Early Modern Universities: Networks of Higher Learning

Anja-Silvia Goeing, Glyn Parry, and Mordechai Feingold, editors

Table of Contents

Peter Davidson and Jane Stevenson

Part IV: Cooperative Interregional Markets, Travel, and Trade: Print Culture and Book Culture

16. The Messengers of the Nations of the University of Paris and the Book Trade (Late Fifteenth and Sixteenth Centuries)

Martina Hacke

17. The Cooperation between Professors and Printers in Basel and Zurich during the Early Modern Period

Urs B. Leu

18. Typologies and Pharmaceutical Markets: The Reception of Pseudo-Mesue's *Schriftencorpus* in Print

Iolanda Ventura

19. Traveling Salesmen or Scholarly Travelers? Early Modern Botanists on the Move Marketing Their Knowledge of Nature

Alette Fleischer

20. "Abroad Colleges," Print Culture, and Book Collections: The Irish Colleges, Paris, 1676–1794

Liam Chambers

Index

Editors' Preface

This book contains twenty essays by expert scholars of higher learning in the early modern period. Together they discuss topics that historians of universities have largely ignored: notably the extensive collaboration, and occasional conflicts, between university scholars, instructors, and administrators on the one hand, and students at academies, independent and dependent colleges, gymnasia, and Latin schools on the other. The contributions also cover a wide geographical range, covering universities, schools, academies, and the history of the book, in many European states, and Latin America.

The breadth of the project reflects the collaborative work conducted in a series of workshops supported by the British Academy and the Leverhulme Trust, and we wish to thank all participants for their contributions, especially those whose work does not form part of this book: John Brewer (Caltech and Harvard), Andrea Carlino (Geneva), Matthew Eddy (Durham), Anthony Grafton (Princeton), Howard Hotson (Oxford), Jan Loop (Kent), Hilary Peraton (Cambridge), Richard Serjeantson (Cambridge), and Simone Testa (Florence). A project website and blog for further collaborative research at https://projects.iq.harvard.edu/universities is intended to broaden the questions raised by this book, to discuss a wider range of case studies, to review recent literature on the topic, and to publish translations of relevant primary sources that are often inaccessible.

Preparing the chapters for publication, we wish to thank two anonymous referees for their important feedback, our copy editor Felice Whittum, and our indexer xxx for their invaluable work.

List of Images, Diagrams, and Tables

Contributors

Laurence Brockliss is emeritus professor in early-modern French history at the University of Oxford and emeritus fellow of Magdalen College, Oxford. His books include *French Higher Education in the Seventeenth and Eighteenth Centuries: A Cultural History* (1987); (with Colin Jones), *The Medical World of Early-Modern France* (1997); *Calvet's Web: Enlightenment and the Republic of Letters in Eighteenth-Century France* (2002); and *The University of Oxford: A History (*2016*).* He is a Fellow of the British Academy.

Dr Liam Chambers is senior lecturer and head of the Department of History at Mary Immaculate College, Limerick, Ireland. He is a joint editor of Irish Historical Studies and a member of the Irish Manuscripts commission. His research focuses on eighteenth-century Irish history and the history of Irish migration to continental Europe (especially France) in the early-modern period. Recent publications include College communities abroad: education, migration and Catholicism in early modern Europe (Manchester University Press, 2018) and Forming Catholic communities: Irish, Scots and English college networks in Europe, 1568–1918 (Leiden: Brill, 2018), both edited with Professor Thomas O'Connor.

Karine Crousaz teaches early modern history and paleography at the University of Lausanne. She is the author of *Érasme et le pouvoir de l'imprimerie* (Lausanne : Antipodes, 2005) and of *L'Académie de Lausanne entre humanisme et Réforme, ca. 1537-1560* (Leiden : Brill, 2012). Her main fields of research are : Renaissance Humanism, Protestant Reformation, the early modern printing-press, the history of education and, more recently, the history of sleep.

Peter Davidson is Senior Research Fellow of Campion Hall, University of Oxford, and

Fellow-Curator of the Hall's art collection. He is general editor for the Oxford University Press Complete Works of St Robert Southwell, which will appear in five volumes. His most recent work, with Dr Kate Bennett, is *Aubrey's Villa* an edition of Bodleian MS Aubrey 17, which was published by the Old School Press in 2018.

Mordechai Feingold (California Institute of Technology) is the Kate Van Nuys Page Professor of the History of Science and the Humanities. He is an intellectual and institutional historian of science, from the Renaissance to the eighteenth century. His research focuses on how the rise of modern science has transformed Western culture from a humanistic, religious, and unified culture during the sixteenth century into a scientific, technological, secular, and fragmented one by the nineteenth century. Feingold has authored four monographs, including *Isaac Newton and the Origin of Civilization* (Princeton University Press, 2013), written with Jed Buchwald; *The Newtonian Moment: Isaac Newton and the Making of Modern Culture* (Oxford University Press, 2004); and *The Mathematicians' Apprenticeship: Science, Universities and Society in England, 1560–1640* (Cambridge University Press, 1984). He has edited eight volumes on the history of science and related subjects and written dozens of articles.

Alette Fleischer has a MA degree in Art History and obtained in 2010 a PhD degree in the History of Science and Technology at the University of Twente. Her dissertation *Rooted in fertile soil: Seventeenth-century Dutch gardens and the hybrid history of material and knowledge production,* focused on how gardening gave rise to early modern science and technology. Since then, she works as an independent scholar earning a living as a freelance museum guide. Alette continues to publish articles related to gardening and the production and consumption of botanical knowledge and inventions in seventeenth century Netherlands.

Willem Frijhoff (*1942) studied philosophy and theology in the Netherlands, and history and social sciences in Paris. His obtained his PhD at Tilburg University (1981) and was awarded with an honorary doctorate (history of education) at the University of Mons-Hainaut in 1998. In 1983-1997 he held the chair of the history of mentalities of pre-industrial societies at Erasmus University Rotterdam, and in 1997-2007 of early modern history at the Vrije Universiteit Amsterdam. In 2003-2014 he chaired the Dutch national research program 'Cultural Dynamics' (NWO) and holds at present the Verhagen chair in Cultural History at Erasmus University.

Anja-Silvia Goeing is Professor of the History of Education at the University of Zurich in Switzerland and Associate in History at Harvard University. She also serves as a program coordinator for Book History, Early Modern History, Early Modern World and Information History at Harvard University. She is a specialist of the history of education in early modern Europe. Her recent books include *Storing, Archiving, Organizing: The Changing Dynamics of Scholarly Information Management in Post-Reformation Zurich* (Brill, 2017) and, co-edited with Ann Blair, Paul Duguid and Anthony Grafton, *Information: A Historical Companion* (Princeton University Press, 2021).

Martina Hacke conducts research on the history of the University of Paris in the 15th century and the history of communication by messengers and envoys. Her dissertation is about the "Messengers of the Nations of the University of Paris".

Michael Hunter is Emeritus Professor of History at Birkbeck, University of London, and a Fellow of the British Academy. He is the principal editor of Robert Boyle's *Works* (1999-2000), *Correspondence* (2001) and workdiaries (revised edn., 2004), and author of

the prize-winning *Boyle: Between God and Science* (2009). His numerous other books and articles deal with the early Royal Society and its milieu, and with the issue of intellectual change in the period; he is particularly concerned with the role of 'atheism' in this connection. His most recent book is *The Decline of Magic: Britain in the Enlightenment* (2020).

Urs B. Leu (*1961), Dr. phil., was born in Zurich. He studied History, Church History, Medieval Latin and Classics at the Universities of Zurich, Frankfurt a. M. and Heidelberg. He is the Head of the Rare Book Department of the Zentralbibliothek Zürich, teaches Book History and published widely on Book- and Church History as well as the History of Science. In 2010 he received a fellowship at Princeton University Library and in 2016 he coordinated the celebrations of the 500th anniversary of the Swiss polymath Conrad Gessner.

David Lines is Professor of Renaissance Philosophy and Intellectual History at the University of Warwick and directs its Centre for the Study of the Renaissance. He is the author of *Aristotle's* Ethics *in the Italian Renaissance (ca. 1300–1650): The Universities and the Problem of Moral Education* (Leiden: Brill, 2002) and is completing a monograph on the teaching of Arts and Medicine in the University of Bologna (*c.* 1400–1750) as well as an edition of relevant documents. He was a Fellow at Villa I Tatti in Florence and at Bologna's Institute for Advanced Studies.

Ian Maclean, MA, DPhil, FBA, FRHistS, Officier, Ordre des Arts et des Lettres, Member of the Academia Europaea, is emeritus fellow of All Souls College, Oxford, emeritus professor of Renaissance Studies at the University of Oxford, and honorary professor at the University of St

Andrews. He is the author of many publications on the history of the book and the history of philosophy, medicine and law in the Renaissance. His recent books include *Scholarship, Commerce, Religion: the Learned Book in the Age of Confessions, 1560-1630* (Harvard University Press, 2012) and *Learning and the Marketplace: Essays in the History of the Early Modern Book* (Brill, 2009).

Thomas O'Connor holds his PhD from the Sorbonne and is professor in history at the National University of Ireland, Maynooth, where he is director of Arts and Humanities Institute. He is editor of *Archivium Hibernicum*, a member of the Irish Manuscripts Commission and sits on the *Fondation irlandaise*, Paris.

Glyn Parry (University of Roehampton) is Professor of Early Modern History and a Fellow of the Royal Historical Society. He has recently published *The Arch-Conjuror of England: John Dee* with Yale University Press in 2012, and *Shakespeare Before Shakespeare: Stratford, Warwickshire and the Elizabethan State* (Oxford University Press, 2020). Amongst other projects he is currently writing a full-length study of the Elizabethan mathematician Thomas Digges.

Yarí Pérez Marín is Assistant Professor in the School of Modern Languages and Cultures at Durham University. She is the author of *Marvels of Medicine: Literature and Scientific Enquiry in Early Colonial Spanish America* (Liverpool UP, 2020). Her research has been supported by awards from the Mellon Foundation, the Social Science Research Council, the Woodrow Wilson National Fellowship Foundation, and she has been a fellow-in-residence at the John Carter Brown Library in Providence, RI.

Elizabeth Sandis (Institute of English Studies, School of Advanced Study, University of London, UK) is a theatre historian specialising in Neo-Latin dramatic traditions of the early modern period. Trained as a Classicist, she moved into English studies to complete a doctorate at Merton College, Oxford, on the place of student drama in the culture of English university life, before taking up a Leverhulme Early Career Fellowship at The Shakespeare Institute, University of Birmingham. Her monograph, Growing up Dramatically at Oxford and Cambridge: University Men and their Plays in Early Modern England, currently under review with Oxford University Press, is the first study of university drama to cover the Tudor and Stuart periods.

Andreas Sohn (University Sorbonne Paris Nord) is Professor of Medieval History. He was Deputy Director and Director of the "Centre de Recherches sur les Espaces, les Sociétés et les Cultures" (2002-2014) and Deputy Director of the Research Center "Pléiade. Centre de recherche pluridiscplinaire. Lettres, Langues, Sciences humaines et des Sociétés" (2012-2018). His researches and publications spanning several historical periods chiefly concern the history of the papacy and the religious orders, culture and universities, especially those of Paris and Rome. In addition, he works on the life and work of scholars in the 19th and 20th centuries, on historiography and Memoria of Europe.

Jane Stevenson is a Senior Research Fellow at Campion Hall, University of Oxford. She was previously Regius Professof of Humanity, University of Aberdeen. She is the author of *Women Latin Poets* (Oxford University Press, 2005) and co-authored *Early Modern Women Poets* (Oxford University Press, 2001), She has published numerous articles on educated women in early modern Europe, and she is currently working on a biography of Federico da Montefeltro.

Iolanda Ventura is Associate Professor at the Department of Classical Philology and Italian Studies, University of Bologna. She is interested in the history of late medieval and early modern scientific and medical culture, the history of pharmacology and pharmacy, and the transmission of scientific knowledge via encyclopedic collections. Her many articles and books include her recent work *Galenic Pharmacology in the Middle Ages: Galen's* De simplicium medicamentorum temperamentis et facultatibus *and its Reception between 500 and 1490*, in *Brill Companion to the Reception of Galen*, ed. Petros Bouras-Vallianatos e Barbara Zipser, Leiden – Boston, Brill, 2019, p. 393-433, and *On the Impact of Arabic Pharmacological Knowledge in Europe: The Example of Ps.-Serapion's* Liber aggregatus de simplicibus medicinis, in *Micrologus XXVIII: The Transmission of Islamic Sciences in the Western World*, 2019, p. 227-281. She is currently preparing a critical edition of the Salernitan pharmacological collection *Circa instans*.

Benjamin Wardhaugh is a historian and author based in Oxford, UK, and a former fellow of All Souls College. His interests range across the history of mathematics and the ways mathematics has been part of cultures. He is the author of The Book of Wonders, tracing the history of Euclid's Elements from antiquity to the present day, and co-editor of Reading Mathematics in Early-Modern Europe, a collection of studies on mathematical books and reading practices.

Introduction

Anja-Silvia Goeing, Glyn Parry, and Mordechai Feingold

Previous discussions of the early modern republic of letters by intellectual historians have tended to use a narrow definition of that republic that excluded institutions of higher education. Informed by recent historiographical discussions that have broadened our interpretation of the "Republic of Letters," this volume uses a framework which enables it to discuss wider developments in the history of knowledge and science.[1] Adapting a formulation used by the forthcoming Princeton University Press *Information: A Historical Companion*, we use "Republic of Letters" heuristically as a very broad category, "an international and self-described network of early modern scholars, philosophers, and thinkers who communicated with one another via letters and personal contact."[2] Our early modern Republic of Letters formed part of an intellectual world of connected scholarship, created by learned individuals. Most of its male writers were products of their contemporary higher education system. While they were born into differing social strata, they shared a common approach to argument and writing, which followed classical models, and many of

[1] The usage and concept of the word is manifold, and therefore fuzzy, but we rely on Marc Fumaroli's recent collection of essays attempting the visualization of a broad field of interconnected intellectuals from Petrarch to Voltaire, reacting to and working with and against each other particularly via letters. (Marc Fumaroli, *Republic of Letters*, Margellos World Republic of Letters (New Haven: Yale University Press, 2018.) This world of intellectuals comprises scholars, but is neither limited to them nor to scholarly subjects: In Marc Fumaroli's metaphorical republic, nonacademics such as women, merchants, and others were fully integrated. The German translation "Gelehrtenrepublik," which emphasizes "scholardom" more than the flow of information, is a slightly different concept that we don't use in this volume.

[2] This formulation is adapted from Ann Blair, Paul Duguid, Anja-Silvia Goeing, and Anthony Grafton, eds., *Information: A Historical Companion* (Princeton: Princeton University Press, 2021, forthcoming), Glossary.

them wrote in Latin. We believe that their higher education was a necessary preparation which enabled them to develop new understandings and connections in the sciences. We therefore aim to integrate our discussion of higher education institutions into that broader republic of connected scholarship.

The fundamental conclusion of our research is that institutions of higher education should not be understood as statutory hierarchies created by top-down policies, rules, and regulations, but as networks of policy makers embedded in complex scholarly and scientific developments. Our approach therefore develops theories about historical institutions derived from recent advances inhistorical social science and political science, in order to incorporate institutions of higher education into the web that formed the Republic of Letters.[3] The latter is more often than not individualized, by focusing on a micro-level exchanges between letter writers, a process in which historians trace, measure and discriminate between the relationships connecting individuals. Thus

---

[3] For more on historical institutionalism and its connections with network theory see: Chris Ansell, "Network Institutionalism," *The Oxford Handbook of Political Institutions*, ed. Sarah A. Binder, R. A. W. Rhodes, and Bert A. Rockman, Oxford Handbooks Online (Oxford: Oxford University Press, 2018), 75-89; Karen Barkey, *Empire of Difference: The Ottomans in Comparative Perspective* (Cambridge: Cambridge University Press, 2008; Kindle edition); Karen Barkey, "Historical Sociology," *The Oxford Handbook of Analytical Sociology*, ed. Peter Bearman and Peter Hedström, Oxford Handbooks Online. (Oxford: Oxford University Press, 2018), 712–33; George Gavrilis, "The Greek-Ottoman Boundary as Institution, Locality, and Process, 1832–1882," *American Behavioral Scientist* 51, no. 10 (2008): 1516–37; Roger V. Gould, "Uses of Network Tools in Comparative Historical Research," *Comparative Historical Analysis in the Social Sciences*, ed. James Mahoney and Dietrich Rueschemeyer (Cambridge: Cambridge University Press, 1st ed. 2003; Kindle edition, 2009), 241–69; John F. Padgett and Christopher K. Ansell, "Robust Action and the Rise of the Medici, 1400–1434," *American Journal of Sociology* 98, no. 6 (1993): 1259–1319; Paul Pierson, "The Path to European Integration: A Historical Institutionalist Analysis," *Comparative Political Studies*, 29, no. 2 (1996): 123–63; Kathleen Thelen, *How Institutions Evolve: The Political Economy of Skills in Germany, Britain, the United States, and Japan* (Cambridge: Cambridge University Press, 2004.), about Germany, 39–91.

many examples of this detailed research into ego-networks centre on one scholar, such as Stanford University's "Mapping the Republic of Letters", or ego networks connected to other relationship webs, such as Six Degrees of Francis Bacon at Carnegie Mellon University.[4] Because so many early modern scholars expressed themselves through diverse forms, and not just through personal correspondance, we need to incorporate these different sorts of communication into any wide ranging network analysis. We focus more on the institutions that housed and educated those scholars, and which might have influenced how those networks were formed, an approach which to date has been included in network research. A previous attempt at empirical study of late Renaissance academies in the context of the Republic of Letters emphasized the ability of academies to provide a forum for face-to-face intellectual meetings, events and disputes (in addition to similar interactions through letters) was published in the 2008 two-volume collection *The Reach of the Republic of Letters*, edited by Arjan Dixhoorn and Susie Speakman-Sutch.[5] Its authors concentrated on the emergence, character, and history of the institutions, examining the concept of academies in the late medieval and early modern period. They acknowledged that further research was needed into how the nature of those institutions determined, enabled or limited

[4] Projects, often online visualizations, include: Harvard University, Visualizing Social Networks: https://histecon.fas.harvard.edu/visualizing (accessed 4 Apr. 2020); Oxford University, Cultures of Knowledge: Networking the Republic of Letters, 1550–1750: http://www.culturesofknowledge.org/ (accessed 4 Apr. 2020); Stanford University, Mapping the Republic of Letters: http://republicofletters.stanford.edu/ (accessed 4 Apr. 2020); Carnegie Mellon University, Six Degrees of Francis Bacon: http://www.sixdegreesoffrancisbacon.com (accessed 4 Apr. 2020); Dutch academic consortium: Circulation of Knowledge and Learned Practices in the 17th-Century Dutch Republic: http://ckcc.huygens.knaw.nl/ (accessed 4 Apr. 2020); for more information see John Brewer, "Networks," in Blair et al., *Information: A Historical Companion*.

[5] Arjan Dixhoorn and Susie Speakman Sutch, eds., *The Reach of the Republic of Letters: Literary and Learned Societies in Late Medieval and Early Modern Europe*, Brill's Studies in Intellectual History (Leiden: Brill, 2008).

different types of networks. We hope that by placing institutions of higher education within contemporary networks, we can helpfully reintroduce them into the network or web focus of recent research don the Republic of Letters, especially because regional networks of individuals were extremely important in local developments of knowledge. Exploration of the networks that institutions enabled or limited is fertile ground for further research.

What were institutions of higher education and how did they connect with one another? Lectoria, universities, and academies had different characteristics, but those differences in fact enabled them to connect with each other. Case studies in this volume show how early modern universities were closely related to many other institutions of higher learning. Those connections developed in specific settings, in educational landscapes formed by scholarly and textual mobility within a market that obeyed its own rules and regulations, but which also operated within local and regional political spheres as well as across territorial borders. Older historical accounts often connected curricula, teaching and studies, through institutional politics, to state politics, assuming a top-down imposition of rules. The interconnected premodern scholarly world created knowledge and scholarship through a complex interaction of institutions and actors, political and social environments.

Studies of academic networking have come to present the Republic of Letters as the sole matrix for scholarly communications, focusing on epistolary exchanges between individual scholars.[6] Daniel Stolzenberg has recently criticized this narrow focus, restating the case for the book, and for print culture more generally, as a primary source of scholarly communication. Reducing epistolary exchange to a secondary networking role enables a more differentiated

[6] Longstanding collaborative research projects are Cultures of Knowledge: Networking the Republic of Letters at Oxford University (http://www.culturesofknowledge.org/) and Stanford University's Mapping the Republic of Letters (http://republicofletters.stanford.edu/), both working with intellectuals' letters to map out the reach of the Republic of Letters.

discussion of the range of interests that connected, as well as profoundly separated, early modern scholars.[7] Our book broadens the conception of the Republic of Letters still further, to include the circulation of manuscripts, personal encounters, and institutions such as internally regulated corporations and charities, as well as their political entanglements.[8] Secondary literature has not yet considered relations between early modern institutions, especially their political interactions, as networks, because the intellectual agents, or "nodes," within an institutional network have yet to be defined.[9] We, on the other hand, use the heuristic approach that these nodes were not simply free-standing individuals, nor simply corporate institutions, but individuals who, while pursuing their own interests, were often acting as members of a legal corporation, bound by corporate rules and contributing to corporate benefits.[10]

The premodern scholarly world was composed of multiple layers of networks. However, in contrast to today's social science approaches to actor-network theory (ANT), but in line with network theory at the beginning of the Internet age, we distinguish between these networks both by the nature of their nodes, for example networks of institutions, of teachers and students, of authors and their material suppliers, and by the information they transmit: when the content of messages is

---

[7] Daniel Stolzenberg, "A Spanner and His Works: Books, Letters, and Scholarly Communication Networks in Early Modern Europe," *For the Sake of Learning: Essays in Honor of Anthony Grafton*, ed. Ann Blair and Anja-Silvia Goeing, Vol. 18 of *Scientific and Learned Cultures and Their Institutions* (Leiden: Brill, 2016), 157–72, at 158.

[8] Cf. Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology* 91, no. 3 (1985): 481–510.

[9] Stolzenberg, "A Spanner and his Works," 158, for a definition of the term "node" in the context of intellectual networks.

[10] Compare Claire Moore Dickerson, "Corporations as Cities: Targeting the Nodes in Overlapping Networks," *Journal of Corporation Law* 29, no. 3 (2004): 533–67.

multiplied by its transmission, while authors play a mere secondary role.[11] We also contend that bridges between these layers played a vital role in developing a connected world: administrators, who were themselves teachers, often connected institutional networks with networks of teachers; suppliers of candles or paper may have connected networks of authors or teachers with market networks.[12] For example, August Hermann Francke, who in 1695 founded in Halle the Franckeschen Stiftungen, an orphanage and school, brought together the two networks to which he belonged: aristocratic collectors of curiosities, and humble teachers. He used the former to gather collectible items for his orphanage, which teachers then used to teach the children.[13] This is one of the many examples in this book that demonstrate the intricate and multifaceted history of networks in higher learning. Several of the chapters therefore consider interactions between individual scholars and educational institutions, in the context of different religious,

---

[11] Compare on ANT: Mike Michael, *Actor-Network Theory: Trials, Trails, and Translations* (Los Angeles: Sage, 2017, Kindle edition). For approaches to historical network theory, see Joanna Innes, "'Networks' in British History," *East Asian Journal of British History* 5 (2016): 51–72. She favors our conservative approach to network theory in historical research: while social science abstract model theory can be adapted to many situations, historians' archival research distinguishes specific cases, actors, and situations to compare relations between objects, among persons, and between institutions in specific historical contexts.

[12] Compare Dickerson, "Corporations as Cities." Cf. Bennett Gilbert, "Chandling the Scholar," Blogpost at https://networks.h-net.org/node/6873/blog/premodern-universities/1871241/chandling-scholar, accessed 6 Aug. 2018.

[13] On the Francke Curiosity cabinet: Thomas Müller-Bahlke: *Die Wunderkammer der Franckeschen Stiftungen* (Halle: Verlag der Franckeschen Stiftungen, 2012). For its integration into teaching at the Franckeschen Stiftungen, see Kelly Whitmer, *The Halle Orphanage as Scientific Community: Observation, Eclecticism, and Pietism in the Early Enlightenment* (Chicago: University of Chicago Press, 2015; and Anja-Silvia Goeing, "Érudits, voyageurs et hommes d'Église: La portée du cabinet de curiosités des Fondations Francke piétistes à Halle," in Dominique Moncond'hui, ed., *La licorne et le bézoard: Une histoire des cabinets de curiosités d'hier à aujourd'hui*, catalog of the exhibition "La Licorne et le Bézoard"at Poitiers, 18 Oct. 2013–16 Mar. 2014 (Montreuil: Gourcuff Gradenigo, 2013), 223–28.

political, and market conditions, as well as administrative practices.

The book also explores the cultural entanglements of learned institutions, and how institutional matrices advanced early modern learning and scholarship by emphasizing four areas: the relationships between institutions and local or regional politics; issues of locality and mobility within educational landscapes; the circulation of manuscript and printed academic writing; and the cooperative interregional contexts, such as the book trade or pharmaceutical markets, within which the institutions operated. The chapters range across various institutions of higher education, from gymnasia to academies, because we intend to broaden and deepen the concept of the Republic of Letters, and to connect the field of university history with the history of other organizations that supported and regulated teaching and learning.[14] We do not attempt to describe long-term developments, but to examine specific case studies, illustrating how the relationships between institutions and their environments worked, and to establish a platform for further research into diachronic change.

---

[14] On the many differences between gymnasia, academies, and universities, see Anton Schindling, *Humanistische Hochschule und freie Reichsstadt: Gymnasium und Akademie in Strassburg, 1538–1621*, Veröffentlichungen des Instituts für Europäische Geschichte Mainz, Bd. 77 (Wiesbaden: Steiner, 1977); Karine Crousaz, *L'Académie de Lausanne entre humanisme et réforme (ca. 1537–1560)*, Education and Society in the Middle Ages and Renaissance, v. 41 (Leiden: Brill, 2012); Simone Testa, *Italian Academies and Their Networks, 1525–1700: From Local to Global*, Italian and Italian American studies (Houndmills, Basingstoke, Hampshire: Palgrave Macmillan, 2015). On contemporary confusion over titles see David A. Lines, "Reorganizing the Curriculum," in *History of Universities*, ed. Mordechai Feingold (Oxford: Oxford University Press, 2012), 1–59, and Anja-Silvia Goeing, *Storing, Archiving, Organizing: The Changing Dynamics of Scholarly Information Management in Post-Reformation Zurich*, Library of the Written Word—The Handpress World, 56. (Leiden: Brill, 2017), 59n.20, 71.

The Varieties of Institutions

The internal structures of institutions influence their connections to broader contexts, and how their members create and exchange information. Some of the newly created universities and academies in Free and Imperial Cities of the Holy Roman Empire, for example, like those within the Old Swiss Confederation, resembled a guild system, whereby the older generation of highly qualified academics managed their younger colleagues through a university or school senate, or a board. Older institutions, such as the university of Heidelberg, founded in 1386, employed a two-fold system, consisting of colleges where students lived and were tutored, and the university body, which resembled an open monastery, with the rector its chief arbiter.[15] One striking difference between the old and new models is that while the newer academy or university was indirectly connected to city governments, the privileged older university was often an exempt, self-governing body.[16] However, even ancient universities could be brought under state or civic control. The eminent university of Padua enjoyed the same privileges as the more ancient Bologna, but in 1463 the Venetian state, which governed Padua, mandated that lawyers practicing anywhere in the Venetian

---

[15] Compare in general: Stefan Fisch, *Geschichte der europäischen Universität: Von Bologna nach Bologna* (Munich: Beck, 2015, Kindle edition), location 140; on Heidelberg, Aleksander Gieysztor, "Management and Resources," in Hilde de Ridder-Symoens, ed., *A History of the University in Europe*, vol. 1, *Universities in the Middle Ages* (Cambridge: Cambridge University Press, 1992), 108–43, at 116. A lucid survey of the complexity and diversity of privileged medieval universities is Michael H. Shank, "Schools and Universities in Medieval Latin Science," in *The Cambridge History of Science*, vol. 2, *Medieval Science*, ed. David Lindberg and Michael Shank (Cambridge: Cambridge University Press, 2013), 207–39.

[16] See for example Lukas Ruprecht Herberg, *Die akademische Gerichtsbarkeit der Universität Heidelberg: Rechtsprechung, Statuten und Gerichtsorganisation von der Gründung der Universität 1386 bis zum Ende der eigenständigen Gerichtsbarkeit 1867* (Heidelberg: Universitätsbibliothek, 2018).

territories must graduate from Padua.[17] This required Venetian students to remain in Venetian territory for their legal studies, and enabled the state to control the body of law that would be applied in its territories.[18] More profoundly, it established Venice's political control over the university.

From the early medieval period, universities privileged by popes or emperors as "universitas magistrorum et scolarium" constituted only one type of higher learning institution.[19] Cathedral schools with an extended study program, or theological seminaries that served a monastic order, had different, often earlier, origins than universities.[20] They were often later integrated into a university college system, starting with the university of Paris, but some remained

---

[17] Paul F. Grendler, *The Universities of the Italian Renaissance* (Baltimore: Johns Hopkins University Press, 2002), 28. For developments in Venetian university policy until the Enlightenment see Piero del Negro, "Venetian Policy toward the University of Padua and Scientific Progress during the Eighteenth Century," in *Universities and Science in the Early Modern Period*, ed. Mordechai Feingold and V. Navarro Brotòns (Dordrecht: Springer, 2006), 169–81. For a synthesis on the relations of early modern privileged universities with authority, see Notker Hammerstein, "Relations with Authority," in *Universities in Early Modern Europe (1500-1800)*, vol. 2 of *A History of the University in Europe*: , ed. Hilde de Ridder-Symoens (Cambridge: Cambridge University Press, 1996), 114–53.

[18] For more information about the law studies applied in the Venice territories, see Filippo de Vivo's study on Venice lawyers' communications, *Information and Communication in Venice: Rethinking Early Modern Politics* (Oxford: Oxford University Press, 2007).

[19] Olga Weijers, *Terminologie des Universités au XIIIe Siècle*, Lessico Intellettuale Europeo XXXIX, (Rome 1987), S. 15–45.

[20] Shank, "Schools and Universities," 207–12, with further literature. For still fundamental work on the origins of the Franciscan network of seminaries see Hilarin Felder, *Geschichte der Wissenschaftlichen Studien im Franziskanerorden bis um die Mitte des 18. Jahrhunderts* (Freiburg im Breisgau: Herder, 1904). A new approach to the Franciscan network of learned colleges is in Bert Roest, *Franciscan Learning, Preaching and Mission, c.1220–1650: Cum Scientia Sit Donum Dei, Armatura ad Defendendam Sanctam Fidem Catholicam...* (Leiden: Brill, 2014): 51–81 (on the thirteenth to fourteenth centuries) and 132–97 (1450 to 1650).

independent, as did those in London and Bristol.[21] In both models, the Franciscans established separate seminaries to serve regional groups of their monasteries by teaching selected monks the most important tenets of the faith.[22] These educated monks then taught their brethren and laics in their monastery.

Durham college at the university of Oxford followed yet another pattern: In 1381 Bishop Hatfield of Durham established a college for Durham's Benedictine monks that was integrated into Oxford's teaching cycle.[23] Subsequent bishops of Durham supported the college. Each year monks from Durham, with four to six lay students from the diocese, arrived both to study and to transcribe the most important manuscripts for their monastery, including the writings of Thomas of Aquinas, the most prestigious member of their Order. They copied a very large number of texts until this annual process was eventually interrupted between 1536 and 1541, when Henry VIII dissolved the monastery of Durham and turned the buildings of Durham College Oxford into Trinity College, to serve the Church of England.

The Political Entanglement of Institutions

[21] Cf. Andreas Sohn, Jacques Verger, and Claire Angotti, *Die regulierten Kollegien im Europa des Mittelalters und der Renaissance/Les collèges réguliers en Europe au Moyen Âge et à la Renaissance*, Aufbrüche, Bd. 4 (Bochum: Verlag Dr. Dieter Winkler, 2012).

[22] Felder, *Geschichte der Wissenschaftlichen Studien*, 311.

[23] Jeremy I. Catto, "Theology and Theologians, 1220–1320," *The Early Oxford Schools*, ed. J. I. Catto, vol. 1 of *The History of the University of Oxford*, ed. Th. H. Aston (Oxford: Clarendon Press, 1984), 471–518. Richard Berry Dobson, *Durham Priory* (Cambridge: Cambridge University Press, 1973), 343–59.

The first part of the book ("Institutions and Politics are Entangled") assesses the impact of local, regional, and national political and religious contexts on the choice of subjects taught at schools or universities, and their intended goals. The authors discuss both educational institutions that served as authoritative centers for networks, and those situated at the periphery, sometimes supporting multiple affiliated centers. Both universities and schools might constitute the center of radial connections joining subordinate bodies, such as colleges, or intellectually dependent affiliate institutions serving religious orders. They might support government and church administration or scientific societies. Even if relatively independent, a condition which is usually claimed for universities, they might still be subjected to outside political pressure, which could persuade scholars to abandon them for different institutions. Thus, Andreas Sohn shows how the fifteenth-century university of Paris emerged as a major center of European networks of professors and students. The creation of numerous colleges at the university mirrored the international academic world of this period. Using the example of the University of Bologna, the most important Italian university of the time, David Lines examines how such an institution influenced many other local institutions of higher learning, including the *studia* of the Dominicans, Franciscans, and Augustinian Hermits, a Jesuit college, and such academies as the Accademia dei Gelati and the Instituto delle Scienze. In her chapter, Anja-Silvia Goeing investigates how higher education in sixteenth-century Zurich operated within the city-state's government. Professors at the reformed Zurich *lectorium* enjoyed considerable freedom in devising and administering their educational curriculum, aided by the city council. Although the Zurich city councilors possessed wide authority in theory, they limited its exercise over the *lectorium*, preferring an accompanying and witnessing role. This interplay of powers differed from institutions of higher education created in the main parts of the contemporary Holy Roman Empire, which came under more overt political control.

In his chapter about the Academia Naturae Curiosorum (later the Leopoldina), created

in 1652 and now regarded as Germany's equivalent of the Royal Society, Ian Maclean discusses both the means employed to enhance the Academy's international profile, and to secure imperial patronage. He shows that these initiatives created tensions which eventually led to the resignation of one of its most active members, Georg Wolfgang Wedel of the University of Jena. Glyn Parry demonstrates how criticism of the standard university dialectical curriculum in Elizabethan England—published by a privately-educated proponent of mathematical education—could both reflect and exacerbate wider political, personal, and religious contests at Court, in the Church, and in the wider state, because that dialectical curriculum was considered the essential foundation of political discourse in all three spheres. Disputes over the definition of legitimate knowledge, its development and distribution, occurred in specific cultural, political, and social contexts, and were played out in in various forums, including on the stage.

Locality and Mobility: Institutions, the Migration of Scholars, and Scholarships

The essays in the second section of the book reveal the changing educational landscapes in which institutions developed and across which scholars migrated. Mapping educational landscapes and investigating the links between institutions draws attention to the formation of interinstitutional groups. These essays reveal how student and teacher mobility played a crucial role in creating and maintaining links between groups, whether gendered, or identified with specific religious beliefs. In contrast to the well-known male institutions, women in domestic academies, in private homes, and also at courts created a hitherto hidden educational landscape. Discussing the humanities, printing, alchemy, and astrology, Jane Stevenson shows that women took part in many forms of cultural production outside formal educational institutions. Yarí Pérez Marín emphasizes the importance of including spaces outside and around the university

when assessing the first half-century of higher learning in Latin America. Her first example is a rapidly circulating medical book, which was critiqued by a New World writer almost immediately after its publication in Madrid in 1587. She then examines the role of religious colleges founded for Nahua nobles, and later for creole elites, and how the educational experience in those spaces affected newly founded universities in Santo Domingo and New Spain. Willem Frijhoff describes how in the confederate Dutch Republic Protestant, Jewish, and Catholic communities in the many provinces followed their own cultural and religious policy and created separate institutions for teaching and research. These institutions gave some leeway to dissenters. Other territories, such as Switzerland, more actively exploited the possibilities of sister institutions and strategic student mobility. As Karine Crousaz reveals, the Reformation fundamentally changed the educational landscape in sixteenth-century Switzerland, and the newly created academies of higher learning encouraged student mobility as a key method of fostering the education of youth. Institutes also migrated. Thomas O'Connor argues that Catholic Ireland became a leader in early modern education because Irish Catholics developed a network of domestic grammar schools, which fed newly established colleges—first in the Netherlands, Portugal, and Spain, and then in France, the Italian peninsula, and the Holy Roman Empire. These Continental networks served their originating community not only by returning priests for the Irish church, but also by acting as gateways to permanent migration. However, as Laurence Brockliss points out by comparing Oxford and Dublin with the University of Paris, due account must be given to location when assessing the role of Europe's universities, schools, and academies in intellectual exchange. By the eighteenth century, letter exchanges between scholars usually followed personal encounters in large cities at the commercial heart of the continent, such as Paris, not in small provincial market towns, like Oxford, or even large ones on the periphery, like Dublin.

Communication, Collaboration, and the Circulation of Academic Knowledge

Our third section investigates how teaching materials and other academic writings circulated, and reflects the strength of recent British scholarship in this area, evident in major publications such as *The Cambridge History of the Book in Britain*, which have emphasized the noninstitutional circulation of letters, manuscripts, and books. Elizabeth Sandis's essay on forms of entertainment such as writing and staging plays shows that theatrical entertainments were closely linked to university rituals: both were used to cement alliances between institutions, while expressing at the same time the institution's sense of self and its reputation as a center for education.

Benjamin Wardhaugh's chapter on annotated editions of Euclid's *Elements* between the fifteenth and seventeenth centuries reveals how diagrams and tables shed light on the evolution and internalization of abstractions and visualizations. By scrutinizing student and teacher marginalia in Euclidean textbooks, he shows how early modern mathematical textbooks were used. Not all circulation of knowledge supported intellectual networks; in the charged religious atmosphere of the period, the absorption of radical ideas from printed and other sources could induce intellectual isolation. Michael Hunter's chapter discusses Archibald Pitcairne, a former professor of medicine at Leiden, who moved in advanced intellectual circles in Edinburgh in the early eighteenth century. It reveals not only Pitcairne's strong interest in Isaac Newton's ideas, but also his development of an extreme rationalism that enabled him to articulate a fully atheistic viewpoint in his *Pitcairneana*. The essay reflects on his contexts, not least his academic context, arguing that few Scottish contemporaries were as radical as Pitcairne. Finally, Peter Davidson and Jane Stevenson study the international material network by discussing what the early modern donations to and acquisitions of books, manuscripts, and images by the University of Aberdeen

reveal about the multiple international networks to which the university belonged.

Cooperative Interregional Worlds: Production, Markets, Travel and Trade

Academics and institutions were also enmeshed in local and interregional markets. Our fourth section scrutinizes the economic and social systems that generated the contexts for developments in the academic world. The profession most closely related to academic study was the book trade. Martina Hacke examines booksellers who traveled to fairs where they displayed and sold samples, and distributed their catalogs. She shows that Parisian booksellers fulfilled an important double function, not only in selling books, but in carrying messages between Parisian university intellectuals and their provincial correspondents, thus providing a crucial network for information exchange between individuals and institutions. The book trade specialized in response to market demand, as shown in Urs Leu's chapter comparing book production in early modern Basel and Zurich. Basel's printers specialized in scholarly works, while Zurich concentrated on religious and textbook production. Iolanda Ventura discusses the reception of Pseudo-Mesues's corpus of writings between the fifteenth and seventeenth centuries, including a book about the theoretical principle of pharmacology (the *Canones universales*), a collection of purgative medicines (the *De consolation simplicium medicinarum*), and two antidotaries (the *Antidotarium sive Grabadin* and the *Practica sive Grabadin*). Her discussion of the creation and purpose of paratextual instruments, such as indexes, scholia, prefaces, and illustrations in several editions of the works, and Mesues's reception in collections of recipes written by physicians, enables her to examine the link between the academic milieu and a wider public.

The collection of rare objects, minerals, botanical samples, and other exotica, to fill a

"cabinet of curiosities" was not restricted to private libraries but was also popular in universities and colleges. Alette Fleischer uses a rare comparative case from the second half of the seventeenth century to show how university scholars applied particular methods, and followed different motives from non-scholars, when acquiring curiosities. When two purchasers, a traveling salesman and a university scholar, sought the same collectible items, the salesman clearly had different reasons from the academic for the value he put on the specimens. The last chapter extends the debate about circulated material to the storage systems in libraries. Liam Chambers analyzes the list of more than two thousand books listed at the Irish College in Paris drawn up by by French Revolutionary officials in 1794. He argues that this *ancien régime* library reveals an intellectually informed and engaged Irish community on the eve of the Revolution, very different from the intellectual conservatism imagined by contemporary commentators like the Parisian dramatist and writer Louis-Sébastien Mercier.

Conclusion

Covering a wide array of topics, from the regulated colleges at the late medieval University of Paris to the Irish Catholic expatriate libraries in Enlightenment France, and navigating religious, scientific, and intellectual landscapes, the essays in this volume highlight the importance of institutions and contexts in explaining developments in higher education. While they acknowledge the importance of power relationships, they aim to bring to the foreground the particular negotiations conducted by individuals within or between institutional networks. They discuss the different ways in which negotiations between individuals and networks shaped and informed identities and value systems, and thus science and culture.

The contributors see the division of the case studies in this volume into four areas as the

heuristic framework for a database which can be used to make further comparisons with other examples from early modern higher education, considered in its many political, social, religious and cultural contexts.