. Laet goes on to predict that in other areas there will be some destruction of wheat crops, and some beasts and fruit will also be destroyed by the summer heat. Though wheat, rye, hay, and barley would begin the year reasonably well, much of the crop would fail in the midyear drought and gleanings would be slim. Similarly, though

³⁰² Andrew Cunningham and Ole Peter Grell, *The Four Horsemen of the Apocalypse: Religion, War, Famine and Death in Reformation Europe*, (Cambridge: Cambridge University Press, 2001).

³⁰³ “Now I wish to speak of the things by which human life is nourished on earth and whether they shall be expensive or not,” Laet, *Prenostication pour l’an 1497*, A4r^o.

apples, legumes, and cherries would grow reasonably well at the beginning of the year, Laet notes that many would die before ripening. Larger livestock, such as cattle, will not do very well, and wild animals will also suffer. Oils and honey will remain the same price as the year before, all light spices will be available from good merchants, though heavy spices will be expensive. Again following the rules of association, Laet concludes the section by noting that wood, charcoal, iron, armour, and all other things associated with swords and fire will be expensive as a consequence of the eclipses and conjunctions in fiery signs.³⁰⁴

The attention to crops by Laet and other prognosticators raises interesting questions about the fragility of agricultural production and the availability of food as important concerns for their readers. The vulnerable system of cultivation and the threat of bad weather, such as the drought Laet predicts will occur in the summer of 1497, were such that a general crisis of agrarian production was always an imminent risk to the people of early modern Europe. Although dire, such predictions were not unusual: Cunningham and Grell note that a bad harvest was likely to occur in one out of every four years throughout Western Europe between 1490 and 1648. Dearth, defined as times when food was in short supply and became extremely expensive, was thus a common occurrence. Outright famine, being defined as a time when food could not be bought at all, was less common; in spite of this, however, acute famine would have been something experienced in the lives of most people living in fifteenth and sixteenth century Europe, and was thus a persistent fear for most people.³⁰⁵

The last segments of Laet's prediction, on spices, draw attention to some of the class dynamics involved in the access to food in early modern Europe. Though Laet predicts a time of general dearth, provoked by the drought, he mentions that spices would remain accessible

³⁰⁴ Laet, *Prenostication pour l'an 1497*, A₄r^o-v^o.

³⁰⁵ Cunningham and Grell, *The Four Horsemen*, 200-201.

(although expensive), implicitly suggesting that the suffering of the majority of the population would be unfelt by elites.

ii. Disease and public health.

The year begins without any great diseases, as demonstrated by the position of Jupiter in the horoscope figure on the front page, which Laet interprets based on part eight of Haly Abenragel and the seventh tract of Albumasar. Because Mars faces the sun and moon, he notes that certain hot fevers, tumours, headaches, and other heat-related diseases are likely, and that occurrences of stomach flu are also to be feared and some people will experience eye problems. Mercury's lordship over the seventh house will also provoke certain diseases of the head and stomach, paranoia, melancholy, and strange visions; all of this can be accounted for by the moon's correspondence with the head (see, for example, the term "lunacy," intermittent insanity associated with the phases of the moon). He also notes that these would be accompanied by tumorous glands and pustules coming from hard humours, all of which would be supported by the position of Jupiter in Sagittarius and the lunar eclipse in Leo. The position of the sun in the seventh house suggests that many will die of these illnesses, though there is some possibility that Jupiter will cancel out the effects of the lunar eclipse.³⁰⁶

As Cunningham and Grell note, the average life expectancy in the first half of the early modern period was about 35 years, and disease was a constant threat. In spite of the gradual expansion of medical provision in the fifteenth and sixteenth century (hospitals, town health regulations, etc.), access to the care of university-trained physicians was an exclusive privilege of elites.³⁰⁷ Though many prognosticators published on the effects of eclipses, which were often correlated with outbreaks of plague, it should be noted that Laet's predictions here pertain to the likelihood that specific diseases would be prevalent among individuals. They do not constitute

³⁰⁶ Laet, *Prenostication pour l'an 1497*, fols. A₄v^o-A₅r^o.

³⁰⁷ Cunningham and Grell, *The Four Horsemen*, 16.

predictions of an impending epidemic: had he meant to address this kind of a contagion, he would have referred to a “peste” or “pestilence.”³⁰⁸

Laet’s predictions on the likelihood of given diseases would have been of interest to his individual readers because they would warn them of any upcoming agitations that would be particularly drawn to their specific humoral disposition (or that of a family member). They could then work to stave off such ailments by more carefully governing their six “non-naturals” (air quality, their food and drink, the specific mixture of their humours, sleep and wakefulness, motion and rest, and accidents of the mind).

iii. *Peace and warfare.*

Sections on warfare in the prognostications emphasize the aspects of Mars in the Aries spring equinox horoscope, as well as its more general transit throughout the rest of the coming year. Laet begins his section on war and peace with the sombre confession that were he to say that the coming year would be universally without wars, he would be contradicting the sentences of the astrologers. Indeed, he declares that the general disposition of Mars signifies war and tumult between princes, lords, and countries. The eclipse in Leo will give courage to those lords who seek war, but rumour, fear, and general commotion will also be aroused, and some people will be provoked to rise up against their lords, though this would not occur in any of the places mentioned later in the regional and city-specific sections of his prognostication, he notes. He never indicates where these conflicts will occur, but concludes by affirming that though the year would not pass without both wars and rumour of war, there would be no universal war, and the destruction caused would be localized in particular places on land and sea.³⁰⁹

As Cunningham and Grell note, the typical cause of war in the sixteenth-century was a collapse of traditional feudal structures and concomitant attempts to establish centralized

³⁰⁸ Ibid., 296-7.

³⁰⁹ Laet, *Prenostication pour l'an 1497*, fol. A₅r^o.

dynastic states. A general increase in warfare of this kind provoked the growth of armies and the improvement of military hardware (notably guns and canons) and tactics (the move toward trained, standing armies). This in turn made war increasingly devastating to local populations: in particular, the supply demands made by increasingly large armies put greater economic demands on societies and often devastated the countryside and cities they marched through, bringing famine and disease to civilian populations in their wake. Cunningham and Grell observe that as military machines grew, so too did the spoliation necessary to maintain them; for this reason, the populations caught in their path would have been very interested in knowing when war could be expected to occur.³¹⁰

iv. Ambiguity in prognostic discourse.

With perhaps three major exceptions—d'Alvaro's deluge prediction appended to Fine's 1524 prognostication, Carion's 1529 prediction of the Turkish conquest of Europe, and Nostradamus prognostication for 1555—the prognostications in the corpus are comparable to Laet's in their general tone, and many are in fact considerably more positive in the outlook they provide concerning the coming year. Even when they are not, I have found none that directly correlate predictions of drought, disease, or warfare with the imminence of the End Times, as Crouzet implies they do.³¹¹ Like Laet, most prognosticators replicate the technical language of their astrological sources, not the language of inspired prophecy.

Indeed, the greater accusation to which the prognosticators stand open is one of ambiguity: their prognostications are "artfully hedged," to borrow Barnes's term. They carefully avoided specifics and frequently used vague adjectives as qualifiers to their predictions. I will draw a few examples from Laet's prognostication. Most interesting among these is the abundant usage of *aucun*, in the sense of a pronoun, *quelqu'un*, or an adjective, in the sense of *quelque*,

³¹⁰ Cunningham and Grell, *The Four Horsemen*, 14.

³¹¹ Crouzet, *Guerriers de Dieu*, 1:106.

certain, and *n'importe quelle*, rendered in English as “any,” or “anyone,” “some” or “someone,” and “certain” (e.g., “certain people” or “certain princes”). For example, “Et en oultre Jupiter en Sagitario demonstre que aulcunes bestes mourront et que aulcuns fruitz seront destruitz par grant chaleur en leste.”³¹² *Aulcun* is used no less than twenty times to qualify the subjects of predictions in the three sections analysed above. Similarly, *nonobstant*, meaning *malgré* or *cependant*, (“notwithstanding” or “in spite of”) is also frequently used to denote possible exceptions to predictions. The qualifying adverb *raysonablement* and its variants (e.g. *assez raysonable*) is also used frequently, appearing five times in the sections I have analyzed, most prominently in the sections on the three estates of society. For example, “l'estat du commun peuple sera en liver assez raysonable,” and “Le tresnoble roy Maximilian sera ceste annee raysonablement en bon point.”³¹³ The adverb *assez* is also employed in other contexts, notably in conjunction with *bon*: for instance, while discussing professions governed by Mercury, Laet notes “l'iver leur sera assez bon, le printemps leurs est suspect.”³¹⁴ Another formulation often used is the verb *doubter*, meaning *craindre*, as in “to be feared”: for example, “il est a doubter que aucuns recteurs ou nobles pourront avoir a souffrir.”³¹⁵ This formulation appears four times in the sections here analyzed. Finally, in his discussions of fertility and warfare, for instance, Laet also makes use of the more complex qualifier “mais pas universellement” a number of times, meaning, “but not universally” or “but not in every case.”

Contrary to the opinions of some scholars, I believe these are evidence more of epistemic prudence than of deliberate ambiguity aimed at half-deceiving the reader into a confirmation bias. The interpretive rules astrologers employed were not somehow expressly designed to

³¹² “And furthermore, Jupiter in Sagitarius demonstrates that some beasts will die and that some crops will be destroyed by the great summer heat,” Laet, *Prenostication pour l'an 1497*, fol. A₄r^o.

³¹³ “The state of the common people will be reasonable enough in the winter,” and “the most noble king Maximilian will be in a reasonably good state this year,” Laet, *Prenostication pour l'an 1497*, fol. A₆r^o.

³¹⁴ “Winter will be good enough to them, but spring is suspicious,” Laet, *Prenostication pour l'an 1497*, A₆r^o.

³¹⁵ “It is doubtful that any rectorors or nobles might suffer,” Laet, *Prenostication pour l'an 1497*, A₇r^o.

ensure enough “wobble room” to guarantee that most predictions could turn out accurate, or to prevent them from being “scientifically” verifiable claims.³¹⁶ As the previous section demonstrates, while the prognosticators acknowledged the general validity of their art, they and the authorities on which they rested their judgements were careful to spell out its limitations. Astrology is accurate when treated as a science of general influences, but it cannot support specific claims with absolute certainty. The best way to communicate this to readers was, for better or worse, the use of qualifiers such as those we have just encountered.

v. *Material formats, affordability, and utility.*

Printers complemented the useful information of the almanac with a similarly utilitarian material format. Almanac-prognostications were almost always issued in quarto pamphlets, a format they shared with other cheap popular genres common to the sixteenth century, notably canards, a genre of sensationalist early printed news reports.³¹⁷

Although the quarto pamphlet was the format par-excellence of the almanac-prognostication, simple almanacs were sometimes issued without a prose prognostication in other utilitarian formats, notably the in-plano sheet almanacs likely used in businesses and civil offices; see, for instance, the one posted in the background of Pieter Brueghel the Younger’s 1615 painting of the peasant lawyer. Only two of these are included in my bibliography; most seem not to have survived intact. They correspond to another format used for early mass-circulation, the placard.³¹⁸ An even more exotic format is the oblong-octavo medical almanac, bound along the short-edge and possibly a successor of the medieval folded almanac designed to hang off of the belt of physicians, sometimes called a *vade mecum* (literally, “come-with-me”),

³¹⁶ Anthony Grafton, *Cardano’s Cosmos: World and Works of a Renaissance Astrologer* (Cambridge: Harvard University Press, 1999), 63-4.

³¹⁷ Roger Chartier, “Stratégies éditoriales et lectures populaires, 1530-1660,” in *Histoire de l’édition française*, vol. 1, *Le livre conquérant*, ed. Roger Chartier and Henri-Jean Martin (Paris: Fayard, 1989), 711-12.

³¹⁸ *Ibid.*, 707-10.

girdle- or belt-almanac.³¹⁹ Fragments of what appears to be a printed version of one of these have survived at the Bibliothèque nationale.³²⁰

7. *Formula and innovation: Nostradamus and his publisher.*

Both the material and structural conventions of the genre were surprisingly stable over the fifty-year span discussed in this chapter. With few exceptions, almanac-prognostications of the 1490s looked much like those of the 1550s: the Louvain prognostications were still being published in the same quarto format, set in the familiar *gothique bâtarde* type, and included virtually the same sub-headings from 1497 onward.

Two letters sent to Nostradamus by his Lyon publisher, Jean Brotot, have survived in the Latin translation made by his son César after his death. It is the only surviving correspondence between a prognosticator and his publisher that I have been able to discover and it reveals a great deal about how printers understood the prognostications. By chance, the first of the two documents a crucial change to the formula of annual prognostications, which, I argue, closes the “premier XVI^e siècle” of the genre.

Brotot wrote the letter to Nostradamus, who was then residing at Salon-de-Provence, on the 20th of September 1554. He begins by affirming that he has received the packet that Nostradamus sent to him, containing two predictions, each dedicated to a different local official (one the governor of Provence, the other the provost of Cavaillon). To print two predictions from the same source seemed absurd to Brotot, who was sure the average reader would find this suspect: “Sed quaeso, dispice,” he exclaimed, “an aequa fronte candidi lectores accepturi sint

³¹⁹ See two recent articles by Hillary Carrey, “What is the Folded Almanac? The Form and Function of a Key Manuscript Source for Astro-medical Practice in Later Medieval England,” *Social History of Medicine* 16, no. 3 (2003): 481-509; and “Astrological Medicine and the Medieval English Folde.ʒ Almanac,” *Social History of Medicine* 17, no. 3 (2004): 345-63. See also Margit Smith and Jim Bloxam, “The Medieval Girdle Book Project,” *International Journal of the Book* 3 (2005): 15-24.

³²⁰ Erhard, *Almanach* (Nuremberg, s.n., s.d), 8^o, RES P-V-291, Bibliothèque nationale de France, site François-Mitterrand.

duas praedictiones, ab eodem praesertim manantes fonte?”³²¹ While he would print one of the predictions, leaving it up to Nostradamus to choose which, Brotot declared that he would print the other only if the first one sold well.

Of even greater concern to Brotot was Nostradamus’s verbosity, probably on account of the length it brought to his prognostications. Brevity, he argued, was the spirit of the age:

Harum ut prolixam demiratus sum farraginem, perculsa mens est mea non parum,
quodque mirum tuo candor videri non debet, remorata est animum meum offensura
etiam multos (ut conjicio) nimia ista prolixitas. Gaudent adprime, mi doctiss.
Michael, huiusce tempestatis ingenia Laconismo: in ore enim est omnium, frustra id
pluribus fieri, quod paucioribus potest, modo aequè bene. Sed quid sus Minervam?³²²

Brotot even attached another prognostication, probably for the previous year, printed in Lyon by Lyserot (the nickname of Antoine du Rosne).³²³ He probably did this for two related reasons. The first was to show Nostradamus what kind of competition he would be up against in Lyon’s print world. Further, given his objections to Nostradamus’s style, Brotot may also have hoped that the Lyserot prognostication would serve as a model to Nostradamus and rein his writing back into the established conventions of the genre.

In sum, Brotot’s remarks show that he had noticed Nostradamus’s prognostication deviated significantly from several of the established conventions of the genre, and suggest that he found this to be a market risk. Sixteenth-century printers had reasons to be wary of such attempts at innovation: in a relatively new craft, it was wise to cater to established audiences and stick to set forms and styles. Experimenting, as Nostradamus did, with an established bread-and-

³²¹ “But I beg you, look around! Can it be that level-headed readers will accept there being two predictions having flowed from the same source?” Jean Dupèbe, ed. *Nostradamus: lettres inédites* (Geneva: Droz, 1983): Lettre II [2r°], 31. For a French translation of the letter, see Patrice Guinard, “La lettre de Jean Brotot à Nostradamus (septembre 1554),” *Corpus Nostradamus* 13, *Centre universitaire pour la recherche en astrologie*, <http://cura.free.fr/dico3/604A-L2.html> (accessed April 28 2010).

³²² “As I was amazed by the verbose hotchpotch of these [prognostications], my mind was more than a little vexed; whatever radiance there is in your writing should not to astonish, [and] it stayed my mind; furthermore, that excessive verbosity of yours is about to offend many [readers], as I infer. The wits of this age, my learned Michel, delight in brevity above all. They all say, ‘how pointless to use many words when a few would suffice just as well.’ But what [can] a pig [teach] Minerva?” Dupèbe, ed. *Lettres inédites*, Lettre II [2r°], 31.

³²³ Guinard, “La lettre de Jean Brotot à Nostradamus.”

butter type of publication was an investment liability to its printer. Brotot begs Nostradamus not to be insulted, but still firmly declares that his suggestions are no mere afterthought and implores Nostradamus to accept them.³²⁴ Either way, when he wrote this letter to Nostradamus at the end of September 1554, Brotot seems not to have fathomed that Nostradamus's deviations from the set norms of the genre would in fact give him an edge in Lyon's prognostic ecology and revolutionize the genre, leading to dozens of imitators in the following half-century and setting the new standard form and style for French prognostications throughout the religious wars.

This corpus of pre-Nostradamus French prognostications permits an identification of where he follows the established formula and where he deviates from it (or innovates on it, as the case may be). Most prognostications before Nostradamus follow a set of conventions articulated by Roger Chartier in his work on popular printing.³²⁵ Chartier outlines an editorial strategy that was applied to the texts by publishers in order to make them accessible to so-called "popular" audiences, most famously with the *Bibliothèque bleue* of seventeenth-century Troyes but also with the *pliegos sueltos* of Spain and English chapbooks. Needless to say, these strategies were primarily based on the estimation held by the publisher of his audience's interest and reading abilities. Further, the text could, of course, be purchased and read (silently or aloud, privately or publicly) by anyone from a semi-literate tenant farmer up to the most erudite humanist, but would typically be fixed to a lowest common denominator, as perceived by the printer.

The most common editorial strategies Chartier describes are subdivision, abridgement, simplification, and censorship. To begin, texts intended for popular reading are heavily subdivided: the typographic layout of the text was modeled to give sparse, easily readable pages. This involved the increase of paragraph breaks, chapters, and descriptive subtitles. This prepared

³²⁴ "Hoc itaque meum consilium tam hilari fronte accipies, quanti te a me fieri, existimes volo, quantaque curae mihi tua esse tibi persuadeas te vehementer etiam atque etiam rogo," Dupèbe, ed. *Lettres inédites*, Lettre II [2v^o], 31.

³²⁵ Roger Chartier, "Livres bleus et lectures populaires," in *Histoire de l'édition française*, vol. 2 (Paris: Promodis, 1982), 498-511.

the text for the kind of reading its publishers expected it would receive: a sporadic reading in short segments that needed to be easily decipherable.³²⁶ Though not all prognostications followed these rules, most include one or more divisions per page, clearly demarcating sections with incipits and indenting paragraphs along the standard formula outlined above.

There is little trace of such conventions in Nostradamus's prognostications. Rather than offer clearly distinguished sections for crops and goods, health and disease, war and peace, and weather predictions, as earlier prognosticators did, he merges all of these into his seasonal and regional predictions. Thus, comments on health or crops are intermingled with predictions of warfare, rulers, and changes in the weather. Indeed, the only organizing headings in his prognostication are those of time (the four seasons and the twelve months) and geography (France, Germany, Italy, and Spain). In spite of Nostradamus's own assertion that he made his predictions "non par bacchante fureur, ne par lymphatique mouvement, mais par astronomiques assertions," the juxtaposition of these different species of predictions does not mirror the divisions found in astrological texts and manuals, and instead evokes an amorphous style reminiscent of inspired prophecy.³²⁷

Perhaps the most interesting deviation Nostradamus makes from the established formula, and certainly the one that most concerned Brotot, is in the length of his prognostication. For the preceding half-century, the typical format for prognostications, in Louvain and elsewhere, had been the quarto. As mentioned earlier, prognostications rarely extend any further than a single four-leaf gathering, with between thirty and forty lines of type per page. Nostradamus's 1555 prognostication was over three times this length: it was sixteen leaves long, with thirty-one lines per page. Brotot minimized his investment in paper by printing it in smaller type and in the

³²⁶ Chartier, "Livres bleus," 505.

³²⁷ "Not by bacchic fury, nor by a lymphatic movement, but by astronomical assertions," Nostradamus, *Les Premières Centuries ou Prophéties: édition Macé Bonhomme de 1555*, ed. Pierre Brind'Amour and Pierre Kunstmann, Textes Littéraires Français (Genève: Droz, 1996): 4. The remark is from the *Épître à César* that prefaces the first edition of his *Propheties*.

increasingly popular octavo format, which folded a standard sheet of paper into eight leaves rather than the four of the quarto, but at sixteen leaves, it still represented twice as much paper per copy than most contemporary prognostications being printed in Antwerp. Of the 37 prognostications assembled in this corpus, Nostradamus's is thus the longest by far.

The incredible popularity of Nostradamus's prognostications demonstrates that many of the assumptions held by printers about the abilities and interests of the readership (as inferred by Chartier) do not bear out. As I suggested earlier, the fundamental motives for purchasing, reading, or hearing (i.e., when read aloud) printed prognostications are likely utility and curiosity. Nostradamus did not compromise the former, and his key stylistic trope only served to amplify the latter through his tone and his ambiguous quatrains. According to Pierre Brind'Amour and Robert Benazra, the *Pronostication pour l'an 1555*, discussed above in the letter from Brotot, contains Nostradamus's first 'vaticinations' or verse prophecies.³²⁸

These prophetic quatrains are one of the defining characteristics of Nostradamus's prognostications. His later collections of prophetic quatrains, the *Prophéties*, continue to be interpreted by Nostradamophiles even in the twenty-first century. Although none of the prognostications and almanacs studied here as part of my corpus include verse sections within their predictions, the inclusion of short poems for each month of the year was not itself uncommon in calendars: the 1493 *Calendrier des bergers*, for instance, includes Latin and French verse on characteristic weather, food, and work for the months of the year. Nostradamus's innovation is to include *prophetic* verse, written in an ambiguous and unquestionably foreboding style, to be deciphered by the reader, for every month of the year. A small sample of the earliest quatrains from the *Pronostication pour l'an 1555*, one for the year in general and the other for the month of January, is indicative:

³²⁸ Brind'Amour, *Nostradamus astrophile*, 22; and Benazra, "Les Pronostications et Almanachs de Michel Nostradamus."

Presage en generale.

L'ame presage d'esprit divin atteinte,
 Trouble, famine, peste, guerre courir,
 Eaux, siccité, terre mer de sang tainte :
 Paix, trefve, à naistre : Prelats, Princes mourir.

Presage de Janvier.

Le gros Erain, qui les heures ordonne,
 Sus le trespas du tyran cassera
 Pleurs, plainctz, et riz, eaux, glace pain ne donne.
 V.S.C. paix. L'armee passera.³²⁹

Other quatrains, beyond including ambiguous predictions and unfamiliar names, also included numbers in the rhymes, referring to days in the month, but perhaps also hinting at some deeper numerological significance. All of these tropes served, at least in part, as invitations to the reader to decode their numerological significance.

May 2555 [*sic*, 1555].

Le cinq, six, quinze tard et tost l'on subjourne,
 Le nay sans fin, les citez revoltees :
 L'heraut de paix 23 s'en retourne,
 L'ouvert. 5 serre: nouvelles inventees.³³⁰

What appear to be typographical errors, such as the one above, have only fanned these flames of popular interest since. Beyond the foreboding tone, it is the opportunity for this kind of interpretive play, similar to that offered by decoding riddles, that has greatly contributed to Nostradamus's popularity, both in his lifetime and over the past four hundred and fifty years.

Admitting that the quatrain alone would set Nostradamus in a class apart, Brind'Amour concedes, "Mais s'il fallait mettre le doigt sur la raison principale de son succès, elle serait à

³²⁹ A literal translation: "General prophecy: / The soul foresees the attainment of the divine spirit / Discord, famine, plague, and war attack / Water, drought; earth and sea tainted by blood / Peace and truce are born; Prelates and princes die. / Prophecy for January: The great Bronze, which ordains the hours / Will be broken over the trespass of the tyrant / Tears, complaints, and laughs, water, ice and no bread / V.S.C peace. The army will pass," Michel Nostradamus, *Prognostication nouvelle, et prediction portenteuse pour Lan M.D.LV.* (Lyon: Jean Brotot, 1555) 4^o, C₄v^o.

³³⁰ Literally: "May 2555. / The five, six, fifteen early and late we sojourn / The birth without end, the cities revolted / The herald of peace 23 returns, / The open. 5 closed: invented news," Nostradamus, *Prognostication pour 1555*, fol. D₁v^o.

chercher, je pense, dans le ton extrêmement sombre des prophéties.”³³¹ Even in 1555, his popularity had come to the attention of Catherine de’ Medici and King Henri II of France. Although César de Nostredame reported that his father was called to court thanks to the first edition of his *Propheties* (1555), based on the testimony of his critic Laurens Videl, Brind’Amour argues that it was in fact his *Almanach pour 1555* that gained him the attention of the court.³³² In his polemic against Nostradamus, Videl recounts, with some disdain, how Nostradamus gained access to royal patronage through his bad astrology and ambiguous prophecies:

En ladicte année tu disoys: ‘le roy se gardera de quelcun ou plusieurs qui ne pourchassent que de faire ce que je n’ose metre par escrit, selon que les astres accodéz a l’oculte philosophie demonstrent.’ Tu entendoys bien que le Roy voudroit scavoir la verité.³³³

When released, Nostradamus’s almanac for 1555 was a sensation and his fame only grew as time went on, as the ample documentation of his popularity in Italy, France, and England, assembled by Pierre Brind’Amour, demonstrates beyond any doubt.³³⁴

Nostradamus inspired a host of imitators even within his lifetime, and (not unsurprisingly) his official printers attempted to prevent pirated editions by securing royal privileges, an important departure from the practice of earlier printers. Brotot also began printing Nostradamus’s prognostications in collaboration with the Parisian printer Jacques Kerver to head-off the pirates, probably keeping the prognostications under lock and key and distributing

³³¹ “If one had to put a finger on the primary reason for his success, it would be found, I think, in the extremely somber tone of his prophecies,” Brind’Amour, *Nostradamus Astrophile*, 33.

³³² In spite of its inclusion of this crucial prediction, the *Almanach pour 1555* has not survived and should not be confused with the *Pronostication pour l’an 1555*, which has survived and is included within my corpus. The surviving copy is Lyon BM Rés B 512544. As mentioned above, Nostradamus sent Brotot both works initially, but he first printed one of the two (it is impossible to know which). Whichever one it was must have sold well, because as promised, Brotot must have printed the other piece.

³³³ “In the aforementioned year you said: ‘the king will guard against someone or several people who will seek to do what I dare not put into writing, according to what the stars in accord with the occult philosophy demonstrate.’ You knew full well that the king would want to know the truth,” Laurens Videl, *Déclaration des abus, ignorances et séditions de Michel Nostradamus, de Salon de Craux en Provence, œuvre tresutile et profitable à un chacun* (Avignon: Pierre Roux et Jan Trambly, 1558), 4^o, C₄^o. Quoted in Dupèbe, ed. *Lettres inédites*, 30; and Brind’Amour, *Nostradamus astrophile*, 24.

³³⁴ Brind’Amour, *Nostradamus astrophile*, 25-61.

them into their two largest markets simultaneously. Indeed, Brind'Amour has also observed that from 1557 onward, two printers marked every single copy with handwritten signatures and special characters as a guarantee of its authenticity.³³⁵ In spite of these efforts, fraudulent "Nostradamus" prognostications continued to be produced by imitators and piracy continued. Conversely, Nostradamus also attracted a huge number of critics. On technical grounds, these were typically astrologers of a Ptolemaic leaning such as Laurens Videl. Nostradamus's predictions, published at the height of the French reformation, also garnered a number of religious critics, reigniting the controversial polemic over astrology's relationship with Christianity.³³⁶

To conclude, in the wake of Nostradamus, an entire school of French prognosticators arose in late sixteenth-century Lyon, many of whom were printed by the printer Benoit Rigaud. In the second half of the sixteenth century, Rigaud was probably the most important printer of prognostications and other ephemeral print in all of France, and published short books of the same sort as the Oudot and Garnier families would half a century later in Troyes with their *Bibliothèque bleue*.³³⁷ Based on the small sampling of the almanac-prognostications Rigaud printed, Nostradamus continued to cast a long shadow over the genre well after his death in 1566. In 1581, Antoine Fabri imitated his somber tone and haphazard organization, placing predictions on diverse questions indiscriminately under seasons and months.³³⁸ Others, such as

³³⁵ Ibid., 54-8.

³³⁶ Olivier Millet, "Feux croisés sur Nostradamus au XVI^e siècle," in *Divination et controverse religieuse en France au XVI^e siècle* (Paris: École normale supérieure de jeunes filles, 1987), 103-21

³³⁷ On Benoit Rigaud, see Henri and Julien Baudrier, *Bibliographie lyonnaise: recherches sur les imprimeurs, libraires, relieurs et fondeurs de lettres de Lyon au XVI^e siècle*, 13 vols. (Lyon: L. Brun, 1895-92), 3:175-471. To my knowledge, the close similarity between Rigaud's repertoire and that of the Troyenne *Bibliothèque bleue* has never been explored.

³³⁸ Antoine Fabri, *Almanach ou diaires avec les tresamples presages pour l'an 1582* (Lyon: Benoit Rigaud, ca.1581), 16^o.

Himbert de Billy, Claude Morel, and André Rouget imitated him even more overtly by including prophetic quatrains for each month.³³⁹

Pierre Brind'Amour provides the best summation of Nostradamus' popularity in the conclusion to *Nostradamus Astrophile* (1993). He writes,

Pendant une douzaine d'années, de 1554 à sa mort en 1566, Nostradamus connut la célébrité à l'échelle européenne. Ses almanachs étaient dans toutes les mains [...]. L'inquiétude générale, en France, en Angleterre, partout, dans une période marquée par les incertitudes dynastiques et les conflits religieux, alimentait la fabrique nostradamienne: tous cherchaient dans leurs almanachs, sinon à être rassurés, du moins à être prévenus.³⁴⁰

Nostradamus represents a reversal of the situation observed by Rabelais, which typified the first half of the sixteenth century. Far from being a net importer of prognostications, France was now an exporter: as Brind'Amour has demonstrated, Nostradamus was read and commented on across Europe by princes, ambassadors, cardinals, bishops, and poets such as Ronsard. Likewise, his predictions reached minor nobles, parish priests, merchants, not to mention men and women of all kinds throughout France, high and low.

8. Conclusion: Prognostications between Renaissance and Reformation.

In his 1556 pamphlet against Nostradamus, Antoine Couillart offers a hint of the excitement that likely occurred every November when the prognostications finally hit the streets:

il y a un mois, c'estoit, comme il me Semble, es Nones de Novembre environ le jour qu'on taste les vins, me trouvoy non pas au sermon, mais au cabaret de l'huis de fer à Orleans. S'il y avoit la de bon vin, ô qu'il y avoit aussi compagnie frequente de bons biberons [...]. Et estant en telz intervalles et plusieurs autres de peu de fruct, (le cabatier) oyt un Porte panier qui crioit par les rues '*Propheties à vendre*': et lors commença à trouner les yeulx en la teste, et à lever le nez comme un vendeur de

³³⁹ Himbert de Billy, *Almanach pour l'an mil cinq cents quatre vingt et deux, avec la prévoyance et ample prédiction, selon le cours et influence des astres* (Lyon: Benoit Rigaud, 1581), 16°; Claude Morel, *Diaire ou journal pour l'an 1582 avec predictions* (Lyon: Benoist Rigaud, ca.1581), 16°; André Rouget, *Pronostication de M. André Rouget, dit Bonne Santé, et Chirurgien ordinaire de Messire François de Vergy [...] pour les années de 1586 et 1587* (Lyon: Benoit Rigaud, ca.1585), 8°.

³⁴⁰ "For a dozen years, from 1554 to his death in 1566, Nostradamus knew fame on a European scale. His almanacs were in everyone's hands [...]. In an age marked by dynastic uncertainty and religious conflict, the general anxieties in France, England, and elsewhere fed the nostradamian industry: everyone was looking in their almanacs, if not to be reassured, then at least to be warned," Brind'Amour, *Nostradamus astrophile*, 431.

vrilles, nous priant faire venir le porteur. Ce que feisme, estans de nostre part assez joyeux de sa venue: car il nous en monstra de plusieurs sortes. Les unes composées partie en prose, et autre partie en carmes tenebreux et obscurs, et les autres estoient Pronostications, aisées à entendre et claires comme le beau jour du midi...³⁴¹

He goes on to describe a curious detail he noticed from comparing some of these prognostications:

Car de six qui furent recolées collationnées et confrontées les unes aux autres, faictes par divers Mathematiciens, furent trouvées toutes semblables, sans y avoir faulte d'un seul mot, sauf que les tiltres d'icelles intituloient divers auteurs. Et procedoit tel abbus, selon mon advis, non des pronostiqueus, mais de la lucrative des Imprimeurs: chose grandement prejudicable à nostre Republicque Françoisse, car si telles pronostications se feusent seulement trouvées quelque peu différentes, elles n'eussent pas esté de la centiesme partie si espouvantables que les pretendues propheties.³⁴²

As Brind'Amour has observed, the "propheties" Couillart mentions, partly in prose and partly in verse, were almost certainly those of Nostradamus.³⁴³ Based on the comparison that Couillart makes between the sober prognostications, "claires comme le beau jour du midi," and the prophecies "tenebreux et obscurs," it would seem that Jean Brotot was not the only contemporary who noticed the shift in tone that Nostradamus brought to the genre.

In the first phase of the period between 1496 and 1555, the market in almanacs and prognostications was dominated by writers who reflected the values of learned medical culture of

³⁴¹“A month ago, it was, it seems to me, on the Nones of November [the 5th], about the day we sample wine, I found myself not at the sermon, but at the cabaret of the Iron Door in Orleans. Ah, if there was good wine there, there was also the frequent company of good imbibers [...]. There being little fruit at these times and in others, the bartender heard a street peddler crying in the streers, ‘Prophecies for sale!’: and then he began to turn his eyes into his head, and lifted his nose like a gimlet vendor, and implored us to bring the peddler in. This we did, being for our part joyful enough at his arrival: for he showed us several kinds. Some were partly in prose, partly in obscure and mysterious verse, and others were prognostications, easy to understand and as clear as a fine day at noon,” Antoine Couillart, *Les Contredicts aux faulses et abusifves propheties de Nostradamus, et autres astrologues* (Paris: Charles l’Angelier, 1560), 8^o, 4v^o-5r^o. Quoted in Brind’Amour, *Nostradamus astrophile*, 27.

³⁴²“For, of the six that were patched, collated, and compared the one to the other, [supposedly] having been made by diverse mathematicians, we found them all the same, without there being even a single word misplaced, save only the titles and the diverse authors to which they were attributed. And in my opinion, this abuse does not proceed from the prognosticators, but from the greed of the printers, which is a thing of great harm to our French republic, for even if such prognostications are found to be slightly different, they do not dare to be a hundredth part as dreadful as these supposed prophecies,” Couillart, *Les Contredicts*, 4v^o-5r^o. Quoted in Brind’Amour, *Nostradamus astrophile*, 27.

³⁴³ Brind’Amour, *Nostradamus astrophile*, 27.

the Louvain school. Few were members of its faculty, as their late medieval forbearers had been, but most were still degree-holding physicians. Many of these writers continued to prognosticate as a routine part of their medical practice, providing the general public with useful information about the coming year. They were also astonishingly candid about the limits of their predictions and of astrology in general.

From the 1530s onward, however, German *practicas* began to enter the French market, roughly alongside the rapid growth of the reformation in France and the concomitant religious anxieties it both nurtured and reflected. As Barnes has indicated, many of these *practicas* were tinged by the anxieties of the German reformation. Further, some were compiled by writers who began to rely on sources other than learned astrological texts (including various prophetic traditions) and who felt compelled to warn both rulers and the people of impending political, religious, and even eschatological crises.

As this chapter demonstrates, the French prognostic tradition is considerably more complex than the mounting crescendo of eschatological terror that Denis Crouzet describes: indeed, most prognostications before Nostradamus are fairly mild, reflecting the normal ebb and flow of dearth and plenty, sickness and health, and war and peace that had characterized life from time immemorial.³⁴⁴ Inevitably, the medical-humanist prognosticators were unable to compete with predictions such as those of Nostradamus on the mass-market level. As Steven Vanden Broecke has noted, many may not have even wished to: even before Nostradamus, the practice of producing annual prognostications was giving way in court and university culture to an interest in astronomical and astrological reform.³⁴⁵

As Couillart's comments demonstrate (not to mention the evidence furnished by other surviving prognostications from the 1550s), however, the humanist medical tradition of

³⁴⁴ Crouzet, *Guerriers de Dieu*, 1:102-103; 1:106.

³⁴⁵ Vanden Broecke, *The Limits of Influence*, 137-146.

prognostication continues onward through the 1550s, even at the height of Nostradamus's popularity. Indeed, some of those published in Antwerp become even more sober, citing Ptolemy, Galen, and Hippocrates in chapter and verse in judgement after judgement, as the prognostications of Alphonse Laet and Jacques Sauvage demonstrate. As such, my case is not so much that the sober prognostications of the first half of the sixteenth century completely give way to reformation prophecy. Neither can it be completely denied that the German *practicas* coming into the French vernacular via Geneva offered an alternative to the Louvain model, one which Nostradamus brought even further than his predecessors, including Johannes Carion.

Before Nostradamus, both the discursive and material features of almanac-prognostication remained astonishingly constant throughout the period here studied. Despite the discernible shift to an increasingly Ptolemaic astrology and away from medieval Arabo-Latin authorities, the citations in most prognostications likely seemed quite homogenous to most lay readers, who were certainly far more interested in the weather or commodities forecasts than in the technical niceties of astrological judgement. Readers would still find the same collection of useful information, arranged in virtually the same handy order, and printed in the same cheap format.

Nostradamus's 1555 prognostication emerges as an anomaly from this exploration of his antecedents, albeit one that would set the benchmark for the next generation of prognosticators thanks to its incredible popularity. His verbosity and other divergences from the set formula of the genre encouraged his printer, Jean Brotot, to publish him in a smaller format, and although Brotot was concerned about the overall marketability of Nostradamus's prognostications, his investment certainly paid off. Concision and clarity, it would seem, were not the "spirit of the age," as Brotot had assumed. Nostradamus mixed poetry and prose, mathematical astrology and inspired prophecy. Well beyond offering his readers simple forecasts of the weather, commodities, public health, and warfare, he provided them with enigmatic prophecies to unravel,

catering to their taste for mystery and perhaps feeding both the dread and frightful awe many seem to have held for the apparent chaos of their age.

Chapter Three, The misadventures of Jean Thibault:

A microhistory of the career of an empiric physician-astrologer, 1529-1545

Beyond simplifying the astrologer's craft with a crucial new resource, the printed multi-year ephemeris, printing also gave astrologers an entirely new medium in which they could disseminate their predictions, opening a new sphere of astrological practice with the genre of annual prognostications. While the first two chapters explore these large-scale developments, it falls to this final chapter to provide a microhistorical counterpoint by exploring the role that print played in the career of a single astrologer who published annual prognostications, Jean Thibault. Likely born in the lower Seine village of Gournay-en-Bray, east of Rouen, Thibault spent the first phase of his adult career in the Low Countries, and was probably admitted as a master printer to the Guild of Saint Luke in 1519. He established a press in Antwerp, which had by then become a major printing centre. After a mediocre career, in 1527 he gave up printing in an increasingly competitive market, and dedicated himself instead to the arts of medicine and astrology. He continued to issue annual almanacs and prognostications through other Antwerp printers, and by the 1530s, he had gained sufficient fame through the accuracy of his prognostications that they were pirated in London.³⁴⁶

Thibault was very much a post-print astrologer: he was an avid user of Stöffler's printed ephemerides, and a publisher of annual prognostications. Thibault did not hold a university degree and was not a member of the corporate medical establishment: printing at once equipped him with the tools of the astrological trade and provided him with a platform for broadly disseminating not only his prognostications, but also his ideas about medicine and astrology more generally. As an empiric healer and a former printer, Thibault seems to have been fascinated by the possibilities printing had unleashed (especially in the vernacular) to

³⁴⁶ For basic biographical data on Jean Thibault, see Anne Rouzet et al., *Dictionnaire des imprimeurs, libraires et éditeurs des XVe et XVIe siècles dans les limites géographiques de la Belgique actuelle* (Nieuwkoop: B. de Graaf, 1975), 219-220. According to Rouzet, Thibault was often criticized for the poor quality of his type.

disseminate and even reform natural and medical knowledge, even if it meant challenging the authority of universities.

In 1530 and again in 1536, Jean Thibault found himself the object of serious litigation, on account both of his activities as an empiric healer as well as his printed works. Why, beyond his medical activities, had Thibault so incensed the medical establishment in both Antwerp and Paris that they would go through the trouble of mounting expensive lawsuits against him? Surely, he was merely one of hundreds of illicit practitioners, most of whom flourished unchecked in the streets of both cities, from charlatans hawking nostrums in the market to midwives delivering babies and quietly providing abortifacients to young unmarried woman. As Laurence Brockliss and Colin Jones have demonstrated in their history of medicine in early modern France, numerous irregular practitioners existed alongside the official, corporate medical establishment of approved university physicians, guilds of barber surgeons, and apothecaries.³⁴⁷

I will argue that what distinguished Thibault from these other practitioners and made him the target of special treatment is the fact that beyond trafficking in illegal practices he also trafficked in alternative medical epistemologies, which he articulated at length and actively disseminated through print. This not only increased his visibility to the jealous eyes of the university physicians, but amplified the threat he posed to their epistemological monopoly over human health and its relationship to environmental factors, including celestial influences. Thibault both practiced and published, and his surviving publications exhibit a strong contempt for university medicine.

Thibault's works also demonstrate that he could, without a doubt, read Latin with some facility and his testimony suggests that he probably attended university lectures on medicine, mathematics, and astrology. He claims to have wandered from one university to another in

³⁴⁷ Laurence Brockliss and Colin Jones, *The Medical World of Early Modern France* (Oxford: Clarendon Press, 1997), 230-73.

Germany and the Low Countries, although he never completed a degree. He was thus never able to take advantage of the relative security that came with membership in the corporate medical establishment. All this to say: although he had some access to learned medicine and astrology, Thibault nonetheless prized knowledge from non-learned sources. For Thibault, knowledge was given by God to man and could be apprehended in two ways: it was either revealed by God through the working of nature itself, which man could then carefully observe, or was dispensed directly to his mind in the form of divine inspiration. In either case, God (and not the authority of ancient texts) was the only sure source of authoritative knowledge. Thibault was also convinced that God was more likely to impart such knowledge to the poor and the illiterate than to the learned and the powerful.

1. *Jean Thibault, Cornelius Agrippa, and the 1530 plague in Antwerp.*

It seems prudent to precede the discussion of Thibault's epistemological convictions with an account of the events leading to his troubles in Antwerp, which begin, fittingly enough, with a very portentous celestial event. On the 17th of October 1529 a total lunar eclipse could be seen in the night sky above the city of Antwerp and any other place on the night side of the earth. During a total lunar eclipse, it should be noted, the moon is not completely dark: sunlight refracted through the Earth's atmosphere provides a faint illumination once the eclipse is total, giving the moon an ominous reddish hue. The 1529 eclipse was unusually long, looming in the night sky for over seven hours.³⁴⁸ As we have seen, in the cosmology held by most people in early modern Europe, a celestial event like this would be extremely auspicious: it was rare, long, involved the closest heavenly body to the earth, and it occurred over a huge swath of the earth's surface (as compared, for instance, to a solar eclipse, which is usually much shorter, and only visible over a

³⁴⁸ Fred Espenak and Jean Meeus, "Five Millennium Catalog of Lunar Eclipses," *NASA Goddard Space Flight Center Website*, <http://eclipse.gsfc.nasa.gov/LEcat5/LE1501-1600.html> (accessed April 26 2010). Cf. Johannes Stöffler and Jacob Pflaum, *Almanach nova plurimis annis venturis inserentia* (Ulm: Johann Reger, 1499) 4°, Digitalbibliothek of the Bayerische Staatsbibliothek: BSB-Ink S-591, http://inkunabeln.digitalesammlungen.de/Ausgabe_S-591.html (accessed November 1 2009), fol. 456.

small area). The universe was held to be an integrated, interconnected whole, created by a provident God, and things seen in the heavens above must have some special meaning to those in the sublunary realm below: closer as they were to God, the stars seemed to spell out his plan for the world. But what, exactly, could an event such as this one mean for the world below?

As the preceding chapter has demonstrated, interpreting the effects of celestial phenomena like this one was of great interest to the prognosticators, and Antwerp of the early sixteenth-century was filled with them. By 1553, the prognosticator Alphonse Laet described the provision of an annual prognostication as a long-standing custom of Antwerp physicians.³⁴⁹ Laet knew well that his family had an important part in this tradition: since 1476, when the first press was set up in nearby Louvain, successive generations of the Laet family had provided annual prognostications for Antwerp as well as neighbouring regions as far away as Paris and London.

Such was the case with Alphonse's father, Gaspar Laet Jr. (*le Jeune* or *de Jonghe*), who appears to have printed his first prognostication in 1529. Gaspar Jr. held a degree in medicine from the University of Montpellier, and was third in the four-generation "dynasty" of Laet-family astrologer-physicians who printed annual prognostications.³⁵⁰ His father, Gaspar Sr., had taken up his own father Johannes's medical and astrological practice in Antwerp, and had groomed his sons to become physicians as well, sending all three to study arts at the University of Louvain. Of the three, Gaspar Jr. and Ptolemeus matriculated and went on to study medicine at Montpellier. Gaspar Sr. provided annual prognostications well into the 1530s, when his son, a

³⁴⁹ Alphonse Laet, *Prognostication de lan de nostre Seigneur Jhesu Christ M.CCCCC.et.III. Caicule et composee par Maistre Alfonse Laet amateur de l'art d'astronomie* (Antwerp: Jan Wynryx, [ca.1553]), 4°, fol. A₁r°.

³⁵⁰ Bernard Capp, *Astrology and the Popular Press: English Almanacs 1500-1800* (London and Boston: Faber, 1979): 27. On the Laet family, see "De Laet, Alphonse," "De Laet, Gaspard," "De Laet, Gaspard le Jeune," and "De Laet, Jean," in the *Biographie nationale de l'Académie royale des sciences, des lettres et des beaux-arts de Belgique* (Bruxelles: H. Thiry-Van Buggenhoudt, 1866-1986), 5:265-70; and Charles Perrat, "Sur un tas de prognostications de Louvain," in *François Rabelais: Ouvrage publié pour le quatrième centenaire de sa mort 1553-1953* (Geneva: Droz, 1953), 60-73.

graduate of Montpellier, took up the family trade.³⁵¹ Both father and son appear to have published prognostications side by side for a few years, as Thibault's criticism suggests.³⁵² Even with his degree, pedigree, and membership in the local college of physicians, however, the ever-growing availability of the tools of the astrological trade brought about by printing ensured that Laet's astrology was not the only game in town.

Instead, he would have to carve out a niche in Louvain's especially competitive astrological ecology in order to live up to the family legacy. As Chapter Two demonstrates, dozens of prognosticators were practicing in Antwerp by the 1520s, publishing in Latin, Dutch, French, German, and English. Though there were a variety of ways he might stand out from the crowd—and in so doing amp up sales of his prognostications—Laet chose to do so in a particularly malicious way: he repudiated his rivals in a short pamphlet, correcting their interpretations, chastising their skills as astronomers, and discrediting their predictions. Most scathingly, he declared that many of his competitors could not even correct the simple printing or calculation errors of the ephemerides on which they relied (lacking, he asserted, the necessary skills to use tables or make their own observations). Indeed, he proposed that unless God were to resurrect Regiomontanus himself to produce new, accurate ephemerides, their astrology would soon be finished, alluding to the fact that the most recent edition of the Tübingen ephemerides was about to expire.³⁵³

One of the astrologers Laet criticized was Jean Thibault, who, he declared, had made a grievous error in interpreting the effect of the October lunar eclipse. According to Laet, Thibault had failed to follow the clear guidelines set by Ptolemy, the most revered of astrological authorities from antiquity. In the sixth chapter of the second book of the *Tetrabiblos*, Ptolemy

³⁵¹ Steven Vanden Broecke, *The Limits of Influence: Pico, Louvain, and the Crisis of Renaissance Astrology* (Leiden: Brill, 2003), 144 n.26.

³⁵² Jean Thibault, *Apologie de Maistre Thibault, [...] et ce contre les invectives d'aucuns Pronostiqueurs* (Antwerp: s.n., 1530), 4^o, fol. C₂^r-v^o.

³⁵³ *Ibid.*, fol. C₂^r.

explains the set of variables that determine when the effects of a lunar or solar eclipse will be felt and for how long. The most important of these variables is where the eclipse occurs, be it near the eastern horizon, the midheaven, or the western horizon, which governs how long it will take before the effects of the eclipse are manifested on earth.³⁵⁴

In his prognostication, Thibault declared that it would be felt by the end of the next growing season, in the following spring; by contrast, Laet followed Ptolemy, and predicted that its effects would be delayed by almost two years because it had fallen near the western horizon. Again, while astrology was in some ways an exact science, and though two astrologers might draw up the exact same figure for a given time and place, they could interpret it in a variety of ways depending on their convictions about what interpretive guidelines were most authoritative. In spite of their disagreement over when the effects would occur, however, both Laet and Thibault agreed that the particular configuration of planets within the zodiac, and Scorpio's presence in the twelfth house (that of sickness and health), was likely to produce a vicious pestilence on the earth below, one that would claim many lives.³⁵⁵

Jean Thibault, it will be remembered, had neither Laet's degree nor pedigree and was as such unprotected by the corporate medical community. He was also a foreigner, having been born in northern France. As such, his response to Laet could entail considerable risks. Laet was a member of the local college of physicians, and because of the close relationship between the

³⁵⁴ Claudius Ptolemy, *Tetrabiblos*, tr. F.E. Robbins (Cambridge, MA: Harvard University Press, 1940), 1.6.

³⁵⁵ Gaspar Laet de Jonghe, *Correctorie ofte bewijsinghe des erroren oft fauten in diverse pronosticacien ende almanacken vanden jare i.iiii.ende.xxx* (Antwerp, Mich. Hillen van Hoochstraten, c.1529), 4°, Universiteitsbibliotheek van Leiden, THYSPF 27. I have unfortunately been unable to draw from Laet's pamphlet, and have instead had to reconstruct his arguments based on Thibault's response in the *Apologie* and the brief summary of it provided in Vanden Broecke, *The Limits of Influence*, 144-5. Interestingly, Vanden Broecke had the opposite problem: he is unaware of the surviving copy of the *Apologie de Maistre Thibault* at the Bibliothèque du Château de Chantilly, and notes that it is lost. He accurately reconstructs some of its contents, however, based on Laet's subsequent response, *Defensie responsijf astrologick op die sotte ende dwalende Apologie tseghen hem doer Jan Thibalt in 1530 wtghegheuen* (Antwerpen, Mich. Hillen van hoochstraten, [1530]) 4°, Universiteitsbibliotheek van Leiden, THYSPF 33. As with Laet's first pamphlet, I was not able to draw on this *Defensie* in this analysis.

colleges and civil authorities, Thibault would have known that he might face litigation for violating their privileges as an irregular practitioner.

At the same time, we can also infer that Thibault was considerably popular as a prognosticator, and that a failure to respond to Laet's criticisms would almost certainly have diminished his reputation as an astrologer and healer in Antwerp. As I will discuss later, Thibault appears to have made his way into the circle of Margaret of Austria, then Regent of the Low Countries for Charles V. It is conceivable that he was intent on saving face at court as well, and he may well have believed that his position would grant him protection from the local physicians should they pursue him legally.

By contrast, Laet would certainly have dismissed Thibault professionally as a printer turned empiric healer without a degree. He likely did not count on receiving an articulate response to his criticisms, but in 1530, an *Apologie de Maistre Thibault* rolled off the Antwerp presses, viciously attacking not only Laet, but the whole of university medicine (see the cover page, Figure 8). With the benefit of hindsight, Thibault argued that the events of the previous year had not borne out the two-year delay that Laet had predicted for the eclipse, slavishly following Ptolemy against what Thibault calls "natural reason." Ptolemy, he declared, was simply wrong, and those who venerated him above their own experience were doomed to err.

Thibault here asks,

Quelle raison y avoit il en ceste eclipse ou en aultres que elle demeroit son effect apres le principal point veu que elle ny tarde nullement mais passe outre? En quel lieu demouroit son venin au ciel si longuement comme de ii. ans, plus ou moins, veu que tout le ciel fais son cours tout alentour du monde en dedens xxiiii. Heures?³⁵⁶

He comically pointed out that such a lag-time or delay is completely inconsistent with the most basic common sense: "Si le la raison naturelle estoit telle que ainsi fut, nous ne devrions point

³⁵⁶ "What reason was there, in this eclipse and others, that its effect would somehow remain in the heavens after its principal point had occurred, seeing as it [the moon] does not delay there but quickly passes elsewhere? In what place would its venom stay so long in the heavens, for two years, more or less, seeing as the heavens turn about the earth every twenty-four hours?" Thibault, *Apologie*, fol. C₁v^o.

avoir froit quant il gelle, mais apres le degel, et chault apres l'este, etc." Should not the sun's effects on the earth be delayed as well?³⁵⁷ One can only imagine Laet's fury. Growing up in an astrological household, the authority of Ptolemy, Prince of the Astrologers, had likely been sacrosanct to him from childhood: his own brother, Ptolemaeus, had been named after the Greek astrologer.

By the time Thibault's insults were in print, the passage of time had already judged which prognostication had held true. Sure enough, as Thibault had predicted, Antwerp was indeed struck by the plague in the summer of 1530. In his *Apologie*, Thibault attacked Laet for failing to predict it, in spite of his arrogance in correcting the supposed errors of other astrologers. He further argued that such uncivil behaviour was unworthy of a true philosopher.³⁵⁸ Going further yet, Thibault declared that Laet could not even predict his own fortune, much less that of the people of Antwerp, and that he likewise was a poor healer: as Thibault tells it, Laet lost his own sister, who was a servant in his home, to the plague; he proceeded then to provide a list of other astrological and medical blunders of which he purports Laet was guilty: "[il] veult estre grant maistre, de calculer et medeciner, et que luy mesmes ne scait prevoir sa fortune ne y mettre remede, comme a sa seur. Laquelle l'avoit long temps servy en sa maison. La peste luy vint a prendre, et subit lenvoya a l'hospital mourir."³⁵⁹ Indeed, Thibault's most scathing indictment of Laet in the *Apologie* is ethical, and has to do with his conduct during the plague itself.

³⁵⁷ "If natural reason was such that this was so, we ought to be cold not at the frost, but after a thaw, and hot after summer," *ibid.*, fol. C₁v^o.

³⁵⁸ *ibid.*, fol. A₁v^o-A₃r^o.

³⁵⁹ "[He] wants to be a great master; to calculate and to heal, and that he himself does not know how to predict his own fortune nor to give cures, as with his sister. She had long served him in his home; the plague came to take her, and he abruptly sent her to the hospital to die," Thibault, *Apologie* sig. C₁v^o. Thibault accuses Laet of other errors as well: according to Thibault, Laet compiled a nativity for a young prince, and divined that in his twenty-third year he would win a kingdom; instead, he was taken prisoner. Another horoscope he cast for a merchant from Valenciennes told him he would get rich trading kipper, but instead he lost over six thousand florins. In a final case, he administered four enemas to a man, all of which were ineffective, and another physician had to intervene to flush them out by having the man drink for six hours, lest he die.

As Thibault describes it, Laet and his father, both university-trained physicians, fled the city like hares and did not look back as soon as it was clear that the plague was spreading. Responding to one of Laet's most scathing criticisms, that his competitors could not even correct the errors in the ephemerides on which they relied to make their predictions, Thibault replied that Laet and his father published contradictory prognostications, and were guilty of greater dishonour yet:

Ils disent que aucuns doibvent bien prier a Dieu qu'il ressuscite aucun quil puisse faire des nouveaulx Ephemerides ou autrement leur astrologie sera finee. Mais eulx mesmes debveroient prier au Seigneur qu'il leur donnast l'entendement de scavoit accorder ensemble, le pere et le fils en leurs œuvres et escripts, etc., et de pouvoir scavoit et congnoistre quel signe ou planette a fait venir ceste sueur en nostre clymat, et en la ville d'Anvers, laquelle les fist fuir dehors comme lievres eulx courans jusques a Turnault sans ung fois regarder derriere eulx, et apres que tout fut cesse ils en revindrent de crainte, eulx presentant de donner bonne remede, comme le Holandois medecin qui ne scavoit riens faire, se il ne avoit este bien fesse, puis il payoit ses gens de parolles.³⁶⁰

Upon returning from hiding in Turnhout (40 kilometres east of Antwerp), Thibault adds, they both paid their "gens de paroles" handsomely: their first action was to reassert their authority and crack down on the illicit practitioners that had proliferated unchecked during their absence.

Thibault, however, was singled out for special treatment; he was not simply one of dozens of illicit practitioners that flourished in the early modern city largely unchecked: he was an empiric who published, and had used the press to publicly insult an official physician. Probably moved by Laet, the college of physicians requested that he be arrested, and before long, Thibault found himself in serious trouble, summoned before the Great Council of Malines—the

³⁶⁰ "They say that many [prognosticators] should pray to God that he resurrect someone who can make new ephemerides or their astrology will be finished. But it is they[Laet and his father] themselves who should pray to the Lord that he might give them the understanding to learn how to agree with one another: the father and the son in their written works, etc. And to be able to know and be acquainted with what sign brought this sweat [the plague] into our climate, and which, in the city of Antwerp, made them flee outside like hares all the way to Turnhout without once looking back, and after everything was over, they returned in fear, presenting themselves to give a good cure: like a Dutch physician who doesn't know how to do anything if it isn't already done, and then they paid their messengers..." Ibid., fol. C2r^o.

highest court in the Burgundian Netherlands—for violating the privileges of the Antwerp physicians.

Thibault was not without allies, however. One of these was none other than the magus Heinrich Cornelius Agrippa, author of the famous *De occulta philosophia libri tres*, a summa of renaissance occultism. Agrippa wrote the sixteenth-century equivalent of a character reference to the Council of Malines on Thibault's behalf.³⁶¹ He declares that he is writing on behalf of an honourable man, master Jean Thibault, in order to attest (in his capacity as physician to princes and kings), to Thibault's perfect competence in the medical and astrological arts, and that the quarrel of the Antwerp physicians is rooted in jealousy and envy, not in any concern for the general public:

Fateor autem ex vero testorque, quia ego magistrum Ioannem Theobaldum novi et Antverpianos medicos cognosco, sed quae inter illos controversia est, meo iudicio non nisi mera iniuria est, qua solet hoc invidum medicorum genus porcorum ritu sibi stercora invidere, ac de lotio et recrementis, quoties contingat, alterum alteri matulam aut concham stercorariam praeripere, magnis contentioneibus digladiati sordidi lucelli gratia.³⁶²

As Auguste Prost has suggested, these acerbic remarks are probably fuelled by Agrippa's own disdain and resentment of the Antwerp physicians. Like Thibault, he sometimes practiced medicine, and probably presented a threat to their monopoly on medicine in Antwerp.³⁶³ Beyond being a simple character reference, however, it should also be noted that Agrippa's letter is written in the style of a Ciceronian declamation, with university

³⁶¹ Heinrich Cornelius Agrippa, *Opera*, 2 vols (Lyons: Beringos Fratres, [ca. 1580]), 4:7. For a summary of the letter's contents and commentary, see Auguste Prost, *Les sciences et les arts occultes au XVIIe siècle: Corneille Agrippa* (Paris: Champion Libraire, 1882), 2:240-51. Steven Vanden Broecke has commented that a new study of this letter would be useful (Vanden Broecke, 145n29). The letter is the only surviving reference to the case that I have been able to discover outside of Thibault's own testimony of why he left Antwerp, taken six years later in his hearing at the Parlement of Paris.

³⁶² "Indeed I confess and testify truthfully that I know Jean Thibault personally and am acquainted with the Antwerp physicians: by which this hateful kind of physicians envies, like that rite of pigs distinguishing between each other's shit; and with piss and refuse it often happens that one man snatches the other's chamber pot or shit font, squabbling with great exertions over a sordid trifle," Agrippa, *Opera*, 4:7, 959. Translated by Abraham Plunkett-Latimer. With this exception, all translations of Latin passages in this chapter are my own with corrections by Plunkett-Latimer and Roy Laird.

³⁶³ Prost, *Les sciences et les arts occultes*, 2:241.

medicine as its main object. As Mark van der Poel's recent study of Agrippa's writings in this genre has demonstrated, the letter is also a manifestation of Agrippa's general hostility to scholastic thinking (in spite of the more specific situation that instanced it), which he levelled more typically at theology.³⁶⁴

Beyond his contempt for the Antwerp physicians and learned medicine in general, however, the crux of Agrippa's argument has do to with what constitutes authoritative medical knowledge and practice. By his reckoning, the true healing arts have little to do with sophistry and dialectic, which he deems to be the chief occupation of the learned medical establishment. He argues that while these may have an important place in natural philosophy, they have no place in healing the sick: "Artem autem medendi hic ego voco, non illam logisticam, sive sophisticam medicinam. Quae licet naturalis philosophiae non infima pars sit medendis tamen aegris non admodum necessaria est."³⁶⁵ He declares that it is not at all pertinent to medicine, and, citing Serapion, affirms:

Artem ergo medicam, de qua haec controversia est, non aliam hic dicimus, nisi illam prorsus mechanicam et operatricem medicinam, quae, ut fatetur Thessalus ille vetustissimus olim medicus, neque dialectica, neque mathematica, nec ullis scholasticis disciplinis indiget...³⁶⁶

The ultimate source of the practical and operational medicine of which Agrippa here writes is attributed not only to Serapion, but also to Thessalus of Tralles and Cornelius Celsus, all of whom were classed in Galen's *De sectis* as opponents of the rational school (championed by Galen himself), belonging to either the methodical or empiric schools or sects of medicine.

³⁶⁴ Mark van der Poel, *Cornelius Agrippa: The Humanist Theologian and His Declamations* (Leiden: Brill, 1997), 11-12.

³⁶⁵ "This, however, I call the art of healing, not that logical or sophistical medicine. Granted, that which is not be the lowest part of natural philosophy [i.e. logic, "sophistical medicine"] is nevertheless hardly necessary for healing the sick," Agrippa, *Opera*, 4:7, 959.

³⁶⁶ "Therefore, we speak here for the medical art with which this controversy is concerned, not for any other [i.e., scholastic medicine] except that practical and operative medicine, which needs neither dialectics nor mathematics, nor any other scholastic discipline, as Thessalus that most ancient physician once admitted," Agrippa, *Opera*, 4:7, 960.

Thibault himself makes no reference to these authors, but Agrippa here appropriates the typically normative term “empiric” by presenting the lawsuit against Thibault as the modern legacy of a still unsettled ancient debate.³⁶⁷

According to Agrippa, this practical and operational knowledge is what sometimes leads old women to cure suffering patients even when learned doctors—whom he equates with sophists and dismisses as mere logicians—have failed. He argues that wounded pride over this failure on the part of the Antwerp physicians is the true motive of the lawsuit, citing Serapion and Cornelius Celsus, who said “ad curandi rationem [...] nihil magis conferre, quam experientiam, qua constat doctissimos medicos non raro ab rustica anu victos...”³⁶⁸ Indeed, Agrippa asserts that Thibault has succeeded in treating many sick people that had been abandoned by the Antwerp doctors in despair, and that this is the true cause of their grudge against him: “Atque haec causa est invidiae, hoc litis huius caput et cauda hoc vulnus, hoc ulcus, quod illis dolet, quod urit, quod stimulat: quia ipsi doctores cum sint, vincuntur ab idiotis.”³⁶⁹

While terms like empiric and charlatan were commonly used by university-trained physicians to marginalize practitioners who did not meet their criteria for authoritative knowledge and practice, Agrippa’s defense demonstrates, like Thibault’s *Apologie*, that such practitioners were not simply content with being confined to the periphery. They could employ sophisticated rhetorical strategies in re-centering epistemological and practical authority around themselves. As these passages demonstrate, Agrippa’s defense is founded on framing Thibault as

³⁶⁷ For a brief description of the medical sects of antiquity, as defined by Galen in *De sectis*, see Siraisi, *Medieval and Early Renaissance Medicine*, 3-5. The distinction between a logical or rational medicine and an empiric medicine, with roots in Hellenistic antiquity, continues to have currency in the twenty-first century: proponents of modern homeopathic medicine such as Harris Coulter see it as a direct legacy of the empiric sect, while the dominant “allopathic” medicine, with its aims at classification and emphasis on inductive reasoning, is the ultimate descendant of rational medicine as practiced in the early modern university. See Harris Coulter, *Divided Legacy: A History of the Schism in Medical Thought*, 2nd. ed., 4 vols. (Berkeley: North Atlantic Books, 1993).

³⁶⁸ “Reasoning brings nothing more than experience does to healing, which fits with the most learned doctors often having been defeated by an old peasant woman...” Agrippa, *Opera*, 4:7, 960.

³⁶⁹ “And so this is the cause of envy, this is the head and tail of this lawsuit, this wound, this ulcer, which pains them, which burns them, which torments them: because although these men may be learned, they are conquered by uneducated men,” Agrippa, *Opera*, 4:7, 960

an empiric in two complementary ways, both of which subvert the normative definitions received from the learned establishment.³⁷⁰

Firstly, Agrippa builds a positive characterization of “empiric” derived from the empiric school of antiquity, contrasting it to his construction of learned medicine, with its supposed preoccupation with dialectic contortions and horned syllogisms, rather than healing the sick. If learned medicine is typified by Galen and the rationalist school, Thibault is legitimated by relating his forms of knowledge practice to an alternative set of authorities from antiquity. As Ian Maclean has noted, these labels have survived because they had been transformed into definitions for heterodox positions, in much the same way that names of particular heresies are used in theology.³⁷¹ Agrippa complicates this use by appropriating a normative term—used throughout the middle ages to describe inferior others outside of the orthodox medical establishment—through a recovery of its classical meaning, lending it the credibility of an alternative and even superior form of medical knowledge with roots in ancient authorities.

Secondly, Agrippa takes the derogatory definition of empiric used by university physicians—connoting an illiterate or rustic—and appropriates it by suggesting that the “operational knowledge” of popular healers, including midwives and rustics, is more effective in the task of healing than the dialectic or syllogistic knowledge of the university-trained physicians. Here “empiric” in the sense of unlearned, unofficial, or popular is transformed from a term of derision to a mark of effectiveness.

³⁷⁰ As Nancy Siraisi has noted, the terminology used to classify medical practitioners was fluid and inexact. For instance, “doctor” always referred to a university graduate, but not always in medicine; “master” might refer to either a university graduate or a teacher more generally (also in any subject) or simply as a term of intellectual respect. *Medicus* was often indiscriminately applied to any person practicing medicine or surgery regardless of their level of education, while *physicus* often implied advanced university education and acquaintance with natural philosophy. “Empiric” was typically used by learned practitioners to refer to practitioners who had not acquired formal education, and was more often than not a simple term of abuse. As I will later argue, the ambiguity of these titles testifies to an even more important ambiguity about the status of practitioners within the “medical marketplace” of the early sixteenth century. See Nancy Siraisi, *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice* (Chicago and London: The University of Chicago Press, 1990), 20–21.

³⁷¹ Ian Maclean, *Logic, Signs and Nature in the Renaissance: The Case of Learned Medicine* (Cambridge: Cambridge University Press, 2007), 77.

Agrippa's line of reasoning goes even further: while recovering the ancient definition of "empiric" provides the epistemological foundation for his defence, he also offers a moral defence, founded in an idea of civic virtue. Beyond being a more effective healer, he also casts Thibault as *a better citizen* than the learned physicians. Their lawsuit against Thibault should be put into question, he argues, by his actions during the recent plague:

quando sudori ferum illud malum per hanc urbem grassabatur, an non tunc palàm visum et cognitum est, qui fuerint utiliores reipublicae medici? nonne tunc doctores illi è civitate profugi, contra sacramentum suum magistratui praestitum et debitam publicis stipendiis servitatem populum deseruerunt? Sed magistro Ioanne Theobaldo paucisque aliis huic civitati strenuè salubriterque succurrentibus, licet istis scholasticis medicis, et sesquipedalibus doctoribus sua sophismata nectere, et de vita ac sanitate nostra cornutis syllogismis disputare, ac pronuntiare obscuras sententias. Habeant sibi contendedendi et opinandi gloriam, et scholasticorum titulorum honores, primas in ordine stationes, et nominis sui publica stipenda.³⁷²

Laet, his father, and the other physicians who fled the city are denounced for having betrayed their oaths to the republic and people of Antwerp. Thibault and his unnamed colleagues, though not earning city wages, stayed behind and worked to help the suffering city. Agrippa concludes his argument for Thibault's virtue by comparing the situation to the parable of the Good Samaritan, who helped the dying man by the side of the road while the Levite and the priest (i.e. Laet and the physicians) passed him by.³⁷³ Indeed, Agrippa concludes his discussion with what can be read as an early defence of competition in the medical marketplace: he declares that in free city such as Antwerp, under the protection of the Holy Roman Empire, everyone should have the right to practice their art and make a living, and that patients should have the right to choose their own doctors.³⁷⁴

³⁷² "When that wild evil was advancing with the sweat through this city, was it not plainly seen and known who were the more useful doctors to the republic? Did not those physicians fleeing from the city, against their own oath to the state and their debt of service for their public salaries, did they not desert the people? But while Master Jean Thibault and a few others strenuously and beneficially helping this city, those scholastic physicians of yours and one-and-a-half-foot doctors wove their sophisms and disputed about life and health with horned syllogisms and pronounced obscure opinions. Let them have glory of supposing and striving for the honours of scholarly titles, and the first stations in rank, and public wages in their own names," Agrippa, *Opera*, 4:7, 60.

³⁷³ Agrippa, *Opera*, 4:7, 60. Cf. Luke 10:25-37.

³⁷⁴ Agrippa, *Opera*, 4:7, 60-1.

The vigour of this defence suggests a number of things: firstly, it is probable that in addition to defending Thibault, Agrippa had his own axe to grind with the Antwerp physicians. He himself was an illicit medical practitioner, was militantly opposed to university scholasticism, and was probably distraught following the plague: as another of his letters mentions, he lost his wife during the 1530 plague in Antwerp.³⁷⁵ It also seems likely that he knew Thibault before the plague, as both men frequented court circles of the Archduchess Marguerite of Austria. Agrippa had earlier served Louise of Savoy, the Queen Mother of France, in Lyon from 1524-1527, where she had apparently forced him to write astrological prognostications. His dismissal as her physician was in fact due to his unsatisfactory performance in astrology.³⁷⁶ He then left for Antwerp in search of employment, seeking patronage as Margaret's physician. In yet another letter, Agrippa notes that upon arriving in Antwerp, he found that the position had already been filled. If Thibault's claims on the titles pages of his works in this period are to be taken into account, he was probably the one that filled the position, though his claim to being her physician and astrologer might also imply a more casual consultancy.³⁷⁷ Either way, Agrippa was eventually appointed her advisor, speechwriter, and historiographer.³⁷⁸ Margaret died shortly thereafter in December of 1530, leaving Thibault without a protector: indeed, her death may have been what made him vulnerable to the lawsuit at the Council of Malines in the first place.

In spite of Agrippa's valiant defence, Thibault later testified that he was then imprisoned through the action of his enemies, prompting him to leave Antwerp for greener pastures. But why move to Paris? As we have seen in Chapter Two, France was a less than hospitable place to practice astrology, of which Thibault would have been well aware. His departure was likely facilitated by a connection to François I, which he might have made a year earlier during the

³⁷⁵ Prost, *Les sciences et les arts occultes*, 2:245.

³⁷⁶ Michaela Valente, "Agrippa, Heinrich Cornelius" in Kocku von Stuckrad, Antoine Faivre, and Wouter Hanegraaf eds., *Dictionary of Western Esotericism and Gnosis*, 2 vols. (Leiden: Brill, 2005): 1:5-6.

³⁷⁷ Prost, *Les sciences et les arts occultes*, 2:246.

³⁷⁸ Valente, "Agrippa," *Dictionary of Western Esotericism*, 1:5-6.

peace negotiations at Cambrai. Thibault's presence there is attested to by an astrologically-informed eyewitness account of the negotiations, known as "la paix des Dames" because they were conducted primarily between Margaret (for Charles V) and François I's mother Louise of Savoy. It was likely thanks to his position in his soon-to-be deceased patron's entourage that he gained access to the celebrations at Cambrai and ultimately to the court of François I. As he later claims, following his Antwerp troubles he was invited by the king himself to France, in order to serve as a "médecin ordinaire du Roy."³⁷⁹ In a sudden reversal of fortune, Thibault found himself propelled from prison to the halls of power.

2. Jean Thibault's critique of university medicine.

In 1531, shortly after his litigation, Thibault made use of the knowledge he had acquired to produce a short treatise on the plague, *Le Tresor du remede preservatif, et guerison (bien experimentee) de la peste et fievre pestilentielle*.³⁸⁰ The first edition was published in 1531 in Antwerp by the French printer Martin de Keyser, shortly after Thibault's troubles with Laet and the Antwerp physicians. Along with his empiric practices, the tract provoked the wrath of the University of Paris Faculty of Medicine when it was reprinted there in 1536, in an edition that has not survived but is referred to prominently in the record of his hearing. The book was reprinted again in 1544 after Thibault's troubles with the Paris Faculty of Medicine and shortly before his death.³⁸¹ The introduction of the *Tresor du remede preservatif* bears discussion because it contains Thibault's most extensive and fully-formed critique of the official medical establishment.

³⁷⁹ Jean Thibault, *La Triumphe de la paix célébrée en Cambray, avec la déclaration des entrées et yssues des dames, roix, princes et prélatz* (Antwerp: G. Vorsterman, 1529), 4°, BnF Res 4-LB30-144.

³⁸⁰ Jean Thibault, *Le Thresor du remede preservatif, et guerison (bien experimentee) de la peste et fievre pestilentielle [...], et ce quil appartient a ung parfaict medecin, etc.* (Antwerp: M. Lempereur, 1531) 4°, BnF Res. 4-TE30-20.

³⁸¹ Jean Thibault, *Le Tresor du remede preservatif, et guarison (bien experimentee) de la peste et fievre pestilentielle [...], et ce quil appartient a ung parfaict medecin, etc.* (Paris: s.d., 1544) 4°, orig. British Library 7561.aaa.45. This edition is available online through Gallica, and will be the one from which I cite. I unfortunately did not have the foresight to compare the British Library's 1545 edition to the BnF's Antwerp edition from 1531.

On the whole, the *Tresor du remede preservatif* is an early French example of the book of secrets tradition: it includes a section on what astrological knowledge it befits a healer to know, an explanation of the causes of plague, guidelines for medical prognosis, preventative treatment of plague fever, gout, epilepsy, pleurisy, and apoplexy, including advice for bloodletting and herbal recipes.³⁸² It also includes a brief advertisement for a special cure of Thibault's own invention, which he touts can cure the plague within two days, based on his experiments with it in Antwerp:

Nota de nostre pouldre.

Et sachez que nous avons une pouldre laquelle est exquisite par-dessus tous aultres remedes. Et se donne a boire avec deux onces de vin blanc et deux onces deaue rose, ou de scabieuse, dont la quantite doibt estre de la pesanteur dung angelot. Nous lavons experimente en la ville Danvers par plusieurs fois a nostre grand honneur, et prouffit des paciens tellement que aucuns ont este tous sains & guaris, en moins de deux jours, ce que offre attester. Dont navons point mis icy la recepte. Mais apres que nous aurons congneu la benivolence et liberalite des seigneurs et gouverneurs des villes, lors ferons tellement que ung chascun sera content de nous, faisant fin a nostre livre ou traicte de ladicte maladie...³⁸³

Perhaps not without reason, Thibault suggests that prudence keeps him from including the recipe here, citing his previous experience with the "benevolence and liberality" of the town lords and governors. It also goes without saying that keeping this one crucial secret recipe after revealing so many others also reflects a keen eye on Thibault's part for marketing his nostrums. Thibault offers much more than recipes and advertisements in his book of secrets, however. He also provides a thorough exposition of his epistemological convictions.

³⁸² On the book of secrets tradition, see William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994).

³⁸³ "A note on our powder: And know that we have a powder that is exquisite above all other medicines. And it is given in drink with two ounces of white wine and two ounces of rose water, or of scabiosa, of which the quantity should be the same weight as an angelot [a coin stamped with the image of a small angel]. We have tested it in the town of Antwerp many times to our great honour, and to the profit of patients, who were all clean and healed, in less than two days, of which I [can] offer testimony. Of which I have not included the recipe here. But after we knew the benevolence and liberality of the lords and governors of towns, during which time it did so affront them that every one among them would have contention with us, putting an end to our book or treatise on said disease," Thibault, *Tresor*, fol. C₇^o.

He begins with a dedication to Jerome van der Noot, Chancellor of Brabant (1515-1531),³⁸⁴ which presents the work for judgement by the Chancellor : “A vous honorable Seigneur qui estes le chef, amateur, pillier et deffendeur de tous ceulx qui sont scientifiques, et qui ayme science je adresse se present traicte.”³⁸⁵ He declared that he will not only tell of how the plague is engendered and decays, but will also explain another factor, namely the present state of the medical professions, which has led to much needless death. He concludes by dedicating his “simple and rough composition” to the Chancellor, submitting himself to the judgment as a man he knows to be wise. This kind of correction, Thibault notes, is part of a process: “Come dict Socrates, l’homme est corige par experience, et enseigne par mutation du monde.”³⁸⁶

It is this professional problem (the “abuse” of the medical arts) that Thibault then addresses in his introduction.

Avant que je declare aucune chose de la peste je veulx donner premier a congnoistre qui a este et qui est la faulte que on a trouve, et que encore on trouve journellement tant dabuz en lart de Medecine: si que plusieurs gens sont gistez es mains des Medecins, et aussi que quant il vient quelque estrange maladie, les plus grandz de tistres ou les plus renommez en ladicte science sont ceulx qui pour le present ont le moins dexperience ou de congnoissance.³⁸⁷

Crucial in remedying this incapacity to recognize and treat both common and unusual diseases, Thibault argues, is that they know the noble art of astrology, “par laquelle on peult juger la complexion de la personne, la disposition de sa maladie, avec le temps de la guarison ou mort

³⁸⁴ Peter Bietenholz and Thomas Deutscher, eds., *Contemporaries of Erasmus: A Biographical Register of the Renaissance and Reformation*, 3 vols. (Toronto: University of Toronto Press, 2003), 3:18-19; and Arthur Gaillard, *Le conseil de Brabant: Histoire, organisation, procedure* (Brussels: J. Lebègue, 1902): 3:338.

³⁸⁵ “To you honourable Lord, chief, lover, pillar, and defender of all those who are scientists, and who loves science, to you I address the present treatise,” Thibault, *Tresor*, fol. A2r^o.

³⁸⁶ “As Socrates says, man is corrected through experience, an taught by the changes of the world,” Thibault, *Tresor*, fol. A2v^o.

³⁸⁷ “Before I declare anything about the plague I want to first offer knowledge of what has been and is the error that we find, and that we still find daily so many abuses in the art of medicine: it is that many people are put [lit. laid] in the hands of healers, and also that when a strange illness comes, those with the greatest titles or the most renown in said science are those who, at present, have the least experience or knowledge,” Thibault, *Tresor*, fol. A3v^o.

dicelle, ainsi que nous enseignent Haly, Ptol., Alcabitius.”³⁸⁸ Indeed, citing Hippocrates’ *De aeris mutatione*, he declares “lart d’astrologie n’est point une petite partie de Medecine, mais toute.”³⁸⁹

In spite of this seemingly unequivocal statement, the rest of the treatise demonstrates that greater competence in astrology is not a universal solution to the problems of early modern medicine, however (though Thibault does seem to be asserting that medicine can be practiced, in large part, with astrological prognosis followed by the administration of herbals). As far as prognosis is concerned, astrology has important uses in predicting when plague will strike, as Thibault notes, but is not the only method for doing so: “Aussi est notoire et toute evident, que nul ne peut comprendre ne juger les maladies a venir, si ce nest par un influence du ciel, et qu’il entende bien ladicte science d’astrologie, *ou par grace divine*.”³⁹⁰ Importantly, this qualifier implies that divinely inspired prophecy, like astrology, is an effective and useful method for predicting the future, but it also manifests Thibault’s other key conviction, that astrology and medicine, like any arts, are divine callings.

For Thibault, accurate knowledge and competent practice is contingent upon some imputation of grace to the practitioners, otherwise their efforts in these arts will be in vain:

Cest a dire que dieu donne ses dons a ung chascun comme il luy plaist, sans regarder la personne. Il est donc evident que de nous mesmes navons point la puissance d’apprendre aucune science ny den estre bon ouvrier, si ce nest que le don de grace soit donc a la nature dicelle.³⁹¹

³⁸⁸ “By which we can judge the complexion of a person, the disposition of his sickness, with the time of healing [i.e. critical day] and death of said person, as Haly, Ptolemy, and Alcabitius teach,” Thibault, *Tresor*, fol. A₃v^o.

³⁸⁹ “The art of astrology is not a small part of medicine, but all of it,” Thibault, *Tresor* fol. A₃v^o-A₄r^o.

³⁹⁰ “It is also notable and quite evident that no one can understand nor judge those sicknesses which have yet to come, unless it be by the influence of the heavens, and that he understand the science of astrology well, *or by divine grace*,” Thibault, *Tresor*, fol. A₄r^o. Emphasis added.

³⁹¹ “That is to say that God gives his gifts to each as he pleases, without looking at the person. It is thus evident that we ourselves do not have the power to learn any science nor to be good workers, unless it is by a gift of grace in each of our natures,” Thibault, *Tresor*, fol. A₄r^o.

Recalling his dispute with Laet, Thibault here compares those who vainly attempt to learn such arts without being truly called to them “clers en Theologie,” perhaps because of their veneration of authoritative texts, and scholastic practices over experience and “natural reason.” They received no divine calling to practice their art, and instead turn medicine or astrology into “other theologies” complete with inane disputations and the veneration of texts instead of emphasizing experience:

Car comme vous ay dict en ma response contre maistre Gaspar Laet en allegant Ptolomeus et autres, on a trouue plusieurs grans clers en Theologie, lesquelz ont voulu apprendre l'art d'astrologie, mais ilz ny ont rien sceu comprendre. Ainsi est il de toutes autres sciences lesquelles sont difficiles a ceulx qui veullent entreprendre de scavoir la ou ilz ne sont point appelez [par] la nature diceles.³⁹²

As he notes at the beginning of the *Apologie*, Thibault considers himself to have been called in this way, stating that “ma nature [...] de jeunesse a choisy lart que je exerce qui est Astrologie Medecine, Geometrie, et Arithmetique.”³⁹³ Here he also declares that whenever God reveals a new science or the cure of a given sickness, he favours the poor and the humble as his vehicle,

³⁹² “For as I have told you in my response against Gaspar Laet, in diminishing Ptolemy and others, we have found many great clerks in theology, who wanted to learn the art of astrology, but they knew not how to understand anything. And so it is with all other sciences, which are difficult to those who want to undertake to know there where they were not called by their natures,” Thibault, *Tresor*, fol. A₄v^o-A₅r^o.

Thibault later proposes a fascinating pedagogy, wherein children are brought to a great room, illustrated by paintings of the different arts. When brought here, their peculiar natures would reveal what art God chose for them, and then they would apprentice with masters in that art:

Et a cause de ce pour trouver les natures des enfans, les Romains souloient avoir en leur ville une grande salle la ou estorent paintz tous les mestiers et sciences qui se faisoient en ladicte vile. Et quand leurs enfans estoient en aage d'apprendre quelque mestier ou science lors les menoient en celle salle, a celle fin que lesd enfans peussent veoir et apprendre l'art et science dont leur nature les natoit. Et par ce venoient les peres a faire apprendre a leurs enfans ce a quoy nature les avoit appris. Et deuenotent bons ouvriers par-dessus toutes aultres nations comme [*sic*] nous recite Titus Livius et aultres hystoires. Maintenant nous faisons apprendre a nos enfans ce que bon nous semble. Et ce est la cause que plusieurs sont destruit, et viennent a perdre tout ce que on leur met entre leurs mains. Et apres quilz sont privez de tous leurs biens, lors viennent a faire aultre pratique ou mestiers tel que nature leur enseigne, et dont ilz sont enclins, comme on void evidentement sur plusieurs qui ont laisse marchandise et se sont renduz courtisiens, et en sont devenus riches. Les aultres ont laise la guerre, ou la court pour faire train de marchandise. Tellement que nature d'elle mesme rameine son homme la ou il doit estre. Thibault, *Tresor*, fol. A5r^o.

Although Thibault cites Livy, this “sorting room” seems more reminiscent of Platonic theories of education than anything else.

³⁹³ “My nature in youth chose the art I practice, which is astrology, medicine, geometry, and arithmetic,” Thibault, *Apologie*, fol. A₂r^o.

not those who are esteemed as learned or of great title.³⁹⁴ This is especially true of astrology and prophecy, he notes:

Or entre toutes les graces des sciences la plus noble est l'art et science d'astrologie, que Nostre Seigneur a principalement laisse aux povres et humbles lesquelz a appelle et appelle en leur donnant icelle quand bon luy semble. Comme aussi lisons en la Sainte Escripiture que plusieurs Prophetes sont venuz de simple lieu et sans quelque industrie ou sapience humaine ont parle les vrays parolles de Dieu.³⁹⁵

Thibault at once equates astrology with inspired prophecy and taps into the persistent association in French popular literature between the humble of station, such as shepherds, and the astrological arts. This affinity is common at least since the publication of the *Calendrier des bergers* in 1493 and perhaps founded on the biblical image of shepherds from the Nativity. This assertion might seem somehow more paradoxical in an author like Thibault, however, where learned sources such as Ptolemy's *Tetrabiblos* and Albumasar's *De magnis coniunctionibus* are often cited: while he declares that astrological "intuition" or some other interpretive skill is peculiar to the poor, he cites learned astrological treatises, the majority of which were still only available in Latin, language of the learned. Thibault again blurs the line between "learned" and "popular" forms of knowledge.

Thibault is content to pick and choose suitable doctrines towards learned texts, sorting the wheat from the chaff, but finds the official medical establishment itself altogether ineffective. This is because, he argues, it includes so many practitioners who do not have the proper "entendement" he describes. He even goes so far as to suggest an alternative establishment be created, and that given students with a calling for medicine, and seeing as everything is now available in books, he could train them in two months to be astrologer-physicians: "Car de telz

³⁹⁴ "Parquoy quand il vient que Dieu veult reveler au monde quelque science ou remede de maladie incongneu, l'experience d'icelle science sera et tousjours a este divulgeuer et manifestee par les simples, et non point par les hommes estimez doctes et de grand nom," Thibault, *Apologie*, fol. A₄^r-v^o.

³⁹⁵ "Hence, among all the graces of the sciences the most noble is the art and science of astrology, which Our Lord has primarily left to the poor and humble, whom he has called and calls in giving it to them when it pleases him. As we also read in Holy Scripture that several Prophets came from simple places and without some [much?] industry or human wisdom nonetheless spoke the true words of God," Thibault, *Apologie*, fol. [sig.].

maistres et maistresses pourroit on faire beaucoup en deux moys de temps, aussi bons que iceulx tant en judicatures diurnes, que pour ordonner les receptes ou tater le poulx, veu que lon trouve tout par escript aux livres.”³⁹⁶ The books here described, including technical how-to manuals and medical recipe books, all fall within the framework of the book of secrets tradition. Thibault suggests taking those who already have some experience in healing and training them in other practices, such as astrology, using the books of secrets and other literature that printing has made available to a broader audience. Further, it should be noted that Thibault says “both masters and mistresses,” male and female could be trained in these arts, probably with midwives and wise women in mind. There is some question as to whether or not this is a serious offer to train students, or simply a further insult to university physicians. Either way, the proposal of an alternative “popular” medical curriculum, geared toward practical training in astrology and herbals, adds a crucial dimension to his critique of university medicine and reveals just what kind of experiential knowledge he values.

3. *Jean Thibault vs. the University of Paris Faculty of Medicine.*

Before long Thibault would find himself faced with the same old problems in Paris, and the opinions of the *Tresor du remede preservatif* are prominently described as “scandaleuse” at his hearing.³⁹⁷ Where Thibault likely hoped to find approval as an astrologer and healer, he instead found persecution—not, as one might expect, at the hands of the University of Paris’s Faculty of Theology, the self-appointed religious watchdogs of early modern Europe—but at the hands of the Faculty of Medicine. In these and other cases, notably that of Michael Servetus a

³⁹⁶ “For of such masters and mistresses we could do much in two months of time, [making them] just as good as the former [university physicians] as far as making diurnal judgements, ordering recipes [i.e. prescriptions] and taking pulses, seeing as it can all be found written in books,” Thibault, *Tresor*, fol. A₄r^o.

³⁹⁷ The two sources for Thibault’s case are the records of the faculty, published and edited in 1964 by Marie-Louise Concasty as the *Commentaires de la Faculté de Médecine de l’Université de Paris 1516-1560*, Paris: Impr. nationale, 1964); and a transcribed extract from the “Registres de parlement,” offering a detailed four-page summary of one of Thibault’s hearings, dated 1535. Though the original records of the Parlement for the 1530s have not survived, materials pertaining to Thibault’s case are transcribed in César Egasse du Boullay, *Historia Universitatis Parisiensis* (Paris: Petrum de Bresche and Iacobum de Laize-de-Bresche, 1673; facsim. repr. Frankfurt: Minerva, 1966), 6:264-7.

few years later, astrology was considered the purview of the medical faculty in matters of regulation. Beginning in 1533, Thibault was summoned before the Châtelet, seat of the city provost, prosecuted as an illegal medical practitioner, and probably fined or briefly imprisoned.³⁹⁸ The faculty records show he lodged an appeal with the Parlement de Paris, but rather than improving, his situation quickly deteriorated: on November 7, 1534, a new humanist dean of medicine was elected by the faculty, one Jean Tagault.³⁹⁹

As Jean Dupèbe notes, Tagault seems to have been elected on a reform mandate. His platform was concerned primarily with the regulation of medical practices within Paris: standardizing the apothecaries, cracking down on empirics and other illicit practitioners, and taking an unusually radical stance against the practice of medical astrology.⁴⁰⁰ Indeed, on November 17, only ten days after being elected dean, Tagault presented a request to the Parlement specifically concerning almanacs and prognostications, a copy of which had survived in the *Commentaires de la Faculté de Médecine*:

A nos seigneurs de Parlement.

Suppliant humblement les doien et docteurs de la Faculté de medecine que, comme ainsy soit que plusieurs gens ignares, empiriques et imposteurs, ne aiant aucune cognoissance de l'art et science de medecine et astrologie, se entremettent et ingerent temerairement toutz les ans de composer, faire imprimer et exposer en vente aucuns almanachs et prognostications remplies de folles superstitions et vanités grandes, qui porroient induire et de faict induissent plusieurs gens en erreur et infidelité qui est une peste grande et enorme en la Chrestienté, mesmes en ce temps present auquel regnent et pullulent tant de schismes et heresies, se consideré, il vous plaise ordonner que inhibition et deffense soit faicte à toutz imprimeurs, libraires, et aultres vendeurs de livres de ne imprimer ou exposer en vente aucuns almanachs, prognostications ou telles manieres de libelles, que premierement ilz ne soient veuz et visités par les docteurs de ladicte Faculté de Medecine, affin, après la diligente lecture d'iceulx, de les approuver ou repprouver, comme de raison sera.⁴⁰¹

³⁹⁸ *Commentaires de la Faculté*, 226b.

³⁹⁹ *Commentaires de la Faculté*, 241a.

⁴⁰⁰ Michael Servetus, *Discussion apologétique pour l'astrologie contre un certain médecin*, ed. Jean Dupèbe, *Cahiers d'humanisme et Renaissance* 69 (Geneva: Droz, 2004), 13; *Commentaires de la Faculté*, 271a.

⁴⁰¹ "To our lords of Parlement. The dean and doctors of the Faculty of Medicine do humbly request that, as there are many ignorant people, empirics, and impostors, having no knowledge whatsoever of the art of medicine or astrology, who intervene and boldly intrude every year to compose, have printed, and exhibit for sale a number of almanacs and prognostications, filled with great vanities and insane superstitions, which can and do mislead many people into error and unfaithfulness, which is an enormous plague on Christianity,

The following note appears in the margin of the copy in the *Commentaires*, making the main target of this proposed legislation clear: "Hec suplicatio potissimum fiebat contra magistrum Joannem Thibault, nugivendum et impostorem maximum."⁴⁰² There can be little question that Thibault's case provided the key impetus to the request: in addition to being an empiric healer, which seems to have been the original cause of his troubles, Thibault was now being pursued as a practising astrologer. Like medical practice, astrological publishing was also a prerogative of the faculty as well, insofar as it falls within the province of medical publishing. From this perspective, the attempt to ban the almanacs provides one more instance of the Paris faculty guarding its privileges.

As Jean Dupèbe has noted, the University of Paris was deeply divided on the question of astrology.⁴⁰³ At the beginning of the century, the disciplines of the quadrivium that laid the foundation for advanced training in medical astrology had been revitalized by no less than Jacques Lefèvre d'Étaples, then regent of the colleges of Boncour and of Cardinal Lemoine. Inspired by Ficino and an interest in Kabala and Pythagorean numerology, Lefèvre was briefly able to attract interest in mathematics and astronomy (in addition to Greek) in spite of the traditional primacy of logic at Paris. Dupèbe even provides persuasive evidence that it was in such an atmosphere that Rabelais may have completed his study of the quadrivium between

especially in these times of schism and heresy, with this being considered, that it will please you to order that a prohibition and ban be placed on all printers, booksellers, and other vendors from printing or showing any almanacs, prognostications, or other such booklets for sale, unless they have first been seen and inspected by the doctors of said Faculty of Medicine, in order that they might be approved or reproved, as the case may be," *Commentaires de la Faculté*, 242a-b.

⁴⁰² "This request was chiefly made against Master Jean Thibault, a great impostor and vendor of nothings," *Commentaires de la Faculté*, 242a, n.3.

⁴⁰³ Jean Dupèbe, "Rabelais, médecin astrologue du *Pantagruel* au *Tiers Livre*," in Franco Giaccone ed., *Le Tiers Livre: Actes du colloque international de Rome (5 Mars 1996)*, Études rabelaisiennes 37 (Geneva: Droz, 1999), 79.

1527-1530 in order to gain the Master of Arts degree, a prerequisite for the medical studies he would later undertake at Montpellier.⁴⁰⁴

The popularity of Pico della Mirandola's *Disputationes adversus astrologiam divinatricem* (1496) had led a number of Parisian humanists, including Jean Tagault, to denounce astrology altogether as a superstitious and morally dangerous form of divination.⁴⁰⁵ The evidence accumulated by Lynn Thorndike in his *History of Magic and Experimental Science* also suggests that the question of astrology's legitimacy for Christians was more contentious in Paris than anywhere else in Europe at this time. Beginning with the case of Simon de Phares in 1490, a hostile attitude toward astrology seems first to have been set by the Faculty of Theology. Astrology is seldom practiced by native Parisians: all of the notable practitioners whose careers Thorndike surveys come from elsewhere, and most have at least one rough spell with either civil or university authorities.⁴⁰⁶ Their troubles are not universal, however: the mathematician and astrologer Oronce Finé, first imprisoned and then made professor at the Collège de Navarre, offers a case in point.⁴⁰⁷ As Thorndike notes, Paris was exceptional in this hostility: the practice of astrology seldom involved difficulties with the law elsewhere.⁴⁰⁸

Perhaps the most notable of these itinerant astrologers to wander into Paris was Michael Servetus, who arrived in Paris while Thibault was being prosecuted by the Faculty. Registered as a medical student in 1536, Servetus began teaching a course on astrology alongside his studies; Dupèbe speculates that his ambition was to introduce Paris to learned humanist astrology then in vogue in Wittemberg, Strasbourg, and Basle. The course was interrupted personally by a member of the faculty, perhaps Tagault himself or his student Jacques Houllier. The faculty then organized a series of public lectures condemning astrology. Servetus replied in kind with a

⁴⁰⁴ Dupèbe, "Rabelais, médecin astrologue," 74-5.

⁴⁰⁵ Dupèbe, "Rabelais, médecin astrologue," 85.

⁴⁰⁶ Lynn Thorndike, *A History of Magic and Experimental Science* (New York: Columbia University Press, 1923-1958), 5:285.

⁴⁰⁷ Thorndike, *A History of Magic*, 5:297.

⁴⁰⁸ Thorndike, *A History of Magic*, 5:307.

printed pamphlet, *In quondam medicum apologetica disceptatio pro astrologia*; at the request of Tagault, Servetus was brought before the Parlement. His course was banned, copies of his treatises were to be confiscated, but charges of heresy were waived. Servetus then left Paris, but not before being awarded a doctorate by Jean Fernel and Guinther d'Andernach, two members of the faculty favourable to astrological medicine.⁴⁰⁹ According to the faculty's lawyer in the case, even Jean Thibault, whose case was still ongoing, had received a copy of Servetus's *Apologetica disceptatio*.⁴¹⁰

While both Servetus and Thibault were astrological practitioners prosecuted by the faculty, their cases also have some important differences. Where Servetus was a member of the university community who had overstepped his bounds, Thibault was an "ignorant" irregular practitioner from the perspective of the faculty. The transcript of one of his hearings offers an intimate account of how he came to practice in Paris and why he so offended the faculty. In the almost telegraphic testimony, likely taken by a notary, Thibault began by explaining his troubles in Antwerp, where we learn he had a family, and how he came to the king's attention:

[A dit] que le Roy estoit à Cambrai où estant adverty de son sçavoir et experience le voulut voir et parler à luy feroit autant de bien que nul autre Prince luy pourroit faire. Luy à la parole du Roy avoit abandonné la ville de Nevers [*sic*, Anvers] où il se tenoit et pratiquoit fort en ladite Science et avoit cinq ou six petits enfans, et sa femme s'estoit retirée pardeçà, esperant en la promesse du Roy. Incontinent qu'il avoit esté en cette Ville, on luy auoit voulu improprer beaucoup de deshonneur, et avoit esté constitué Prisonnier, finalement jetté hors des Prisons, auroit voulu pratiquer, en quoy il auroit esté empesché par les Demandeurs, tellement qu'il s'en seroit ensuivy l'Arrest, dont lesdits Demandeurs ont parlé.⁴¹¹

Thibault then explained that he is known to numerous figures at court. Further, the king, faithful to his word, then took him on as a physician and gave him his "lettres patentes."

⁴⁰⁹ See Dupêbe's introduction to his edition of Servetus, *Discussion apologétique*, 8-29.

⁴¹⁰ Servetus, *Discussion apologétique*, 20.

⁴¹¹ "[Said] that the king was at Cambrai where, having learned of his knowledge and experience, wanted to see him and speak to him, would do him as much good as any Prince could. On the king's word, he left the city of Antwerp, where he stayed and practiced well and had five or six little children, and his wife retired over there, in hope of the king's promise. Incontinent [unruly] as he was in said town, people sought to sully him with much dishonor, and was held prisoner, finally thrown out of the prisons, wanted to practice, but was prevented by the litigants, so much so that he was then arrested," Du Boulay, *Historia Universitatis Parisiensis*, 6:265.

Depuis lequel il avoit esté mandé par le feu Legat Chancelier de France à Fontainebleau où le Roy estoit, le presenterent ledit Legat et Seigneur d'Aubigny, avec plusieurs Personnages qui sçauoient et connoissoient son experience, au Roy, lequel *memor verbi sui in quo ei spem dederant*, le retint son Medecin ordinaire, luy en decerna ses lettres Patentes, au dos desquelles est transcript le serment qu'il a presté es mains du premier Maistre d'Hostel du Roy, le Seigneur de Montchenu, comme ont accoustumé faire tous les Medecins du Roy.⁴¹²

Thibault then explained this as his rationale for practicing medicine within Paris, and that he believed that his station made him immune to the Faculty's ruling.

Et se voyant Medecin du Roy, et par cette nouvelle qualité croyant ledit Arrest estre assoupy et estaint, comme la verité est, et qu'il estoit *in casu exceptionis* des Privileges de la Faculté de Medecine: Car par iceux il est dit que aucun ne sera receu à pratiquer en l'Art de Medecine en cette Ville, s'il n'est Docteur en ladite Faculté de Medecine en l'Université de Paris, ou qu'il n'ait esté examiné par 4. Docteurs de ladite Faculté de ladite Université, s'il n'est qu'il soit Medecin ordinaire du Roy ou de quelque autre grand Prince. Se feroit mis à exercer son Art et pratiquer comme auparavant, a fait de tres-belles et bonnes cures en cette Ville et ailleurs, tellement que plusieurs Personnes s'en sont bien trouuées, et n'y avoit un seul qui se plainist de luy.⁴¹³

Effectively, Thibault hoped that he would be exempt from examination and free to practice because he held papers showing he was a physician to the king.

Such cases, pitching royal authority against guild privileges, are not without precedent.

As Laurence Brockliss and Colin Jones have observed, even though they were the official guarantors of the corporate medical community's guild privileges, French kings often overstepped their own prescriptions by licensing practitioners outside of it and making them part

⁴¹² "Since this he was [mandated?] by the deceased Legate Chancelor of France at Fontainebleau where the King was, presented him to the Legate and Lord of Aubigny, with several others who knew and understood his experience, to the King, who *memor verbi sui in quo ei spem dederant*, retained him as Physician Ordinary, decreed him his patent letters, on the back of which is transcribed the oath that he took and the hand [signature?] of the Mayor of the Palace [?], the Lord of Montchenu, as is accustomed with all of the King's Physicians," Du Boulay, *Historia Universitatis Parisiensis*, 6:265.

⁴¹³ "And seeing himself Physician Ordinary to the King, and by this new station believing said ruling abolished and extinguished, as truth is, and that he was *in casu exceptionis* of the privileges of the Faculty of Medicine: for by them it is said that none shall be received to practice the art of medicine in this city, unless he is a doctor in said Faculty of Medicine at the University of Paris, or that he be examined by four doctors of said faculty from said university, if he is not Physician Ordinary to the King or some other great prince. Having brought himself to exercising his art and practicing as he had before, has made some good and very beautiful cures in this city and elsewhere, so much so that several people have found themselves well, and that there was but one who complained of him," Du Boulay, *Historia Universitatis Parisiensis*, 6:265.

of the royal medical household.⁴¹⁴ In this way, the kings of France were the most powerful and frequent breakers of their own rules for trade regulation.⁴¹⁵ One can imagine the frustration of the Faculty with Thibault's situation and others: court patronage provided a constant check against the normal rules of incorporation and their attempts to centralize orthodoxy throughout the early modern period.

Though Thibault's practice as an empiric forms a key part of the case against him, so too do his publications, especially the *Tresor de la remede preservatif* and his prognostications. On the whole, Thibault declared that there was nothing problematic or out of the ordinary in printing legitimate prognostications: so far as he was concerned, printed astrological prognostications were simply a commonplace of early sixteenth century life.

Quant aux Prognostications, a dit qu'il y auoit vne qui auoit esté imprimée en cette Ville par un nommé Nyvert Libraire, et cette-là a ledit Deffendeur composée selon les Astres, conjaculation [*sic*] d'iceux et motion des Signes qui n'est chose insolite, & y en a assez d'autres qui en font et faisoient, et n'estoit chose tant à reprendre que comme les Demandeurs disoient.⁴¹⁶

As such, he stood by his almanac and prognostication, as well as his right to disseminate such publications generally. Beyond presenting him with his own prognostication for 1536, however, Thibault's accusers also had another piece of evidence in the form of a *second* prognostication that was in circulation. Thibault disavowed authorship of this one, declaring: "Quant à l'autre Prognostication, elle a esté imprimée *falso nomine*, dudit Deffendeur par les haineurs et malveillans dudit Defendeur."⁴¹⁷ Here again print intervenes in Thibault's trials in a rather unique way: as far as can be ascertained, the "Pronostications vaines, ridicules, et scandaleuses"

⁴¹⁴ Brockliss and Jones, *The Medical World*, 238.

⁴¹⁵ *Ibid.*, 243.

⁴¹⁶ "As to the prognostications, he said that there was one that had been printed in this city by a bookseller by the name of Nyvert, and this one had been composed in accordance with the stars—their conjunctions and the motions of the signs [of the zodiac]—which is not out of the ordinary, and that there are plenty of others who do so and have done so and that this is not something to reprimand [i.e. something blameworthy], as the plaintiffs say it is," Du Boulay, *Historia Universitatis Parisiensis*, 6:265-6.

⁴¹⁷ "As to the other prognostication, it was printed *falso nomine* [in false name], of said defendant by haters and ill-wishers of said defendant," Du Boulay, *Historia Universitatis Parisiensis*, 6:265-6.

to which his accusers were referring were copies of a mock-prognostication, printed in Thibault's name.⁴¹⁸

Jean Thibault was not the first astrologer to be ridiculed in printed mock-prognostications: indeed, an entire genre of "prognostications joyeuses" exists, parodying annual or perpetual prognostications in prose or in verse with a mixture of burlesque truisms and riddles. Though the 1533 *Pantagrueline prognostication* quoted in the introduction to this thesis is without a doubt the most famous instance of this genre today, Jelle Koopmans and Paul Verhuyck have catalogued over forty-six in French alone from the fifteenth century to the turn of the seventeenth.⁴¹⁹ As Koopmans and Verhuyck have shown, the genre dates back to the very beginnings of printed prognostications, the first having been composed by the rhetoricien poet Jean Molinet in 1476. The prognostications were ridiculed by poets like Molinet and satirists like Rabelais, who in their parodies self-consciously experimented with the ambiguity inherent in prophetic texts, sometimes through the use of comic truisms and riddles.⁴²⁰ Thibault does, however, bear the dubious honour of having a mock-prognostication used as evidence against him in a court case.

The mock-prognostication has survived in two editions, the first entitled *La Prenostication frere Tybault*, and the second, the *Prenostication nouvelle de frere Thibault*, whose text is identical with the exception of a poem which had been tacked to the end of the former, "Lepitaphe de Triboulet," the king's court jester. The title page of the first, which shows an armillary sphere, bears the following warning: "Plusieurs me liront qui rien ny entendront si ne me lisent tout du long."⁴²¹ The mock-prognostication then offers its riddle:

⁴¹⁸ Du Boulay, *Historia Universitatis Parisiensis*, 6:265.

⁴¹⁹ Jean Molinet, *Les pronostications joyeuses*, eds. Jelle Koopmans and Paul Verhuyck, Textes littéraires français (Droz: Geneva, 1998), 23.

⁴²⁰ Koopmans ed., *Les pronostications joyeuses*, 23.

⁴²¹ "Many will read me but will not understand me if they do not read me all the way through," *La prenostication de frere Tybault* (s.l.: s.n, s.d), 4°, BnF Res. Y2-2573, fol. A₁r^o.

Premierement je treuve que en ceste presente annee y aura plusieurs princes comme roys, roynes, et leurs serviteurs qui se alieront ensemble, et au commencement auront bonne amitie les ungs avec les autres : mais a la fin auront si grant discension ensemble quilz trebucheront et afineront par feu tellement quilz seront tous consumez en cendre. Item ceste presente annee grandes merveilles adviendront en la terre chrestienne. Cest une creature qui naistra sur la terre, laquelle creature aura la barbe de chair, et le bec de corne, et les pieds comme ung Griffon, et a la voix dicelle creature se esleveront plusieurs corps sans ame, faisant bruit a merveilles. Et du tresgrant brui que les corps sans ame feront plusieurs bonnes gens, comme chrestiens et chrestiennes au lieu la ou ilz orront ledict bruit courront sur le does dung des quatre evangelistes, et passeront par ung lieu la ou ilz trouveront habondances de eaues. Et se distillent lesdictes eaues par fil de soye, et en icelluy lieu trouveronet gens mors sans Pitie lesquelz remueront peaulx de bestes mortes, et ne cesseront lesdictes gens mors de crier et de beller jusques a ce que le filz ay mange le pere et vous certifie estre vray.⁴²²

The anonymous author then provides a "Declaration de ladicte pronostication," that offers the key to the enigma: the kings, queens, and princes are merely those found on playing cards, tossed into a fire by upset gamblers; the monster, not at all malevolent, is but a rooster, crowing at dawn; the noisy, soulless bodies are church bells, which ring and call people to mass; the evangelist on whom the people tread is none other than saint Luke, patron of leatherworkers, who make shoes; holy water is distilled on the silk ropes, and the people who need no pity at death are the clergy and regular religious; the dead skins they sort through are manuscript books, written on parchment, and they will sing and sometimes bellow until the father (the priest) has eaten the son (the Eucharist).

The joke was obviously lost on Thibault's accusers, who dismissed it as vain, scandalous, ridiculous, and overall "frivole." Presumably, Thibault was even less amused: beyond the

⁴²² "First I find that in this present year there will be many princes, as well as kings, queens, and servants, that will ally together, and at the beginning [of the year] will maintain good friendship amongst one another: but at the end of the year, they will together have such great dissent that they will end in fire and be consumed into cinders. Item, in this present year great marvels will happen in Christendom. A creature will be born on the earth, and said creature will have a beard of flesh, a horned beak, and the feet of a Griffon, and the voice of said creature will rouse many bodies without souls, making a marvellous noise. And by this great noise the bodies without souls will bring many good people, Christians, to the place where the sound is coming from, running on the back of one of the four evangelists, passing a place where they will find an abundance of water. This water will be distilled on silk ropes, and in this place they will find people dead without pity, who sift through the skins of dead beasts and never cease to cry and bellow until the son has eaten the father and certify that is true," *La pronostication de frere Thibault*, fols. A₁v^o-A₂r^o.

derision of his character and craft that it represents, it was being used as cause for levelling a fine against him, banning him from medical practice, and censoring his publications. Curiously, however, the argument by which Thibault seeks to prove that it has been falsely attributed, and consequently to have it dismissed as evidence, is grounded in a lie. Thibault declares that he has never discussed England in any of his prognostications, and that this one does.⁴²³ In fact, Thibault offers predictions concerning England and Henry VIII in every one of his four surviving prognostications, two of which were even translated into English. Though his prognostication for 1536, presumably the other one being used as evidence against him, has not survived, it can be presumed that he made predictions about England in it as well. On why he uses this deceptive line of reasoning I have only a theory, derived from a single clue: the word “Angloys” is prominently set far to the right on the final page of the gathering, and probably caught Thibault’s attention when it was presumably presented to him for inspection.⁴²⁴ Seeing it there, so prominent in the page layout, and having little time to go through the pamphlet, he quickly cooked up a hollow excuse to lend further credit to his declaration that it was printed *falso nomine*. One wonders why he did not simply point out that it would be illogical to publish two prognostications for the same year.

The ultimate importance of these points to the case is marginal: the farce, and who wrote it, was of little concern to the litigants, who were hostile to astrological prognostications altogether. In the record of the hearing, Thibault’s quick defense is broken abruptly by the sudden intervention of the Procureur du Roy,

disant que la cause qui s’offre, ne concernoit seulement ledit Deffendeur, mais les Sujets du Roy, mesme les Manans et habitans de la ville de Paris et la chose

⁴²³ “Laquelle parle du Roy d’Angleterre, & laquelle jamais ledit Deffendeur ne fit, en la desadvouant, concludoit par ce moyen à absolution des Conclusions desdits Demandeurs,” Du Boulay, *Historia Universitatis Parisiensis*, 6:266.

⁴²⁴ *La prenostication de frere Thibault*, fol. A₄v^o.

publique d'icelle, que *vt illus consuleretur*, avoit esté ordonné par l'Arrest de la Cour, que ledit Deffendeur seroit examiné avant qu'il peust pratiquer.⁴²⁵

The Procureur frames the case as one of public interest, for both the inhabitants of the city of Paris and for the commonwealth itself, and upholds the faculty's claim. The court ruled that Thibault is to be examined by four members of the faculty, and that two court counsellors, Jacques de la Barde and Martin Fumée, would be charged with investigating the treatments Thibault had made while in Paris. After considering this evidence, Thibault would then either be interdicted or permitted to practice his empiric arts in Paris and other parts of the kingdom.⁴²⁶

As to almanacs and prognostications, they were banned altogether: "De n'exposer en vente, faire imprimer ou imprimer lesdits Livres, Prognostications et Almanachs, sur peine de dix marcs d'argent et de prison, et autre amende arbitraire."⁴²⁷ On top of this, the ruling strengthened print censorship: from here on, any book whatsoever treating a medical topic could not be published until examined by three members of the Faculty.

Shortly thereafter, on March 2, 1536, the Parlement consented and issued a proclamation, stating that medical practice was strictly reserved to physicians licensed by the Paris Faculty, and that even those physicians who graduated from other universities would need to submit themselves to examination before four approved Parisian doctors. Further, the proclamation banned all printers and booksellers from selling any books on medical matters that had not been examined and approved of by members of the Faculty.⁴²⁸

⁴²⁵ "Saying that the case at hand concerns not only said Defendant, but the Subjects of the King, even the inhabitants of the city of Paris and its commonwealth, that *ut illus consuleretur*, had been ordered by the Court Arrest, that said Defendant would be examined before he could practice," Du Boulay, *Historia Universitatis Parisiensis*, 6:266.

⁴²⁶ *Ibid.*

⁴²⁷ "Not to show for sale, have printed [i.e. by others], or print said books, prognostications, and almanacs, on penalty of ten marks of silver and imprisonment, and other arbitrary fines," *Ibid.*, 6:267.

⁴²⁸ *Commentaires de la Faculté*, LXXIV; 255b.

On March 2, three regent doctors were charged to investigate Thibault's treatise on plague, his annual prognostication, and his almanac.⁴²⁹ The Faculty records also show that a refutation of each of Thibault's works was produced, as was a treatise against astrology more generally, entitled *De vanitate astrologiae judiciarum et divinatricis*.⁴³⁰ The title of the treatise suggests that Pico's *Disputationes* were its key inspiration. None of these have survived, but the Faculty's register of extraordinary expenses shows that the examiners were well paid for their work, and that manuscript copies of these refutations were produced for the President of the Parlement, Pierre Lizet, the prosecutor, Pierre Rémond, and the Faculty's lawyer, Jacques Le Febvre.⁴³¹ So, in addition to being a manifestation of the Faculty's growing concern with standardization and regulation of the medical professions in Paris, the Thibault case ultimately led to a vocal rejection of astrology from the faculty, one which would be amplified a few years later in the case of Michael Servetus.

The most interesting item of the faculty's list of expenses for 1536, however, comes later, under the year's "Alia impensa extraordinaria," and is curiously not included under the heading of the Thibault case. It shows that the Faculty offered an "aromatic wine," along with 52 sols and 6 deniers, as a gift to unnamed royal physicians in order to secure a letter from the monarch against Thibault for the Président of the Parlement.⁴³² Because Thibault's interrogations and later hearings have not survived, it is impossible to know for certain, but this carefully acquired piece of evidence was probably crucial at this stage of his litigation. Unfortunately, neither this letter nor the 22 rolls of Thibault's interrogation testimony have survived: all that remains as a record of their existence is the inventory of expenses that the Faculty incurred in producing them for the

⁴²⁹ Ibid., LXXIV; 257a-b; 267a.

⁴³⁰ *Commentaires de la Faculté*, 268b-69b.

⁴³¹ Dupèbe ed., *Discussion apologétique*, 12; *Commentaires de la Faculté*, 268b-69a.

⁴³² *Commentaires de la Faculté*, LXXIV; 270a.

case.⁴³³ What insights might the latter have provided about Thibault's medical and astrological ideas, as well as the relationship between the empiric and his interrogators?

The means by which this supposed letter from the king was acquired lead one to question its authenticity: did François I really disavow his patronage of the astrologer he had supposedly invited to Paris? Or had Thibault fallen out of favour in court years earlier, then hoped that his "lettres patentes" would provide him with security enough to practice his "art empirique" in Paris? The surviving sources are silent on these questions.

What, ultimately, becomes of Thibault? He went on to publish more almanacs and prognostications, against the repeated injunctions of the Faculty, and in spite of their condemnation of judicial astrology and printed prognostications. One survives from 1542, calculated by "Jean Thibault, medecin ordinaire du Roy" on the latitude of Fontainebleau, the royal residence, and still bearing his motto, "Experientia rerum magistra."⁴³⁴ One can only speculate as to whether this should be taken to mean that Thibault had regained the king's favour and once again held the position that Nostradamus would soon fill for Henri II.

In spite of repeated requests, the confiscation and censorship of almanacs was not officially proclaimed by the Parlement until 1540, and even then, the order was only circulated to the local bailiffs, not publicly proclaimed at the blast of a trumpet, as the faculty had requested.⁴³⁵ These measures had little effect, as Dupèbe has noted, both in the short term and the long term.⁴³⁶ Fifteen years later, printers and booksellers would be printing and selling Nostradamus's prognostications under the faculty's noses with full privileges, and Nostradamus himself would enjoy court patronage.

⁴³³ "Famulo domini consiliiarii Fumée, pour avoir escript et mis au net XXII roulees des interrogations faictes à Jehan Thibault, empiricien, et les responses d'icelles par luy faictes ausdictes interrogations...XXXII s. VI d.," *Commentaires de la Faculté*, 269b.

⁴³⁴ Jean Thibault, *Prognostication de maistre Jehan Thibault medecin ordinaire du Roy nostre sire pour l'an de nostre seigneur mil cinq cens quarante et deux. Calculee sur l'horison du triumphant lieu de Fontainesbleaux et aultres lieu circonvoisins* (Le Mans : s.n, [ca. 1541]), 4°.

⁴³⁵ *Commentaires*, LXXIV-LXXV.

⁴³⁶ Dupèbe, "Rabelais: médecin astrologue," 87.

The faculty likely discovered that its ban was, at best, effective only when enforced through frequent and expensive litigation, or at worst, practically unenforceable. Even Thibault seems to have escaped it before long: Bernard de la Monnoye includes a long note on Thibault in *La Croix du Maine's* bibliography, "Il a écrit plusieurs autres prognostications, savoir est pour les années 1539, 1540, 1541, 1542, 1543 et 1544, toutes imprimées à Paris et au Mans." With the exception of the prognostication for 1542, none of these have survived.⁴³⁷ The only other piece of writing he left in his final years is yet another book of secrets, a short introductory text on astrology and calendrics providing much the same information that readers would be able to find in the *Calendrier des bergers*. In it, however, he also expresses his intention to publish a translation of Stoëffler's ephemeris in French, and, God willing, to provide public lectures on how to use it.⁴³⁸ His views on pedagogy and bringing astrology to the masses remained consistent, through he was never able to publish his translation; readers would have to wait until 1551, when Oronce Finé's handbook on the use of ephemerides was translated into French.⁴³⁹

Thibault finally died in 1544 or 1545, but his reputation and influence appear to have outlived him, based on one final piece of evidence. It is a work that very likely no longer exists, and can be known only by its title, mentioned in *La Croix du Maine's* bibliography: *La grande et merveilleuse prophétie trouvée en la librairie de Jehan Thibault après sa mort, commençant en 1545 et finissant en 1556*, printed in Mans by Denis Gaingnot, 1545.⁴⁴⁰ Thibault's traffic in prognostications reaches out from the grave.

⁴³⁷ "He wrote several other prognostications, knowing those for the years 1539, 1540, 1541, 1542, 1543 and 1544, all printed in Paris and Mans," *Les bibliothèques française de La Croix du Maine et de Du Verdier*, ed. Jean-Antoine Rigoley de Juvigny (Paris: Michel Lambert, 1772), 1:593.

⁴³⁸ Jean Thibault, *Declaration de la dignite des planets qu'ilz ont sur tous les douze signes du Zodiaque* (Paris: Jaques Nyverd, 1543), 4^o, fol. B₃r^o.

⁴³⁹ Oronce Finé, *Les canons et documents tresamples touchant l'usage et pratique des communs almanachz que l'on nomme ephemerides* (Paris: Regnaud Chaudière, 1551), 8^o.

⁴⁴⁰ Rigoley de Juvigny, ed., *Les Bibliothèques de La Croix du Maine et de Du Verdier*, 1:592.

4. Conclusion

In life (and perhaps in death), Jean Thibault was a constant annoyance to the official medical establishment, both in his practice, be it in treating plague victims with his miraculous powder in Antwerp or practicing his “art empirique” in Paris, and through publication, from his cutting *Tresor du remede preserfatif* to his astrological prognostications. Thibault’s testimony also suggests that in spite of his hostility to learned medicine, he sought to present himself as someone who knew a great deal about it, having studied in several universities:

Disant le Deffendeur au contraire, [...] qu’il avoit estudié en plusieurs Universitez fameuses en l’Art et Science de Medecine ; qu’à la verité il s’estoit plus arresté à la science de Medecine Empirique qu’à la Logique, *quam Plinius vocat Clinica*, auroit longuement pratiqué en la basse Allemagne, Hollande, Zelande, Flandre et autres lieux.⁴⁴¹

In his years as an itinerant practitioner, however, he came to value clinical or empiric medicine more than the syllogistic, textual medicine of the universities. His traffic in books of secrets—both in producing them and in suggesting that they could form the core of a curriculum for an alternative medical establishment—implies that he also drew from a second “popular” print tradition in addition to prognostications.

These points complicate any attempts to locate him in a “learned” versus “popular” binary model of early modern culture, medical or otherwise. Thibault was a liminal figure, neither fish nor fowl: he attended university lectures, but also consulted midwives; he read Alcabitius, Ptolemy, Haly Abenragel, Aristotle, and Hippocrates, as his citations demonstrate, but also produced annual prognostications and provided recipes in popular books of secrets. In his *Apologie*, he is as comfortable discussing man as microcosm in the most general terms—which Laet dismissed as elementary and more proper to popular works like the *Calendrier des*

⁴⁴¹ “The defendant says to the contrary, that he had studied in the arts of medicine at several famous universities; that in truth, he had been more fixed by [interested in] empiric medical knowledge than by logic, *quam Plinius vocat Clinica* [clinical as Pliny calls it], and had practiced for a long time in Lower Germany, Holland, Zealand, Flanders and other places,” Du Boulay, *Historia Universitatis Parisiensis*, 6:265.

bergers—as he is disputing the finer points of Ptolemaic eclipse theory. In all of his works, he offers a constant stream of citations of learned authorities as diverse as Hippocrates, Galen, Avicenna, and Albumasar, but he continually reiterates the priority of empirically-derived knowledge and “*rayson naturelle*” for healing and God’s grace in giving an individual the proper “*entendement*” to interpret astrological data.

The question of whether or not a distinctly “popular” tradition of medicine existed separate from that of the learned in early modern Europe has recently preoccupied some historians of early modern medicine. In *The Medical World of Early Modern France*, for instance, Jones and Brockliss acknowledge that the simple “bipolarized” model of medical practice is inadequate, but have replaced it with a startlingly similar centre-periphery model.⁴⁴² In Brockliss and Jones’s model, the closer a practitioner is to the central core of orthodoxy, the more likely he is to judge everyone outside himself and his immediate community as a charlatan; I would like to suggest that though this model has some explanatory power when it comes to understanding the point of view of the faculty, it too is ill-suited to understanding the views of practitioners outside of this supposed core. Thibault and Agrippa have no essentialized identity relative to the university physicians; both draw on many of the same texts and ideas that are taught in the university all the while deliberately re-centering the criteria of what constitutes authoritative knowledge and practice. In most cases, practitioners probably thought that they and they alone were the judge of what was true or false in both practice and knowledge, whether they were near or far from the centre in this medical penumbra. They would then proceed to construct anyone far enough outside of this “centre” as a charlatan or a sophist.

David Gentilcore has also expressed reservations about the core-penumbra model and made a similar suggestion, proposing a Venn diagram of mutually overlapping and permeable rings, labelled medical, ecclesiastical, and popular, as a model for understanding different kinds

⁴⁴² Brockliss and Jones, *The Medical World of Early Modern France*, 237.

of early modern healers.⁴⁴³ These qualifications also have much in common with Roger Chartier's criticisms of an essentialized, bi-polar model of popular (or vernacular) and elite (or learned) culture; rather than labelling given texts or practices as one or the other, historians should focus on understanding how different individuals from different classes, occupations, and educational backgrounds understand commonly-held cultural products, appropriating them for their own ends, as Thibault and other astrologers throughout Europe did when they used their printed ephemerides to prognosticate on a single patient's illness or on the fate of an entire city.

Attitudes toward cultural products often differ and transform over time, however, which leads to the questions of what Thibault's case can tell us about how attitudes toward astrology transformed following its encounter with printing. I can make no claims that he was a "typical prognosticator." While his prognostications themselves are relatively normal, his career is highly irregular: he was a lone empiric publishing in a genre that was still the purview of licensed physicians. It is this exceptionality that makes Thibault interesting. He is an early precursor to other astrologers working outside of the official medical establishment, including Nostradamus.

Thibault's exceptionality can also help answer the question of why, in a short span of time, the Faculty launched two costly attacks on astrology (beyond what Dupèbe calls the humanist Augustinianism of Tagault and other members of the faculty). This question is related to the more general impression one is left with after reading through the pages of the *Commentaires de la Faculté de Médecine*: why were there so many vicious and costly attacks on irregular practitioners and on apothecaries and surgeons who overstepped their bounds? As John Freeman has observed, the Faculty seems to have spent more time policing than healing in this period.⁴⁴⁴

⁴⁴³ David Gentilcore, "Was there a 'Popular Medicine' in Early Modern Europe?" *Folklore* 115 (2004): 151-66.

⁴⁴⁴ John Freeman, "Physicians and Humanists in the World of Francis I," *Journal of the History of Medicine* (1975): 130.

The answer, it seems, is to be sought in the professional insecurity of learned physicians in the sixteenth century. Medicine was not yet the exclusive preserve of specialized professionals: as John Henry has noted, "a major prerequisite for professionalization is the recognition, outside of the nascent profession, that a particular body of knowledge is beyond the reach of the majority," owing to its technicality or to the amount of time needed to master it.⁴⁴⁵ The constant efforts of medical faculties to secure their privileges against the infringements of irregular practitioners are an enduring testament to the fragility of their professional status, as the case of Jean Thibault demonstrates.

In the late medieval period, physicians would often emphasize the importance of astrology in their rhetorical claims to priority over other healers. Because of its technical complexity and its relative inaccessibility to practitioners without university training, it could often serve as the distinguishing mark: astrology could offer definite conclusions about a patient's disposition, the air of the city or region in which the physician practices, and the optimum time for therapeutic interventions, from phlebotomy to the administration of emetics and purgatives. Empirics, apothecaries, surgeons, and barbers might be able to emulate other elements of medical diagnostics and therapeutics, often even improving on them, like the rustics and the old wives evoked in Agrippa's letter, but the diagnostic and prognostic powers that came with astrology posed technical challenges that necessitated highly specialized university training.⁴⁴⁶

This began to change after printing disseminated astrological resources like the ephemerides, opening astrology up to practitioners for whom it would have been hitherto inaccessible. Gaspar Laet Jr., a university-trained physician-astrologer who could (assumedly)

⁴⁴⁵ John Henry, "Doctors and healers: Popular culture and the medical profession," in *Science, culture, and popular belief in Renaissance Europe*, ed. Stephen Pumfrey, Paolo Rossi, and Maurice Slawinski (Manchester and New York: Manchester University Press, 1991), 199.

⁴⁴⁶ Henry, "Doctors and healers," 207-8.

use planetary tables, noticed as much when he ridiculed Thibault and other prognosticators for their dependence on the ephemerides.

In the case of Jean Thibault we have, in microcosm, an early instance of the phenomenon that Drévuillon describes as having happened over the whole of the seventeenth century: the dismissal of astrology from the university, occurring concurrently with its popularization among outside practitioners.⁴⁴⁷ The timing of Michael Servetus's case on the heels of the Faculty's case against Thibault, provides a suggestive hint that goes unnoticed by Dupèbe. With Thibault, the Faculty knew that astrology could now be found in the repertoire of the empirics, and with this development, it was beyond question that it had no place in the university; it was to be banned and banished alongside Servetus and his treatise.

To be sure, learned astrology would continue to have its proponents well into the latter half of the seventeenth century and it seems prudent to remind the reader, once again, that Paris is an exceptional case when dealing with sixteenth-century astrology. The use of astrology as a means of distinguishing physicians from empirics also continued well beyond Thibault: in the preface to his 1554 annual prognostication, for instance, the Antwerp physician Pierre Moerbeke denounced those barbers and empirics who, ignorant of astrology, rested all of their judgements on urology and deceived the common people.⁴⁴⁸

From the perspective of the Faculty of Medicine in 1530s Paris, however, Thibault's practice of astrology certainly lent it no credit as a learned discipline worthy of being taught in the university. Learned scorn for the "vulgar prognostications" echoes throughout the sixteenth century, from Pico to Nifo, Pigghe, and Videl. What business would men of learning want with an art that could now be practiced by vulgar empirics and illiterati using vernacular texts?

⁴⁴⁷ Hervé Drévuillon, *Lire et écrire l'avenir: l'astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996), esp.143-73; 249-51.

⁴⁴⁸ Pierre Moerbeke, *Pronostication de Lan de nostre Seigneur M.CCCCC.et.liiii.* (Antwerp: Henry Pierre de Middleburg's Widow), 4^o, fol. A₂r^o.

Astrology became sullied by the hands that now practiced it, and by the cheap pamphlets that told its secrets to the vulgar masses; it could no longer be the distinguishing mark of university learning, separating true physicians from simple empirics, which it was in the late middle ages. Printing did not sound the death-knell to astrology as a learned discipline, but it did, at the very least, make it a far less esoteric art than it had been before.

Conclusion

1. *Printing and the secrets of astrology.*

Between the end of the fifteenth century and the middle of the sixteenth, printing opened the accumulated knowledge of medieval Europe to the forces of market demand. Since the pioneering work of Lucien Febvre and Henri-Jean Martin (1958) and later Elizabeth Eisenstein (1979), scholars have explored how printing shaped and consolidated the three canonical revolutions that ushered in early modernity, namely the Renaissance, the Reformation, and the Scientific Revolution. Besides serving as a key factor in these movements, printing also contributed to the transformation of social attitudes towards knowledge. In *Science and the Secrets of Nature* (1994), for instance, William Eamon shows how printing played an important part in dissolving the long tradition of esotericism which European attitudes toward knowledge of the natural world had inherited from the mystery religions of late antiquity.⁴⁴⁹

Drawing on the work of Frances Yates, Eamon argues that early modern printers and readers were drawn to practical texts that taught “how to,” especially those which claimed to offer their readers operational power over nature. He shows that the recipes and techniques taught by the printed book of secrets tradition mark a crucial cross pollination between the learned preoccupations of alchemy and natural magic with the vernacular knowledge of craftspeople.⁴⁵⁰ Printing, he argued, played an important role in these developments, facilitating these interchanges and lifting the shroud of secrecy that had once hung over numerous practices by disseminating dozens of “how-to” books:

Although the technical information contained in these how-to books was rarely innovative, the new mode of disseminating it was. The publication of techniques for making steel, formulas for dyeing textiles, and the secrets of distillers and alchemists made the mysteries of the trades a little less mysterious. Technical information of this

⁴⁴⁹ William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton: Princeton University Press, 1994), 354-5.

⁴⁵⁰ Eamon, *Science and the Secrets of Nature*, 111-2. See esp. Chapter Three, “Arcana Disclosed,” 93-133.

kind was now within the reach of the average readers who were not members of a guild.⁴⁵¹

I would like to suggest that a parallel phenomenon can be observed in astrology's encounter with printing. Like the books of secrets studied by Eamon, a printed ephemeris discloses information previously available only to those with advanced university training in astronomy and exceptional mathematical competences. The almanac, complete with forecasts for weather and commodities and elected days for bloodletting and planting crops, is in many ways similar to a recipe book. Through them, readers and practitioners gained access to both the products (predictions) and techniques of learned astrology, formerly one of the "trade secrets" of late medieval medicine. The ramifications of the disclosure of astrology through printing are the binding theme of the three chapters of this thesis.

Chapter One outlined a core set of astrological practices and showed how the printed book greatly simplified them, subsequently opening astrological prediction to practitioners without advanced training in the use of planetary tables. By following the origins and legacy of the celestial ephemerides first compiled by Regiomontanus, the chapter demonstrated how its reception by printers and astrologers transformed it from a support to astronomical reform into an easy-to-use resource for astrological prediction.

The chapter also contextualized the ephemerides in late fifteenth and early sixteenth century culture more generally. It explored how knowledge of basic astronomy and astrology was made available to a vernacular readership through other popular books such as the *Compost et calendrier des bergers*, and briefly discussed one of the most concentrated and wide-reaching effects of the ephemerides on early modern society, the 1524 conjunction debate.

Chapter Two shows how, in addition to providing a resource that simplified astrological practice, printing also provided a new medium for astrological predictions to reach an

⁴⁵¹ Eamon, *Science and the Secrets of Nature*, 126.

increasingly broad swath of early modern society: the vernacular almanac-prognostication. After treating the late medieval origins of the genre in learned medical almanacs, the chapter charted the material and discursive similarities of 36 surviving French examples of the genre and was able to show that, for the first half of the sixteenth century, most prognostications circulating in the vernacular were imported from centers of production just outside of the kingdom of France, notably Antwerp and (to a lesser extent) Geneva. The examination of this corpus allowed me to draw conclusions about Michel Nostradamus, whose 1555 prognostication, published by the Lyon printer Jean Brotot, emerges as a significant rupture with the material, discursive, and geographical features which characterized earlier almanac-prognostications.

The chapter also approached some of the other transformations that were brought about by astrology's encounter with the press. These included the opportunities and challenges that this new sphere of astrological practice provided for patronage and the apologetics that published prognostications necessitated in order to convince a diverse readership of the compatibility of astrology and Christianity. Through an analysis of the citation rates of important authorities, the chapter also showed that the "vulgar" genre of almanac-prognostications manifests one of the key disciplinary trends of "learned" sixteenth century astrology, namely the humanist recovery of "pure" Ptolemaic astrology and the rejection of the medieval Arabo-Latin tradition.

Chapter Three contrasts all of this with a microhistorical case study of the life and times of a single prognosticator. It follows Jean Thibault, a printer turned empiric physician and astrologer, through his various clashes with competing prognosticators and the university medical community in Antwerp and Paris. Unlike many prognosticators, Thibault was not a university-educated physician: according to his critic, the physician Gaspart Laet Jr., this made him dependent on his ephemeris for astrological predictions. As such, Thibault serves as an example of how printing unleashed the power of astrological prediction to practitioners outside of the traditional university community. In addition to equipping Thibault with the resources

needed to make astrological predictions, printing provided a platform for disseminating both his prognostications and his criticisms of university-trained physicians. This criticism was paralleled by his advocacy for a medical practice grounded more in “experience et rayson naturelle” than in texts and syllogistic reasoning, as well as his ideas of how printing might instruct empiric healers outside of the university in astrology. Thibault’s practices and publications drew him into several conflicts, first with the physicians of Antwerp and then with the Faculty of Medicine at the University of Paris. I conclude the chapter by suggesting that the second of these conflicts may be an early instance of astrology’s dismissal from university medical learning on account of its appropriation by vernacular practitioners, a phenomenon that owes much to astrology’s declining esoteric prestige following its popularization through printing.

On a methodological level, the breakdown of these chapters also reflects an attempt to approach astrology and the printed almanac from three different (but complimentary) angles. In Chapter One, this division reflects my conviction that astrology should be approached with some notion of the practices which constitute it, as should the history of any scientific, medical, or technological subject. From this foundation, my intention was to support the “histoire sérielle” of a printed genre (especially in its concern with similarity and its reliance on quantitative “bibliometric” data) provided by Chapter Two with a microhistory of a single exceptional individual in Chapter Three. Each is intended to buttress the limitations of the other’s scope and approach. This point is drawn from Carlo Ginzburg, who has emphasized the importance of interspersed “close-ups” and “long-shots” in historical narration to capture the fundamental discontinuity of historical reality.⁴⁵² The variations in scale between the three chapters along with

⁴⁵² Carlo Ginzburg, “Microhistory: Two or three things that I know about it,” tr. John and Anne Tedeschi, *Critical Inquiry* 20 (1993): 26-28; 33. Ginzburg draws these ideas from Siegfried Kracauer, “The Structure of the Historical Universe,” in *History: The Last Things Before the Last* (New York: Oxford University Press, 1969), 104-38.

the complimentary attention given to different types of subject, from genres and *objet-livres*, to practices and practitioners, are all attempts to meet Ginzburg's challenge.

All three chapters revolve around the question of how printing enabled the opening of traditionally esoteric practices to people beyond the privileged few who could learn its techniques in the university and gain access to manuscript tables and texts. Late medieval astrology had been a fundamentally esoteric discipline, but printing and vernacularization made it increasingly exoteric by the mid sixteenth century. Both the means to easily make astrological predictions (ephemerides, astrological handbooks) and the predictions themselves (annual almanacs) were disclosed to increasingly broad segments of the population by printing, in two waves. The first wave was international and Latin, occurring in the final quarter of the fifteenth century. The second wave was a local and vernacular appropriation of the resources unleashed by the first: it opened astrological practice to a vernacular community through translated ephemerides and handbooks. In France, this process of vernacularization seems to have begun at the end of the period studied in this thesis, around the middle of the sixteenth century; in England, it seems to have occurred slightly later and partly from works translated from French.⁴⁵³

Unlike the case of the craft knowledge Eamon describes, astrology's popularization seems not to have led to a brave new world of interchange between the knowledge of scholars and craftspeople, however. Like the 1524 debates, which are filled with attacks against "vulgar prognosticators," Jean Thibault's case demonstrates that the disclosure of astrology's secrets did not come without a price. Indeed, the flipside of this transformation has already been observed by Hervé Drévilion: partly because of its successful popularization, it was, by the end of the

⁴⁵³ See those mentioned in Lauren Kassell, *Medicine and Magic in Elizabethan London: Simon Forman: Astrologer, Alchemist, and Physician* (Oxford: Oxford University Press, 2007), 65-8.

seventeenth century, banished from the university and court, scorned as an archetypal “popular error.”⁴⁵⁴

2. *Directions for further research*

Three directions for further research present themselves from these findings. The first of these is the 1524 conjunction debate. Anthony Grafton has called it the “first media event of the modern age,” and I believe it could be fruitfully treated as just that in a detailed study using the interdisciplinary methods of book history.⁴⁵⁵ Such a study would begin with the reception of the foreboding (but ambiguous) warning in Stöffler’s ephemeris. According to Paola Zambelli, the only contemporary scholar to have studied the debate, the deluge prediction produced at least seventy surviving pamphlets, some catastrophist, others consolatory, in most of the major European languages.⁴⁵⁶ From these pamphlets, the study could then move to the more active reception of the deluge prediction throughout Europe, such as Jean Bodin’s account of the ark built in Toulouse, the mollifying religious processions, and the flight of nobles to the mountains.⁴⁵⁷ Although the deluge prediction is often evoked in discussions of sixteenth century astrology, its reception has only begun to be treated by Zambelli and Niccoli, and has not yet been the subject of a detailed monograph.

A second direction, also drawing on the methods of book history, would be to explore the works of Michel Nostradamus as a European print phenomenon in the 1550s and 60s. Such a study, focusing especially on his almanacs and prognostications, could provide an opportunity to fulfill Pierre Brind’Amour’s still unaddressed desideratum that Michel Nostradamus, long

⁴⁵⁴ Hervé Drévilion, *Lire et écrire l’avenir: l’astrologie dans la France du Grand Siècle, 1610-1715* (Paris: Champ Vallon, 1996), 173. A similar fate befalls English astrology: see Patrick Curry, *Prophecy and Power: Astrology in Early Modern England* (Cambridge: Polity Press, 1989), esp. 153-68.

⁴⁵⁵ Anthony Grafton, *Cardano’s Cosmos: The Worlds and Works of a Renaissance Astrologer* (Cambridge, MA and London: Harvard University Press, 1999), 54.

⁴⁵⁶ Paola Zambelli, “Many ends for the world: Luca Gaurico instigator of the Debate in Italy and Germany,” in *Astrologi hallucinati: Stars and the End of the World in Luther’s Time*, ed. Paola Zambelli (Berlin and New York: Walter de Gruyter, 1986), 239.

⁴⁵⁷ See the various Italian responses treated in Ottavia Niccoli, *Prophecy and People in Renaissance Italy*, tr. Lydia G. Cochrane (Princeton, NJ: Princeton University Press, 1990), 142-66.

ignored or dismissed by scholars, be reintegrated into the history of the sixteenth century.⁴⁵⁸

Brind'Amour's work has already laid the foundations for such a study, and as I hope Chapter Two has demonstrated, an examination of how Nostradamus revolutionized the genre of popular prognostications offers a promising place to start.

In addition to these more focused desiderata, I would like to conclude with a third.

Though I have focused here on the production and dissemination of almanac-prognostications, their reception remains largely unexplored. How were these texts understood and used by early modern people from different professions and social strata, from barber-surgeons all the way up to monarchs? How did they shape understandings of time and popular cosmologies? Jean Thibault offers us a glimpse of one in the following passages, drawn from his *Apologie*, which before repudiating Laet, offers this vision of the cosmos:

Et tout premierement, le ciel, le monde, et l'homme c'est tout un mouvement, et toute une nature, etc. Et l'ung sans l'autre n'est riens, *verbi gratia*. Quelle chose sera le monde sans ciel, et du ciel sans terre, ou du ciel et terre sans gens? Riens. Ergo donc les trois n'est que ung: or venons a declarer de la terre par laquelle l'homme a este engendre a scavoir du limon d'icelle. Lequel est la vraye nature, car riens ne peult estre fait ny engendre sy nature ny est trouvee.⁴⁵⁹

Later, he explains the similitude more closely (and with a touch of humour):

Et ainsy qu'il y a sept planettes au ciel, il y a en la teste de l'homme sept conduis, et comme au ciel ou en l'air a .iiii. principaux ventz, aussi a l'homme .iiii. conduys qui ont vent: assavoir la bouche, les deux narines, et le cul. La fouldre, l'esclere, et la

⁴⁵⁸ Pierre Brind'Amour, *Nostradamus astrophile: Les astres et l'astrologie dans la vie et l'œuvre de Nostradamus* (Ottawa: Les Presses de l'Université d'Ottawa, 1993), 436. For an example of his dismissal among scholars see, for instance, the meager footnote he is offered by Jim Tester: "It may be worth a note, since some readers may look for his name in a book such as this, to say that Nostradamus (1503-1566) is irrelevant to any history of astrology. He did practice astrology, it is true, but only as a quack and among other forms of occultism. He is now really only known for his 'quatrains,' a series of nearly nonsensical verses some of which can be 'interpreted' to seem relevant to later ages and even our future: but nonsense is always capable of any interpretation," Jim Tester, *A History of Western Astrology* (Woodbridge: The Boydell Press, 1987), 215n14.

⁴⁵⁹ "And first, the heavens, the world, and man are all a single motion, and all one nature, etc. And one is nothing without the other, *verbi gratia*. What would the world be without the heavens, and the heavens without the earth, or the heavens and the earth without people? Nothing. Ergo the three are but one: yet let us declare of the earth that man was engendered from its silt. This is true nature, for nothing can be done or created unless nature is found [in it]," Jean Thibault, *Apologie de Maistre Thibault [...] et ce contre les invectives daucuns pronostiqueurs* (Antwerp: s.n., 1530), 4^o, fol. B₃v^o.

tempeste: est trouuee en l'homme pour l'esclere grosses vesses, pour le tonnoirre gros petz, et pour la gresle ce qui vient par le trou du tonnoire.⁴⁶⁰

The enumeration is reminiscent of the final chapters of *Pantagruel*, wherein the heroes journey into the giant's body to unplug a blockage that is debilitating him, which François Rabelais would publish a few years later. Thibault goes on to explain that man too has oceans and rivers in his body, and that these bring life and fertility to his body. He concludes,

Tout le semblable est trouuee en l'homme: ergo donc l'homme est pareil au ciel et a tout le monde, ascavoir non sy tous trois sont tout ung, en une nature et changement ou non? Ouy, *verbi gratia*. Nous voyons tout clerement que quant le ciel est dispose comme au temps d'yver, la terre et la personne sont humide et froys. Et comme en printemps, toutes verdure et arbre donnent leur verdure et resjouissance a la terre, asussy est la personne. D'avantage, quant il gelle, la terre est seiche et la personne aussy. Et sy le ciel est humide, trouble pesant, ou qu'il y ait orage, la personne et la terre seront tout d'ung mesme effect: a scavoir sec avec sec, humide avec humide, tempeste avec crainte et tremblement de cueur et corps.⁴⁶¹

Thibault here affirms the interconnection of microcosm and macrocosm, heavens, earth, and man. While perhaps not as radical as an Italian miller's tale of the world's creation through putrefaction, it is nonetheless a provocative hint of how fascinatingly unique the cosmologies of the people who made (and perhaps read) the almanacs might be.⁴⁶²

It should of course be remembered that, beyond any insights they might give us into mentalities and worldviews, the almanacs were, first and foremost, books to be used. How did physicians and barber-surgeons use their data to decide when to let blood or administer

⁴⁶⁰ "And so, just as there are seven planets in the heavens, there are seven conduits in the human head; and as in the heavens or sky there are four principal winds, so too man has four principle conduits from which wind is driven: namely, his mouth, his two nostrils, and his ass. Lightning and storms: these are found in man, for lightning is intestinal gas, thunder is a big fart, and hail is what comes out the thunder hole," Thibault, *Apologie*, fol. B₃v^o-B₄r^o.

⁴⁶¹ "Everything is found to be similar in man: therefore man is the same as the heavens and the whole world, that is to say, if all three are one, of a single nature and transformation, or not? Yes, *verbi gratia*. We see quite clearly that when the sky is disposed as it is in winter, the earth and the person are humid and cold. And so too in spring, all the greenery and trees rejoice to the earth, as does the human person. Further, when it freezes, the earth is dry and the human person is as well. And if the sky is humid, with heavy trouble, or if there is a thunderstorm, the human person and the earth will be affected the same way: namely, dry with dry, humid with humid, storms with fear and trembling in heart and body," Thibault, *Apologie*, fol. B₄r^o.

⁴⁶² The reference is of course to Menocchio, the Friuli miller whose trials before the Inquisition are described in Carlo Ginzburg, *The Cheese and the Worms: The Cosmos of a Sixteenth-Century Miller* (Baltimore: Johns Hopkins University Press, 1992).

purgatives? Did farmers rely on them to know propitious times to plant crops? Did any merchants use their commodities forecasts for market speculation? Precious few hints have survived, but they are worth studying, and a search for more may bear interesting fruit for discussions of early modern popular culture.

These points need to be kept in mind when reading the prognostications, lest we overemphasize their more sensational elements. Accordingly, throughout this thesis I have sought to moderate claims about the place of the genre in the supposed eschatological preoccupations of the age. Though prognostications were sometimes employed to serve as platforms for religious or political messages that might contribute to the public anxieties triggered by the Reformation, it is important not to lose sight of the mundane and the everyday functions that the almanacs served for early modern people, including timekeeping and weather-forecasting. Rather than unveiling a linear, millenarian view of history as being drawn inexorably toward the end times, much of what one finds in the almanac-prognostications emphasizes a cyclical view, grounded in the recurring sequence of the seasons, the revolutions of the planets, and the permanence of Fortune's wheel of sickness and health, dearth and plenty, war and peace. The human body, as we have seen, was likewise interconnected with these cycles, and the human mind was a model of the heavens, capable of understanding them and predicting things to come through this affinity. Published at the end of the year and based on a birth horoscope of the coming spring, the prognostications seem to me rather to be symbols of continuity and cyclical renewal.

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Descriptive bibliography of almanacs and prognostications (1497-1555)

The following thirty-five bibliographical entries describe a corpus of surviving almanac-prognostications from 1497-1555, drawn from the collections of the Bibliothèque nationale de France, the Bibliothèque royale de Belgique, the Bibliothèque publique et universitaire de Genève, the Bibliothèque municipale de Lyon, and the British Library. Although it heavily supplements the bibliography provided by Charles Perrat over fifty years ago,¹ it is not a complete record of all surviving almanac-prognostications, and only catalogues those used in this MA thesis.

Entries are arranged first by year predicted (not year of publication, which is almost always inferred), and then alphabetically by author name. The formula is as follows:

Year. Surname, first name. *Short title.* Place of publication: Name of printer, year of publication. Material format. Number of leaves, signatures. Dimensions. Type.

[A]r^o: Transcription of incipit/title page and (in some cases) colophon/final page.

Library of provenance, full call number. Bibliographic cross-references. Digital version/reprint (if available).

Square brackets are reserved for inferences and editorial interventions. In most cases, the year of publication has been inferred as the year prior to that for which the prediction was made. The transcriptions are in the Palemonas font available online from the Medieval Unicode Font Initiative, which supports many of the abbreviations, diacritical marks, and ligatures that are necessary for a diplomatic transcription of medieval and early modern texts.²

¹ Charles Perrat: "Sur un tas de prognostications de Louvain," in *François Rabelais : Ouvrage publié pour le quatrième centenaire de sa mort 1553-1953* (Geneva: Librairie Droz, 1953), 60-73.

² Odd Einar Haugen, Alec McAllister, and Tarrin Wills, *MUFI: Medieval Unicode Font Initiative*, <http://mufi.info/> (accessed May 20 2010).

Abbreviations

s.n.	no name
s.l.	no place of publication
s.d.	no date
Cap.	engraved initial capital
Fig.	figure
ln.	line
long-edge	printed along the long edge (i.e. parallel to binding)

Libraries

BGe	Bibliothèque publique et universitaire de Genève (Geneva, Switzerland)
BL	British Library (London, England)
BmL	Bibliothèque municipale de Lyon (Lyon, France)
BmO	Bibliothèque Municipale d'Orléans (Orléans, France)
BnF	Bibliothèque nationale de France (Paris, France)
KBR	Bibliothèque royale de Belgique (Brussels, Belgium)

Bibliographies

Brunet	Brunet, Jacques-Charles. <i>Manuel de libraire et de l'amateur des livres</i> . 5 vols. Paris: Renou, 1843.
BVH	Bibliothèques Virtuelles Humanistes. Université de Tours François-Rabelais. http://www.bvh.univ-tours.fr (accessed October 15 2009).
Cantamessa	Cantamessa, Leandro. <i>Astrologia: opera a stampa (1472-1900)</i> . Biblioteca de bibliografia italiana. 2 vols. s.l., Leo S. Olschki, 2007.
Gallica	Bibliothèque nationale de France. Bibliothèque numérique Gallica. http://gallica.bnf.fr (accessed May 1 2010).
GLN	Bibliothèque publique et universitaire de Genève. GLN 15-16. http://www.ville-ge.ch/musinfo/bd/bge/gln/ (accessed July 1 2009).
Graesse	Graesse, Jean George Théodore. <i>Trésor des livres rares et précieux ou Nouveau dictionnaire bibliographique</i> . 7 vols. Berlin: Altmann, 1922.
NK	Nijhoff, Wouter and M.E. Kronenberg. <i>Nederlandsche bibliographie van 1500 tot 1504</i> . 3 vols. The Hague: M. Nijhoff, 1923-66.
BT	Glorieux, Geneviève. <i>Belgica Typographica, 1541-1600</i> . 2 vols. Nieuwkoop: B. de Graaf, 1977-1980.

1497. Laet, Gaspard. *Prenosticacion de Louvain de Jaspar Laet de Borchloen de l'an 1497*. [Paris]: [Pierre Le Caron], [ca. 1496]. In-4°. 8 leaves, a₃ signed. goth. chars.

[a₁]r^o: prenosticacion | de lounain [sic] de iaspar laet de borchloen de lan.m.cccc.iiiixx. 7 xvii
| [Fig., horoscope for Aries ingress, centre] figure du temps de reuo | lution de soleil
entrant en | aries .m.cccc.iliixx. xvii. | le .x.iour de mars a. xii | heures 7
xlvi. iminutes [sic] | Jupiter seigneur de lan

BmO, Res. C 2095. Digital version: BVH.

§

1502. Laet, Gaspard. *La prenostication de Louvain pour l'an mil cinq cens et deux composee par Maistre Gaspard Laet de Borchloen*. [Antwerp]: s.n., [ca. 1501]. In-4°. 8 leaves, a_{ii} signed [a_{ii}=a₃]. 14x19cm. goth. chars.

[a₁]r^o: La prenostication de | Louvain pour lan mil cinq cēs | et deux faicte 7 cōpofee p
maître | Jaspard Laet de Borchloen A | trefillustre et trefhumain prince | mōseigneur
iehā de horne euef̄q̄ | du liege duc de bullon conte de | loen sō trescōiregardable seign̄r
| [Cap. L] Es choses que nous avōs cō | cuillies des latiōs superiores sur la disposi | tion
de lānee aduenir selon les sentences des | astrologiēs [...]

BnF, François-Mitterrand, RES V-1158. Graesse IV.69. Cantamessa 2373.

§

1503. Blouet, Thurien. *Pronostication* [pour l'an 1503]. [Lille]: s.n., [ca. 1502]. In-4°. 6 leaves, unsigned. 13x20cm. goth. chars.

[a₁]r^o: pronostication | Le nom de celui foit beneis qui crea le ciel | 7 La terre 7 singulieremēt
doit estre beney acaufe des operatios | q̄ par luy se font par le mouuement des planettes
et estoilles | cōme dist david le prophete en la xviiij. psalme de son psautier. | Celi
enarrant gloriam dei/ et opera manuꝝ | um eius annunciat firmamentum: Cest a | dire
que les cieulx monstrent la gloire de dieu. 7 le firmament | anonche les euvres Ce
mesme apreuee aristote quy enseigne | q̄ ce monde inferiore est gouverne p le ciel et
par les planettes | [...]

BnF, François-Mitterrand, RES P-V-178. Cantamessa 554.

§

- 1508.** Nyvod, Haly. *La grant prenostication nouvelle de Rome pour l'an mil cinq cens et huit faite par Maistre Haly Nyvord.* [Geneva]: s.n. [ca. 1508]. In-4°. 6 leaves, a₃ signed. goth. chars.

[a₁]r°: [Cap. L] A grant prenosticati | on nouvelle de Rome | faite par maistre ha | ly nyuord grāt astro | logue et docteur en medicine | pour lan mil. v. cens 7 huit. | [fig., astrologer with armillary sphere, quadrant, and compass, stars and comet overhead] | ¶Entiere eclipse de lune fera le xij. iour de iuing a | xvi. Heures .li. minute. | [fig., right aligned: full lunar eclipse] | ¶Il est affavoir que ceste annee presente fera bifexte.

[a₂]r°: [ln. 18] Cy finist la grant prenostication de rome pour | ceste annee presente mil cinq cens 7 huit composee | par maistre Haly nivord grant astrologue et do | cteur en mericine trefexpert.

[a₆]v°: Almanach pour ceste annee | presente mil cinq cens 7 huit. | [...] | [fig., scholar at work]

BGe, Od 349. GLN-5944.

§

- 1509.** Amours, Guillaume. *Pronostication nouvelle pour l'an mil cinq cens et neuf composee par Maistre Guillaume d'Amours.* [Rouen]: [Jean du Moulin], [ca. 1508]. In-4°. frag. 2 leaves, unsigned. 22.5x14.5cm. goth. chars.

[a₁]r°: Pronostication nouvelle. | Pour l'an Mil. v. cens 7 .ix. cōposee par maistre Guillaume damours, phi | lofophāt licēcie en medecine Pour le septiesme climat diaparihifeos ou le | poele est esfleue. xlix. degrez regardāt le noble pais de neuftrie cōtenant la | royalle metropolitaine populeuse ville de Rouen. et a la fin est aiouste le | pallinot de la conception immaculee, soulz le roy louys.xii.regnant | [...]

[a₂]v°: [long-edge] Almanach pour lan Mil v. cens 7 neuf. [...] | [Table: new moons, full moons, elected days for laxatives, phlebotomy]

BnF, François-Mitterrand, RES P-V-365. Cantamessa 149.

§

- 1509.** Asperne, Ludovic. *La prenostication de Pavye faite par maistre Ludovic Asperne grant astrologue pour ceste annee 1509.* [Geneva]: s.n., [ca. 1508]. In-4°. 4 leaves, A₂-A₄ signed. 12x18cm. goth. chars.

[a₁]r°: [Cap. L] A prenostication de pauye faite | par maistre Ludovic alpne grāt | astrologue pour ceste annee mil | cinq cens 7 neuf. | [Fig., circular: astrologer with armillary sphere]

[a₄]v^o: ¶Almanach pour lan mil. cinq cens 7 ix. | Nombre dor ix. | Lettre dominicale B | La septuagesime iiiij. de feurier. | Brandons xxv. de feurier | Paques viij. dauril | Rogations xiiij. de may | Penthecoftes xxvij. de may. | Laduent. ij. de decembre | [Fig., circular: shepherd in countryside contemplating heavens]

BGe, Od 346. GLN-5953. Cantamessa 232.

§

- 1511.** s.n. *Pronostication nouvelle pour l'an 1509 calculee au vray midy de la noble cite de Mets.* [Metz]: s.n., [ca. 1510]. In-4°. 8 leaves, unsigned. 18.5x13cm. goth chars.

[a₁]r^o: ¶Pronostication Nouvelle pour | Lan Mil.V.cens 7. XI. Carculee [sic] | au vray midy d la Noble Cite d | Mets.

BnF, François-Mitterrand, RES V-179. Graesse V.459. Brunet IV.902. Cantamessa 3623.

§

- 1513.** Tannstetter, George [attrib.]. *La grande prenostication de Louvain pour l'an mill cinq cens et treze, composee par Maistre George Transtecter.* [Geneva]: [Louis Cruse], [ca. 1512]. In-4°. 4 leaves, unsigned. 13.5x19.5cm. goth. chars.

[a₁]r^o: [Cap. L] A grande prenostication de Louvain pour Lan mil cinq cens 7 treze. Cō | posee par maistre George transtecter docteur en medicine 7 en astrologie. | [...]

[a₄]v^o: [Long-edge.] Almanach pour Lan mil cinq cens 7 treze. | [Table: new moons, full moons, elected days for bloodletting from the arm] | [List of calendric data and feast days] | [Fig., solar eclipse]

BGe, Od 348.

§

- 1517.** Amours, Guillaume. *Prenostication annuelle avecques une question astrologale pour l'an mil cinq cens et dix-sept. Composee par Maistre Guillaume Amours.* Rouen: Jean du Moulin, [ca. 1516]. In-4°. 4 leaves, unsigned. goth chars.

[a₁]r^o: ¶Prenostication annuelle | Anecques [sic] vne question astrologale Pour lan Mil | cinq cens et xvii. Composee par Maistre Guillau^e | me amours. Docteur en medecine et en astrologie | [Fig., two astrologers and a woman stargazing] | [Fig., solar cycle] [Fig., lunar cycle]

[a₄]v^o: Almanach pour lan Mil cinq | cens 7. xvii. Le nombre dor. xvii. La lettre domini | cale.
D. [...] | ¶Imprimee a Rouen par Jehan du moulin | demourant a la rue de la Seille
pres lesperō.

B, 1608/615. NK 2.3352. Cantamessa 150.

§

1518. de Fines, Henry. *La grande prenostication de Louvain. Faicte par Maistre Henry de Fines docteur en medecine de la ville d'Anvers pour ceste presente annee mil cinq cens et dix-huit.* Antwerp, s.n. [ca. 1517]. In-4°. 4 leaves, unsigned. goth chars.

[a₁]r^o: [Cap. L] A grande Prenostication de Lou | uain. Faicte par Maistre Henry | de fine
docteur en medecie de la ville dan | uers. pour ceste presete annee. Mil cinq | cens 7.
viii. A lhonneur du tresnoble prince Charles Roy de Castille/ duc | daustriche de
Bourgougne/ de Brabant. 7c. [Fig., three coats of arms] | [Fig., left: lunar cycle] [Fig.,
right: solar cycle] | [centre] ¶Eclipse de lune le | xxiiii. de may a .x. h. xi | minutes en
orient au | soir. 7 durera plus de troys heures. ¶Eclipse du soleil le vii jour de Juing au
| matin en orient a .v. | heures ung quart. et | durera a ii. heu. xii. mi. | [...]

British Library, C.142.cc.20. NK 2.2249. Digital version: BnF-Gallica. Reprint: Screech ed., *Pantagrueline prognostication pour l'an 1533*, Appendice A, 83-97.

§

1523. Stabius, Jehan. *La grant pronostication nouvelle avec les appertions pour l'an 1523.* [...] *Translatee de latin en francois.* Geneva: Jaques Vivian, [ca. 1522]. In-4°. 4 leaves, a_{iii} signed. 14x21cm. goth. chars.

[a₁]r^o: La grāt pronostication nouvelle Aue[c] | les appertions pour Lan Mil.CCCCC.xxiiij.
Com^z | posee par Maistre Jehā Stabius Daugusta en | alemaigne grāt astrologue du feu
empereur | Maximilian et a present de Larcheduc | trāslatee de latin en francois sans
riens y chāger. a lhōneur de | Dieu et vtilite des | creftiens. | ¶Les dñateurs de lānee
presete sont la | Lune avec Mercure et Venus. | [Fig., Venus and Luna]

[a₄]v^o: Almanach pour ceste presente | Annee. M. CCCCC. xxiii. |[List of calendric data and
feast days] | [Vignette] | [In. 19] [Fig., left: two lunar eclipses] ¶Nous auons ceste annee
deux eclipses d la lune. | [...]

BGe, Od 347.

§

- 1524.** de Fines, Henry. *Prenostication nouvelle de Louvain pour lan mil cinq cens vingt-quatre. [...] Item est ici mis et adjouxté en la fin de ceste presente Le grant Deluge futur, ainsi comme Maistre Conrard d'Alvaro docteur en astrologie de l'Universite de Coulongne l'a mis et escript.* [Antwerp]: s.n., [ca. 1523]. In-4°. 4 leaves, A_[1] signed. 13.5x19.5cm. goth. chars.

A_[1]r°: Prenostication nouvelle | de Louvain pou lan mil cinq cens .xxiiij. | Composee par
Maître Henry de fines | docteur en medecine 7 astrolo- | gue en laticte uille de |
Louvain. | ¶ Fiant luminaria in firmamento celi. | ¶ Item est icy mis & adiouxte en la
fin de ceste presente | Le grant Deluge futur \ ainsi cōme Maître Conrard | daluaro
docteur en astrologie de luniuersite de coulon- | gne la mis 7 escript en fa
prenostication par luy com- | posee en ceste dicte prefete annee mil cinq cens .xxiiij. |
¶ Double des lettres des veniciens enuoyes au | Roy de France. Conteñ. prenostication
de lannee | prochaine du moys de feburier .v.cens.xxiiij. | [...]

[a₄]r°: ¶ Du deluge futur. | [Cap. I] E cōrad daluaro veul ung petit escripre | du deluge futur
dont on a tant prenostique 7 pour euter | ,plixite declareray en breifve substāce sās faire
grandes al | legaciōs des docteurs ce q̄ mon simple entēdemēt en peulx | cōprēdre. [...]

[a₄]v°: ¶ Almanach pour lan mil cinq cens. xxiiii. | [Table: new moons and full moons] | [List of
calendric data and feast days]

BnF, François Mitterrand, RES P-V-1159.

§

- 1529.** Carion, Johannes. *Pronostication ou signification et manifestation des influences des veritable cours celestes [...] et calculee sus 12 annees [1529-1540] Parlans de tous Pays et estatz.* Antwerp: s.n., [ca. 1528]. In-4°. 8 leaves, A₂-A₃, B₁-B₃ signed. 12.5x18.5cm. goth chars.

[A₁]r°: [Cap. P] Ronostication ou signi | fication et manifestation des influēces des veritables |
cours celestes: Composee de par le tresexcellent Maître Joānes | Carionis Butilraymēsis:
par la grace du noble seigneur et | Marcligraue de Brandeborch: et calculee sur douze
an | nees Parlans de tous pays et estatz: comme vous | verrez cy apres en ceste
Pronostication Nouuel- | lement Traduyte Dallemant en Francoys | [Fig., horoscope
figure with zodiac man at centre, twelve signs of zodiac on cusps of houses]

BnF, François Mitterrand, RES-V-1902. Graesse V.459. Brunet IV.902. NK 2593.
Cantamessa 843.

§

1531. de Caestre, Jacques. *Pronostication de l'an 1531. Calculee sur le meridian de la renomee ville d'Anvers par maistre Jacques de Caestre, medecin de la mesme ville.* Antwerp: Guillaume Vosterman, [ca. 1531]. In-4°. 4 leaves, unsigned. 14x19cm. goth. chars.

[a₁]r^o: Pronostication de lan. M. | CCCCC.et.XXXI. Calculee sur le meridian de | la renomee ville Danuers Par maistre Jacques de Cae- | stre/ Medecin de la mesme ville. | [Cap. A] Ristote et plusieurs aultres grans mai | stres astrologins [sic] 7 grans clerz ont escript tous les auenemēt 7 | accidens qui descendent sur la terre/ 7 ce par naturelle constella | cion du ciel/ 7 ordonnance diuine/ car dieu ne la pas cree le ciel | avec tant de planettes pour riens/ mais luy a attribue diuerfes | proprietes/ faisans plusieurs auenemens 7 accidēs sur la terre cōme iournelemēt | aperceuous. [...]

[a₄]v^o: [In. 45] Imprime en Anvers par moy Guillaume | Vorfterman : a la licorne dor | Cum gratia 7 priuilegio

BnF, François-Mitterrand, RES P-V-388. NK 2597. Cantamessa 780.

§

1531. Thibault, Jean. *La prenostication de Prebstre Jehan composee sus les climas des terres et mers pour l'an mil cinq cens trente et un.* Paris: J. Nyverd, [ca. 1531]. In-4°. 6 leaves, B₂ signed. 12.7x18.5cm. goth. chars.

[a₁]r^o: La prenostication de | Prebstre Jehan composee sus les | climas des terres/ et mers/ pour Lan mil | cinq cens xxxi. avec la revolution des pais | et cōtres de frāce/ et lieux circōuoisins, 7c. | [Fig., ATREMPANCE, female figure pouring water]

BnF, François Mitterrand, RES-V-1900.

§

1533. Brelochs, Antoine. *Practique ou pronostication nouvelle d'Allemaigne et almanach veritable composee par l'expert et tresrenomme Maistre Anthoine Breelochs [...]* translate d'alleman en francoys, pour l'an 1533. Geneva: Gabriel Pomar, [ca. 1532]. In-4°. 4 leaves, unsigned. 14.5x18cm. goth. chars.

[A₁]r^o: ☿Practique ou Pronosticatiō nouuel | le Dallemaigne. Et almanach veritable Cōpofee par l'expert | 7 tresrenōme. Maistre. Anthoine. Breelochs Allemā | Docteur en medicine. En la noble Cite de Hall. | en Lanſquenech. Translatee dalieman [sic] en | franloys Pour lā. M. CCCCC. | 7. xxxiiij. | ☿Mars ☿Seign̄rs de cestuy an. ☿ ☿Jupiter ☿ | [Fig., right: Mars] Almanach. [Fig., left: Jupiter] | ¶Nous auons pour nōbre dor .xiiij. ¶Le ciecle du soleil .ij. ¶Lrē dñicale.E. ¶Le nōbre des Romains. Vj. ¶Entre

Noel 7 la dimëche | ¶gras font .xxij. iours. ¶Entre la chādeleufe 7 karef | mentrāt font .
 xxij. iours ¶La septuagesima le .ix. iour de Janvier. | ¶Diëche gras le .xxiiij. de feurier.
 ¶Karësmëtrat le xxv. de feurier | ¶Brāçons le .ij. iour de Mars. Pasquesle .xiiij. iour
 Dauril. | ¶Rogations le .xviiij. de May. ¶Lascëtion le .xxij. de May. | ¶Pëthecofte le .i.
 de Juing La trinite le .viiij. de Juing. | ¶La feste dieu fera le .xv. Jour de Juing. |
 ¶Lauent commence le .xxx. Jour de Nouembre.

[A₄]r^o: [ln. 26] ¶Tranflate 7 Imprimee a Genefve p Gabriel Pomar | * Inte * domine * confido
 * | [Device]

BGe, Bsa 46. Cantamessa 670.

§

- 1533.** de Fines, Henry. *La Grande et vraye prenostication de Louvain pour l'an mil cinq cens trente troys*. [Antwerp]: s.n. [ca. 1532]. In-4°. 4 leaves, unsigned. 12.5x18.5cm. goth chars.

[a₁]r^o: [Cap. L] A grande et vraye | Prenostication de louuain. Pour lan mil cinq | cens trente
 troye. Composee par Maïstre Hen | ry de fine docteur et astrologue en luniuersite de
 louuain. | [Fig., astrologer with armillary sphere and book, surrounded by the zodiac,
 months, planets, etc.]

[a₄]v^o: [long-edge.] Almanach pour lā mil.ccccc.xxxiiii. | [Table: full and new moons by day hour
 and minute] | [Base of page: List of calendric references and feast days]

BnF, François-Mitterrand, RES-V-1904. NK 2.2250. Reprint: Screech ed., *Pantagrueline prognostication pour l'an 1533*, Appendice A, 99-109.

§

- 1533.** Laet, Jean. *La grande pronostication nouvelle pou l'annee mil cinq cens trente troys*. [Antwerp]: s.n., [ca. 1532]. In-4°. 4 leaves, A_{ii} and A_{iii} signed. 12.5x18.5cm. goth. chars.

[a₁]r^o: ¶La grande pronostica | tion Nouvelle pour lannee Mil cinq cens trente troys | faicte et
 composee par maïstre Jehan laet filz de maïstre | Gaspard laet docteur en medecine et
 Astrologue en lu | niuerfite de Louuain. | [Fig., mappa mundi]

[a₄]r^o: Almanach pour lan mil | cinq cens et trente troys | [List of calendric references and feast
 days] | [Figure, left aligned: full lunar eclipse] [ln. 12] ¶Nota que en ceste prsente annee
 de lan | .nil cinq cens trente troys aurons eclipse de | lune le .iiii. iour daouft a dix
 heures du foir | pres de vnze heures neuf minutes.

BnF, François-Mitterrand, RES-V-1903. Reprint: Screech ed., *Pantagrueline prognostication pour l'an 1533*, Appendice A, 110-117.

§

1534. Carion, Johannes. *Prognostication d'Allemagne composee par l'expert et tresrenomme maistre Jehan Charion de Bückenheym, astrologue du tresillustre prince electeur duc de Brandenburg etc. pour l'an 1534.* [Geneva]: Wygand Koeln, [ca. 1533]. In-4°. 4 leaves, a_j signed. 15x20cm. goth. chars.

[a₁]r^o: ¶Prognostication Dallemaigne | Cōpofee par lexpt 7 Trefrenōme Maifre Jehan Charion | de Bückēheym/ Aftrologue du trefillustre Prince | Electeur Duc de Brandenburg 7c.
 Pour | Lan.Mil.CCCCC.xxxiiii. [Fig., Mars and Venus] | ☞Almanach. ☞ | ¶Le nōbre dor .xv. ¶Le Ciecle du Soleil .iii. ¶Lettre dñicale D | ¶Inditiō.vii. ¶Entre Noel 7 dymēche gras: sont .vii. sepmaines | et.iii.iours. ¶La septuagesime/ fera le p̄mier iour de Feburier. | ¶Karēsmētrant/ le .xvii.iour de Feburier. ¶Brandons/ le .xxii. | iour de Feburier. Paſques/le .v. iour Dapuril. | ¶Rogatiōs/ le .x. iour de May. ¶Lascēſion/ le.xm [sic]. iour de May | ¶Pēthecofte/ le .xxim. [sic] iour de May. ¶La Trinite, le .xxxii. iour | de May. ¶La feste Dieu/fera le .iiii. iour de Juing. | ¶Laduent cōmence le .xxix. iour de Nouembre. | Trāslatee 7 Imprimee par wygant köln Allemant.

BGe, Od 209. GLN-5820.

§

1535. Leander, Hippolyte. *Pronostication nouvelle pour ceste presente annee mil cinq cens trente cinq, avec l'almanach et foyres de Lyon, [...] Maistre Hypolite Leander en la tres-renommee ville de Basle.* Lyon: s.n, [ca. 1534]. In-4°. 4 leaves, A_{iii} signed. 13x18cm. goth chars.

[A₁]r^o: [Cap. P] Ronostication | nouvelle pour ceste presente annee | Mil cinq cens trente cinq. Auec | l'almanach 7 foyres de Lyō faicte 7 | calculee sur toute Europe/ par honr | neste homme Maistre hypolite leander en la trefre | nommee Ville de Basle | ¶Celi enerrant gloriam dei | [Fig., astrologer in countryside holding book contemplating heavens]
 [A₄]v^o: ¶Almanach pour ceste presente annee | ¶Nous aurons pour nombre dor .xvi. | ¶La lettre dominicale C. | ¶Le nombre des romains .viii. | ¶Entre noel 7 le dimēche gras, sont six sepmaies | 7 deux iours. | ¶La septuagesime le .xviii. iour de feburier. | ¶Brandons feront le .xiiii. de Feburier | ¶Pasques selon le ſainct pere le .xxi. de Mars : | ¶Pasques selon le usaige de leglise le .xxviii | de mars. | ¶Rogations le .ii. iour de May. | ¶Lascention/ le .vi. iour de May | ¶Penthecouste/ le .xxvii. iour de May. | ¶La Trinite/ le .xxvii. iour. May. | La feste Dieu/ le .xxvii. iour May. | ¶Laduent commēce le .xxviii.iour de Nouembre. | Ptolemeus. | Vir sapiens dominabitur astes [sic].

BnF, François-Mitterrand, RES P-V-132. Cantamessa 2439.

§

- 1536.** Carion, Johannes. *Pronostication d'Allemagne, des influences celestes composee par le tresexpert maistre Jean Charion de Buckenheim, astrologue du tresillustre prince electeur de l'Empire duc de Brandenburg, pour l'an 1536.* [Geneva]: [Wygand Koeln], [ca. 1535]. In-4°. 4 leaves, a₂ signed. 14.5x20cm. goth. chars.

[A₁]r^o: ¶Pronostication Dallemaigne/ | Des influences celestes. Cõpõsee par le trefexpt maistre
| Jean Charion de Bükêheim. Astrologue du | trefillustre Prince Electeur de Lem | pire
Duc de Brädëburg. Pour | Lan. Mil. D.xxxvi. | [Fig., Mars and Saturn] | ✠ Almanach.
☞ | [List of calendric referents and feast days]

[A₄]r^o: [ln. 31:] ✠ icy se fine ma Prognostication. Je prie a Dieu q̄ par | la grace 7 misericorde
infinie/ veuille toutes choses | dispofer au salut de noz Ames. A q̄ foyt tout | honneur/
toute gloire/toute action de | graces/sans fin. Amen.

BGe, Od 210. GLN-1308. Cantamessa 846.

§

- 1537.** Laet, Jean. *Pronostication de l'an de nostre seigneur 1537 calculee par Maistre Jaspar Laet Docteur en medecines sur le Meridien de la ville d'Anvers.* Antwerp: Michiel de Hoochstrate, [ca. 1537]. In-4°. 4 leaves, unsigned. 12.5x17.5cm.

[A₁]r^o: Pronostication de Lan | de nostre seigneur Mil.CCCCC.XXXVII calculee | par maistre
Jaspar Laet Docteur en medecines sur le | Meridien de la ville Danuers. | [Device, right
aligned: coat of arms with three stars] | [Cap ̄] Our ce que en ceste p̄ite annee de lan.
xxxvij. ie confidere que la | confellatiõ du chiel [sic] avec leurs influēces senfluiront 7
ferõt grãde | mēt leurs operatiõs aux quartie elemēs 7 tout ce que cy deffoubz | diceulx
est ou soit faict ou fabice [sic] influāt 7 venāt principalement | aussy biē hors de leclips
du soleil en lãnee precedēte de. xxxvi. le | xvij. iour de Juing [...]

[A₄]v^o: [ln. 43:] ¶Imprime en Anuers au naueau par moy | Michiel [sic] de Hoochstrate |
¶Cum Gratia 7 Priuilegio.

BnF, Arsenal, 8-S-14330 (2). NK 4251.

§

- 1542.** Thibault, Jean. *Prognostication de maistre Jehan Thibault medecin ordinaire du Roy nostre sire pour l'an de nostre seigneur mil cinq cens quarante et deux. Calculee sur*

l'horison du triumphant lieu de Fontainesbleaux et aultres lieu circonvoisins. [Le Mans]: s.n, [ca. 1541]. In-4°. frag. 2 leaves, unsigned [A₂ and A₄ wanting]. 13x19cm. goth. chars.

[A₁]^r: Prognostication de mai^z | stre Jehan Thibault medecin ordinaire du Roy nostre sire pour Lan | de nostre seigneur mil cinq centz quarante et deux. Calculee sur l'horison du triumphant lieu Royal de Fontaines bleaux et aultres lieux cir^z | conuoisins. 7c. | [Fig., astrologer with celestial globe, Phoebus's chariot, framed by columns and arch; motto above, EXPERIENTIA RERUM MAGISTRA].

BnF, François-Mitterrand, RES F-985 (2). Cantamessa 4466.

§

1542. Touraille, Jehan. *La Grande prenostication nouvelle pour l'an 1542*. Rouen: Guillaume de La Motte [ca. 1541]. In-4°. 4 leaves. goth. chars.

[A₁]^r: ¶La Grande prenostica | tion Nouvelle pour lan mil cinq cens. xlii. Compofee sur les jours et | mouuement de la huytiesme sphere et theoricque des sept planettes tant | angliques [?] que fixes et de luniuerfel monde et orbe celeste selon les ob^z | feruatiōs 7 resolutions des aucuns Astrologues 7 bōs mathematiciēs | faicte par Maistre Jehan touraille, sur le metroroscope de tholomee. | [Fig., Cancer as crab facing Man in the Moon] | ¶Cancer dicitur quartum signum Quia quarta pars zodiaci. | Et luna est septiā planetorum ingrediens celum solo signo | cancro/quod feminum et mobile est. | *Eclipsē de lune en ceste annee mil. v.c.xlii. fera le p̄mier iour | de mars a. xx.h.x viiii.mi. au signe de virgo a mydy. | [Fig., lunar eclipse, black square] | *Eclipsē de soleille. Xi. iour daoust a. v.h.iiii.mi au signe | de leo/ orient [Fig., lunar eclipse, black square]

[A₄]^v: [List of calendric referents and feast days] | [In. 36] *On les vent a Rouen/ par Guillaume de la Motte.

BnF, François-Mitterrand, RES P-V-283.

§

1542. de Villiers, Guillaume. *Pronostication nouvelle pour l'an 1542 composee par maistre Guillaume de Villiers*. Limoges: G. de La Nouaille, [ca. 1541]. In-4°. frag., 4 irreg. cropped. leaves. goth. chars.

[A₁]^r: ⇨Pronostication Nouvelle pour lan | M.D.XLii. Compofee par maistre Guil^z | laume de Villiers Jadis Regent et princi | pale de luniuerfite de Hausburg aux Alle^z | maignes. | [Fig., astrologer at desk with book and armillary sphere, sky overhead, village in background] | [Fig., engraving of signature: "Guillaume de Viliers"]

BnF, François-Mitterrand, RES P-V-346 (1).

§

1544. Calbasy, Seraphino. *La grande et vraye Pronostication nouvelle pour l'an 1544. Composee a l'utilite de tous vrayes Chrestiens studieux d'honnestes disciplines par Maistre Seraphino Calbasy.* Lyon: Jehan Réal, [ca. 1543]. In-4°. 5 leaves, A2 signed. goth. chars.

[A1]^{r°}: [Cap. L]a grāde 7 vra~~z~~ | ye Pronoftication nouuelle pour lan Mil. | CCCCC.xliiii.
Composee a lutilite de | tous vryas [sic] Chrestiens studieux dhonne~~z~~ | Ites disciplines p
maître Seraphino Cal~~z~~ | bafy Docteur en la tres noble sience Dastrologie 7 medecine |
de toute Enclipodie [sic] auecques les foires de France 7 aussi les | iours caniculaires. |
☾ [Fig., hand sticking out of cloud holding armillary sphere, initials "IR"] ☾ | ☼ Ceste
annee nous auons | troys eclipses de lune Et vne | de Soleil | [Woodcut figs., three lunar
eclipses, one solar]

Private collection. See facsimile ed. Scheler, Lucien. *La Grande et vraye pronostication nouvelle pour l'an 1544.* facsimile ed. Paris: Droz, 1947. NRB-116.

§

1547. Caron, Antoine. *Prognostication Nouvelle pour L'an Mil cinq centz quadrate sept.* s.l.: s.n., [ca. 1546]. In-4°. 5 leaves, unsigned. 11.5x17.5cm. goth. chars.

[A₁]^{r°}: ¶Prognostication Nou~~z~~ | uelle pou Lan Mil cinq centz quarāte sept. | Composee a
lutilite de tous studieux dhon~~z~~ | nestes disciplines. Par Maistre Antoine Ca~~z~~ | ron
Docteur en la tresnoble science Dastro~~z~~ | logie, 7 Medecine. | [Fig., man in chair with
armillary sphere, stars overhead, tree behind etc.] | [Woodcut figs., two partial lunar
eclipses, one partial solar]

[A₄]^{r°}: ¶Almanach. | ¶Lan de grace Mil cinq | cinq [sic] centz Quarante sept. | Nous aurons
pour | [List of calendric referents and feast days] | Entre Noel et le dimenche gras/y a
dinterualle | huict sepmaines. [A₅^{r°} = duplicate of almanac].

BnF, François Mitterrand, RES P-V-421.

§

1547. Sauvage, Jaques. *Pronostication de l'an 1547. Par Maistre Jacques Sauvage medecin en Anvers.* Antwerp: Henry Pierre de Middleburg [ca. 1547]. In-4°. 4 leaves, unsigned. 12.5x17.5cm. goth. chars.

[A₁]r^o: ♣Pronostication de lan | M.D.XLVII. Par maistre Jacques Sau^z | uage medecin en Anuers demourant en la rue apelle/die | steenhauvers veste alenfeigne du Papegay | [Fig., portrait of the author] | ¶Imprime en Anuers par Henry Piere de Middlebruch. Im | primeur Jure de sa Mayeste Imperiale. | ¶ Par Consent de la Court. le .iiij. de Nouembre. | Subsignee Derreyken

BnF, Arsenal, 8-S-14330 (1). Cantamessa 4057.

§

1551. Sauvage, Jaques. *Prognostication de l'an nostre Seigneur 1551*. Antwerp: Jean de Liesveldt, [ca. 1550]. In-4°. 4 leaves, unsigned. 14.5x20cm. goth. chars.

[A₁]r^o: [Fig., device, left aligned] | Prognostication | de lan nostre Seigneur. M.D. 7.LI | par Maistre Jaques Sauuage/ Do- | cteur en Medicine/ et lecteur de la ville Danuers/ demourant aupres de | la Merport. | [Cap. N] Ous uoyōs iournallemēt/ que aucunes | personnes/ lart de Astronomie en nulle forte se veullent | souffrir. [...]

[A₄]v^o: [ln. 28] ¶Ceste Prognostication est visitee et approbee de par le treshonorable | et tresscauāt Seigneur Maistre Jehan Gooffens Doorfchot, Pasteur de | S. Jaques en Anvers/ Licentie en la saincte Theologie et Correcteur ad | mis/ 7 pa la M. Imp. ordōne. Et est ceste permise au Cōseil de Brabāt/ | de la pouoir imprimer a Jehan de Liesuelt demourāt en la rue | de la Chambre/ sur le pont en lefeu Dartoys en Anuers. | Signe par le secretaire Maistre Philips | de Lens.

KBR, LP 114 A. BT 4272.

§

1552. Fabri, Caude. *Vraye prognostication nouvelle, composée par Maistre Claude Fabri, medecin et astrophile [...] pour l'an mil cinq cens cinquante-deux*. Agen: Arnauld Villote, [ca. 1551]. In-4°. 4 leaves, A_{ii}-A_{ij} signed. 13x17cm. rom. chars.

[A_i]r^o: VRAYE | Prognostication Nouvelle, Composée par maistre | Claude Fabri, Medecin & Astrophile demourant | en la noble Ville & Vniuersité de Dole, | natif de Prelz en Argonne | pour l'An Mil cinq cer.s | Cinquante Deux. | [Fig. man w. compas on armillary sphere] | Nouuellement Imprimé Agen, par Arnauld Villote, | demourant pres de Saint Hylaire.

BnF, François Mitterrand, RES P-V-350. Cantamessa 1443.

§

1552. Sauvage, Jaques. *Prognostication de l'an nostre Seigneur 1552, Docteur en Medecine de la ville d'Anvers.* Antwerp: Jehan Liesveldt, [c.1551]. In-4°. 4 leaves. 14.5x20cm. coll. A4 [unsigned]. goth. chars.

[A₁]r^o: [Fig., device, left aligned] Prognostication de | lan nostre Seigneur. MCCCCC. et. LII | par maistre Jaques Sauuage/ Docteur en | Medecine de la uille Danvers/ demourant | aupres la meerbrughe. | [...]

[A₄]v^o: [ln. 14] ¶ Ceste Prognostication a este veue 7 approuee par maistre Jehan Gofuini Lie | centie en Theologie/ Pasteur de leglise de saint Jaques en Anvers, Correcteur | par la Maieste de Lempereur a ce ommis/ 7 par celle accordee a estre im^o | primee par Jehan de Liefueldt/ demourant en Anvers sur le | pont de Chambre a Lescu Dartoys. | Subsigne Phil. de Lens.

KBR, LP 116 A. BT 4273.

§

1553. Laet, Alphonse. *Prognostication de l'an de Nostre Seigneur 1553. Calcule par Maistre Alfonse Laet, medecin et amateur de l'art de Astrologie.* Antwerp: Martin Nuyts, [ca. 1552]. In-4°. 4 leaves, A-Aiij signed. 14.5x20cm. goth. chars.

A₁r^o: ¶ Prognostication [Fig., device, right aligned] | de lan de nostre Seigneur M.CCCCC.LIII. | Calcule par Maistre Alfonse Laet/ | Medecin & amateur de lart | de Astrologie. | [...]

[A₄]v^o: [ln. 12] ¶ Imprime en Anvers ala lycorne dor enla Canumerstrate par Mar^o | tin Nuyts imprimeur iure/ et a ce adims par la maieste Imperiale/ | Par singulier Priuilege dela mesine Maieste Imperiale/ | et uifite par ung homme scauant uifiteur de li^o | ures meismement a cieux 7 commis.

KBR, LP 488 A. Graesse IV.69. Brunet III.740. BT 1749. Cantamessa 2365.

§

1554. Laet, Alphonse. *Prognostication de l'an de Nostre Seigneur Jhesu Christ 1554. Calcule et composee par Maistre Alfonse Laet, amateur de l'art d'astronomie.* Antwerp: Jan Wynryx, ca. 1553. In-4°. 4 leaves, A_{ii} signed. 14.5x20cm. goth. chars.

[A₁]r^o: [Fig., device, left aligned] ¶ Prognostication | de Lan de nostre Seigneur Jhesu Christ. M. | CCCCC. LIII. Calculee 7 cōposee par Mai | stre Alphonse Laet amateur de lart daltronomie. | [Cap. V] Eu ne me puy bonnement tenir de Pronostic^o | quer / tant pour lamour que iay a la science que pour | faire service au commun peuple/ aussy pour complaire | a mes amys qui en sont la principale occasion/iay pro | pose escrire briuevement et clairement / [...]

[A₄]r^o: [ln. 35] ¶Imprime en Anuers en la rue de la chambre | a la Fontaine dor chez Jan
Wijnrijchx. | ¶Auec Grace et Priuilege.

KBR, LP 88A. BT 1750.

§

- 1554.** Moerbeke, Pierre. *Pronostication de l'an de Nostre Seigneur 1554. Calculee par M. Pierre de Moerbeke, Docteur en Medicine, sur le meridien de la ville d'Anvers et lieux circonvoysins.* Antwerp: Henry Pierre de Middleburg's Widow, [ca. 1553]. In-4°. 4 leaves, unsigned. goth. chars.

[A₁]r^o: ♣Pronostication de Lan | de nostre Seigneur. M. C C C C C. 7 [Fig., device, left aligned]
| Liiii. Calculee par M. Pierre de Moerbeke/ Docteur en | Medicine/ sur le meridien
de la ville Danvers et lieux | circonuoysins: residant en ladicte ville pres de | Leglise
fainct Jacques au more nageant. | Math. vij. | Tout ce que vous voules que les hommes
vous facent/ | Faictes leur aussy/car cest la loy 7 les Prophetes. | [...]

[A₄]v^o: [ln.24] ¶Vifite & approuue par Messire Jan Goofsens. Cure de | fainct Jacques. Et est
admis le xvij. Doctobre subfig- | ne M. Phi. de Lens | ¶Imprime en Anuers a la
Taulpe chez la Veufue | de Henri Pierre.

KBR, LP 93A. Brunet III.740.

§

- 1555.** Nostradamus, Michel. *Prognostication nouvelle, et prediction portenteuse pour l'an M.D.LV.* Lyon: Jean Brotot, 1555. In-8°. 16 leaves, signed. 10.5x15.5cm. coll. A4 B4 C4 D4 [signed]. rom. chars.

[A₁]r^o: PROGNOSTICATION | nouuelle, & prediction po- | tenteufe, pour Lan | M. D. L.
V. | Compofee par maiftre Michel Nostradamus, docteur en medicine, de Salon de
Craux en Pro- | uence, nommee par Ammianus Marcellinus | S A L V V I V M | Dicta
Heroico praefuli D. I O S E P H O des Panifses, | *Caulifensi praepofito.* | [Fig.,
Nostradamus at work] | A Lyon, par Iean Brotot.

BmL, Part-Dieu, Rés B 512544.

Addenda to the Descriptive bibliography of almanacs and prognostications (1497-1555)

Following the defense of this thesis, I was able to examine and catalogue two other French vernacular prognostications that fall within the pre-1497 chronological range (including one that predates the 1497 piece by Gaspar Laet that begins the original descriptive bibliography and may be the earliest surviving example of the genre in French). Though I was not able to draw on these publications for this project, I have included descriptions for them here as a supplement to the original thirty-five entry bibliography.

§

- 1492.** s.n. *La pronostication nouvelle pour l'an 1492*. Paris: Jean Tréperelle, [ca. 1491]. In-4° [horiz. chain lines]. 8 leaves, a₂, a₃, a₄ signed. 12.5x19cm. goth. chars.

[a₁r°]: La pronostication nouvelle pour | lan M.cccc. quatre vingz 7:xii. | [Fig., device of Jean Tréperelle]

[a₈v°]: [ln. 15] Item vous aures elipse [sic] de soleil.xxi.iour docto | bre a. xi. heures deuant midy. | Cy finist ladicte reuolution de ceste dicte | annee mil. cccc.quatre vinhz 7 douze.

British Library, IA.40393.

§

- 1518.** Amours, Guillaume. *Pronostication nouvelle pour l'an mil cinq cens dix-huit composee sur le climat de France*. [Rouen]: [J. du Moulin], [ca. 1517]. In-4° [horiz. chain lines]. frag., 2 leaves, unsigned. 12.5x18cm [irreg. cropped]. goth. chars.

[a₁r°]: [Pronosticati-?] | on nouvelle pour lan mil cinq cens. x [viii, compo-?] | fee sur le climat de Frāce. par Maistre [Gu]uillau | me Amours. Docteur en medecine de Louuain. | [Fig., mappa mundi] | [left column] [Fig., lunar eclipse] Eclipse de lune le:xviii | iour de May a. x. h.et de | mie et durera quafi. iii. | heurs | [right column] [Fig., solar eclipse] Eclipse de soleil est le viii. Juing | a. v.h. cōmancāt aumatin 7 dure quafi. ii.h. vng quart | [Fig., species of comet]

Wellcome Institute, EPB / B 283 / B.

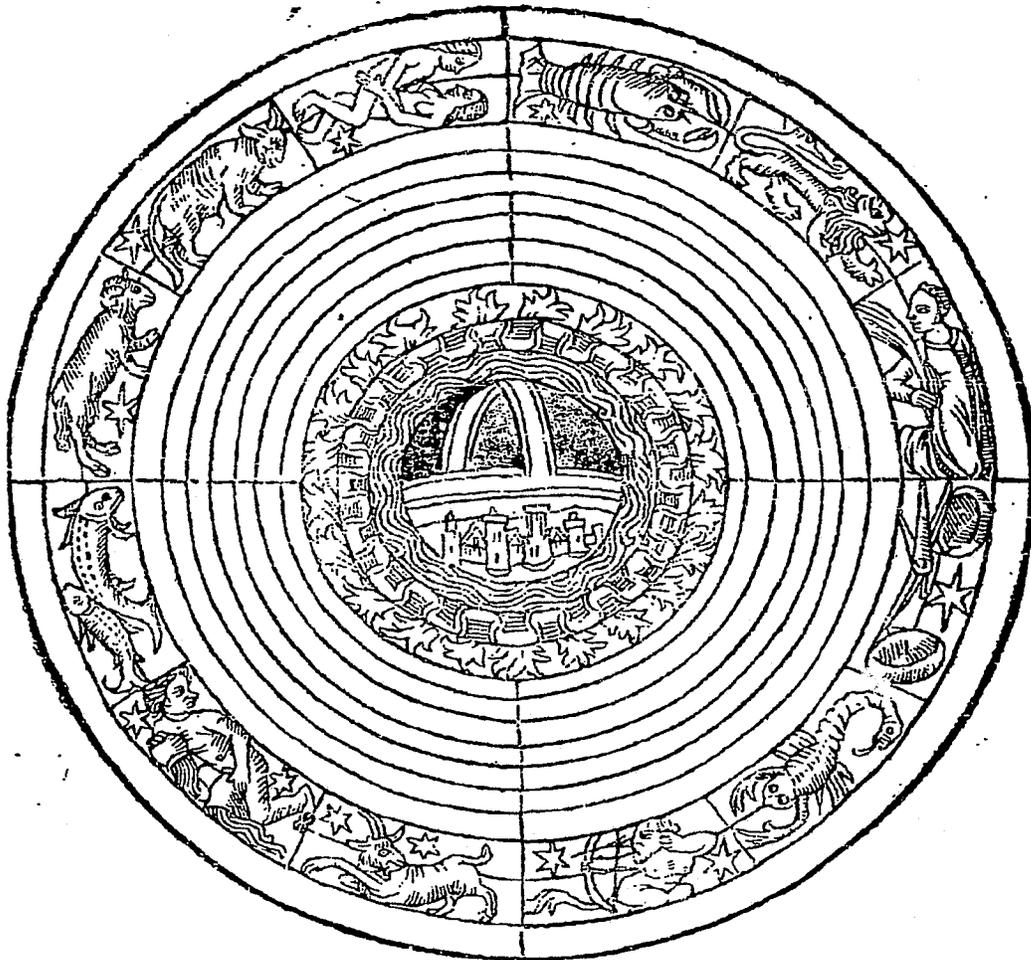
Appendix (Figures)



Celum alicui Domino
 terram autem dedit
 filiis hominum. Non
 mortui laudabunt te
 Domine neque omnes
 qui descendunt in in-
 fernum. Sed nos qui
 vivimus benedicimus
 Domino. Quoniam
 videmus celos tuos
 opera digitorum
 tuorum lunam est stel-
 las que tu fundasti.
 quia subiecisti omnia
 sub pedibus nostris
 oves et boues unius
 uersas in super et pec-
 cora capi. Volucres
 celi et pisces maris qui
 perambulans semi-
 tas maris. Domine
 deus noster qui admi-
 tabile est nomen tuum.

¶ Si veult (comme bergiers qui gardent les biesis aux champs sans sauoir les lectres: mais seulement par auaines figures quilz font en petites tabetes de boys) auoir congnoissance des cieulx / Des signes / Des estoilles / Des planetes / De leurs cours mouuements et proprietes. Et plusieurs choses conserues en ce present copost et traictier des bergiers seul est extrait et copose des leures traictiers et mis en lectre telle que chascun pourra coprandre et sauoir come eulx les choses dessusdictes. Premièrement doit sauoir que la figure et la disposition du monde / le nombre et ordre des elemens / et les mouuements des cieulx appartient a sauoir a tout homme qui est de franche condition / et de noble engin / et est belle chose delectable profitable et honeste. et avec est necessaire pour auoir plusieurs autres congnoissance en especial pour astrologie dicte des bergiers pour quoy est assauoir que le monde est tout rond ainsi que vne pelote. Et selon les saiges bergiers nest pas possible de trouuer vne pelote aussi ronde que le monde est: car il est plus rond que auaine chose artificiellement faicte de quelque bon ouurier qui soit. Et que plus fort est en ce monde nous ne voyons ne iamais verrou auaine chose si iustement / et equalement ronde come sup mesme est. et est compose du ciel et des quatre elemens / et cinq principales parties. Apres doit sauoir que la terre est au milieu du monde car cest le plus pesant element. Sur la terre

Figure 1. Shepherd-astronomer. From *Calendrier des bergers* (Paris: Guy Marchant, 1496), 2^o, fol. H7v^o.



Et sont les cieus des planetes selon leur ordre. Le. Viii. ciel est des estoilles
fixes et sont ainsi dices pour ce que mouët plus regulierement et toutes d'une
guise que ne sont les planetes puis par dessus est le premier mobile ou quel na
part chose que bergiers puissent veoir. Auais bergiers diet que par dessus ces ix
cieus en a Vng dit immobile par ce que ne tourne point. Dessus leq̄l en est Vng
autre qui est de cristal: par sus lequel est le ciel imperial: ou quel est le trosne de
Dieu. Desquelz cieus n'apartient a bergiers de parler. mais seulement du premier
mobile: et ce qui contient tout ensemble appellent le monde. D'une chose se mer
ueillent mouët: cest come dieu a distribue les estoilles que nen a mis nulles au
ix ciel. et il en a tant mis au Viii que on ne les sauroit nombier. et es autres sept
cieus nen a mis fors en chascun Vne tant seulement. en appellent estoilles le
soulcil et la lune. et tout ce appert par la figure cy dessus.

Figure 2. The heavenly spheres. From *Calendrier des bergers* (Paris: Guy Marchant, 1496), 2^o, fol. H₈v^o.

Berriers cōgnoissent
 Vne Variation subtile
 ou ciel. et est car les estoil
 les fixes ne sōt pas soubz
 les mesmes degres ou sig
 nes du zodiaque quelles
 estoiet quant furent crees
 a cause du mouement du
 firmament ou quel elles
 sont contre le premier mo
 bile en cent ans dū degre
 pour la quelle mutacion
 le soleil peut auoir autre
 regard a Vne estoille: et
 autre significaciō qui n'a
 uoit le temps passe: et mes
 memēt quant les liures
 furent faiz par ce que le
 stoille a change le degre
 ou le signe soubz qui elle
 estoit. Et cey fait faillir
 souuēt ceulx qui p̄noſti
 quent et font iugemens
 future. **T**ous cerdes
 du ciel sont greſtes fors le
 zodiaque qui est sarge. et
 contēt en longueur trois
 cens lxx degres. et en lar
 geur vii. laſſie largeur est diuisee par le droit milieu sxx degres en Vng coste
 et sxx dautre et est faicte ceste diuision par Vne ligne nommee ecliptique: laſſie
 ecliptique est le chemin et voie du soleil car iamais le soleil ne part de desoubz
 celle ligne et ainsi est tousiours ou milieu du zodiaque mais les autres plane
 tes tousiours sōt dūy coste ou dautre de ceste ligne si non quāt sont en la teste
 ou en la queue du dragon comme la lune tous les mops y passe deux foyz. et
 si aduient que soit quant se renouelle il est eclipse de soleil: et si sest en plaine
 lune et quelle soit soubz le nadir du soleil. si sest droictement il est eclipse gene
 rale et si nest que Vne partie on ne la voit point. Quāt est eclipse de soleil elle
 nest point generale par tous les climatz mais bien en aucun climat seulement
 mais quāt est eclipse de lune elle est generale par toute la terre.



Figure 3. The Zodiac. From *Calendrier des bergers* (Paris: Guy Marchant, 1496), 2^o, fol. 12^o.

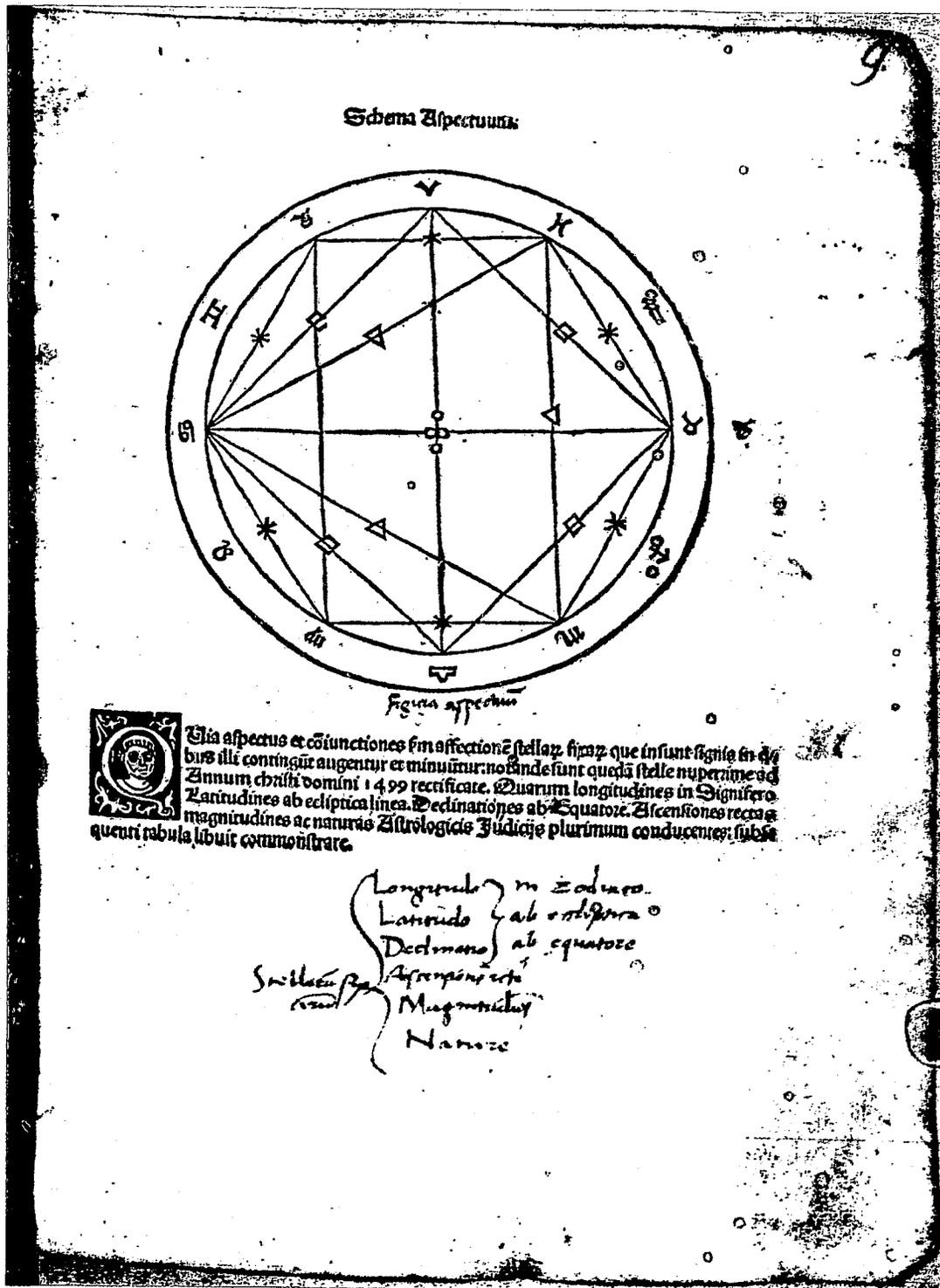


Figure 5. Aspect diagram. From Stöffler and Pflaum, *Almanach nova plurimis annis venturis inserentia*. (Ulm: Johann Reger, 1499), 4°, fol. 9r°.

**Practica vber die grossen vnd ma-
nigfaltigen Coniunction der Planeten/die im
Jar. M. D. XXXIII. erscheinen/vñ vns
gezweiffelt vil wunderbarlicher
ding geperen werden.**

Zuß Rd. Kay. May. Gnaden vnd Freyhaiten/Hier sich meniglich/dyße meine Pras-
tica in zweyen Jaren nach zůtucken/bey verliung. 4. Marck löngs Golde.



Figure 7. Leonhard Reynmann, *Practica yber die grossen und manigfaltigen Coniunction der Planeten* [...] M.D.XXIII. (Nurnberg, s.n., 1523), 4°, British Library, C.71.h.14. (17). Image from Reed College, Department of Humanities, http://academic.reed.edu/Humanities/hum210/syllabi_archives/fall04/week11/detail.np/detail-07.html (accessed April 2008).

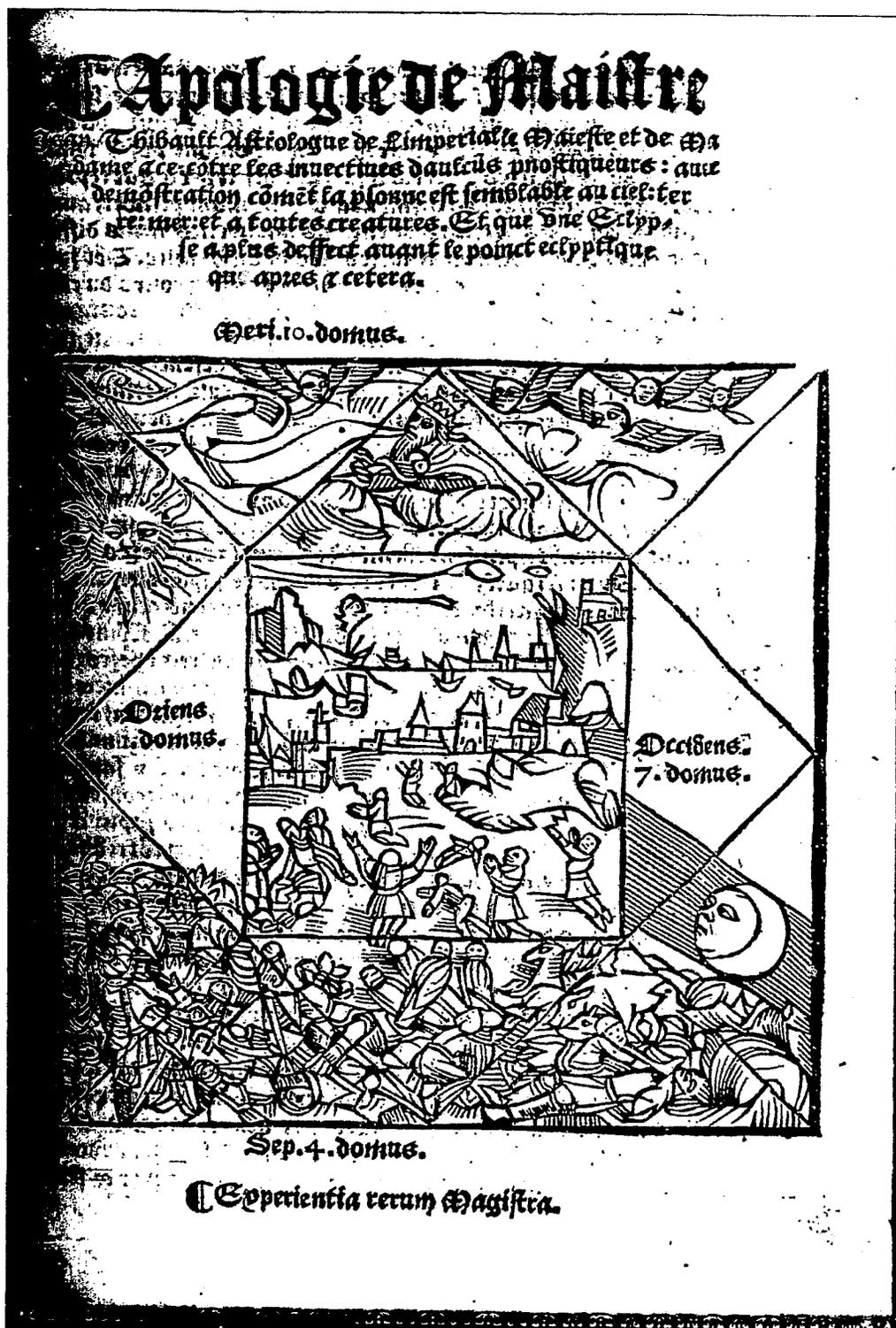


Figure 8. The 1529 Lunar Eclipse, as represented on the cover of Jean Thibault, *Apologie de Maistre Thibault* (Antwerp: s.n., 1530), 4°, fol. A₁r°.