Spheres in Verse: Cosmological Practices in Early Seventeenth Century Amsterdam

Didi van Trijp, s. 3498220
MSc thesis in History and Philosophy of Science, Utrecht University
Supervisor: Prof. dr. A. van Dixhoorn, second reader: prof. dr. W.W. Mijnhardt
ECTS: 37,5

August 2015
Acknowledgements

If only the writing of this master thesis had been a process as immaculate as a sphere: perfect, harmonious, organized and ordered. A brief thanks to those who have made this process a little more uplifting.

Many thanks to dr. Matteo Valleriani for introducing me to Johannes de Sacrobosco’s ‘The Sphere’ in the first place and for his diligent explanation of the book’s properties. I’m looking forward to seeing the findings of his research on this textbook tradition into print. I am grateful, too, for having been welcome to visit the Max Planck Institute for the History of Science in Berlin with its great research facilities and its inspirational talks and colloquia.

My venture into sources that traditionally fall into the literary domain – and thus fall outside the scope of what historians of science ‘usually’ study – was perhaps more complex than I had imagined it to be beforehand. I would not have come to a better understanding of the kinship of art and science without the diligent guidance of prof. dr. Arjan van Dixhoorn. Ever generous with his time, he has carefully read and commented each draft and continually corrected my all too modern mind; instilling in me a further sensitivity towards early modern knowledge cultures.

Both the existence and significance of such a thing as (a) knowledge culture(s) have been explained to me during the various courses taught by prof. dr. Wijnand Mijnhardt. I am thankful for the fact that he has kept a watchful eye on my progress over the last two years and for his suggestions in the earlier stages of writing this piece.

My sincere gratitude also to prof. dr. Richard L. Kremer, who kindly shared his expertise on historical lunar eclipses with me.
XXXI
Sapiens dominabatur astris

Het hemelse verwulfzel met de tintel-schichten,
Des flick'rende ghestert, en 't stadighe gheswey,
Der sterre-schools ghesweef in matelycke rey,
De wonderlijcke dinghen, wonders voor 't ghezichte,
Waer 't ongeoeffende vernufte voor moet swichten,
Vermits d’onkunne vande sterrens loops gheley,
Noch grond-verstandt des axze van de polen bey,
Noch van de maenens gangh, noch vande sonnens lichte,
Waer 't ledighe gezint, verzuymich niet na pooght,
Om na d'uytwendicheyt daer oordeel van te geven:
Verdwaelende in 't aerds, niet styghend' nae de hooght,
Waer over zy bedompt en zonder kennis leven:
Wyl den leergie’gaert tracht, zo veel als kan geschien,
Te dregghen nae 't gheheym van ’t wonder dat wy zien.

Theodoor Rodenburgh, *Eglentiers Poëiens Borstweringh*
fol. 356 (Amsterdam, 1619)
# Table of Contents

Introduction ................................................................. 7

Chapter 1. Literary cultures, knowledge cultures .......................... 18

1.1 The art of rhetoric ...................................................... 19
1.2 Forming members ...................................................... 20
1.3 Linking communities ................................................... 22
1.4 Awakening minds ...................................................... 24
1.5 Conclusion ............................................................. 26

Chapter 2. The Sphere ....................................................... 29

2.1 Textbook traditions ..................................................... 30
2.2 Versifications .......................................................... 34
2.3 Conclusion ............................................................. 36

Chapter 3. Using the sphere .................................................. 38

3.1 Rodenburgh: Comets and eclipses ................................. 39
3.2 Hooft: Planets and order ............................................... 43
3.3 Vondel: Micro- and macrocosm .................................... 46
3.4 Bredero: Transcending understanding ............................ 48
3.5 Spiegel: Know yourself ............................................... 50
3.6 Conclusion ............................................................. 52

Conclusion ................................................................. 54

Bibliography ............................................................... 58

Appendix ................................................................. 67

Illustrations ............................................................ 79
Introduction

When the members of Amsterdam’s senior chamber of rhetoric *De Egelantier* (The Eglantine) convened in the 1610s during their weekly meetings at the Nes it is safe to assume that there was a wide range of things that they could discuss.¹ These gatherings, which were held on Sundays, served to teach the members the use of various literary forms and how to master rhyme and melody. Such formal training was combined with more informal conversations, the playing of music and the reciting of texts.² Chambers of rhetoric were heterogeneous groups that encompassed members from all layers of society: young and old, with or without schooling, and from differing social and religious backgrounds.

The chamber’s location in a bustling city may have augmented the group’s variety. From the late sixteenth to the early seventeenth century, Amsterdam grew to be the most important market in Europe; trade, shipping and industry flourished as never before.³ These were, at the same time, decades of religious and political turmoil. Despite the relative peace of the Twelve Years’ Truce (1609-1621) in the protracted war against the Spanish empire heightened tensions endured.⁴ Of both material and cultural importance was the influx of immigrants from the Spanish-held Southern Netherlands.⁵ These immigrants had even founded their own chamber of rhetoric in 1598, *Het Wit Lavendel* (The White Lavender).⁶ As a center of global trade networks, the Dutch Republic was one of the most notable intellectual hubs of the seventeenth century world; through its elaborate web of travel and commerce, knowledge was gathered about the most diverse subjects and artifacts.⁷

¹ The Eglantine was founded in 1518 and held its meetings at the *Kleine Vleeshal* (Small Meat Market). F.C. van Boheemen and Tc.J.H. van der Heijden, *Retoricaal Memoriaal: Bronnen voor de Geschiedenis van de Hollandse Rederijkerskamers van de Middeleeuwen tot het Begin van de Achttiende Eeuw* (Delft, 1999) 50
² Arjan van Dixhoorn, *Lustige Geesten: Rederijkers in de Noordelijke Nederlanden (1480-1650)* (Amsterdam, 2009) 140-143
³ Oscar Gelderblom, *Zuid-Nederlandse Kooplieden en de Opkomst van de Amsterdamse Stapelmarkt (1578-1630)* (Hilversum, 2000) 114
⁵ Simon Schama, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age* (New York, 1997) 587
⁶ Van Boheemen and Van der Heijden, *Retoricaal Memoriaal*, 57
These inflows of foreign novelties further stimulated study of the natural world. Such interests also lived in the chambers of rhetoric, as can be deduced from the set of literary texts that pertain to natural knowledge in general and cosmological knowledge in the particular. This thesis intends to study the ‘overlap’ between literary texts on one hand and the topic of cosmology on the other. A study of a set of rhetorical texts may give an indication of what kinds of cosmological knowledge rhetoricians incorporated in their writings and to what ends they did so. Whereas historians of science are prone to study specialists such as the astronomers and astrologers circulating at universities and/or courts, other practitioners of cosmology are often disregarded. By casting the net more widely, light could be shed on those that pursued, exercised and reflected on celestial knowledge – even if they rarely did so on the same level as the experts in the field. This thesis aims to study the significance of the chambers’ early modern literary culture for the history of science.

**Historiography**

Scholarship in the history of science of the Low Countries has not studied the relationship between cosmological knowledge and early modern literary texts (such as plays, songs and poems) extensively yet, even if these texts have been subject to treatment by historians of literature. The books and articles produced by those historians therefore form the logical place to start an exploration of the conjunction of literature and cosmos. Historian Piet Verkuyl was one of the first scholars in Dutch studies to consider that union. Many of his articles have been dedicated to scrutinizing the oeuvres of Pieter Cornelisz Hooft and Constantijn Huygens in the hope of uncovering their cosmological views. His careful analyses have offered insight into what kinds of cosmological knowledge these poets included in their writings, even though he felt that he could not give a definite perception of their cosmological thought. Verkuyl has tended to stay very close to these poems’ texts, dissecting each verse and each line in a precise manner. He seldom seemed to ponder,

---

11 ‘Een exact inzicht te krijgen in Hoofts wereldbeeld zal, denk ik, onmogelijk zijn omdat hij ook in deze zaken op verschillende niveaus in verschillende patronen kan hebben gedacht’ Verkuyl, ‘Kosmosbeelden in Hooft’s Lyriek’ 29
nevertheless, why poets as Hooft and Huygens would have deemed it pertinent to include these celestial elements in their literary writings.

The role of cosmological references in literary texts has been reflected upon by Annelies van Gijsen in her study of Colijn van Rijssele’s *Spiegel der Minnen* (Brussels, 1561). She has argued against the idea that the astrological statements included in the play are merely decorative and instead observed that these were integral to its message. The astrological elements propel the character and behavior of the protagonists. She considers astrology to be a fruitful approach to study changing intellectual, ethical and affective outlooks, and therefore recommends further research, to take a diachronic approach to astrological elements in early modern literary texts. Anke van Herken explicitly followed that suggestion in her study on the mythological-amorous theater of the rhetoricians, in which she analyzes multiple plays and concludes that in these texts astrology serves as a guiding principle. Finally, Samuel Mareel has mentioned the occurrence of astrological predictions in Cornelis Everaert’s play *Ghewillich Labuer ende Volc van Nerrynghe* (1526) only briefly.

Jeroen Salman has studied the presence of astronomy and astrology in the almanacs that were published in the Golden Age and demonstrated the great wealth of contributors that collaborated in the production of these books: including but not limited to theologians, school masters, physicians and rhetoricians. These almanacs, as a result, encompassed a broad range of information brought forward in different sorts of texts – some in prose, some in poetry. Salman’s work is a fine example of the extent to which different societal groups could collaborate in their production of knowledge. The book does not in any way address the relationship between literature and science; that is not part of its aim. The infusion of cosmological knowledge in literary writings has not led to reflections on what this could mean for the interpretation of early modern literary culture. Historians of literature seem to have focused purely on literary texts as if they represent an autonomous field of literature, set apart from discourses on forms of knowledge of nature.

---

13 Van Gijsen, *Liefde, Kosmos en Verbeelding*, 50
14 Ibidem, 193
15 Anke van Herk, *Fabels van Liefde: Het Mythologisch-Amoreuze Toneel van de Rederijkers (1475-1621)* (Amsterdam, 2012) 186
16 Samuel Mareel, *Voor Vorst en Stad: Rederijkersliteratuur en Vorstenfeest in Vlaanderen en Brabant (1432-1561)* (Amsterdam, 2010) 195
18 Arjan van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels in the Late Fifteenth and Early Sixteenth Centuries’ in: Bettina Noak (ed.)
Historians of science, conversely, seem to employ poetic texts mostly as elegant illustrations for a more general case they are seeking to make. More often than not, the cases made by historians of science revolve around the spread of new ideas. As Jim Secord noted, historians of science are obsessed with novelty and the places in which novelty begins. This becomes clear at a glance when studying the past century’s efforts to explore the relationship between literature and astronomy in early modern Europe. Rienk Vermij has recently devoted some pages to the influence of the new astronomy on Dutch poetry in his book that traces its reception in the early modern Low Countries. Studying poems that adhere to the heliocentric worldview could be helpful in assessing the spread of that new view in circles beyond the academic. Such ‘Copernican’ poems, however, are rarely found in the seventeenth century. Exceptions to that rule are some of Constantijn Huygens’ writings, who briefly mentioned the Copernican system in his Ooghen-troost of 1647 and seemed to remain inconclusive about which system was truer to nature. Vermij does not pursue the poetical path further, as that lies outside of the scope of his book.

A similar focus on new astronomy can be found elsewhere in Europe. An early example is Marjorie Nicolson’s article from 1935, in which she describes the influence of the ‘new astronomy’ on the English literary imagination – which she states had an almost instantaneous effect. New insights in astronomy stirred the curiosity of John Donne (1572-1631), Ben Jonson (1572-1637) and Robert Burton (1577-1640), among others. In Nicholson’s view, William Shakespeare (1564-1616) did not belong to this group as he was characteristically silent about contemporary astronomy. The idea that Shakespeare did not articulate his views on astronomical issues has been argued against in 2015, when astronomer and astrophysicist Peter D. Usher published his study of Shakespearean plays and their scientific substance. He argues that hitherto it has gone unnoticed that these plays in fact display a consistent pattern of reference to phenomena that prove the correctness of the new worldview, viz. the Copernican one. One of the ideas that he advances is that the theater play All’s Well that Ends Well (c. 1604) personifies both a new supernova and the retrograde motion of Mars. Shakespeare, Usher concludes, was thus ‘not only aware of the

---

*Wissentransfer und Auctoritas in der Frühneuzeitlichen Niederländischsprachigen Literatur* (Berlin, 2014) 108
20 (Eye’s consolation)
23 Ibidem, 2
revolution in worldview that was occurring in his lifetime, but he was well ahead of his time – as he was in other fields.'

Beverely S. Ridgely published on the new astronomy in French seventeenth-century poetry. She aimed to uncover how the French literary imagination was stimulated by ‘what is now considered to be the most thorough change on record in man’s outlook on the constitution of the universe – the Copernican revolution.' Ridgely focuses on the works of two libertins érudits, poets Charles de Vion d’Alibray or Dalibray (1600-1653) and Jacques le Pailleur (unkn.-1654), and relates how they let controversial cosmological themes shine through in their poems. A contrasting approach to cosmological elements in French poems has been taken by Isabelle Pantin. She aims to lay bare the origins and evolution of a sixteenth century poetic movement that she dubs ‘poésie philosophique.’ As proponents of this movement she identifies poets such as Jacques Peletier du Mans (1517-1582), Pierre Ronsard (1524-1585) and Jean Edouard du Monin (1557-1586). She does not focus on discerning interest in new astronomy, even though she does strive to look into the relationship between poetic descriptions of the heavens and the astronomical knowledge of specialists.

The scholarly works briefly discussed here, with the welcome exception of Pantin’s, have in common their preponderance to seek out signs of the ‘new astronomy’ in the literary texts they study. This focus on Copernican ideas need not be strange, for natural revelations and new worldviews undoubtedly sparked artists’ imagination. Yet to isolate references to heliocentric astronomy is to distort the literary archive. References to the traditional cosmological system were more abundant and are certainly no less interesting. Another salient point is that these books and articles imagine the relationship between astronomy and literature as one of strictly separated discourses. They embed their studies in a world of modern dichotomies: the ‘new’ contra the ‘old’, ‘science’ versus ‘art’ – acts of artificial compartmentalization when it comes to the early modern period.

Methodology and concepts

Still, these are dichotomies we may readily recognize. In our contemporary view on knowledge, astronomy and poetry sit somewhat uncomfortably together. We sense

\[\text{Ibidem, 1}\]
\[\text{Isabelle Pantin, La Poésie du Ciel en France dans la Seconde Moitié du Seizième Siècle (Geneva, 1995) 171}\]
\[\text{Ibidem, 67}\]
something of a natural gap: as Elizabeth Spiller has stated, literature is fiction and science is fact.\textsuperscript{29} The distinction between the two is very much the result of the rise of modern academic disciplines in the nineteenth and twentieth centuries.\textsuperscript{30} This disciplinary divide has only become more pronounced over the past decades.\textsuperscript{31} Such a strict demarcation was not quite as self-evident, however, in the early modern period. Literature and science intersected, both as systems of thought, as writing forms\textsuperscript{32} and as forms of practice.

Early modern fields of knowledge were, by and large, arranged according to encyclopaedic precepts that had been established in ancient Greece.\textsuperscript{33} As the name etymologically implies, encyclopaedic knowledge encompassed a circular training and formation, in which the various disciplines formed a rich cultural model.\textsuperscript{34} All the arts (that is, the seven liberal arts, consisting of the \textit{trivium} and the \textit{quadrivium}) and their fields of knowledge were woven together in one circle of learning. This meant that – even though they were in fact organized and classified – these fields complemented and supported one another. The French intellectual François Béralde de Verville (1556-1626) for example stressed that the art of alchemy enabled physics to serve medicine.\textsuperscript{35} Humanists such as Marsilio Ficino (1433-1499), Giovanni Pico della Mirandola (1463-1494) and Juan Luis Vives (1493-1540) reflected upon the importance of the human quest for knowledge in general and the value of the different arts in particular. Pico della Mirandola unfolded in his \textit{De hominis dignitate} (1486) the view that contemplation and reflection were the aspects of what made humans truly human and set them apart from God’s other creatures.\textsuperscript{36} Historian Anthony Grafton has stated that humanism was bound to remain the preserve of a small number of dedicated (and leisured) specialists,\textsuperscript{37} but it can be argued that humanist conceptions of knowledge did manage to permeate outside ‘traditional’ humanist circles. The encyclopaedic approach to knowledge became a rather common one; not

\textsuperscript{29} Elizabeth Spiller, \textit{Science, Reading, and Renaissance Literature. The Art of Making Knowledge, 1580-1670} (Cambridge, 2007) 1  
\textsuperscript{31} Rens Bod and Julia Kursell, ‘The Humanities and the Sciences’ in: \textit{Isis} 106 (2015) 338  
\textsuperscript{32} Spiller, \textit{Science, Reading, and Renaissance Literature}, 1  
\textsuperscript{33} Eric Jorink, \textit{Reading the Book of Nature in the Dutch Golden Age (1575-1715)} (Leiden, 2010) 39  
\textsuperscript{34} Valerio del Nero, ‘The \textit{De Disciplines} as a Model of a Humanistic Text’ in: Charles Fantazzi (ed.) \textit{A Companion to Juan Luis Vives} (Leiden, 2008) 177  
\textsuperscript{35} Neil Kenny, \textit{The Palace of Secrets: Béralde de Verville and Renaissance Conceptions of Knowledge} (Oxford, 1990) 66, 71  
\textsuperscript{36} Giovanni Pico della Mirandola, \textit{Rede van de Menselijke Waardigheid} Jan Papy (ed.) (Groningen, 2008) 52  
\textsuperscript{37} Anthony Grafton and Lisa Jardine, \textit{From Humanism to the Humanities} (Cambridge, 1986) 124
only scholars, but also non-academics (known as ‘liefhebbers’38) were fascinated by nature and all that it brought about, even though their interests extended beyond the strictly natural realm and included cultural objects such as collections of antiquities.39 This encyclopaedism, like other Renaissance modes of organizing and conceiving knowledge, was in fact overtly dependent on strategies we would now label ‘literary’.40

That science and literature interconnected in the past does not mean that a decent analysis today does not benefit from distinct conceptualization. This puts us in a delicate position: for change over time cannot be captured well by means of fixed concepts imposed upon a subject in flux.41 Historians of science studying the early modern epoch are familiar with the historiographical discussions on applying the term science to natural knowledge from before the seventeenth, or perhaps even eighteenth, century. Some historians prefer to use concepts less stern such as ‘forms of knowledge of nature’42 or perhaps the somewhat more pronounced ‘natural philosophy’, all in order not to charge the study of nature with terms and practices that characterize modern science. Still, our own, contemporary concepts form the building blocks of our narratives. According to historian Floris Cohen this is not an impairment per se. From the privilege to look beyond the temporal horizon to which these subjects were inevitably confined, he states, flows an enhanced understanding that should not be ignored.43 Early modern authors were rather inconsistent in their use of such terms as mathematical astronomy, astrology, cosmography or geography. That does not mean that we should use these kinds of denotations interchangeably. Michael Shank has rightly stated that, like most good marriages, that of astronomy and astrology in the scientia stellarum does not make the partners interchangeable, however much they interact.44 For the sake of consistency, this thesis will employ the term cosmology which refers to the study of the origin and the structure of the universe. Even though the words cosmos and cosmology derive from the Greek term kosmos, these terms were hardly, if ever, used during the medieval and early modern era.45

The connotations art, poetry and literature are, alas, no less problematic. For how can we define what constitutes a poem? Our contemporary sense of poetry does not lead to conclusive definitions and hurrying current interpretations of these terms

38 (Lovers of the arts)
40 Kenny, *Palace of Secrets*, 4
41 Floris Cohen, *How Modern Science Came into the World* (Chicago, 2009) XXI
42 Floris Cohen, *De Herschepping van de Wereld* (Amsterdam, 2008) 29
back into the early modern past makes things intractable. Furthermore, even if we would today demarcate certain types of texts as separate genres, they were not necessarily regarded as such in early modern culture. Usher has coined the term ‘celestial genre’, which he takes to consist of literary compositions characterized by content that deals with the discovery, announcement, description, and prediction of celestial phenomena.\(^\text{46}\) This solution is far from satisfying: can we interpret literary works by regarding them as part of groups *sui generis*, without doing violence to the internal coherence and uniqueness of each piece of literature?\(^\text{47}\) This thesis will not categorize into genres, but studies the corpus as rhetorical texts; the term ‘rhetoric’ will be problematized within the first chapter.

*Chapter outline*

Now that both research question and methodology have been introduced, the structure of this thesis can be outlined here. The first chapter reflects on the role that these literary companies envisioned for themselves in the early modern knowledge cultures. Rather than companionships where rich, learned *connoisseurs* conversed and exchanged knowledge, they were democratic institutions that had pedagogical aims.\(^\text{48}\) By studying their aims, we can come to a closer understanding of their ambitions – aspirations that transcended the strictly literary and extended into the intellectual and philosophical realms. This does raise the question whether the technical of the ‘expert’ circuit carry over when moving towards broader, less specialist audiences. Or, to put it more succinctly: to what extent did the specialist discourse and the literary discourse converge? A way of tying these discourses together is to place focus on one, well-rounded cosmological topic: in this case, the sphere *viz.* the universe’s basic cosmological structure in its Aristotelian-Ptolemaic form. The second part of my thesis serves to introduce and explain the concept of the sphere, for no cosmological references in literature can be properly understood if isolated from the astronomical culture of the time and of the writer’s opportunities for contact with celestial theory and practice.

Thus far, our picture of the universe remains somewhat static: the last chapter sets it in motion by studying the meanings taken on by the sphere in a set of texts written by five members of Amsterdam’s chambers of rhetoric. These members are Hendrik Laurensz Spiegel (1549-1612), Theodoor Rodenburgh (1574-1644), Pieter

---

\(^{46}\) Usher, *Accounting for Appearances*, 3  
\(^{48}\) Arjan van Dixhoorn, *Lustige Geesten*, 191
Cornelisz Hooft (1581-1647), Joost van den Vondel (1587-1679) and Gerbrand Bredero (1585-1617). These rhetoricians are introduced here, briefly. As part of a Catholic, wealthy merchant family trading in grain, Hendrik Laurensz Spiegel combined his endeavors in trade with an active membership in The Eglantine. He became an influential thinker in the vernacular scholarly cultures in the sixteenth century and has been considered to have left a lasting on Hooft, Bredero, Vondel and Rodenburgh.49

He was, through his sister, related to her son Theodoor Rodenburgh. As rhetorician, diplomat and merchant both in the Republic as elsewhere in Europe, Rodenburgh’s life remains somewhat elusive. Even though born in Antwerp, he was of ancient Amsterdam stock.50 Throughout his life he often travelled around Europe. After his purported study in Italy, of which no records seem to remain, he lived in various countries, among which England, Denmark and Spain. Rodenburgh settled in Amsterdam in 1607 and joined the chamber of rhetoric The White Lavender. Some years later he must have made the shift to The Eglantine, becoming figurehead of the group in 1617.51 The life and works of Rodenburgh have been extensively studied in a dissertation focused mainly on his literary activities, and strived to place Rodenburgh among the group of canonic writers of the seventeenth century.52 Recently, the persona Rodenburgh has been dusted off once again, this time in the context of his role and function as a cultural broker: a convergence of cultural, political and intellectual mediation in one figure.53 This thesis hopes to portray Rodenburgh according to his versatile role in a broader knowledge culture.

Pieter Cornelisz Hooft grew up in a prosperous merchant family in Amsterdam; his father has been described as a mercator sapiens.54 As was common in these circles, he received his educational training first at the Latin school. Hooft joined The Eglantine around 1597, before going on his Grand Tour from 1598 to 1601. Even though this trip was meant as preparation for a career as merchant, Hooft was more taken with Italian culture and learning. Upon his return to the Dutch

51 Wouter Abrahamse, Het Toneel van Theodore Rodenburgh (1574-1644) (Amsterdam, 1997) 173
52 Ibidem, 3
53 Marika Keblusek, ‘Introduction’ in: Marika Keblusek and Badeloch Vera Noldus (eds.) Double Agents: Cultural And Political Brokerage In Early Modern Europe (Leiden, 2011) 6
54 H.W. van Tricht, Het Leven van P.C. Hooft (Arnhem, 1951) 7
Republic he became a central figure in The Eglantine. From 1606 to 1609 he studied Law at Leiden University. Upon completing his studies he became a figure of politic esteem as bailiff of Muiden, continuing to be a writer of plays, poems and prose. Joost van den Vondel was a son of immigrants forced to flee Antwerp to Cologne because of their Mennonite faith, before finally settling in Amsterdam around 1579: the city that was doing its utmost to overtake Antwerp as the commercial heart of the Low Countries. Vondel’s parents became involved in the trade of silk. After his father’s death in 1608 Vondel made a partner in the business by his mother. His interests, however, continued to reach further than the textile business and he became a member of The White Lavender at a young age. Gerbrand Bredero, lastly, was born in Amsterdam as the son of a shoemaker, and trained himself to become a painter of art. He joined The Eglantine when still relatively young, and passed away around a decade later.

These authors are studied, first and foremost, in the context of their membership of chambers of rhetoric. Even so, it is of pertinence to stress that this does not mean that they did not freely move in many other circles and communities. From their broad oeuvres, those printed texts have been selected that either display cosmological knowledge or evaluate the importance of that knowledge – or both. This study will consider these literary texts, firstly, by analyzing the passages that display or pertain to cosmological knowledge. What do they actually say about celestial matters and in what words? We subsequently expand our focus, by canvassing the positioning of these passages in the body of the text as a whole. These literary works are thus understood as statements that serve a certain goal, as carefully constructed argumentative texts. This thesis aims to interpret how, in these case studies, heavenly phenomena contributed to those arguments and what that tells us about the knowledge culture of the chambers of rhetoric. Judith Keßler has stated that further study of rhetorical texts should place greater emphasis on the alliance of content and

55 Ibidem, 57
56 Eddy Grootes and Riet Schenkeveld-van der Dussen, ‘Vondel’s Dramas: A Chronological Survey’ in: Jan Bloemendal and Frans-Willem Korsten (eds.) Joost van den Vondel (1587-1679) Dutch Playwright in the Golden Age (Leiden, 2011) 1
58 Piet Calis, Vondel: Het Verhaal Van Zijn Leven (Amsterdam, 2008) 49
59 Smits-Veldt and Spies, ‘Vondel’s Life’ 51
60 J.A.N. Knuttel, Bredero: Poët en Amsterdammer (Amsterdam, 1968) 13
61 Judith Keßler has done much to bring out the argumentative character of rhetoricians’ texts in her work on the Antwerp rhetorician Anna Bijns. See Judith Keßler, Princesse der Rederijkers. Het Oeuvre van Anna Bijns: Argumentatieanalyse – Structuuranalyse – Beeldvorming (Hilversum, 2013) 48
form – only then can these works be properly understood.62

An integral approach to these poems, combined with a rich contextualization, offers a more comprehensive insight into the way literary forms could be used to discuss, shape and create knowledge of the natural world. This thesis, then, aims to add some fresh insights by bringing together existing scholarship on literature in the early modern Netherlands and the current effort in the history of science to include a wider range of practitioners in the study of natural knowledge in early modern times.63 Present day ways of conceptualizing both the history of science and the history of the humanities have imposed anachronistic divisions among the great regions of knowledge and obscured commonalities that were, and perhaps are, both deep and broad.64 This thesis hopes to get across the gist of what history of science may gain by giving literary texts a more prominent place within the larger, textual archive.

62 Keßler, Princesse der Rederijkers, 289
64 Lorraine Daston and Glenn W. Most, ‘History of Science and History of Philologies’ in: Isis 106 (2015) 381
Chapter 1: Literary cultures, knowledge cultures

Chambers of rhetoric and the body of their texts that remains to us, leave much for historians to explore. These literary organizations blossomed in the Low Countries from the 1440s onwards, both in cities and small towns, and continued to stir themselves until the eighteenth century. Historians have estimated that over four hundred chambers of rhetoric existed, for either shorter or longer periods. Cherishing the great potency of the rhymed word, these chambers organized themselves around exercising the art of rhetoric.

That makes the amount of sources rendered to us rich in both quantity and variety, an accumulated oeuvre that encompasses speeches, songs, ballads, plays, emblem books – both in manuscript and print. These writings are considered by scholars to fall into the field of literature, a categorization against which today’s intuitions do not rebel: we consider these to be poetic texts after all and they befit our modern view of what artistic works constitute. This is not entirely strange, for rhetoricians themselves did often use words as rhetoric and poetry interchangeably, which makes it rather difficult to define them sharply.

The ambitions of the members of these chambers were not only literary per se. They did not regard themselves as literary authors, but envisioned for themselves a broader role in the early modern worlds of learning. Those aspired roles can best be understood by looking more closely at the chambers of rhetoric and see what aims they posed for themselves: both within and outside their own circles.

Even though treatises specifying their chambers’ aims were seldom written down, historical scholarship has done much to elucidate the general objectives of these chambers. This chapter starts with a treatment of the term ‘rhetoric’, before embarking on a brief study of who rhetoricians were, how they were organized in chambers of rhetoric and, finally, how they moved through various knowledge communities. This could be of avail when trying to understand the use of cosmological knowledge in rhetorical texts.

---

1.1 The art of rhetoric

Let us first try to unravel the term that binds all of those rhetoricians together. Use of the term ‘rhetoric’ carries a certain ambiguity that needs to be addressed, even if it cannot be solved completely. For a modern reader the term is likely to evoke associations with the ancient art of retorica. Even though the word indeed finds its etymology in the Greek term rhētorikē, rhetoricians wanted to delimit their art of rhetoric from the classical version.67 Netherlandish rhetoric was closely intertwined with the arts de seconde rhétorique in France.68 This term denoted a vernacular version of the classical rhetoric, which mostly gained ground in Northern France close to the Burgundian realms.69 The term rhetoric was subsequently introduced as the technical term for the performative literary culture of the Dutch-speaking core of the Burgundian lands and was institutionalized in the chambers of rhetoric.70 From here it spread through the Low Countries.

The performative aspect of the chambers’ culture has received increasing attention the last few decades and rightly so: the majority of the plays, poems and songs that have come down to us were written in order to be performed.71 That could be done, for example, at festivals, which where spectacles of performative literary culture or at public plays.72 Chambers of rhetoric developed their own dramaturgy, which covered a broad range of ‘genres’ such as the mythological, the amorous, historical, tragic, comic et cetera.73 Texts were often written in styles now recognized as typical for rhetorician’s writings, such as the use of forms of verse or writing in dialogues.74 Emphasis in such dialogues was often placed on questions and answers and their structures were thus reminiscent of the disputatio, a form of argumentation commonly used in universities’ teachings.75

Rhetoricians’ texts were meant to be recited76 and rhymed texts had a potential

67 Nelleke Moser, De Strijd voor Rhetorica: Poëtica en Positie van Rederijkers in Vlaanderen, Brabant, Zeeland en Holland tussen 1450 en 1620 (Amsterdam, 1994) 11
68 Marijke Spies, Rhetoric, Rhetoricians, and Poets: Studies in Renaissance Poetry and Poetics (Amsterdam, 1999) 41
69 Herman Pleij, Het Gevleugelde Woord (Amsterdam, 2007) 297
70 Van Dixhoorn, ‘The Rhetorical Paradigm’ to be published
72 Van Dixhoorn, ‘Chambers of Rhetoric’ 122
73 Van Herk, Fabels van Liefde, 13
74 Van Dixhoorn ‘Soorten Rederijkers: Rederijkers en hun Plaats in het Intellectuele Veld (1550-1650)’ in: Dirk Coigneau and Samuel Mareel (eds.) Met Eigen Ogen: De Rederijker als Dichtend Individu (1450-1600) (Gent, 2009) 90
75 Marijke Spies, ‘‘Op de Questye…’: Over de Structuur van 16e-eeuwse Zinnespelen’ in: De Nieuwe Taalgids 83 (1990) 143
76 Pleij, Het Gevleugelde Woord, 336
for performance, being said or sung out loud.\textsuperscript{77} When these texts were performed, there was an oral residue that lasted with the auditor.\textsuperscript{78} This could also foster memorization: because of its phonetic and prosodic patterning, verse could be more easily lodged in the memory than its prose counterpart.\textsuperscript{79} Even when they were not in fact recounted aloud, rhetorical texts could constitute virtual, textual performances.\textsuperscript{80} These texts were written in such a way that they enhanced the impact of its message on the reader. This could be done, then, in rather intricate forms of verse or in somewhat simpler ones.\textsuperscript{81} That being said, the exact conventions for the form of rhetorical texts were seldom written down in a systematic manner.\textsuperscript{82} Nonetheless, certain texts included the addition that they were ‘rhetorijckelijck ghecomponeert’ (rhetorically composed), meaning that they were written according to the rules of the art of rhetoric – which does seem to imply some sort of consensus.\textsuperscript{83} Rhetoricians devoted, if not in theory, a great deal of attention to the techniques of versification in practice.

1.2 Forming members

The ingenuity required to produce such clear, artfully patterned language was not a quality with which everyone was blessed. Through conscious training and practice, nonetheless, this art could be mastered. Such a training was offered by the chambers of rhetoric, at whose core lay the art of the word stylized through rhyme-technical procedures and rhythmic patterns.\textsuperscript{84} According to Herman Pleij, chambers of rhetoric were relatively elitist and served as literary pendants to corporations and communities formed by merchants, patricians and the middle class of clergy and priests.\textsuperscript{85} Nelleke

\textsuperscript{77} Rebecca Dixon, ‘Conclusion: Knowing Poetry, Knowing Communities’ in: Rebecca Dixon and Finn E. Sinclair (eds.) Poetry, Knowledge and Community in Late Medieval France (Cambridge, 2008) 222
\textsuperscript{78} Walter J. Ong, Orality and Literacy, The Technologizing of the Word (London, 1982) 36
\textsuperscript{79} Dixon, ‘Conclusion’ 216
\textsuperscript{80} Mareel, ‘Performing the Dutch Rederijker Lyrics’ 1214
\textsuperscript{81} Moser, De Strijd voor Rhetorica, 11
\textsuperscript{82} An exception was Matthijs de Castelein, whose De Const van Rhetoriken was published in 1555. Another exception was Hendrik Laurensz Spiegel, who wrote his Kort begrip des redenkavelings: in slechten rym vervat, which was published in Amsterdam in 1585. See: Moser, De Strijd voor Rhetorica, 11
\textsuperscript{83} Van Herk, Fabels van Liefde, 13
\textsuperscript{84} Dirk Coigneau, ‘Strofische Vormen in het Rederijkerstoneel’ in: Jaarboek Koninklijke Soevereine Hoofdkamer Van Retorica “De Fonteine” (Gent, 1994) 17
Moser, too, emphasizes the feeling of ‘la douceur d’être inclus’ that members of chambers of rhetoric must have experienced.\(^86\)

That these chambers in fact did encompass a broad social strata has recently been demonstrated by Arjan van Dixhoorn. Joining the ranks of a chamber of rhetoric was relatively uncomplicated; there few regulations that specified qualification for membership\(^87\) and as a result, the chambers encompassed a broad social strata. Membership was not for life; overall, rhetoricians frequented the chambers only for a span of a few years.\(^88\) There were members that did stay for a longer time, which ensured continuity. During their years of membership rhetoricians did remain embedded in their other networks such as guilds, confraternities and corporations.\(^89\) Our Amsterdam rhetoricians reflect both that heterogeneity and the overlapping of networks. Spiegel came from a family of well-off merchants and regents, and continued along the path of trade as well. He had familial ties with Rodenburgh, as his sister was Rodenburgh’s mother. Rodenburgh himself was not only a merchant, but also a diplomat and spent much of his time abroad. Hooft came from a merchant background as well and was involved in regional politics. Vondel, as son of immigrants, was a newcomer in the city’s trade and business; Bredero, lastly, was the son of a shoemaker and had been trained in the painting of art.

Some of the members already possessed substantial cultural capital.\(^90\) These men would probably already have received academic training at a Latin school, university, or both. For the more common citizens membership of a chamber could significantly enhance their individual development.\(^91\) The underlying pedagogical principle was that of mutual education; those who had a certain kind of knowledge communicated this with those who did not.\(^92\) Chambers of rhetoric were, in certain respects, a practical, vernacular educational alternative for classical secondary education and the universities, where Latin was the common language. The curriculum at these universities encompassed the liberal arts, consisting of the trivium (classical rhetoric, grammar and logic) and the quadrivium (astronomy, music, geometry and mathematics).\(^93\) Chambers of rhetoric were considered to be institutions practicing one of those seven liberal arts, namely rhetoric.\(^94\)

\(^{86}\) Moser, *De Strijd voor Rhetorica*, 13


\(^{88}\) Van Dixhoorn, *Lustige Geesten*, 83

\(^{89}\) Vandommele, *Als in een Spiegel*, 15

\(^{90}\) Van Dixhoorn, *Lustige Geesten*, 33

\(^{91}\) Ibidem, 192

\(^{92}\) Ibidem, 302

\(^{93}\) Vandommele, *Als in een Spiegel*, 214

\(^{94}\) Van Dixhoorn, ‘Chambers of Rhetoric’ 133
They also aimed to teach the other liberal arts through practicing their vernacular rhetoric during the weekly gatherings.\textsuperscript{95} Hendrik Laurensz Spiegel, The Eglantine’s figurehead from around the 1580s onwards,\textsuperscript{96} brought forward his ideas on the matter in his \textit{Ruygh-bewerp van de Redenkaveling ofte Nederduytse Dialektike} (1585).\textsuperscript{97} This piece was dedicated to both the curatorium of Leiden’s school for higher learning and the burgomasters of Amsterdam. Spiegel asked them to offer education in the philosophical arts in the vernacular so that those lacking knowledge of Latin could obtain knowledge without having to learn a difficult language first.\textsuperscript{98} He considered it to be a ‘mad tyranny’ that one should have to acquire knowledge in a foreign language\textsuperscript{99} and urged the college of curators of Leiden university to let the Republic, in its own language, reap the benefits of their wisdom.\textsuperscript{100} The university did not comply with his request, but Spiegel’s ideas are exemplary of the views that resonated in chambers of rhetoric in the late sixteenth century and early seventeenth century.\textsuperscript{101} After some active years in their chambers, members had been instructed to become civilized and engaged citizens, eloquent and also wise.\textsuperscript{102} They would have been, furthermore, enriched with some interesting contacts.\textsuperscript{103} Other than the poetic exercises in their own private meetings, members were taught how to prepare, organize and perform plays in public.\textsuperscript{104}

1.3 Linking communities

Even though rhetoricians were primarily focused on their own chambers, they did meet members from other chambers on a more or less regular basis. Such interurban exchange occurred mostly during meetings or competitions. These grand competitions were organized by chambers around a central question, on which the participating chambers then had to formulate an answer in rhyme. The quality of these different performances was judged by a jury chosen from the rhetoricians’ midst. Prizes were awarded not only for the caliber of the performances of plays and songs, but also for

\bibliography{references}{
\item Van Dixhoorn, ‘The Rhetorical Paradigm’ to be published
\item Van Boheemen and Van der Heijden, \textit{Retericael Memoriaal}, 50
\item Spies, \textit{Rhetoric, Rhetoricians and Poets}, 63
\item “Tot onuysprekelijck voordeel van elck leecck-mensche / die zonder moeyelijcke arbeyd int leren der talen / met lust alle kunsten dies zullen moghen wys werden” Spiegel, \textit{Ruygh-Bewerp van de Redenkaveling ofte Nederduytse Dialektike} (1585) fol. 3
\item “T is zotte tieranny / hoe mach men dit missaken / datmen de kunsten leert in onbekende spracken” Spiegel \textit{Ruygh-Bewerp} (1585) fol. 8
\item “Laat dit land, in landstaal, u gheleerdheid ghenieten” Spiegel \textit{Ruygh-Bewerp} (1585) fol. 8
\item Moser, \textit{De Strijd voor Rhetorica}, 118
\item Van Dixhoorn, ‘The Rhetorical Paradigm’ to be published
\item Van Dixhoorn, ‘Soorten Rederijkers’ 103
\item Van Dixhoorn, ‘Chambers of Rhetoric’ 141
}
the arguments and their literary quality. These competitions were held – and this list is far from exhaustive – in Rotterdam (1561), Antwerp (1561), Leiden (1596), Haarlem (1606), Vlaardingen (1616) and Mechelen (1621).

The competition organized by Antwerp’s chamber of rhetoric De Violieren (The Gillyflowers) in 1561, is generally considered to be the highlight of these contests; both in its wealth and imagination. This competition was partly devoted to the question of what provoked people to engage in the arts most strongly. The term ‘arts’ referred to both knowledge in general and the seven liberal arts in particular. There was unanimous consensus for the source of seeking out knowledge: God. He had endowed humans with an inquisitive mind, which provoked them to engage in arts and seek out knowledge. Each of the chambers evaluated the different branches of learning, defined their different subfields and weighed their significance. Such enquiries into the value of acquiring knowledge, and the relative merits of the various branching of learning, were deeply entrenched in the Renaissance humanist program. They evaluated among others, the art of astronomy. Most of the chambers equated this art with astrology and commented upon the art’s instrumental role in predicting the future. Most attention was dedicated to the art of rhetoric – each performance placed her on a pedestal. They described the art of rhetoric to be the art of persuasion, of decorative, eloquent speech and the art best suited to edify the public.

By mentioning and describing each of the artes liberales, the competing chambers met their public’s encyclopedic expectations. On occasions as these

105 Ibidem, 122
106 A more elaborate list can be found in the Retoricaal Memoriaal (n.1)
107 Pleij, Het Geveugelde Woord, 398
108 Each chamber of rhetoric came up with an answer to the question of what provoked people to the arts most strongly, ‘Wat den mensch aldermeest tot conste verwekt’. The contributions to this contest were printed by M. Willem Silvius in a volume entitled Spelen van sinne vol scoone moralisacien uutleggingen ende bediedenissen op alle loeflijcke consten (Antwerpen, 1562)
109 Vandommele, Als in een Spiegel, 367
110 Ibidem, 149
112 Marijke Spies, “‘Astronomiae die haer constich gheneert inden loop des hemels’": Sterrenkunde op het Antwerps Landjuweel’ in: H. van Dijk, M.A. Schenkeveld van der Dussen en J.M.J. Sicking (eds.) In de Zevende Hemel: Opstellen voor P.EL. Verkuyl over Literatuur en Kosmos (Groningen, 1993) 54
113 Vandommele, Als in een Spiegel, 224
114 Ibidem, 225
115 Ibidem, 236
116 Ibidem, 210
rhetoricians did not form each other’s sole audiences. Quite the contrary: the competitions often turned out to be great spectacles in which the whole city would be immersed. Even though the jury designated only one performance as the best, but the members of the audience could evaluate and judge all the arguments that were given and decide for themselves with which they agreed, or did not.\textsuperscript{117} These public competitions could serve as means for chambers to voice their opinions to a broader public\textsuperscript{118} and perhaps even stimulate that audience to seek out further knowledge.\textsuperscript{119} Festivals as these contributed to the growth of an intraregional cultural community.\textsuperscript{120} Chambers of rhetoric thus linked knowledge communities in multiple senses. They brought together members stemming from different social backgrounds and from different regions within the Netherlands. Rhetoricians organized public performances of plays, songs and poems.\textsuperscript{121} We can therefore distinguish two levels at which the pedagogical program of the chambers of rhetoric was aimed. The first one was the training rhetoricians in basic language and a general amount of knowledge. The second level, then, was to create a group of vernacular, cultural group of men that were able to equal the traditional, Latin-trained instructors of society.\textsuperscript{122}

1.4 Awakening minds

The chambers thus extended their reach outwards, ascribing to themselves a special role in broader knowledge cultures. By making the art of rhetoric one that was profitable to wider groups of people, the rhetoricians also bolstered their own status and showed that they were no idle squanderers of time.\textsuperscript{123} Around the late sixteenth century the usefulness of the arts which was thus far confidently and tacitly taken for granted, started to be articulated explicitly in discourse.\textsuperscript{124} The societal role of the poet has become subject of heated debate in all of early modern Europe. For his \textit{Borstweringh}, Theodoor Rodenburgh could thus draw heavily on other typical Renaissance defenses of literature’s social utility\textsuperscript{125} and a study of his poetical credo

\textsuperscript{117} Van Dixhoorn, ‘Chambers of Rhetoric’ 147
\textsuperscript{118} Vandommele, \textit{Als in een Spiegel}, 365
\textsuperscript{119} Ibidem, 266
\textsuperscript{120} Van Dixhoorn, ‘Chambers of Rhetoric’ 146
\textsuperscript{121} Van Dixhoorn, ‘Soorten Rederijkers’ 89
\textsuperscript{122} Van Dixhoorn, ‘Chambers of Rhetoric’ 135
\textsuperscript{124} Ibidem
\textsuperscript{125} Harrison, ‘The Fashioned Image of Poetry or the Regular Instruction of Philosophy?’ 16
may be helpful in identifying a number of key issues in a more general debate on the value of rhetoric in knowledge cultures.

Rodenburgh had become The Eglantine’s literary leader in 1617 and through his defense of poetry presented its members a parapet behind which the members of his chamber could entrench themselves. The book is closely based on both Thomas Wilson’s The Arte of Rhetorique (1553) and sir Philip Sidney’s Defense of Poetry (1595), leading some historians to suggest that he copied much and added little. By translating these texts and by combining them into a new one Rodenburgh expressed some of his own views on the importance of poetry as well. He also firmly grounds the text in a Dutch setting, dedicating the book to Maurice, prince of Orange. He immediately sets about to make clear why poetry should be of interest for the army leader by telling the story of king Pyrrhus; a monarch whose eloquent orator managed to conquer cities and states without actually having to resort to violence or bloodshed. This parable demonstrated the power of reason and eloquence.

Rodenburgh subsequently evaluated the different branches of learning and concluded that poetry functions as ‘wetenschaps schat-kamer’, treasure chamber of science. Each art has in common, he stated, its focus on the study of nature. The practitioners of those arts become portrayers of all that nature conveys. The knower of the stars looks at the skies and deduces what nature brings, so too do the geographer, mathematician and physician inevitably rely on what nature offers. Poetry transcends these arts, Rodenburgh stated, because it is not confined to interpret nature as it is, but to create an image of nature more beautiful than nature can portray itself. With their words, poets thus could convey a new world, and a better one at that. Through their creative and imaginative language they could both inspire and

---

126 Karel Porteman and Mieke B. Smits-Veldt, *Een Nieuw Vaderland voor de Muzen 1560-1700* (Amsterdam, 2008) 245
127 The year 1619 marked the hundredth since the foundation of the chamber of rhetoric, and Rodenburgh dedicates his book to this ‘dubbele gulde bruyloft’ (double golden wedding). See: Moser, *De Strijd voor Rhetorica*, 10
129 Rodenburgh, *Eglentiers Poetens Borstweringh* (1619) fol. 3
130 ‘Gheen wetenschap of kunst is aende menschen ontdekt, of ‘t en heeft het werck der natuur voor opperste oogh-merck, zonder welcke gheen wezen kost zijn, en zyn daer zo aenghebonden dat zy uytybeelders en werckers werden van al ‘t ghene dat natuur wil afbeelden’ Rodenburgh, *Eglentiers Poetens Borstweringh* (1619) fol. 7
131 ‘Maer den poet schuwt zodanighe dwang-spooren, opgeheven zijnde door de kracht zyns eyghens vindingh, en betreft een recht ander wezen, makende de geschapen dinghen beter als nature die voorbrenght, of van een rechte andere hoedanigheyt als noyt nature teelden, … niet ghebonden zynde in ‘t besteck van de giften der natuur, maer dartelt na zyn neygheinghe streckt inde zodiack van zyn eyghen vernuift’ Rodenburgh, *Eglentiers Poetens Borstweringh* (1619) fol. 8
edify their public. The poets were experts when it came to combining the bitter with the sweet.

That inspiring and stimulating aspect of poetry had been touched upon by Pieter Cornelisz Hooft some years earlier in his Reden vande Waerdicheit der Poesie (Amsterdam, 1610-15). The Reden advanced his view of poetry as a medium that harbors substantial societal benefit. He stated that since antiquity poetry has opened humans’ eyes for nature’s miracles and the causes of all things; she has awoken their minds and directed their gazes upwards, to the heavens. Poetry thus, quite literally, elevates the mind. Poetical credos such as these affirm the more broadly shared idea that the ordering task of the rhetoricians had, besides a form-technical side, also a moral side. Their texts and plays after all did often allegorically discuss matters of morality, history, philosophy, religion or politics. As philosophers of sort, rhetoricians carefully constructed an image of themselves as bearers of moral, aesthetic and intellectual responsibility.

1.5 Conclusion

Rhetoric held, both because of its shape and form, a special ability to convey knowledge. This chapter has reflected on how the art of rhetoric lent itself particularly well to transmitting and shaping knowledge about the world, about poetry itself and its wider implications in society. We should be careful nonetheless to treat the chambers of rhetoric as all too rigid institutions. There were also writers, for example, who were not members of these chambers yet nonetheless produced texts that

---

132 ‘Dat hij door de bevallickheyd zijns spraecks en vloeyende aanghename woorden ‘tgehoor des aenhoorders verheucht, jae zo zeer verheught door de zoete spraecks galmte, gelyck zij stichten kunnen door de deftigheyt des redeneringhs’ Rodenburgh, Eglentiers Poetens Borstweringh (1619) fol. 49
133 ‘Waer door wij bespeuren dat de heughlycke veranderingen noodzaeckleijk zijn […] dat na wichtige zaecken vaecken niet gehoord worden, dus is het pryslyck, yets zoets met het bitter te mengelen’ Rodenburgh, Eglentiers Poetens Borstweringh (1619) fol. 50
134 (Oration on the Dignity of Poetry) This text was addressed Amsterdam’s city council and formed an attempt to persuade them to erect a theater building within the city walls.
136 Jansen, P.C. Hooft, 33
137 Johan Koppenol, Leids Heelal: Het Loterijspel (1596) van Jan van Hout (Hilversum, 1998) 308
138 Van Dixhoorn, ‘Chambers of Rhetoric’ 142
140 Armstrong and Kay, Knowing Poetry, 24
conformed to the style of writing that was adopted at these chambers. Conversely, members of chambers of rhetoric did not only write ‘typical’ rhetorical texts and tried their hands at different styles and formats. They did not only publish in association with their chambers.\textsuperscript{141} Especially the ‘higher regions’ of these chambers, those who had significant cultural and social capital, had their own regional networks which often included printers and publishers.\textsuperscript{142}

The art of the written and spoken word formed the core of the chambers of rhetoric, considering themselves as teachers of the vernacular \emph{trivium}.\textsuperscript{143} These chambers welcomed not only those with social and cultural capital, but also aspiring members without formal, classical education – as long as they behaved civil and studious.\textsuperscript{144} Through the chambers’ vernacular, pedagogical program they were taught reasonable speech and rational prudence.\textsuperscript{145} For a great part, rhetoricians formed each other’s audience at their meetings and gatherings. The network of chambers of rhetoric formed a route for intensive, cultural exchange between citizens from all layers of society and from different places, regions and provinces.\textsuperscript{146} The rhetoricians distributed their cultural ‘visiting cards’ in the vernacular not only within, but also outside their city’s walls.\textsuperscript{147} They addressed a larger audience outside their own circles, assigning to their literature a public function.

Using rhetoric as vehicle for the vernacular, rhetoricians felt that they could explain everything and persuade anyone.\textsuperscript{148} We can infer that rhetoricians knew how to address the audience in a way that it understood and appreciated. With their vernacular writing they reached a wider audience, especially if composed in the everyday tongue that people could recognize.\textsuperscript{149} They did not forego the wishes and ambitions of the public that made the chambers of rhetoric possible.\textsuperscript{150} That dual aspiration of internal teaching at one hand and lecturing the public on the other was a crucial feature of rhetorician culture.\textsuperscript{151} Essential in their teaching was playfulness as

\textsuperscript{141} Van Dixhoorn, ‘Soorten Rederijkers’ 90
\textsuperscript{142} Ibidem, 99
\textsuperscript{143} Van Dixhoorn, ‘The Rhetorical Paradigm’ \textit{to be published}
\textsuperscript{144} Van Dixhoorn, \textit{Lustige Geesten}, 140
\textsuperscript{145} Van Dixhoorn, ‘Chambers of Rhetoric’ 133
\textsuperscript{147} Pleij, ‘De Laatmiddeleeuwse Rederijkersliteratuur als Vroeg-Humanistische Overtuigingskunst’ 69
\textsuperscript{148} Ibidem, 84
\textsuperscript{149} Rab Houston, \textit{Literacy in Early Modern Europe: Culture and Education 1500-1800} (New York, 1988) 232
\textsuperscript{150} Pleij, ‘De Laatmiddeleeuwse Rederijkersliteratuur als Vroeg-Humanistische Overtuigingskunst’ 70
\textsuperscript{151} Van Dixhoorn, ‘Chambers of Rhetoric’ 136
an instrument in the pursuit and spread of knowledge and the useful manipulation of nature and the world.\footnote{Van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels’}

That performative element did by no means jar with their serious aims of edification of lay audiences through their messages of moral amelioration.\footnote{Ruben Buys, \textit{De Kunst van het Weldenken: Lekenfilosofie en Volkstalig Rationalisme (1550-1600)} (Amsterdam, 2009) 256} As humanists elaborated on the problem of the philosophical value of poetry,\footnote{Pantin, \textit{Le Poésie du Ciel en France}, 495} so did the rhetoricians ponder this subject, too. The art of rhetoric was one that continued to be reflected upon in the fifteenth, sixteenth and even seventeenth centuries in chambers of rhetoric. Since rhetoric was at the core of their universal pedagogical program,\footnote{Van Dixhoorn, ‘The Rhetorical Paradigm’ to be published} their trust in the value of this art was unshaken. They even regarded rhetoric to form a key to the liberal arts and the entry point to the circle of learning.\footnote{Pleij, ‘De Laatmiddeleeuwse Rederijkersliteratuur als Vroeg-Humanistische Overtuigingskunst’ 84} This approach to rhetoric was affirmed in poetical credos by both Rodenburgh and Hooff, which fostered the idea that rhetoric is the art that lifts the human mind up out of its ignorance and draws that mind to seek out further knowledge.

The rhetoricians’ endorsement of seeking out knowledge is an element that may be found in international humanist culture, as brought forward by Marsilio Ficino \textit{et al.}, that regarded the opportunity to freely exercise any art to be one of the essential privileges of man.\footnote{Paul Oskar Kristeller, \textit{The Philosophy of Marsilio Ficino} (New York, 1943) 304} Any sort of knowledge could therefore be seen as adequate and laudable, as long as it stimulated the mind and elevated people’s gazes upwards, away from the earth. The following chapters will do more to elucidate the convergence of the art of rhetoric and the highest knowledge to be found: that of the heavenly spheres.
Chapter 2: The Sphere

Rhetoricians were participants in broader cultures of knowledge and, moreover, regarded themselves as active players in those cultures. They appeared to be occupied with an enduring quest to expose the nature of the world and the ways that we can grasp it.\textsuperscript{158} Even though they regarded rhetoric to be the primary way of entry into the circle of learning, they did not eschew involvement in other branches of learning. They explored the other parts of that circle and worked with and on whatever knowledge they had or could acquire. The array of topics that they engaged in was therefore comprehensive and the overlap with fields that have been of traditional interest to historians of science may be more than casual.

Still, rhetoricians’ involvement in specific subfields of natural knowledge—such as cosmology—remains somewhat elusive because hitherto there has been no thorough, systematic survey of that engagement. We are thus in need for a way to research the extent to which the literary discourses and those of specialists converged. A way of elucidating possible interactions and intersections could be, as announced earlier, by placing focus on one, well-rounded cosmological object: that of the sphere. A brief treatment of the historical genealogy of the term seems in order. An understanding of the cosmos’ structure began by learning the properties of the sphere as brought forward by Aristotle and Ptolemy. The first had articulated the structure of the cosmos in his four-volume work \textit{De caelo}; the latter had described it in his \textit{Almagest}.\textsuperscript{159} Medieval scholastics set out to blend these views together into a coherent system in which all apparent contradictions were reconciled.\textsuperscript{160}

The spherical system was more than an ancient vintage. The properties of the sphere were an enduring source of inquiry, even if these discussions revolved around matters of definition within an altogether stable framework, such as whether the spheres were either soft and fluid or solid and hard. Other debates centered, for example, on the type of matter with which the sphere was filled: and if the sphere ingested the imperfect elements, did that not \textit{de facto} mean that the sphere was subject to change and thus not eternal and incorruptible?\textsuperscript{161} Despite the ineptness of the Aristotelian-Ptolemaic system to completely account for these anomalies, it did not

\textsuperscript{158} Armstrong and Kay, \textit{Knowing Poetry}, 107
\textsuperscript{159} Grant, \textit{Planets, Stars and Orbs}, 6
\textsuperscript{160} Clive Staples Lewis, \textit{The Discarded Image: An Introduction to Medieval and Renaissance Literature} (Cambridge, 1964) 11
\textsuperscript{161} Grant, \textit{Planets, Stars and Orbs}, 264
lose its value over the centuries. Thus, rather than refutations of the medieval interpretations, continuations and extensions were brought about.\textsuperscript{162}

This chapter serves to highlight two different types of texts that include an instruction in spherical cosmology: a text book on the one hand and a theater play on the other. That book is the vernacular manual \textit{Cosmographie}, published by Petrus Apianus and translated by Gemma Frisius. Books as these proliferated in early modern Europe. The literary text is the theater play \textit{Keyser Otto den Derden} composed by Theodoor Rodenburgh. The passages of the play to which is referred may be consulted in the appendix, which renders both the original, Netherlandish text and its translation.

\section*{2.1 Textbook traditions}

The tradition of spherical cosmology was formalized until far in the seventeenth century in the form of tracts and teaching materials. The tract ‘The Sphere’, originally written by Johannes de Sacrobosco in the thirteenth century, became the most widely published textbook on cosmology in Europe until Elsevier printed the last edition in Leiden in 1656.\textsuperscript{163} The hundreds of commentaries on the book enriched the original tract with a broad range of subjects related to knowledge of the sphere, and reflected the economic, political and intellectual state of affairs of the regions in which these texts were published.\textsuperscript{164} What did persist was the sphere’s invariant structure. ‘The Sphere’ became a standard work at the faculties of liberal arts at most of the European universities. Astronomy occupied a constant place at the university curricula and was the noblest of the mathematical arts that constituted the \textit{quadrivium}, which encompassed arithmetic, geometry, music and astronomy.\textsuperscript{165}

Students at the Dutch universities were taught from similar books on cosmology – in the Latin that was the \textit{lingua franca} at the universities. A version of ‘The Sphere’ seems to have been used at various Latin schools in the early seventeenth century, instructing pupils in their last year in the basics.\textsuperscript{166} Those beguiled by the study of the heavens continued their astronomical learning and laboriously communicated their findings to one another and to fellow enthusiasts in

\begin{footnotesize}
\begin{enumerate}
\item Ibidem, 200
\item Owen Gingerich, ‘Sacrobosco Illustrated’ in: John David North, Lodi W. Nauta and Arie Johan Vanderjagt (eds.) \textit{Between Demonstration and Imagination: Essays in the History of Science and Philosophy} (Leiden, 1999) 211
\item See Matteo Valleriani’s project description of \textit{Accumulation of Knowledge and the Tradition of Sacrobosco’s Tracts ‘The Sphere’} at \url{https://www.mpiwg-berlin.mpg.de}
\item Piet Verkuyl, ‘Sphaera-leermiddelen en Litteratuur’ in: \textit{De Nieuwe Taalgids} 78 (1985) 484
\end{enumerate}
\end{footnotesize}
the Republic of Letters. Their life and works have been well documented in Dutch historiography.\textsuperscript{167} A mere focus on scholars and scholastics, however, obscures the fact that interest in celestial matters was not purely an academic matter. Astronomical manuals in the vernacular were produced that served to cater to the needs of those who lacked the formal schooling of university, but were nonetheless set on learning some basic yet essential cosmology.\textsuperscript{168} Books as these were hardly bold and exciting, even by the standards of the time;\textsuperscript{169} finding an astronomical textbook with a heliocentric composition was incredibly rare still in the early seventeenth century, even though Copernicus had propagated his heliocentric views some decades earlier in his \textit{De revolutionibus orbium coelestium} (1543). Educational materials were meant to reflect the knowledge upon which a common consensus existed.\textsuperscript{170} Even the intellectual elite of Europe virtually ignored the debate between geocentrists and heliocentrists before the first decades of the seventeenth century.\textsuperscript{171} Within the Dutch Republic it would be later in the course of the seventeenth century that a clear dichotomy between ‘old’ and ‘new’ astronomy developed, the implications of which only gradually trickled down in the learned circles.\textsuperscript{172}

The expanding genre of introductions to spherical cosmology was not lost on the early modern Low Countries. One of the most widely published textbooks was the \textit{Cosmographie} by Petrus Apianus (1495-1552). The German humanist integrated both cosmology and geography: both the system of the world (or rather the universe) and the description of the earth itself were covered in his book.\textsuperscript{173} The first edition of this work, entitled \textit{Cosmographicus Liber Petri Apiani Mathematici Studiose Collectus}, was issued in Latin in 1524 and in the course of almost a century went through more than forty-one reprints and several translations. Eminent Leuven mathematician Gemma Frisius (1508-1555) enriched the book with annotations and calculations. He was also involved with the adaptation and translation of the work to the Dutch language in 1553, entitled \textit{Cosmographie: Ofte Beschrijvinghe der Gheheelder Werelt begrijpende de gelegentheyt ende bedeelinge van elck Landschap ende Contreye der

\textsuperscript{167} Here I refer to the illuminating works by Renger Hooykaas, Huibert J. Zuidervaart, Rienk Vermij, Rob van Gent, Arjen Dijkstra et al.


\textsuperscript{169} Richard Oosterhoff, ‘A Book, A Pen, and The Sphere: Reading Sacrobosco in the Renaissance’ in: \textit{History of the Universities, to be published}, 2

\textsuperscript{170} Djoeke van Netten, \textit{Koopman in Kennis: De Uitgever Willem Jansz Blaeu in de Geleerde Wereld (1571-1638)} (Zutphen, 2014) 125


\textsuperscript{172} Vermij, \textit{Calvinist Copernicans}, 2

\textsuperscript{173} Ibidem, 3
Selver gheschreven in Latijn door Petrus Apianus.\textsuperscript{174} The last vernacular edition was issued in 1609, Amsterdam.

A closer look at this works’ preface offers some insight into the readership these authors may have had in mind. The preface started by mentioning the first astronomers in order to demonstrate astronomy’s venerable origins. Yet wherever the exact beginnings lay is not of primary importance, the authors stated. They believed that it was enough that these roots have led humankind to where it was now, namely on an enduring quest for knowledge. This great thirst for knowledge was bestowed upon them by God. Apianus and Frisius summed up the kinds of study that people devote themselves to. Some men, they explained, are interested in politics or law, cities, nations and war. Others devote themselves to study of the Holy Scripture. Then there are others still, rhetoricians (or \textit{rhetrosijnen}), that spend their time pondering history and poetry. Rhetoricians especially, they stated, shall benefit from this book.\textsuperscript{175} The latter reference has been interpreted by Herman Pleij as a clever trick to sell more books.\textsuperscript{176} That probably is too simplistic of an interpretation. Apianus himself had tried to develop a method to ascertain the date of historical eclipses; in that way he hoped to attain a novel level of precision when it came to determining a source’s chronology. To this end he had included a partial calendar that compared the Greek and Latin months in his \textit{Astronomicum Caesareum} of 1540.\textsuperscript{177}

Subsequently, the authors related how the art of cosmography would be beneficial – essential even – for pilots, sailors and land measurers. Lastly, lovers of cosmography could enjoy the book while sitting comfortably at home in their study chamber; travelling the complete world without spending any money or being in any peril whatsoever. All they had to do was to gently peruse the book’s content and make the journey in their own head.\textsuperscript{178} The authors thus stressed both the entertaining and the practical functions of the book and seemed to define a (partial) readership. For Apianus and Frisius the spherical cosmology was closely connected to cosmography; the art that described the world and its constitution by examining the different spheres of which it consists. The first part of the book contained some basic explanations of

\textsuperscript{174} (Cosmography, or Descriptions of the Whole World, Encompassing the Space and the Division of Each Land Scape and its Latitude, Written in Latin by Petrus Apianus)
\textsuperscript{175} ‘De sommige, als rhethrosijnen, ende andere diergelijcke ingenieuse geesten, lesen geerne historien ende poeterije. Den welcken dit teghenwoordich boec der cosmographien petri apiani, uyt den latijne in duytsch ghetranslateert, seer behulpich sal wesen’ Apianus, \textit{Cosmographie} (1609) fol. *3r
\textsuperscript{176} Pleij, \textit{Het Gevleugelde Woord}, 692
\textsuperscript{177} Anthony Grafton, ‘Petrus Apianus Draws Up a Calendar’ in: \textit{Journal for the History of Astronomy} 42 (2011) 61
\textsuperscript{178} ‘Ende int corte / alle beminders der cosmographien / mogen by desen boeck thuys in hun studdoor sittende / de gheheele werelt sonder cos tende perijckel door-reyesen: dwelc sy andersins niet dan by groote coste ende berijcken moghen’ Apianus, \textit{Cosmographie} (1609) fol. *3r
essential concepts of astronomy and cosmography; which was of course the sphere. The sphere was depicted in the accompanying illustrations (Figure 1). For the intelligibility of these cosmological descriptions the illustrations served a crucial didactic purpose. The ‘visual program’ helped the readers to mentally picture the structures of the cosmos. The book’s second part gave comprehensive descriptions of all the known corners of the world. These included Europe, but also Africa, Asia and the New World. Here the authors extended their intended readership, mentioning not only pilots and sailors, but also merchants and travelers. The intended readerships of these books were thus multifold. Apianus and Frisius were, of course, not the only ones that reached a broader audience with the publication of vernacular textbooks. Other Netherlandish books with spherical astronomical content were published, such as the *Institutiones astronomicae & geographic*ae* by Adrianus Metius (1571-1635), professor of mathematics at Franeker University, Friesland. For his teaching activities he wrote a plethora of manuals, both in Latin and in the vernacular. Other textbooks containing spherical astronomy focused on navigation, such as Nicolaes Pieters’ *Inleydinge hoemen verstaen ende gehbruycken sal, zoo wel den celeste als terreste, globe oft cloote* (1583), Jan Willemsz Blaeu’s *Licht der Zeevaert* (1608) and Lucas Jansz Waghenaer’s *Nieuwe Thresoor der Zeevaert* (1609).

---

180 ‘Omdat dese tafel soude meughen dienen allen zeevaerders / pyloten / cooplieden / ende wandelaers’ Apianus, *Cosmographie* (1609) fol. 39
181 The full title of the book reads *Oftewel, Fondamentale ende Grondelijcke Onderwysinghe van de Sterrekonst, ende Beschrywinghe der Aerden, door het ghebruyck van de Hemelsche ende Aerdtscbe Globen*. (Or Fundamental and Foundational Teachings of Astronomy, and Description of the Earth, by Use of Globes of the Heavens and the Earth)
184 ‘Corte ende clare Inleydinghe tot het verstant van de Hemelsche Sphaera, in soo veele, als tot de conste der Zee-vaaert van noode is’ (Brief and clear introduction to understanding of the heavenly sphere, in so far as needed in the art of sea fare) Blaeu, *Licht der Zeevaert* (1608) fol. 14
185 For insight into the uses and functions of these types of books, see: Djoeke van Netten, *Koopman in Kennis: De Uitgever Willem Jansz Blaeu in de Geleerde Wereld* (1571-1638) (Zutphen, 2014)
2.2 Versifications

Specialist knowledge of the sphere was available to a broader public through these kinds of textbooks, but could also be incorporated in literary texts. Certainly one of the most detailed instances in the early modern Netherlands is that of Keyser Otto den Derden, en Galdrada: Bly-Eynde-Spel\(^{186}\) by Theodoor Rodenburgh. The play was published in three parts in 1616 and 1617, even though we cannot say for certain when or whether it has been performed on stage.\(^{187}\) Dedicating the play to the noble, devout lady Waelburg van Boshuysen, Rodenburgh unfolded his views on licit and illicit love. The plot can be summarized as: Emperor Otto the Third fell passionately in love with Galdrada, an honorable virgin who never wavered in her rejection of him. Ultimately, the emperor came to realize that his urges are sinful and rewarded Galdrada for her chaste behavior by marrying her to Guydeon, his loyal vassal. Of most interest to the argument unfolded here is the storyline of Tyter – the emperor’s diplomat in faraway places. His absence from home put considerable stress on his marriage and eventually led his wife to be unfaithful to him.

What can this piece, so clearly a story about romance, tell us about the sphere? Quite a lot, as the text was heavily infused with references to the celestial spheres. The main protagonist in this regard was a character named Theophilus. He was an expert on the stars, and offered Tyter a way to focus on the eternal rather than the temporal by teaching the noble art of geomancy, which he deemed ‘the true daughter of astrology.’ The subsequent chapter will reflect more on Rodenburgh’s ideas on the uses of astrology. Theophilus started his lecture on the structure of the heavens by explaining, in rhyme, how the earth is surrounded by the different spheres. These verses closely resembled the description rendered by Apianus: it seems as if Rodenburgh had taken the manual and versified it. The play furthermore visually represented the heavenly spheres in a figure (Figure 2) printed on the preceding page of the book. This image also bore apparent similarities to Apianus’ depiction of the division of the spheres. Having presented the position of each planetary sphere, Theophilus elaborated on the time it takes the different planets to arrive back at their initial position. The planets follow their course within the signs of the zodiac and therefore each have their own ‘house’, according to the art of astrology.\(^{188}\) These were details that were nowhere to be found in the Cosmographie, but certainly belonged to the tradition of the sphere. They were mentioned, for example, in Metius’ book.\(^{189}\)

\(^{186}\) (Emperor Otto the Third, and Galdrada)
\(^{188}\) Apianus, Cosmographie (1609) fol. 139
\(^{189}\) Sulcx dat Saturnus in 30. jaren / Jupiter in 12 jaren / Mars in 2. Jaren dese haren omloop eens volbreghen. Maer sol, Venus ende Mercurius die gaen alle jaren (ende luna alle
Rodenburgh thus seems to have used more than one textbook from which he incorporated knowledge in his own writings.

Some passages later Camillo, Tyter’s servant, was also interested in learning more about the globe. Verse by verse Theophilus began to verbally build the structure of the armillary sphere. He introduced the heavenly globe’s convex body at whose center lies the earth. That globe, he stated, was pierced by an axis, whose ends form the north and south poles. The knower of the stars then mentioned the six big circles of which the sphere consists: the two colures (namely the equinoctial and the solsticial), the celestial equator, the horizon and meridian and lastly, the zodiac. Both the equinoctial and the solsticial colure touched the ecliptic circle. The four smaller circles encompassed the tropics and the poles (the Arctic and the Antarctic). The meridian was the circle on which the sun travels every day. The equinoctial, which can also be understood as the celestial equator, intersected with that meridian and so splits the globe into north and south. The zodiacal sphere was of great importance when it came to the calculating of time or the making of prognostications; each zodiacal sign always appeared in its own season, which Theophilus described as well. The expert on the stars concluded by saying that he has now explained the basic structure of the spheres. This text was also represented in a figure again nearly synonymous to the one depicted in Apianus (Figure 2). Rodenburgh seemed to have borrowed Apian’s visual program. Theophilus explicitly referred to the figure both at the beginning and the ending of his classes. When Tyter left, for example, he specifically requested Theophilus to leave him with the spherical figure. He stated that he should find a suitable hour to practice the things that he just learned. A similar situation occurred towards the end of Theophilus’ lecture for Camillo, Tyter’s servant. Theophilus again referred to the accompanying image of an armillary sphere. He encouraged his newfangled pupil to take it with him for further study and training. Theophilus did not seem to distinguish his pupils in terms of wealth, class, education or status. When the uneducated servant begged Theophilus not to tell his master of his learning, Theophilus responded by stating that seeking knowledge was only noble. What could be more laudable and useful than practicing the mind?

Rodenburgh was not the first one to put the properties of the heavenly sphere into rhyme; these kinds of versifications appeared elsewhere in Europe as well, such as Giovanni Pontano’s didactic poem *Urania Sive de Stellis* (Venice, 1505). A

---

maenden) eens inden zodiac rontsom het gansche firmament’ Metius, *Institutiones Astronomicae & Geographica* (1614) fol. 2

190 Like type, woodcuts were designed to be reused, and they are thus not necessarily peculiar to particular books. See: Joseph A. Dane. *What Is A Book? The Study of Early Printed Books* (Notre Dame, 2012) 128

similar versification was produced in France, namely the *L’Uranologie ou le Ciel de Ian Eduard du Monin* written by Jean Eduard du Monin and published in Paris in the year 1584. Du Monin found in poetry a way to facilitate his instructions in the workings and wonders of the cosmos.\(^{192}\) Some scholars have stated that this text in itself was closely modeled on George Buchanan’s *Sphaera*.\(^{193}\) The Scottish humanist used no less than 2,500 hexameters to explain the properties of the sphere – which may, in turn, have been based on Sacrobosco’s *Sphaera*. Du Monin also referred his readers eager for deeper understanding of the sphere to the treatise by Johannes de Sacrobosco.\(^{194}\) Rodenburgh may have been inspired by poems such as these; his writings suggest, at least, that he was very much engaged with the literary works not in his mother tongue.\(^{195}\) At the same time his text was different from the texts mentioned here. Rodenburgh included visual representations in his work, whereas other versifications of the sphere did not. Furthermore, Rodenburgh’s versification found its place in a moral, philosophical theater play; it was not a work dealing exclusively with the celestial makeup in itself.

2.3 Conclusion

For those wanting to get a grip on the structure of the heavens, the beginning lay in an understanding of the sphere. This held to be equally true for bright students attending their first classes at the university, ship pilots bound on faraway voyages, or astrologers set on casting horoscopes. All could agree that knowledge of the sphere was essential.\(^{196}\) Curiosity for these matters was thus also to be found in eager, vernacular audiences not per se affiliated with the academic domain. They could acquire cosmological knowledge through the Dutch manuals produced by experts, such as university professors as Apianus, Frisius and Metius. These textbooks were concerned mainly with matters of cosmology, cosmography and geography and gave brief but concise explanations of some basic concepts.

Books on spherical cosmology have received only passing attention of historians of science precisely because they were so basic. A closer study of their

\(^{193}\) Jean Edouard du Monin, *L’Uranologie ou le Ciel de Ian Eduard du Monin* (1584) fol. 206
\(^{194}\) Ibidem
\(^{196}\) ‘Want door de ronde globe wert alderbequemlijcx / alle het ghene dat in de eerste beweghenisse ofte primo mobili is aentemercken / gheleeret / ende afghemeten’ Metius, *Institutiones Astronomicae & Geographica* (1614) fol. 2
pages, however, reveal something that we miss by focusing only on extraordinary works and outstanding readers. Historian of science Jim Secord has recently argued that historians ought to analyze audiences and readerships closely and carefully, so that the idea that science passes from highly individualized sites of production and origination to an undifferentiated mass public can be counterbalanced. The idea that one can determine the actual readership of a book purely by studying its content has for some time now been bygone. But the way that the knowledge has been carefully organized and presented may in fact express an ideal readership. Reading was not often simply understood as dry acquisition of facts, but rather as an experience with an active component in some way provided by the texts by means of illustrating, modeling, reiterating or verifying. Apianus and Frisius offered insight into their intended audiences, evoking a readership composed of historians, poets, pilots, sailors, travelers and land measurers. Our understanding of their ideal readership does not bring us closer to fathoming an actual reader. Yet the writings of Rodenburgh – diplomat, merchant and rhetorician – expose one such reader.

Certain passages of his moral, amorous theater play Keyser Otto included a versification of the sphere, one for which he seemed to have used textbooks by both Apianus and Metius. His descriptions were detailed, technical and made use of cosmological jargon. Furthermore he included two illustrations that appear to be replicas of images that can be found in Apianus’ Cosmographie. He consciously employed a visual program, which is rather unique compared to versifications of the sphere published elsewhere in Europe. The reason for this incorporation of visual representations of the cosmos’ structure is made explicit in the text itself. The expert character in the play actively encouraged those with less training to seek out knowledge of the heavens, and, moreover, explained in what ways this could best be done. Qua content, the convergence between the literary discourse and that of astronomical specialists appears rather acute. Still, the value that was attributed to knowledge of the sphere has thus far stayed somewhat undynamic and it would be interesting to learn more about the importance attributed to celestial knowledge from the rhetoricians’ perspective. This will be the focus of the next chapter.

197 Oosterhoff, ‘A Book, A Pen, and The Sphere’ 2  
198 Secord, ‘Knowledge in Transit’ 662  
199 Spiller, Science, Reading and Renaissance Literature, 4
Chapter 3: Using the sphere

The sphere, in full ornate and with all its properties, was a treasured object in early modern Amsterdam. Developing a basic level of knowledge of the sphere was practical as means for orientation; it was perceived that knowing how to get from one place to another relatively swiftly (and safely) was of great importance for travels of discovery. The riches that came with these voyages of exploration were lauded by Joost van den Vondel in his *Hymnus ofte Lof-gesangh over de wijdberoemde scheepsvaert der Vereenighde Nederlanden* (Amsterdam, 1613). Vondel narrated the journey of the Dutch ships that reached those corners of the world where nature’s richest treasures could be seized, corners that then were feverishly charted by cosmographers. Pieter Cornelisz Hooft ascribed the Republic’s glorious expansion into all directions of the wind to cosmology and navigation in his prefatory poem to Blaeu’s *Het Licht der Zeevaert*.

Yet there was more to knowledge of the sphere than financial gain. This chapter studies five texts written by Rodenburgh, Hooft, Vondel, Bredero and Spiegel respectively. Each of these texts has a different format – ranging from a song for the New Year, a prefatory poem and a book of didactic poems to a poem accompanying an emblem – and all of them pertain to cosmological knowledge and/or an evaluation of that knowledge. For each piece the type of text shall be briefly evaluated and placed in a broader context. Then the passages related to the structure of the cosmos are studied closely, evaluating their internal argumentation structure. Subsequently, the positioning of these passages in the text as a whole will be considered. Placing such a focus on the external argumentation structure of literary volumes has gained currency only in the last few decades, but has proved to be illuminating in understanding literary texts as argumentative texts.

The material has not been chronologically organized, because this could – unjustly – suggest a course of development in which the older texts have served as an example for the younger ones. Rather, they are treated according to the emphasis that they place on knowledge of the heavens: from detailed and concrete to more general and abstract. This arrangement showcases the texts’ diversity while also

---

200 (Hymn or Praise of the Renowned Sea Fare of the Republic of the United Netherlands)
201 Vondel, *Hymnus ofte Lof-gesangh* (1613) r. 4, 220-21
202 Blaeu, *Het Licht der Zeevaert* (1608) fol. 9
203 Keßler, *Princesse der Rederijkers*, 29
204 Van Herken, *Fabels van de Liefde*, 17
leaving room to attest to similarities. The passages that are referred to here may be consulted in the appendix.

3.1 Comets and eclipses

That Rodenburgh was well versed in the properties of the sphere is apparent from his *Keyser Otto*. He also had firm ideas on how this knowledge could – and should – be applied. On the occasion of the new year 1619, Rodenburgh wrote the song entitled *Op de Comeet oft Ster met de Staert, Eglentiers Nieuwjaarslied ‘in Liefde Bloeyende’*205 printed in Amsterdam in 1619 by Nicolaes Ellertsen Verbergh. We may assume that this song was recited during one of The Eglantine’s gatherings; writing of these kinds of songs as a way of welcoming the New Year was a premodern tradition – one held especially dear by the chambers of rhetoric. They were usually of a theological, moralistic nature,206 even though they could also be political statements. Rodenburgh appears to have cast his text in the form of a prognostication: a prediction for the upcoming year based on celestial signs. Prophesies such as these were written yearly by astrologers and were widely dispersed in the form of almanacs.207 The text encompasses 537 lines, which is untypically long – most of these songs consisted of only a few lines.

The song takes the form of a dialogue between a knower of the stars (*sterrekkenner*) on one hand and an individual with an inquisitive character, yet without any technical knowledge of the stars, (*leergierigert*) on the other. Such a conversation between an expert and an inquisitive auditor is one that we have encountered in *Keyser Otto* as well, when Theophilus explains the properties of the sphere to his both pupils. The cosmological expert in the New Year song explained the celestial properties to a lay in the subject, who was unabatedly asking questions. This was a common didactic form, reminiscent of the *questio* – the posing of a question, setting out a position, weighing pros and cons before coming to an unequivocal conclusion.208

The knower of the stars commenced by establishing both the origin and the end of knowledge, namely God. God had instilled in people the desire for knowledge,

---

205 (On the Comet or the Star With the Tail, Eglentiers New Year Song, ‘Thriving in Love’)
207 Salman, *Populair Drukwerk in de Gouden Eeuw*, 60
even if they can never really uncover the secret completely. This incapability to come to a total understanding could lead even inquisitive characters to stall in their inquiries. Knowledge of stars opened the doors to a command of a broad range of arts. The subsequent passage listed all kinds of ‘occult’ arts that could be mastered in order to read, understand, predict and subsequently influence natural phenomena; these were all instances of prognostication. One instance was geomancy, which was divination according to earth in which, by marking down a number of points at random and then connecting or cancelling them by lines, a number or figure was obtained which is used as a key to sets of tables or to astrological constellations. This was the art that Rodenburgh elaborated upon in his play *Keyser Otto* (1616-1617). Hydromancy was divination according to water, aeromancy according to air, pyromancy according to fire and chiromancy according to the reading of someone’s hand. Metoscopy was the reading of facial lines and physiognomy the reading of someone’s outer appearance.

These arts have been labeled in modern scholarship as *artes incertae*. Their uncertainty did not lie in their truth: each of these arts was confirmed by natural philosophy and has been proved by natural reason, Rodenburgh stresses. A great part of natural philosophy was devoted to an understanding of this category, including at the universities. The uncertainty lay, as Rodenburgh unfolded in his New Year song, in the fact that predictions needed not always come true. One should never fully trust these arts alone, for an unreserved belief in the language of the stars amounted to idolatry. God had endowed the heavenly bodies with movements and could therefore take this mobility away again when it pleases him. The relation between the Christian tradition on the one hand and predictive astrology at the other was fairly contested. Rodenburgh presented his views on astrology with some reticence and seemed careful not to steer away from the Christian variant of astrology.

Besides movement the spheres sent to the earth what are called ‘influences’, a theoretical category used by scholastic Aristotelians to explain celestial effects in the sublunary realm. Rodenburgh related how the heavens govern the earthly sphere.

---

213 Jorink, *Reading the Book of Nature*, 130
214 Salman, *Populair Drukwerk in de Gouden Eeuw*, 59
215 Steven vanden Broecke, *Limits of Influence: Pico, Louvain and the Crisis of Renaissance Astrology* (Leiden, 2003) 4
and the power of the planets and the stars influence life on earth. These powers did not reach only the humans, but also the other created things. This is one passage among many that stress how celestial bodies affect terrestrial bodies: stones, plants and even the living creatures. Such a combination of medicine and astrology was regarded as a useful one by a broad group of practitioners. Peter Apian, for example, appropriated timings for bloodletting in one of his books.216

Despite these evident merits, or so Rodenburgh stated, the art of astrology has fallen into disrepute. Evil tongues said that it should be practiced no longer. The rhetorician contended that this does not mean that astrology is a bad thing in its essence; does not everything dilapidate when being used improper? Theology has also been used in the wrong ways and had lost none of its importance. Rather than considering these defective usages of the art of astrology, one would do better to regard the eminent men that have studied the wonders that egress from the planets such as Aristotle, Strabo, Elian, Albertus Magnus and Pliny. Rodenburgh awarded each the same degree of authority. He did not further treat their respective interests in astrology. The mere mentioning of their name seemed to be enough to support his claim. Still, he stressed that the pursuit of astrological matters was not only a heathen pastime. Similarly, the prophets David and Daniel held this art high regard. Even the holy Thomas Aquino in his Quodlibet revealed his great esteem of astrology. He did so by referring to the Chaldeans, Hebrews, Arabs, Romans, Greeks and the Egyptians. Rodenburgh thus strengthened his claim by appealing first to classical authorities and then to Catholic authorities – which themselves refer to ancient sources. Rodenburgh weaved arguments from both Catholic and Protestant authorities quite seamlessly. He, in any case, claimed that the art of astrology was compatible with religion, and that the heavenly bodies were merely instruments of God’s will.217

From the far past, Rodenburgh brought the significance of astrology to the near future by drawing up a sort of prognostication for the year 1619. He included, to this end, a broad range of heavenly signs; not only the movement of the planets, their conjectures and oppositions, but also the appearance of comets and of eclipses. Rodenburgh presaged the first lunar eclipse for 26 June 1619 at one in the morning, with the sun in twenty-eighth degree of the zodiac sign Capricorn. These celestial bodies’ astronomical positions could be calculated by means of ephemerides that provided the astronomical positions of celestial bodies for a certain year.218

---

217 Numbers, Science and Christianity in Pulpit and Pew, 15
218 Vanden Broecke, Limits of Influence, 31
consults some ephemerides for that year, these indeed predict the sun in that place. Rodenburgh predicted a second lunar eclipse for 20 December 1619 at 4.25 in the morning, with the moon in 28 Gemini and the sun in 8 Sagittarius. This eclipse, too, occurred around the time Rodenburgh had portended; albeit slightly later. The text then proceeded to offer a long list of planetary oppositions and conjectures (twenty-two, to be exact) and the dates on which these shall occur.

Rodenburgh probably has not made these predictions himself, but appears to have lent them from Saxus Fontanus’ *Die groote Practica ofte prognosticatie op het Jaer nae de gheboorte onses Heeren ende salichmakers Jesu Christi 1619* (Amsterdam, 1619). The inclusion of eclipses in this text is not incidental; eclipses in this time were the primary parameters of mundane astrological practice. Casting correct predictions of eclipses had therefore become a crucial asset, something of which Rodenburgh was surely aware – relying on Fontanus’ expertise.

Rodenburgh’s next argument was that of the comet of 1618, the comet after which he has named his song. The appearance of this comet led to a plethora of publications that contained speculations on the comet all over Europe. Pamphlets and other texts in the Dutch Republic were also discussing its meaning and Rodenburgh’s song seems to mingle into that debate. He expressed his concern that the comet has been regarded with curiosity in the public, but that its meaning has not been interpreted correctly. He hoped that he was mistaken and that the people have understood the tailed star’s significance. Many men have been pondering the physical qualities of the comet. Yet, according to Rodenburgh, it was enough that the comet had been seen. This view was not quite uncommon, and was propagated, for example, by Jacob Cats in his writings on this comet, and had been espoused earlier by Luther as well.

---

219 Both Johannes Kepler and Giovanni Antonio Magini predict the eclipse at 12.36 in the morning for a meridian of Hven; David Origanus predicts it to occur at 12.40 for Tycho Brahe’s Hven, and 12.49 for Copernicus’s Königsberg. For Amsterdam, the time should then have been set around midnight. My sincerest thanks to professor Richard Kremer for kindly sharing his expertise in this matter by checking whether the eclipses predicted actually took place around those times.

220 This should be 28 instead of 8. A mistake was made either in calculation or in printing.

221 Kepler predicts the eclipse to occur at 3.49 in the morning at Hven, Magini at 3.25, Origanus at 3.54; and 3.39 for Königsberg. Rodenburgh seems to have adjusted the time in the wrong direction; a more precise prediction time would be around 3 in the morning.

222 Abrahamse, *Het Toneel van Theodoor Rodenburgh*, 157

223 Vanden Broecke, *Limits of Influence*, 158

224 Jorink, *Reading the Book of Nature*, 127


Rodenburgh predicted that these signs bid the end of peaceful times and the beginning of an outburst of violence. The hard-won unity brought about in the Netherlands by William of Orange will dissolve, and Belgica (which refers to the entire seventeen Provinces of the old Habsburg Netherlands) will disintegrate. Did that mean that the Netherlandish unity could not be salvaged? Fortunately, there was hope. By affecting humans’ bodies the heavenly influences could but need not necessarily affect their reason and will. The ominous signs that Rodenburgh has observed thus should be taken to heart by the Netherlandish people and bring about a change in their behavior. Their discussions should halt; their dissenting voices dim. The aversion of adversities was thus a matter of individual moral responsibility: ‘sapiens dominabatur astris’, viz. the wise man will rule over the stars. Rodenburgh would refer back to his prophesy in his pamphlet Trouwe Landsatensklacht (1623), dealing with the failed attack on stadtholder prince Maurice when the Twelve Years Truce came to an end, claiming that he had interpreted the celestial signs correctly.

There clearly was an increased need for political and religious predictions in Renaissance Europe. The social impact of prognostications should thus not be underestimated. Rodenburgh seems to have been piling up celestial arguments; perhaps because there was among these things always one, or perhaps more, that the reader recognized because he had experienced such a phenomena or read about it elsewhere. Those recognizable aspects captured the listeners and readers and hopefully compelled them to alter their ways.

3.2 Planets and order

The connection between the heavens and the earth had been stressed by Pieter Cornelisz Hooft almost a decade earlier. Under the pseudonym ‘Zy Steeckt Om Hoogh Het Hooft’ he composed the Emblemata Amatoria in 1611, his first published work, printed by Willem Janszoon Blaeu in Amsterdam. The volume consisted of amorous emblems coupled with mottos and distiches in Dutch, Latin and
French; written respectively by P.C. Hooft, Cornelis Plemp and the preacher Richard de Nerée. The emblems were complemented by a set of songs and sonnets, equaling no less than forty-seven, stemming from Hooft’s lyric. Some words on the genre of the emblem book seem in order. The significance of the volume can be elucidated by placing it in the larger trend of emblem books; books in which the art of poetry was combined with images. Together, they were meant to convey moral and didactic lessons and this could be done in different ways and in varying themes. The *Emblemata Amatoria*, for example, displayed allegorical depictions of moralizations of love. The subgenre of love emblems flourished in the early decades of the seventeenth century Europe; in the Dutch Republic they were composed by authors such as Grotius, Heinsius, Vaenius and Cats. Each of these books centered on love’s omnipotence: animating the cosmos, moving and developing nature on her pace. Precisely the bond between the heavens and a harmony on earth could be deduced from the long poem, formed of rhymed couplets, that served to introduce Hooft’s *Emblemata*. The poem commenced with the goddess Venus who, on May’s first day, overlooked the universe from halfway in the air. She did not pay much attention to the dwellers of the earth and focuses her gaze on the heavenly spheres instead. The subsequent verses mentioned Saturn as the highest star; planets were called wandering stars. Then came Jupiter, Mars, Phoebus (the Sun), Venus—although she does not mention herself—, Mercury, the Moon and lastly, the earth. Each planet was thus mentioned precisely in the order of the Ptolemaic system, illustrating not only Hooft’s knowledge of the order of the planets according to that system, but also of their movement in the system of the cosmos as a whole. The planets were portrayed as amorous characters, submerged in affairs, desires and passions. Their representations were derived from the pagan poets and tell of their affairs according to classical stories such as Jupiter’s tricks. A couple of verses were devoted to the synergy between Mars, god of war, and Phoebus, the goddess of rational principle.

---

232 Karel Porteman, *Inleiding tot de Nederlandse Emblemataliteratuur* (Groningen, 1977) 90
233 Peter Daly, *The Emblem Book in Early Modern Europe* (Dorchester, 2014) 5
234 Van Tricht, *Het Leven van P.C. Hooft*, 50
236 Porteman, *Inleiding*, 99
237 ‘T halver lucht’ Hooft, *Emblemata Amatoria* (1611) fol. 3
238 ‘Zy oversloech het geslacht der sterffelijcke dieren / en liet haer snel ghesicht door s’hemels oorden zwieren’ Hooft, *Emblemata Amatoria* (1611) fol. 3
Touched by Phoebus in his heart, Mars lay down his weapons and takes up an olive branch, a symbol of peace.

The last step from the heavenly sphere to the earthly one was the moon awakening Endymion. Lucian and Pliny had described Endymion as an early astrologer or astronomer, dedicated to the observation of the phases of the moon. From the planets and their spheres the reader reached the stargazing human on earth, stressing their mutual interaction. Goddess Venus subsequently elucidated how life on earth, in contrast to the romantic heavens, was not quite as idyllic. The earth was subject to strife, discord, insurgence and more misery than could even be mentioned. That deplorable state could be salvaged, she argued, through reason. Towards the last lines of the poem, Venus instructed Cupid, her son, to let reason resonate on the earth. He may have done so himself or he could whisper it into the ears of a lover that then carries on the message for him. Cupid, however, had a better idea and ordained Hooft to write accompanying poems to the artfully drawn emblems. Together, these emblems reminded their readers to think reasonably, even when it came to love.

The emblems themselves did not bear any direct celestial substance, as they were about situations that the readers may find themselves in at some stage or another: such as the joy of reciprocal love or the pain of unrequited love. As Keßler has stressed, the opening poem has to be carefully chosen because it sets the tone for the volume as a whole. Thus it is in light of the prefatory poem that these emblems should be read, instilling the readers with the sense that the heart’s passions need to be governed by the reasonable mind. That emphasis on reason, in fact, chimes in with a broader movement of ‘philosophy of reason’ that could be found not only in the

---


241 ‘Versuym en quisting sot, verwarthet en beslommering / ghebreck, armoed, ellend, en knaghende becommering / en twist, en quael vermoen, ja scheurgen, oproer, crijch / en duysent plaghen meer, die ick om kortheyt swijch’ Hooft, Emblemata Amatoria (1611) fol. 7

242 ‘Laet dese reden, soon, op aertrijck, gheven clanck / met welbereede tong, en onderrecht de dwasen’ Hooft, Emblemata Amatoria (1611) fol. 10

243 ‘Of blaestse’ een minnaer in, om voor u uyt te blasen’ Hooft, Emblemata Amatoria (1611) fol. 10

244 ‘Op dat de gheene die somtijds sal vinden aen / het minnen quelling vast, hem daer af niet verleyden ’laet /en gheef de min gheen schult, maer ’s minnaers onbescheyden’ raet’ Hooft, Emblemata Amatoria (1611) fol. 10

245 Keßler, *Princesse der Rederijkers*, 141
scholarly realm but also in broader circles. Hooft’s *Emblemata* accentuated the bond between the celestial, planetary spheres and the situation on earth and lets the planets lead by example.

### 3.3 Vondel: Micro- and macrocosm

Vondel used the properties of the sphere by means of analogy. *Den Gulden Winckel der Konstlievende Nederlanders, Gestoffeert met veel treffelijcke historische, Philosophische, Poetische morale ende schriftuerlijcke leeringen* (Amsterdam, 1613). The book elucidates the relationship between the big world and the small, viz. the universe and the human. *Den Gulden Winckel* too was a collaborative project: Dirck Pietersz Pers had asked Vondel to adapt a book that he published some years earlier, entitled *De Cleyn Werelt, Rhetoryckelijck Uutgehestelt ende met Overschoone Constplaten Seer Heerlijck Verciert* (Amsterdam, 1608, and Antwerp, 1584) by Jan Moerman of Antwerp. The edition published in Antwerp had at that time been presented as the epitome of the art of rhetoric. Moerman’s text itself was a Dutch translation of Laurens van Haecht’s *Parvus Mundus* (1579). Books on the relationship between the micro- and macro cosmos were published elsewhere in Europe as well. The foundation for this metaphor could already be found in Plato’s *Timaeus*, in which it is said that the human mirrors creation. Vondel thus, in any case, contributed to a tradition that had a long history and continued well into the seventeenth century.

The first emblem of *Den Gulden Winckel* serves to establish a connection between the two worlds, the one of the human and the one of the heavens. Here the heavens may be understood to refer both to the divine realm as to the celestial spheres that encompasses the stars and planets have their place. Emblem books were

---

247 Ruben Buys, *De Kunst van het Weldenken*, 16
248 (The Golden Emporium of Art Loving Netherlanders, Upholstered With Many Historical, Philosophical, Poetical, Moral and Scriptural Teachings)
249 (The Small World, Rhetorically and Pleasantly Decorated With Beautiful Images)
250 Porteman, *Inleiding*, 76
251 Such as Estêvão Rodrigues de Castro’s *Carmen Allegoricon de Microcosmo* (Florence, 1621) and Francois Grudé La Croix du Maine stated in his *Discours* (Le Mans, 1579) to have written about this topic as well. Another instance is that of *La sepmaine ou la création du monde* (Paris, 1578) by Guillaume de Saluste, Seigneur du Bartas. This volume was translated to Dutch by Zacharias Heyns – member of the White Lavender – in 1616, entitled *De weke*.
252 Koppenol, *Leids Heelal*, 311
254 ‘Twee werelden ziet hier, d’een groot en d’ander kleen, die wonderlijck tezaem zich draghen overeen’ Vondel, *Den Gulden Winckel* (1613) fol. 5
mnemotechnic constituents that combined textual explanation with visual representations. The emblem contains the image of a man, who stands in the center of a globe and is gesturing upwards to the cross that crowns the sphere. His body is surrounded by stars, by the sun and by the moon. The accompanying caption contends: ‘See two worlds here, the one big and the other small, that miraculously behave together as one’, suggesting a mutual interaction between the level of the human and that of the universe. The affiliated Biblical caption is Petrus 1:24, which compares the human to flowers in the field.255

Man’s constitution is, in rhymed couplets, compared to the constitution of the universe. Vondel first addressed those that are not convinced by the metaphor of the small world, asking them to reconsider. He stated how the human shows, in a short while, a complete understanding of the world’s constellation. Firstly, as the world consists of four elements, so too does the human. His anger corresponds with fire, his red blood with air and his moist fluids are like water. His melancholy, lastly, is as the earth; wistful and dark. These pairings of temperaments, body fluids and the four elements are precisely as contemporary medical theory had it, which was based on Galen’s theory of the humors.256 Vondel then went on to address how the four directions of the wind are also captured in man. The human’s two eyes can be likened to the sun and the moon, that constitute the heavens’ eyes. The four seasons are compared to the four stages of maturity: childhood, adolescence, maturity and elderly age. This analogy of the big world and the small was a treasured one in humanistic education.257

Vondel thus elucidated that nothing has been endowed upon the big world that is not represented in the small world. The sole difference, related in the last few lines of the verse, is that the world is finite but the human soul is not. This is because at the end of times, man shall rise up from the grave and be born again. Vondel ended the poem on a Christian note; this ending is lacking in the earlier editions. To get across the point more clearly, the printer Pers added in the 1622 edition for each emblem prosaic explanations that are more explicit about the message that they are supposed to convey. For the first emblem he expresses the alignment between the study of the heavens and understanding of God more clearly. Pers states that God has created humans as ‘reasonable animal’, in contrast to the other animals, that are focused only on the earth. Humans gaze upwards, study the course of the stars, the sun and the

255 ‘Al ‘s menschen, heerlickheyt, al ‘s mensch pracht en roem, is niet als gras en hoy, oft als een veldsche bloem’ Vondel, Den Gulden Winckel (1613) fol. 5
256 For an elaboration on this issue, see Gail Kern Paster, Humoring the Body: Emotions and the Shakespearean Stage (Londen, 2004)
257 Porteman, ‘D’Een Klapt, t’Geen d’Ander Heelde’ 36
moon and so admires God’s creation. Humans should not remain concealed under the dirt of ignorance but have to realize why they were created by God; namely to reach a complete understanding of science, and thus to get to know God. The significance of the study of natural knowledge was to get to know oneself and one’s surroundings as part and parcel of God’s creation. The idea that the human was created had been endowed with the capacities to admire the great design of the universe, in order to cherish its beauty and its vastness, was one broadly shared in the Republic. As Eric Jorink has shown, the idea that nature was a book that could be read (in combination with God’s other book, the Bible) in order to understand God’s blueprint for the universe was part of a rather uniform discourse in the early modern Netherlands. Men such as Constantijn Huygens and Gerardus Vossius, to name a few, claimed that the Creator manifested himself in the starry firmament. This emblem agrees on that, even if it does not refer to the axiom of the book of nature.

The rest of the book consisted of moralistic, didactic examples in which, as in Hooft’s volume, no more explicit cosmological references was made. The emblems encompassed a broad collection of classical exempla that warn against jealousy, idleness, abundance, excessive drinking behavior, vain display of strength, sorcery et cetera. Each emblem was captioned with a specific passage from the Bible, which individuates a new relationship: humanistic in its formulation and positioned between classical and Christian culture. The Gulden Winckel thus seems to have unfolded utility of knowledge of the sphere on two levels. Study of the heavens could help to uncover God’s design, and so come closer to God. Furthermore, an understanding the world through micro- and macrocosm established both a place and hierarchy for everything on the earth and in the heavens. When the micro- and macrocosm obeyed this hierarchy, harmony and ease reigned supreme; yet when this order disintegrated, discord would prevail.

3.4 Bredero: Transcending understanding

Such confidence in humans’ capabilities to come to an understanding of the heavens

---

258 ‘Hy kent den loop der sterren, sonne en mane en weet te rekenen haren op en ondergang, en ‘t draeyen derselver et cetera’ Vondel, Den Gulden Winckel (1622) fol. 1
259 ‘Leght dan niet, o mensch, bedolven in het slijk der onwetendheydt, maer bedenckt tot waer toe ghy van godt geschapen zijt: opdat ghy tot de volkomentheyt der wetenschappen, dat is om god te kennen, mocht geraken, want sonder deselffen kennisse is alles vergeefs’ Vondel, Den Gulden Winckel (1622) fol. 1
260 Jorink, Reading the Book of Nature, 49
261 Ibidem, 414
262 Ibidem, 140
263 Del Nero, ‘The De Disciplinis as a Model of a Humanistic Text’ 186
was not shared by everyone, as can be derived from one of Gerbrand Bredero’s plays. The play *Stommen Ridder*264, his last, was performed on stage at the Nederduytsche Academie in 1618. The work was printed in 1619, after his death, by Cornelisz van der Plasse in Amsterdam. As the publisher tells the readers in its preface, the piece is partly modeled after the Spanish play *El libro del famoso y muy esforzado caballero Palmerin de Olivea*265 (1511) by Francisco Vázquez, which had been translated into Netherlandish in 1613. The lead character in the play was a Christian knight, who found himself in the Ottoman Empire and pretended to be mute for his safety. At the end of the play he married Diana, daughter of the emperor. The play has been interpreted as a moral philosophical work,266 instructing its readers and spectators in the curbing of passion and the bearing of reason.267

Diana was introduced in the first act, when hearing her niece Aardighe (meaning as much as ‘Sympathetic’) sing: a sound that awakened in her the desire for knowledge. She stated that, hitherto, she has deemed such an inclination for knowledge childish, but now she realized that it in fact holds Godly power. Each piece of knowledge itself was endowed with its own holiness. Through the acquisition of knowledge it was therefore possible to climb up step by step to the highest heaven – at least for those that were actively seeking out that knowledge. These inquisitive individuals should lift up their head, covered with the earthly dust and look at the sun, moon and the stars; a statement encountered in Vondel’s *Gulden Winckel*, too. Looking up at the heavens they observed how every heavenly body moves at right pace on the right time, along the right path. Despite this predictability these things transcended humans’ understanding. Bredero seems to have implied that the limitedness of human’s capacities precludes an understanding of God’s design.

Bredero had ridiculed the cosmological elements in Rodenburgh’s play *Keyser Otto* some years earlier in the preface of his tragicomedy *Griane*268 (1616), also published by Cornelis van der Plasse. This introductory text, directed to ‘the most sensible poets of The Netherlands’, is a vindication of Bredero’s rhetorical methods made clear by way of contrast. He mentions a certain rhetorician who ‘in his grand rhymes lets women, maids and even stable boys philosophize about the movement of the stars, the course of the heavens, the greatness of the sun or other almost

\[\text{264} \quad \text{(Mute Knight)}\]
\[\text{265} \quad \text{(The Book of the Famous and Courageous Knight Palmerin of Olive)}\]
\[\text{266} \quad \text{Sonja Fortunette Witstein, ‘Het Erotisch-ethische Referentiekader in Bredero’s Stommen Ridder, en de Betekenis daarvan voor het Handelingsverloop van dit Spel’ in: De Nieuwe Taalgids 67 (1994) 442 (439/448)}\]
\[\text{267} \quad \text{C. Kruyskamp, G.A. Bredero’s Stommen Ridder (Culemborg, 1973) 21}}\]
\[\text{268} \quad \text{Mieke B. Smits-Veldt, Het Nederlandse Renaissancetoneel (Utrecht, 1991) 80}}\]
unimaginable things.’ He begs forgiveness for his own simplicity: for in his plays, he lets the farmers behave like actual farmers. Settling these kinds of disputes via prefaces was not uncommon, especially not in Amsterdam during this time. From this polemical passage we can tentatively infer that dense use of cosmology in verse was something not entirely uncontroversial. The passage in *Stommen Ridder* shows that Bredero does not regard study of the heavens to be entirely irrelevant; rather, he does not seem to see the need for any elaborate treatment of the heavens in rhetorical texts.

3.5 *Spiegel: Know yourself*

Lastly, we look at Hendrik Laurensz Spiegel’s *Hertspiegel*, an apograph. This moral, didactic book of poems was posthumously printed in 1614, in Amsterdam by Cornelis Dirckxz Cooll, who also printed the edition of 1615. The title refers to a reflection of the heart; the mirror was a more commonly used metaphor for texts that were supposed to edify and instruct their audience. The work consists of seven parts, each of which is named after one of the Greek muses and together these serve to convey Spiegel’s ideas on the *summum bonum*. That highest good, according to a recent edition of his work, consists of a rhythmic arranged, balanced harmony in body and soul, that can be acquired only through certain ways. Spiegel described some of these ways in his volume.

Even though the book in its entirety was concerned with themes such as God, nature, knowledge and virtue, only a couple of the rhymed couplets were explicitly concerned with the study of the heavens. The first passage with references to cosmological knowledge could be found in the book Melpomen, in which Spiegel spoke of the wondrous signs at the starry firmament. Those beguiled with studying the heavens, he stated, could calculate the movements of the stars and interpret their meaning for the future and foretell either peace or warfare – we have seen how this the significance of astrology was stressed in Rodenburgh’s writings. Spiegel,

---

269 ‘Ghy goedighe goden van mannen! die in u groote rijmen de vrouwen, dienst-meyjens, ja stalknecchts doet philsoferen van overtreffelijke verholentheden, het sy van de beweghinge des steren, ofte vande drift des hemels, oft vandegroothet der sonne, oft andere schier onuytdenckelycke saken’ Bredero *Griane* (1616) ‘to the reader’

270 Van Boheemen and Van der Heijden, *Retoricaal Memoriaal*, 32

271 (Heartmirror), the title of the volume refers to the author’s surname.

272 Vandommele, *Als in een Spiegel*, 20


274 Ibidem, XXIV

however, stated that these sophisticated men turned out to be dim minds when it came to simpler matters: by perennial study of the heavens they failed to see what was close by. Their preponderance to seek only knowledge of the external world would, in the end, only lead to harm. Knowledge of the soul, on the other hand, would lead to a great sense of reward and satisfaction. That introspection should be of primary concern; knowledge outside the self was of secondary importance. Historian Ruben Buys has linked Spiegel’s ideas with those of Desiderius Erasmus (c.1465-1536), who had adopted the idea that the acquisition of technical knowledge was not sufficient in itself.  

Humans had not received their rational capability primarily to gain theoretical knowledge; the ethical implications served as a *conditio sine qua non* for the acquisition of valuable knowledge. When knowledge did not, either directly or indirectly, contribute to moral elevation it did not really have worth.  

The other two passages on the topic of celestial study were both part of the book Terpischore. Here, Spiegel related how the heavens with their even, steady pace, testified to the existence of God. Yet they did by no means offer true insight into what God actually is. The soul was equally elusive. Yet despite the sheer impossibility to envision the form and shape of the soul, anyone could easily imagine its existence.

Spiegel then likened the human soul to a ‘kleijn werelt-boek’, a small book of the world. Only through a careful reading of the book of the soul, people could come to true knowledge of the world – and better, of God. Those that lacked such inward reflection, would fall into a ruined state. Some verses later, Spiegel explained that the curiosity with which God has instilled his creations leads people to inquire the surrounding world. This incessant lust for learning could lead to torment when it was not satisfied. God had therefore created the ‘schepselboek’, the book of creatures. This book had been created in such an intricate and elaborate way that people should have plenty to study and would not get restless. The idea that nature that could be read as a divine book has been a prominent one in Dutch discourse the study of the natural world; Spiegel applied the metaphor of the book both to the human’s soul and the realm of the other living creatures.

Spiegel thus appears to have suggested that knowledge of the sphere was not as pertinent as the other rhetoricians discussed here would have had it. Even though the heavenly spheres were a sign of God’s omnipotence, they did not bring one closer to a true understanding of God. Concentrating on the heavens led away from what was most worth studying: the self. Spiegel has been regarded as an influential vernacular scholar that combined vernacular rationalism with classical thought.  

---

276 Buys, *De Kunst van het Weldenken*, 210  
277 Ibidem, 210  
278 Jorink, *Reading the Book of Nature*, 106  
279 Buys, *De Kunst van het Weldenken*, 247
emphasis on self-study indeed can be traced back to Plato’s *Alcibiades*. His works were translated by Marsilio Ficino and had been embraced by both him and other humanist scholars.\(^{280}\) The underlying principle of advocating study of the self was that nature should be studied as a whole, but that the human formed the essential link that connects all of nature.\(^{281}\) Through thorough self-study and the utilization of reason humans could accomplish an ideal state.\(^{282}\) This would make them better humans, which in turn contributed to a better world.\(^{283}\)

### 3.6 Conclusion

Even though these texts can be shown to place different emphases on the meaning of the sphere, the rhetoricians appeared to be imbued with an interest in the relationship between harmony in the cosmos and the human.\(^{284}\) Cosmological themes were ideal means to discuss not only the constitution of the heavens, but also the place of the human world within the universe. The texts studied here were arguments carefully built; the celestial elements are, in most instances, central to a full understanding of the texts as they build or imagine the world. This was especially true for the writings of Theodoor Rodenburgh. Both in his play *Keyser Otto* and his song *Op de Comeet*, Rodenburgh’s use of cosmology was specific, detailed and appears to stem from specialists in the field. The rhetorician was not frugal in his celestial observations: including in his song among other things the prediction of twenty-two planetary oppositions and conjectures, two moon eclipses and the appearance of the comet in the previous year of 1618. These ominous signs serve to convince his audience of the need for unity and harmony in the Dutch Republic.

Rodenburgh appeared to be rather unique in his abundant use of celestial knowledge. Nonetheless, all authors unfolded their views on the importance of the study of the heavens. Hooft let the planets lead by example, stressing the importance of reason for obtaining a similar harmony on earth. This reiterated the idea that the human was connected to the earth through his body, but through habituation of reason he could take part in a higher existence.\(^{285}\) Vondel stressed the importance of the study of the heavens for a means of understanding God’s blueprint for creation. Bredero also stated that humans should lift up their heads towards the sky, so that

\(^{280}\) Kristeller, *The Philosophy of Marsilio Ficino*, 3
\(^{281}\) Pico della Mirandola, *Rede van de Menselijke Waardigheid*, 65
\(^{282}\) Porteman and Smits-Veldt, *Een Nieuw Vaderland voor de Muzen*, 143
\(^{283}\) Buys, *De Kunst van het Weldenken*, 210
\(^{284}\) Moser, *De Strijd voor Rhetorica*, 109
they could observe God’s intricate design – even though he did state that these transcend what minds can understand. Finally, in Spiegel’s text cosmology featured not as any kind of mirror, but as a major contrast point. Spiegel dismissed perpetual gazing at the stars in order to get closer to God as an unfertile effort and admonished readers to turn their gaze inwards rather than upwards and outwards.

Combined, these texts unfold a range of approaches to knowledge of the sphere, some of which can be traced back to classical ideas and humanist thought. This humanistic thought has been envisioned as a sort of textual web in which all kind of reflections on nature and knowledge were embedded. Some rhetoricians, due to either their own academic training or via their contact with humanist scholars, had access to strands of that textual web. Especially the higher regions of the rhetoricians’ circles were part of a broader network of vernacular scholars and humanists writing in Latin. This is reflected in rhetorical writings, which often display a broad range of ideas; the texts studied here comprised information and ideas that could be traced back to Saxus Fontanus, Petrus Apianus, Galenus and Plato. This miscellany has been considered to be an essential characteristic of the vernacular rationalism: it does not commit itself to a certain school of thought, but instead uses all the ideas it possibly can. Literary texts as those discussed here helped to shape a vernacular discourse that expressed appreciation of the arts and furthered a genuine interest in the wonders that nature brought about.

---

286 Jorink, Reading the Book of Nature, 419
287 Van Dixhoorn, ‘Soorten Rederijkers’ 99
288 Buys, De Kunst van het Weldenken, 203
289 Van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels’ 110
Conclusion

Let us return to our meetings at the Nes one last time and consider to which findings a closer look at the members of this chamber has led. The first chapter has served to elucidate why the chambers of rhetoric The Eglantine and The White Lavender have been considered to be important exponents of the cultural, intellectual life in the fast growing city of Amsterdam. These chambers were institutional loci of an early modern vernacular knowledge culture that was focused on the liberal arts and regarded the art of rhetoric as privileged means of engaging with knowledge of any kind. Even though verse can be considered to be distinct from other kinds of writing and thus deserving of specific reflection, it is, at the same time, not so distinctive that it should be set apart from broader cultures of knowledge altogether. This thesis has strived to offer insight into how these chambers of rhetoric extended the strictly literary field and envisioned a place for themselves in broader cultures of knowledge, touching upon areas of knowledge that are of conventional interest to historians of science.

The discourse of astronomers – or rather, specialists – and that of rhetoricians has been brought closer together by focusing on the sphere as the basic modicum in early modern cosmology. During the full course of the seventeenth century, the certainty of Aristotle’s account of nature would be gradually eroded through voyages of discovery, astronomical observations and alternative natural philosophies. As of the early decades of the seventeenth century, however, there were not many Copernicans in the Dutch Republic yet; neither Calvinist nor Catholic, or of any other religious denomination for that matter. For most, the conceptual foundation of the universe’s basic structure remained the ancient amalgam of Aristotelian and Ptolemaic views. Early modern Europe experienced a proliferation of cosmological tracts, which in their intricate forms unfolded elaborate calculations and in their simplest rendered the properties of the sphere, such as the Cosmographie by Petrus Apianus and Gemma Frisius. These astronomical experts singled out, in the preface of their text book, rhetrosijnen, rhetoricians, as particularly prone to immerse themselves in the workings of the heavens. They did not further explain why that may have been the case.

---

290 Porteman and Smits-Veldt, Een Nieuw Vaderland voor de Muzen, 137
291 Van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels’ 100
292 Armstrong and Kay, Knowing Poetry, 198
293 Jorink, Reading the Book of Nature, 85
The past chapters have evaluated a set of rhetorical texts in order to gain insight into the convergence hinted at by these astronomers. These texts were selected because they had been produced by poets that moved in the same literary organizations in the first decades of early seventeenth century Amsterdam and each of these materials either incorporated or commented upon the value of celestial knowledge. Despite their temporal and spatial vicinity, the texts reveal distinct approaches to the topic of cosmology. Rodenburgh incorporated detailed and technical knowledge in his texts, borrowed from specialists in the field such as Apianus, Frisius, Metius and Saxus Fontanus. He included both verbal and pictorial teachings of the sphere in his writings and encouraged his readers to acquire knowledge of the sphere. The other rhetoricians’ texts did not encourage systematic inquiry of the heavens as explicitly. Hooft alluded to the structure of the sphere when expanding on the appeal of reason. Joost van den Vondel’s poem stated how humans were distinguished from the earth’s other creatures by their intellectual capabilities. Whereas animals were focused on the earth, humans turned their gaze upwards in order to uncover God’s design through study of their surroundings. Gerbrand Bredero also recognized the hand of God in the heavenly firmament, yet was less confident that the starry skies could truly be understood by humans. Another approach was offered by Hendrik Laurensz Spiegel, who stated that through acquiring knowledge of their own soul, humans could alleviate their corrupted condition to a significant extent. The pursuit of external knowledge could follow thereafter.

Each of the texts could be shown to place emphasis on the habituation of reason in order to obtain knowledge. Even though reason was generally considered to be an innate quality in any human, most people needed guidance in actuating those rational capacities. Chambers of rhetoric attributed themselves an important role in that process. Their pedagogical program mirrored the humanist trust in education as a means to elevate the mind, and the rhetorician’s endorsements of cosmological knowledge could be seen in light of fostering some sort of societal development: the creation of a better world by creating better humans. A basic level of knowledge of the sphere could serve as a useful component in the cycle of arts that formed functional citizens, taking on moral and philosophical significance. At the same time, rhetorical texts could also have more ‘technical’ effects. Rodenburgh’s play, for example, may very well have functioned as some sort of teaching material in spherical cosmology and led its readers to come to a better understanding of practical issues such as navigation.

The connection between chambers of rhetoric and natural philosophy may, lastly, be of interest in light of the sustained attention that scholarship of science has

294 Oosterhoff, ‘A Book, A Pen, and The Sphere’ 13
given to the formation of early modern organizations devoted to the study of both arts and sciences, such as the Italian academies.\textsuperscript{295} Organizations as these have often been singled out as institutions of consequence in the history of science.\textsuperscript{296} Less consideration has been given to chambers of rhetoric as comparable vernacular institutions. The prevalent idea seems to be that serious, formal societies concerned with the arts and sciences emerged only during the late seventeenth century, with the formation of so-called ‘konstgenootschappen’.\textsuperscript{297} That these local scholarly societies took special interest in the study of the heavenly spheres and even contributed significantly to that celestial study has been convincingly demonstrated.\textsuperscript{298} The trend of forming societies only intensified in the eighteenth century when societies as the \textit{Teylers Stichting} (Haarlem, 1778) were founded. Amsterdam also became the stage to various societies, such as \textit{Concordia et Libertate} (1748)\textsuperscript{299} or \textit{Felix Meritis} (1777), that had been modeled after the English \textit{Royal Society}.\textsuperscript{300} Striking is that these organizations generally, though not all, adopted a rather broad approach towards knowledge, concerning themselves not purely with either the literary or the natural philosophical/scientific.\textsuperscript{301} Another similarity with the chambers of rhetoric is that these later organizations were meeting places for academics and non-academics alike, just as the chambers had formed an institutional embedment of an intellectual life rather eclectic in its nature.\textsuperscript{302} This is, emphatically, not to say that chambers of rhetoric were any direct precursors for these kinds of organizations. Still, the similarities between these different forms of organizations are too significant not to be mentioned here.

Recent scholarship in the history of early modern science in England has engaged in a concerted program of boundary expansion, as Deborah Harkness has made a considerable effort to include a wider range of practitioners in what she regards as a revolutionary approach to natural knowledge in London.\textsuperscript{303} Eric Jorink has drawn attention to just how widely spread interest and fascination for observing, describing, illustrating and classifying all kinds of (natural) creatures and phenomena

\begin{footnotes}
\footnotetext{295}{Wijnand W. Mijnhardt, \textit{Tot Heil van ‘t Menschdom: Culturele Genootshappen in Nederland, 1750-1815} (Amsterdam, 1988) 9}
\footnotetext{296}{Van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels’ 99}
\footnotetext{297}{(Societies for the arts)}
\footnotetext{298}{Huibert J. Zuidervaart, \textit{Van Konstgenoten en Hemelse Fenomenen: Nederlandse Sterrenkunde in de Achtste Eeuw} (Rotterdam, 1999) 341}
\footnotetext{299}{Mijnhardt, \textit{Tot Heil van ‘t Menschdom}, 25}
\footnotetext{300}{Huibert J. Zuidervaart and Rob H. van Gent, \textit{Astronomical Practices at the Observatory of the Amsterdam Society ‘Felix Meritis’ 1786-1889} (Hilversum, 2013) 4}
\footnotetext{301}{Van Dixhoorn, \textit{Lustige Geesten}, 303}
\footnotetext{302}{Ibidem, 293}
\footnotetext{303}{Harkness, \textit{The Jewel House}, 255}
\end{footnotes}
actually was in the Dutch Republic of the sixteenth and seventeenth century. Rhetoricians such as Rodenburgh, Vondel et al. may be included in this picture in some way as well: even though their core activity was the art of rhetoric, both their valuation of and interest in natural knowledge is not one that should be entirely dismissed. Historians have, as a result of the sharp delineation between science and art, obscured the existence of a community of people practicing natural history and philosophy. Precisely the move to the study of practice has been considered transformative one in the history of science in the last decades. This has led old distinctions between words and things, between texts, books, instruments and images to be broken down. Even though manuals, poems and theater plays were different kinds of texts, they were part and parcel of a more encompassing culture of knowledge, in which ideas transited from one type of text to another.

This thesis has scrutinized, alas, only a small fraction of the prevalent literary texts that cover knowledge of the heavens. The primary concern has been with a group of rhetoricians affiliated with chambers of rhetoric in Amsterdam in the early seventeenth century. By taking their works as a case study, some insight has been offered into where ‘literary’ and ‘scientific’ discourses converged, how and why they did, and whether this could lead to important illuminations. Further research may broaden the scope of my current research, by taking stock of a greater quantity of vernacular poems that were composed in the early modern Netherlands, addressing the themes expressed in this thesis and perhaps adding a few more. Such a project could even be drawn out further, transcending national boundaries in order to come to a comparison of literary treatments of the heavens in different regions and languages, making the study of the relationship between poetry and the sphere a truly global effort.

304 Jorink, *Reading the Book of Nature*, 26
305 Van Dixhoorn, ‘Nature, Play and the Middle Dutch Knowledge Community of Brussels’ 108
306 Secord, ‘Knowledge in Transit’ 658
Bibliography

Primary sources

Apianus, Petrus and Gemma Frisius. *Cosmographie: Ofte Beschrijvinghe der Gheheelder Werelt Begrijpende de Gelegentheyt ende Bedeelinge van elck Landschap ende Contreye der Selver* (Amsterdam, 1609)

Blaeu, Jan Willemsz. *Licht der Zeevaert* (Amsterdam, 1608)

Bredero, Gerbrand. *Griane* (Amsterdam, 1616)

—— *Stommen Ridder* (Amsterdam, 1619)


Hooft, Pieter Cornelisz. *Reden vande Waerdicheit der Poesie* (Amsterdam, 1610-15)

—— *Emblemata Amatoria* (Amsterdam, 1611)


Metius, Adrianus. *Institutiones astronomicae & geographicae. Oftewel, Fondamentale ende Grondelijcke Onderwysinghe van de Sterrekonst, ende Beschryvinghe der Aerden, door het ghebruyc van de Hemelsche ende Aerdtscbe Globen* (Franeker, 1614)


—— *Eglentiers Poëtens Borstweringh* (Amsterdam, 1619)

—— *Op de Comeet Oft Ster met de Staert, Eglentiers Nieuwjaarslied ‘in Liefde Bloeyende’* (Amsterdam, 1619)

Spiegel, Hendrik Laurensz. *Ruygh-Bewerp van de Redenkaveling ofte Nederduytse Dialekteke* (Amsterdam, 1585)

—— *Hertspiegel* (1614) Fokke Veenstra (ed.) (Hilversum, 1992)

Vondel, Joost van den. *Hymnus ofte Lof-gesangh over de wijdberoemde scheepsvaert der Vereenighde Nederlanden* (Amsterdam, 1613)

—— *Der Gulden Winckel der Konstlievende Nederlanders, Gestoffeert met veel treffelijcke historische, Philosophische, Poeetische morale ende schriftuerlijcke leeringen* (Amsterdam, 1613)

—— *De Vernieuwde Gulden Winckel der Konstlievende Nederlanders: waer in den mensche door poëtische, historische en morale leeringen, vertoont wort, hoedanigh hy zijn leven, handel ende wandel, zedighlijk, eerbaerlijk en vermakelijck sal overbrengen* (Amsterdam, 1622)
Secundary literature

——Het Toneel van Theodore Rodenburgh (1574-1644) (Amsterdam, 1997)


——Too Much to Know (New Haven, 2010)


Boheemen, F.C. van and Th.C.J. van der Heijden (eds.) Retoricaal Memoriaal: Bronnen voor de Geschiedenis van de Hollandse Rederijkerskamers van de Middeleeuwen tot het Begin van de Achttiende Eeuw (Delft, 1999)


——Limits of Influence: Pico, Louvain and the Crisis of Renaissance Astrology (Leiden, 2003)

Burke, P. Towards a Social History of Early Modern Dutch (Amsterdam, 2005)
——Popular Culture in Early Modern Europe (Burlington, 2009)

Buys, De Kunst van het Weldenken: Lekenfilosofie en Volkstalig Rationalisme (1550-1600) (Amsterdam, 2009)

Calis, Piet. Vondel: Het Verhaal van Zijn Leven (Amsterdam, 2008)

Campi, Emidio. (ed.) Scholarly Knowledge: Textbooks in Early Modern Europe (Geneva, 2008)


Veranderende Natuurbeeld en de Natuurwetenschap in de Zeventiende Eeuw
(Haarlem, 1999) 21-35
Cohen, Floris. De Herschepping van de Wereld (Amsterdam, 2007)
—— How Modern Science Came into the World (Chicago, 2009)
Coigneau, Dirk. ‘Rederijkersliteratuur’ in: M. Spies (ed.) Historische Letterkunde:
Facetten van Vakbeoefening (Groningen, 1984) 35-57
—— ‘Strofische Vormen in het Rederijkerstoneel’ in: Jaarboek Koninklijke
Soevereine Hoofdkamer van Retorica “De Fonteine” (Gent, 1994) 17-44
Cook, Harold J. Matters of Exchange: Commerce, Medicine, and Science in the
Dutch Golden Age (New Haven, 2007)
Crowther, Kathleen, and Peter Barker. ‘Training the Intelligent Eye: Understanding
Illustrations in Early Modern Astronomy Texts’ in: Isis 104 (2013) 429-470
Daly, Peter M. The Emblem in Early Modern Europe: Contributions to the Theory of
the Emblem (Dorchester, 2014)
Dane, Joseph. A. What is a Book? The Study of Early Printed Books (Notre Dame,
2012)
Daston, Lorraine. ‘Taking Note(s)’ in: Isis 95 (2004) 443-448
—— and Glenn W. Most, ‘History of Science and History of Philologies’ in: Isis 106
(2015) 378-390
Dear, Peter. ‘Introduction’ in: Peter Dear (ed.) The Literary Structure of Scientific
Arguments (Philadelphia, 1991)
Dijk, Hans van. ‘Woord vooraf’ in: Hans van Dijk, Margherete Schenkeveld-Van der
Dussen and J.M.J. Sicking (eds.) In de Zevende Hemel: Opstellen voor P.E.L.
Verkuyl over Literatuur en Kosmos (Groningen, 1993) V
Dijkstra, Arjen. ‘Translating Astronomy in Dutch, Latin and Frisian. Adriaan
Metius’s Textbooks on Mathematics in the Early Seventeenth Century’ in:
Harold J. Cook and Sven Dupré (eds.) Translating Knowledge in the Early
Modern Low Countries (Berlin, 2003) 269-297
—— Between Academics and Idiots: A Cultural History of Mathematics in the Dutch
Province of Friesland (1600-1700) (Enschede, 2012)
Dixhoorn, Arjan van. ‘Writing Poetry as Intellectual Training’ in: Koen Goudriaan,
Jaap van Moolenbroek and Ad Tervoort (eds.) Education and Learning in the
Netherlands 1400-1600, Essays in Honour of Hilde de Ridder-Symoens (Leiden,
2004) 201-222
—— ‘Liefhebbers van de Redekunst: De Vlaardingse Rederijkerswedstrijd van 1616
en de Principes van het Hollandse Rederijkersleven’ in: Bart Ramakers (ed.) Op
de Hollandse Parnas: De Vlaardingse Rederijkerswedstrijd van 1616 (Zwolle,
2006) 11-29
—— ‘Chambers of Rhetoric: Performative Culture and Literary Socialibilty in the
Early Modern Netherlands’ in: Arjan van Dixhoorn and Susie Speakman Sutch
(eds.) The Reach of the Republic of Letters: Literary and Learned Societies in
Late Medieval and Early Modern Europe (Leiden, 2008) 119-158
Lustige Geesten: Rederijkers in de Noordelijke Nederlanden (1480-1650) (Amsterdam, 2009)


‘Nature, Play and the Middle Dutch Knowledge Community of Brussels in the late Fifteenth and Early Sixteenth Centuries’ in: Bettina Noak (ed.) Wissentransfer und Auctoritas in der frühneuzeitlichen niederländischsprachige Literatur (Berlin, 2014) 99-121


Dixon, Rebecca. ‘Conclusion’ in: Rebecca Dixon and Finn E. Sinclair (eds.) Poetry, Knowledge and Community in Late Medieval France (Cambridge, 2008)

Dowley, Francis H. ‘The Iconography of Poussin’s Painting Representing Diana and Endymion’ in: Journal of the Warburg and Courtauld Studies 36 (1973) 305-318

Duits, H. Van Bartholomeusnacht tot Bataafse Opstand: Studies over de Relatie tussen Politiek en Toneel in het midden van de Zeventiende Eeuw (Hilversum, 1990)

Eisenstein, Elizabeth. The Printing Revolution in Early Modern Europe (Cambridge, 1993)


Gelderblom, Oscar. Zuid-Nederlandse Kooplieden en de Opkomst van de Amsterdamse Stapelmarkt (1578-1630) (Hilversum, 2000)


Gingerich, Owen. ‘Sacrobosco Illustrated’ in: John David North, Lodi W. Nauta and Arie Johan Vanderjagt (eds.) Between Demonstration and Imagination: Essays in the History of Science and Philosophy (Leiden, 1999) 211-224
Ginzburg, Carlo. ‘High and Low: The Theme of Forbidden Knowledge in the Sixteenth and Seventeenth Centuries’ in: Past and Present 73 (1976) 28-41
——and Lisa Jardine, From Humanism to the Humanities (Cambridge, 1986)
Herk, Anke van. Fabels van Liefde: Het Mythologisch-Amoreuze Toneel van de Rederijkers (1475-1621) (Amsterdam, 2012)
Houston, R.A. Literacy in Early Modern Europe: Culture and Education 1500-1800 (New York, 1998)
Jansen, Jeroen. P.C. Hooft: Rede over de Waardigheid van de Poëzie (Amersfoort, 2005)
Jorink, Eric. ‘‘Hemelse Tekenen: Nederlandse Opvattingen over de Komeet van 1618’’ in: Gewina 17 (1994) 68-81
——Reading the Book of Nature in the Dutch Golden Age, 1575-1715 (Leiden, 2010)
Keblusek, Marika and Badeloch Vera Noldus (eds.) Double Agents: Cultural and Political Brokerage in Early Modern Europe (Leiden, 2011)


Knuttel, J.A.N. *Bredero: Poët en Amsterdamer* (Amsterdam, 1968)


Kristeller, Paul Oskar. *The Philosophy of Marsilio Ficino* (New York, 1943)

Kruyskamp, C. *G.A. Bredero’s Stommen Ridder* (Culemborg, 1973)


Lewis, C.S. *The Discarded Image: An Introduction to Medieval and Renaissance Literature* (Cambridge, 1964)


Mahnke, Dietrich. *Unendliche Sphäre und Allmittelpunkt: Beiträge zur Genealogie der Mathematischen Mystik* (Saale, 1937)

Marcel, Samuel. *Voor Vorst en Stad: Rederijkersliteratuur en Vorstenfeest in Vlaanderen en Brabant (1432-1561)* (Amsterdam, 2010)


———Religie, Tolerantie en Wetenschap in de Vroegmoderne Tijd* (Utrecht, 2008)


Oosterhoff, Richard. ‘A Book, a Pen, and the Sphere: Reading Sacrobosco in the Renaissance’ in: History of the Universities, to be published
Pantin, Isabelle. La Poésie du Ciel en France dans la Seconde Moitié du Seizième Siècle (Geneva, 1995)
——Het Gevleugelde Woord (Amsterdam, 2007)
Porteman, Karel. Inleiding tot de Nederlandse Emblemataliteratuur (Groningen, 1977)
——and Mieke Smits-Veldt. Een Nieuw Vaderland voor de Muzen 1560-1700 (Amsterdam, 2008)
Röttel, Karl (ed.) Peter Apian: Astronomie, Kosmographie und Mathematik am Beginn der Neuzeit (Buxheim, 1997)
Salman, Jeroen. Populair Drukwerk in de Gouden Eeuw: De Almanak als Lectuur en Handelswaar (Zutphen, 2009)
Schama, Simon. The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age (New York, 1988)
—— Het Nederlandse Renaissanceetoneel (Utrecht, 1991)
Spies, M. ‘‘Op de Questye...’’: Over de Structuur van 16e-eeuwse Zinnespelen’ in: De Nieuwe Taalgids 83 (1990) 139-150
—— Rhetoric, Rhetoricians, and Poets: Studies in Renaissance Poetry and Poetics (Amsterdam, 1999)
Thorndike, Lynn. A History of Magic VI (New York, 1923)
Tricht, H.W. van. Het Leven van P.C. Hooft (Arnhem, 1951)
Usher, Peter D. Shakespeare and Saturn: Accounting for Appearances (New York, 2015)


Verkuyl, P.E.L. ‘Sterren-konst-licht bij Huygens-lectuur’ in: De Nieuwe Taalgids 58 (1965) 234-242
—— ‘Huygens’ Sterre en ‘t Hooghste Licht’ in: De Nieuwe Taalgids 60 (1967) 26-42
—— ‘Sphaera-leermiddelen en Literatuur’ in: De Nieuwe Taalgids 78 (1985) 483-498


Witstein, Sonja Fortunette. Bronnen en Bewerkingswijze van de Ontleende Gedeelten in Rodenburghs Eglentiers Poëtens Borstweringh (1619) (Amsterdam, 1964)
—— ‘Het Erotisch-ethische Referentiekader in Bredero’s Stommen Ridder, en de Betekenis daarvan voor het Handelingsverloop van dit Spel’ in: De Nieuwe Taalgids 67 (1994) 439-448

Zuidervaart, Huibert J. Van Konstgenoten en Hemelse Fenomenen: Nederlandse Sterrenkunde in de Achtsteende Eeuw (Rotterdam, 1999)
Appendix

This appendix encompasses the various literary passages referred to in the text, and their English renditions. All translations are my own. I have aimed for the most literal version of these texts, even though that due to that decision most of the rhyme has been lost in translation.

Rodenburgh’s Keyser Otto (2.2)

Heer zoot u zo ghelieft laet ons voort erste hand’len
Van d’ hemelen di eelve zijn in hun ghetal
Gh’lijck ick uyt dees figuer / mijn heer / beduyden zal
In d’eersten hemel heert alleenelijck de mane
Merceur de tweeden / en de derden Venus name
De Zonne in de vierden / Mars de vijfden heeft
En inde zesten zigh God Jupiter begeeft
Saturnus inde zevenst’ hemel is gheseten
D’aghst is voort firmament der starren / en planeten
Den christalynen hemel men de neghende agh
De thienden hemel ist diet eerst’ bewegingh braght
De elfden is de zeet van d’ oppersten beheerder
Diet al en alle stuurt zo boven als hier neder
Doch nopend d’elfden / thienden / ende negenst / heer/
Die stel ick inde God geleerdens oordel eer

Lord, as you please, let us now first speak
Of the heavens that are eleven in their number
As I from this figure / my lord / shall indicate
In the first heaven governs the moon alone
Mercury the second / and the third Venus’ name
The sun in the fourth / Mars has the fifth
And God Jupiter enters in the sixth
Saturn in the seventh heaven is seated
The eighth is the firmament of stars and planets
The crystalline heaven is considered to be the ninth
The tenth heaven is the one that first brings motion
The eleventh heaven is the see of the supreme ruler
That governs all up high as down low
But the eleventh / tenth / and ninth / lord /
Those I leave to theologians’ judgments

Aenmerckt wel op mijn reen / de hemels gloob bestaet
Een hol-lighaems-rondt / door wiens herts middel gaat
Een lini gh’lijck een asch / waert alles op moet drayen
En d’uytwertaerts eynden in twee polen hun verschayen
Op welcken asch de hemel stuurt zijn loopinghs vaert
Dits 's hemels gloob ghenaemt / 't midpunt is de aerdt
d'Asch eynden polen twee beduyden
De opperst streckt naet noorden d’ander naar het zuyden

According to my reason / the heavenly globe exists
A hollow round body / through whose heart persists
A line as an axis / on which everything must turn
And from whose outwards ends two poles churn
On which axis the heaven steers course of its pace
This is called heaven’s globe / the middle is the earth
The axis’ ends (consist of two poles
The upper stretches to the north, the other south

Zijn ommeloop geschiet / en die ghetellet waren
’t Jaer voor driehonderd daghen / boven ses mael thien
En vijf. Saturnijs hemels omloop moet geschiens
En dertigh jaren net. En Jupiters omringhen
In twaelf Mars in twee. De zon zijn loop moet dwingen
In thienmael dertigh dagen boven sestigh vijf
En strickt gherekent / noch omtrent ses uuren stijf
Mercur en Venus beyde gh’lijck de zon hun stuuren
De maen in zev’nen twintigh daghen en agh t uuren

His turn happens / and it was counted
The year for three hundred days / and six times ten
And five. Saturn’s celestial turn has to happen
in thirty years. And Jupiter’s surrounding
in twelve, Mars in two. Sun has to follow its course
in ten times thirty days and sixty five
And strictly calculated / around six hours sharp
Mercury and Venus both steer equal to the sun
The moon in seven twenty days and eight hours

De groote cirk’len zijn gherekent zes in al
De twee colluuren, horizon, equinoctial
Zodiac, meridiaen. Nu zijnder noch vier kleenen /
Tropijcken twee / en oock twee polen ons verschenen
De horizon verdeelt den hemel diemen ziet
Van ‘t anderdeel waer ons ghezight kan strecken niet /
Als wy op’t vlacke veldt bezightende bequame
Rond’om men waendt de aerd’ en hemel zluyt te zamen

The big circles can be counted six in all
The two colures, horizon, equinoctial
Zodiac, meridian. Now there are four small ones
Tropics two / and also two poles appear to us
The horizon divides the sky that one sees
From the other part where our vision does not reach
As we are only qualified to see the flat field
Around, the earth and heaven collide

De zodiack is twaelef graden breedt ghemeten
En dient alleenlijck voor de plaatsingh der planeten /
Dus ydere planet zijn maente oock beheert
Ghelijck ons by de oude wysen werdt gheleert
De eerste zes zijn vooghden van het koude noorden /
En d’and’ren heeren over zuydelijcke oorden.
Int midden van de zodiack d’eclipsis lijn bestaet/
Van welckten lijn de zonnens center nimmer gaet
En gh’rakende de zon / en mane alle beyden
Ond’r een semediameter dat doet verscheeyden
Het zonne light van ons / mits Pheeb dan eclipseert
Mits dat de maen de zonnens held’re light weer keert/
Waer uyt men duydl’lijk ziet grondigh werd bevonnen
Dat dan de maen is tuschen d’aerde en de sonne

The zodiac is twelve degrees in width
And only serves for the position of the planets
So every planet governs his moon
As was taught to us by the old wise men
The first six are tutors of the cold north
And the others govern the southern regions
In the middle of the zodiac exists the eclipse’s line
From which the sun’s center never waivers
And touching the sun / and moon both
Under one semedia meter that separates
The sunlight from us / if Phebus has an eclipse
If the sun’s clear light returns back to the moon
From which man clearly sees and can deduce
That the moon is between the earth and the sun

Meridiaen dry hoeckigh loopt door d’horizon
En is de circkel waer de zon zijn loop op von /
En steets zijn vlught en gangh daer onder moet bevesten
Verdeelende de gloob g’hlijk matigh oost en weste
Meridiaen staet vast zo langh wy noordwaerts gaen
Maer gaende oost of west verkeert meridiaen

The meridian triangularly crosses the horizon
And is the circle on which his course found the sun
And where it always has to come and go
Dividing the globe equally east and west
The meridian stays fixed as long as we go north
But going east or west, the meridian turns

De equinoctial meridiaen door znijdt
En even wyde tuschen yder polen leydt /
Verdelende de gloob mid-matigh van malkander /
Het eene aen het zuyden / en nae t’noorden t’ander
En als de zon int kruys-punt zyne plaetse brenght
Zo is de nacht en dagh / by ons hier / van een length

The equinoctial cuts through the meridian
And equally wide leads through the poles
Dividing the globe in the middle
The one to the south, and to the north the other
And when the sun reaches the crossing point
So are night and day / for us / from one length

De twee coluuren twee meridianen zijn /
En znijden in twee deelen de eclipse lijn /
Door Aries en Libra d’eerste deelen komen
En daerom equinoctiael coluur die noemen,
In Cancer, d’ander en in Capricorn verzaemt
En is daerom coluur solsticial ghenaemt
Dees twee verdeelen in vier deelen all de jaeren /
De lenten / zomer /herfst / en de winter nare
Aries, Taurus, Gemini de lent beheert
Cancer, Leo, Virgo de somer-tijt vereert
En Libra, Scorpius, Sagittar d herrefst houden /
En Capricorn, Aquaer, Pisces de winters koude
Camillo dits de grondt / hier mede ist ghedaen

The two colures are two meridians /
And cut the line of the eclipse into two parts /
Through Aries and Libra comes the first part
And that is why we call it the equinoctial colure
The other comes in Cancer and Capricorn
And therefore this colure is called solsticial
These two divide in four parts all the years /
The spring / summer / autumn / and winter
Aries, Taurus, Gemini rule the spring
Cancer, Leo, Virgo honor the summertime
And Libra, Scorpius and Sagittar keep autumn
And Capricorn, Aquaer, Pisces do the winter
Camillo this is the base / with this it is done

Voor dees tijt ist ghenoech / laet by my uw figuur /
Der hemelen / ick vind wel een bequaume uur /
Om oeffenen het gheen Theophelos my zeyden.

For this time it’s enough / leave with me your image.
Of the heavens / I shall well find a suitable hour
To practice the things that Theophilus has told me.

‘Theophilus ik heb uw zegghen wel verstaen’
‘t Geheugen moet er zijn / want daer ist in gelegen’
‘Ick zal uw zegghen wel doort daeghelysce plegen
vast printen int begrijp’ ‘Neemt met u desen bol /
In beeldt dat u ziet in het midden van den hol
Het aerdrijk en den hemel daer rond inne zweven /
G’hlijck ick u heb gezeydt / dit zal u vaerdich geven /
De kennis van de gloob’

‘Theophilus I have well understood what you said’
‘The memory has to be there, on that it depends’
‘I will by daily practice fix what you said in my understanding’
‘Take with you this convex /
Imagine that in the midst of it you see /
The earth and the heaven floating within /
Just as I told you / this will skillfully give /
The knowledge of the globe’

‘Theopheles mijn leven / ick leereloos versleet /
maer nu graeglijck lust na wetenschap /
en d’yver nimmer in my rust’

Theopheles my life / I spent without learning
But now I crave for science
And the zeal in me never rests

‘Theophelos tis zo ick bid u niet een woordt /
Mijn heer vermaenen wilt dat ick by u kom leeren /
‘Waerom? Ick weet zijn herte alle kunsten eeren /
Het leeren lofbaer is / ‘t niet weeten achtment schant /
Wat isser nuutbaer als de oeffning vant verstant?’

Theophelos I beg you if you will not say a word /
To my master that I am learning with you’ /
‘Why? I know that his heart honors all arts /
Learning is laudable / not knowing a disgrace /
What is more useful than the practice of the mind?

Rodenburgh’s *Op de Comeet* (3.1)

Leergierigert, wy zien / door redelijck opmercken /
De Goddelijcke macht in alle zijne wercken /
Hoe hy de menschen na zyn beelt geschapen heeft /
Oock aen die scheps’len een weet gierig gheluste gheeft
Om te betrachten na verburghentheyts secreten /
Doch niet dat zy ‘t gheheyym rechtgrondich kunnen weten
Vermits het stijght te boven ‘t menschelijck vernuft /
Zo dat de weetgier vaeck in ‘t onderzoek versuft
We see / by reasonable observation
God’s might in all his works
How he has created humans as his image
Also given to these creatures an inquisitive lust
To try to hidden secrets
Not that they can really know the secret
Because that transcends human intellect
And so it is that the wise often rests in research

Want Gods almachtigheyt het all’ te boven gaet
Vermits het alles in zijn heyl’ghe heersching staet
Ja sterren / zon / noch mane niet bewegen konnen
‘t Zy de al-bewegher die bewegingh wil vergonnen
Godt wesende de eerst die hun beweging gaf /
Kan na zijn wil hun die beweging nemen af

Because God’s might goes above all
For everything is in his divine control
Yes stars / sun / nor moon cannot move
Unless the all-mover wants to endow that motion
God was the first that gave them motion
And can also take this motion away

De eerst’ eclips die wy by ons hier zullen zien /
Zal op den zes-en-twintichst junii geschien
T’een uren inde nacht / daer nevens werdt bevonnen
Dat inde drakes staert dan wezen zal de zone
Heur helder licht zal dan verdwijnen gantsch en al
Vermits dat heur ghedaent bruyn-doncker wezen zal
Ghemengt met roodt / groen heur plaetze dan zal wezen
In’t acht-en-twintichst’ graet van Capricorn

The first eclipse that we will see here /
Will happen on the twenty-sixth of June /
At one hour in the night / and also we shall find
That in the dragon’s tail there will be the sun
Her bright light will then disappear whole and complete
Her appearance will be brown-dark
Mixed with red / and green: here place then will be
In the twenty-eighth degree of Capricorn

Hoe menich hebben dees ghestaerte ster ghezien /
Jae uyt nieuwsgierheyt zy na ‘t beooghen vlien /
Doch zonder hets-beweegh / maer wel verschrick voor d’oogen
Ick vrees de ster zeer weynich herten heeft ghetoghent
Nae hoogher inzich / vande waerschuw die zy doet /
Nocht datmen inwaerts ziet op ‘t gheestelijck ghemoedt
Doch ‘t mach zijn dat ick dool / de herten zijn verholen /
En ick in ‘t oordeel rijp / doch God gun dat ick dole / En dat het hemels-tekens d’herten heeft beweeght / En hun gemoedt vande passyen gheleeht
Ja blinde yver waer zy teugheloos in dwaelen
Op dat een yeder zie zijn zinnelose faelen
Men redeneert meest tijdts wat ster het wese mach:
Mijns oordeels is ‘t ghenoegh datmen de sterre zach

How many have seen this start with the tail
Yes, out of curiosity for the mentioned flight
Yet without moving of the heart / but fear in the eyes
I fear that the star has reached very few hearts
To reach higher understanding of the warning she unfolds
Neither that men looks inwards to the own mind
But I could be wrong / the hearts are hidden
And I grow to the judgment / but God that I wander
And that the heavenly sign does move the hearts
And empties their minds of the passions
Yes, blind zeal in which they roam without reins
So that everyone can see his unreasonable failing
Men often reasons of what kind of star it may have been
According to me it is enough that it has been seen

Zijn hemels teken dreuyght / maer zijn ghenade wis
Noch vaerdigher and milder als zijn straffingh is
O borne aller goedheyt, heylvliet aller vlieten
Laet ons vereende landen uw genae genieten
Op dat de herten t’zaem vereenen / en de twist
Door reckelijck toegheven gantschelijck zy gheflist

His heavenly sign threatens / but his mercy surely
Faster and milder than his punishment is
Oh source of all what’s good, stream of all streams
Let our united lands enjoy your mercy
So that the hearts join together and the quarrel
By good giving of all is ended

Hooft’s Emblemata Amatoria (3.2)

Die sy bezeten vant met onghemeten Goon
Saturnus met zijn star in ‘t hoochst; die haer gheboon,
Stockoudt, noch volghen moest en Phillyra gaen vryen.
Daer aen Juppijn berucht met soo veel snoeperyen,
Als meenichvouwde vondt wel van hem wordt vertelt,
Nu swan, nu starcke stier, nu weer becoorlijck geldt.
Daer nae den strengen Mars, dien zy zijn croese sinnen,
In’t branden van den strijdt, en dulle lust van ‘t winnen,
In’t jaghen van ‘t ghescheurt en overrompelt heyr,
Also te ontlaten weet, dat toom en gladde speyr
Door’t walen van zijn moed, hem uyt zijn handen druypen,
Als zy hem gheeft een wenck om tot haer in te sluypen.
En daer nae Phoebus schoon, die dickwijl heeft gesmaeckt
Haer lieffelijcke cracht; die, in zijn hart gheraeckt
Heeft uyt den Hemel hooch ter aerden moeten dalen,
En’t hulsel conincklijck van zyne gouden stralen
Verworpen, om een staf van een Olyven tack
Te grypen in zijn handt, en cleen een harders pack.
Den cluchtighen Mercur zijn soeten val in’t praten,
Noch schallickheyt doortrapt en hadden moghen baten,
Doe zy met Herses min ontstelde zynen gheest;
Hy had al mede van dat evel sieck gheweest.
De slaperighe Maen haer waterighe sinnen
Ontgingen daerom niet den heeten
brandt van minnen;
Wanneer zy’s middernachts te dalen neder plach,
En custe’Endimion daer hy in slape lach.

That she found inhabited by numerous Gods
Saturn in the highest sphere, that ordered her,
Elder, to follow and make love to Phillyra
Then Jupiter infamous for his affairs
As many of his tricks are told
Now swan, now bull, now desired money
There to the strict Mars, with his wild character
The heat of the fight, and enraged lust of victory,
Chasing the broken and assailed army
Lets go of his bridle and smooth spear
By the bending of his courage, drip from his hands,
When she summons him to approach her
And to Phoebus’ beauty, that has often enjoyed
Her lovely power; that, touched in his heart
From the heavens high descend to the earth
And the royal garb of his golden rays
Discarded, in order for an olive branch
Firmly in his hand and in a shepherds’ cloak
The bright Mercury and neither his eloquent talk
nor his roguishness could have helped
When she with Herses unsettled his mind
He had already from that ailment been unwell
The sleepy moon her watery nature
Did not escape the hot fire of passion
When she in midnight’s used to descend deep
And kissed Endimion while he was lying asleep.
Vondel’s *Den Gulden Winckel* (3.3)

Aenschouwer, off het u een dwaesheyt docht verwytel
Dat ’t redelijcke Dier onaerdich met den tijtel
Van Kleyne-Weerelt wert gheciert en afghemaelt,
Ick bids u op dit beeld eens met u aenzicht straelt:
Den Mensch, den kleenen mensch toont u in korter stonde,
Kleen zijnde, t’heel begrijp van ‘s weerelds groote ronde.
God heeft den grooten AL door’t eewigh woort gheteelt,
Hy is den Schepper oock van dit zoet-apigh beeld:
Zee, Hemelen, en Aerd’ bestaen in vier hoofd-stoffen,
Soo doet dit schepsel oock, is dat niet juyst ghetroffen?
Zijn gramschap is het vuyr, zijn roode bloed de locht,
Zijn vochtighhe natuur, het water cout en vocht,
En zijn zwaeremoeligheyt is d’aerde droef en duyster.
Heeft t’ Koninghlijck Palleys des weerelds vol van luyster,
Oost, Westen, Zuyd en Noord, voor open poorte
T’is even eens ghestelt met dit twee-vootigh Dier,
Zijn rechter is het Oost, zijn slincker hand het Weste,
Zijn hoofd het Zuyden, en zijn voeten t’ Noords gheweste.
De groote Wereld heeft twee wackere ooghen staen
In’t hooff, d’eene is de Zon, en d’ander is de Maen,
De kleyne van ghelijck, twee glinsterende kolen
In zijnen Hemel draeght, om s’daeghs, noch s’nachts te dolen:
Iae niets en is het groot ghetimmer meed gedeelt,
Dat niet in’t aenzicht van het kleyne boussel speelt.
Den grooten Globus rol,
Van Lenten, Zomer, Herbst, en Winter met zijn vlaghen,
Den kleynen van gelijck zijn kintsheyd wederom,
Zijn Ieughd, zijn Manheyd heeft, en zijnen Ouderdom.
Kort om, den grooten AL heeft zijn begin, en ende,
Want soo de Wereld is, zoo zijn de Menschen oock,
Behalven dat den Mensch zal worden nieus herboren,
En uyt den grave opstaen, als alles is verloren.

*Spectator, if you reprove as nonsense*
That the reasonable animal is unjustly with the title
Of ’small world’ decorated and portrayed
I ask you to rest on this image your gaze
The human, the small human, shows in short time
Being small, a complete constellation of the world
God has created the universe by the eternal word
And too is the creator of this lovely image
Sea, heavens and earth exist in four matters
So too, does this creature, is that not grand?
His anger is the fire, his red blood the air,
His moist nature, the water cold and damp
His melancholy is the earth, wistful and dark
Has the royal palace the world full of luster
East, west, south and north for four open gates
The same things go for this biped creature
His right the east, the linker the west,
His head the south, his feet the northern
The big world has two vivid eyes
In its head, one is the sun and the other the moon
The small counterpart carries two glimmering pieces coal in his heaven, so he never has to wander
Yes, nothing has been endowed in the big building
That is not represented in the small
The big globe turns and is carried forward
From spring, summer, autumn and winter
The small counterpart, his childhood again
A youth, his manhood and his elderly state
Shortly, the big all has its beginning and its end
The small one comes in pain, separates in sorrow
And so, both of them disappear like smoke
Because as the world is, so are humans, too
Except that man shall be born again
And rise from the grave, when all has been lost

**Bredero’s Stommen Ridder (3.4)**

Wel waarde lieve Nicht, u stichtich lieff'lijck zinghen
Dat treckt mijn harte tot veel leerelijcke dinghen
Die ick wel eer voor kints onwaardich heb gheacht,
Die voel ick zijn verzien met Goddelijcke kracht,
En heymelijckheyt verweent van eyghen heylieckhen,
Die ons van trap tot trap ten hooghen Hemel leyden,
Wie’t maar aandachtich na met wijsen yver speurt,
En het bekroosen hooft maar vander aarden beurt,
Aanschout de blonde Son, de Maan met al haar starren,
Ghy zult in ’t wonderwerck als grondelooos verwarren,
Hoe beurtswijs elcker dinghs op tijdt en mate went,
En ommeloopt het padt van zijn besteecken ent.
De dinghen zijn zoo hooch, onmogh’lijck te noemen
Met menschelijcke mont: aanschout de schoone Bloemen,
Voor-beelden vanden mensch, hoe lustich datse staan,
Hoe onseecker, hoe kort zy weer ter aarden gaan
Een yverighe ziel in ernst opgeheven
Sal naa dit rechtsnoer hem tot alle deughd’ begheven

Beloved, sweet cousin, your edifying, lovely singing
Draws my heart to many things of learning
That I earlier have considered to be childish
But feel are endowed with Godly power
And secretly lustered with their own holiness
That lead us step by step to the highest heaven
Whoever examines it attentively with wise fervor
And lifts up the besmirched head from the earth
Look at the blond Sun, the Moon with all her stars
You will in the miracle work as reasonless,
How in turn each thing moves on time and pace
And carries on its in advance stipulated course
The things are so high, impossible to name
With the human mouth: see the beautiful flowers,
Examples of the human, how blithely they stand
How uncertain, how soon they return back to earth
A hard-working soul uplifted in earnest
Shall on this guidance reach all virtue

Spiegel’s Hertspiegel (3.5)

Melpomen, verse 57-64

T’min vreemt: maer ongewoon dat noemt men wondereekenen,
Zij koonen hemel-gangh thien hemels hoogh nareekenen:
Door wat sterr’ vreed, of krijgh hier eijndight, of begint
Weet, die in slechter zaak is nesch, en mollich blint:
Zegt: ijmant kan een kracht begrijpen zijner zinnen,
Dit vrucht-loos uijtzien wijst u weetzucht billik binnen
Te zoeken hemel-heijl in dijner zielen grondt,
Daar aarts-weetgerichtheijt met woeker loont erstont;
Als uijtwaarts weet-zucht baart maar entlijk bitter schennis

Less unusual, but uncommon that one calls signs of wonder
they can calculate the course of heavens ten spheres high
Through which star peace, or war, ends here or begins
know, that in a simpler case is foolish or as a mole, blind
Says: someone can understand a power of his mind
This fruitless looking outwards draws your curiosity in
Seeking heavenly prosperity in the base of his soul
There earthly knowledge rewards greatly forthwith
As knowledge sought outwards only causes disgrace

Terpsichore, verse 46-54

Wie kan des werelds-standt, en s’hemels loops omwelven
vermoeden oon bestuijr? Dees schikkingh kunst gewis
tuijght van zijn schepper u; doch geenszins wat hi is.
Zoo is ook eigens ziels gedaant onondervinlijk
Voor u; maer datzer is, is ijer licht verzinlijk:
Een letter-moer verstrekt's, of een kleinj werelt-boek
Ja t’nutste werelt-les krijghts’ uijt zelfs onderzoek:
door zellef-kunds verzuijm sneeft ellik in verkeertheijt
maar zellef-kennis voert tott waare God-geleertheijt

Who can suspect the state of the world and the heaven’s course
without command? This art of ordering
shows you his creator; yet by no means what he is
So too is the form of the own soul unknowable
for you; but that she is there can easily be imagined
A letter matrix, or a book of the small world
The most useful lesson of the world one gets from study of the self
By neglecting the study of the self, everyone deteriorates
But self-knowledge leads to true wisdom of God

Terpsichore, verse 89-98

Wie Godt liefd die lief macht, verstandicheijt, en goetheijt,
daar toe geeft hij u macht, en neijging eerst tott vroetheijt:
Weet, en heijl-geerich beij zoo is de mensch geaart:
maar wetenschap wat heijl, of on-heijlj zij verklaart
Om heijl-geericheijts-boett weet-geerich ghij geneghen
zijt; die tocht tott gequel dijt warer niet en teghen
het schepsel-boek daar weet-zucht door mocht zijn geblust:
U onvernoeghde weet-zucht dient aars tott onrust:
Dies drongh Goods goetheijt hem dit middel te beschikken
dat vajlich, en gereet u neijging mocht verquikken.

Who loves God, loves power, sensibility and goodness
To that end he gives you power, and an inclination towards seeking
Knowledge, and that is the nature of the human:
But science, explains what is prosper or misfortune
To satisfy the desire for prosper, you are inclined to knowledge
That desire for knowledge leads to torment
Craving for knowledge can be satisfied through the book of creatures
Your unsatisfied curiosity leads to unrest on earth
That is what made God’s goodness offer you this means
That safely and readily refreshes your inclination
Illustrations

Figure 1: Apianus’ *Cosmographie* (Amsterdam, 1609)

Figure 2: Rodenburgh’s *Keyser Otto* (Amsterdam, 1616-17)