



The 2016 Josephine Waters Bennett Lecture: Humanism and Printing in the Work of Conrad Gessner

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Humanism and Printing in the Work of Conrad Gessner

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I discuss how printing affected the practice of scholarship by examining the working methods of Conrad Gessner (1516–65), a prolific humanist, bibliographer, and natural historian. Gessner supplemented his revenue as city physician in Zurich through his publishing activities. He hailed printing, along with libraries to preserve the books, as crucial to the successful transmission of learning to the distant future. Gessner also used printing as a kind of social media: to reach readers rapidly all over Europe, in order to solicit contributions to his research projects underway, to advertise forthcoming books, and to develop his own thinking through multiple iterations.

INTRODUCTION

Given the strong competition for anniversary attention in 2016 (including Shakespeare, Cervantes, and Erasmus's edition of the New Testament), Conrad Gessner no doubt seems a lesser light by comparison.¹ His works are generally not available in translation or in print today, but thanks to the digitization projects of e-rara and the Bayerische Staatsbibliothek almost all of his sixteenth-century imprints are now readily accessible.² My argument for Gessner's significance is that he offers us a valuable window into the motivations and working methods of a late humanist scholar, because they are uniquely visible in Gessner's case thanks to his volubility about them, on the one hand, and to the scale of his publishing activity, on the other.

Gessner is best known today for his massive illustrated natural histories and his pioneering works of universal bibliography and associated topical index. But these most famous of his works represent only a fraction of his total output. Gessner applied his skills in gathering, assessing, and organizing information to a wide range of other topics, such as milk and cheese making, the diversity of languages, the baths of Switzerland, and the gardens of Germany. In just twenty-five years Gessner published a steady stream of Latin books, in which he described his role variously as translator, compiler, editor, or author. He published at an average rate of more than two books per year, with seven books appearing in his *annus mirabilis* in 1555 (fig. 1).³ Not surprisingly, given his training and employment as city physician in Zurich, Gessner published many explicitly medical works, from collections of remedies or diagnoses to a handbook on surgery and advice on keeping good health. Less well known are Gessner's humanist activities, which extended beyond discussions of the ancient terms for animals, plants, and minerals in his natural histories, and bibliographies of ancient authors in his *Bibliotheca*. Gessner published at least eight editions of Greek texts, among them editiones principes for Aelian's natural history (1559) and the meditations of Marcus Aurelius.⁴ Gessner's edition of the latter, based on a manuscript in the library of Otto Heinrich of Palatine that was subsequently destroyed, has been crucial to all later editions.

Gessner also translated these and other Greek texts into Latin, often for the first time, including the *sententiae* of Stobaeus (1543), the Homeric allegories of Heraclides Ponticus (1544), or the *Navigatio* of Hanno of Carthage (1559). Finally, Gessner composed humanist commentaries on major authors like Aristotle and Galen, and minor ones like Xenocrates, a Platonist of the fourth century BCE (in 1559), or Epiphanius, a Greek church father of the fourth century CE (in 1565).⁵ Gessner also deployed Latin editorial skills in his expurgated edition of Martial (1544) and in publishing the manuscripts of five recently deceased scholars in seven different books.⁶ Many

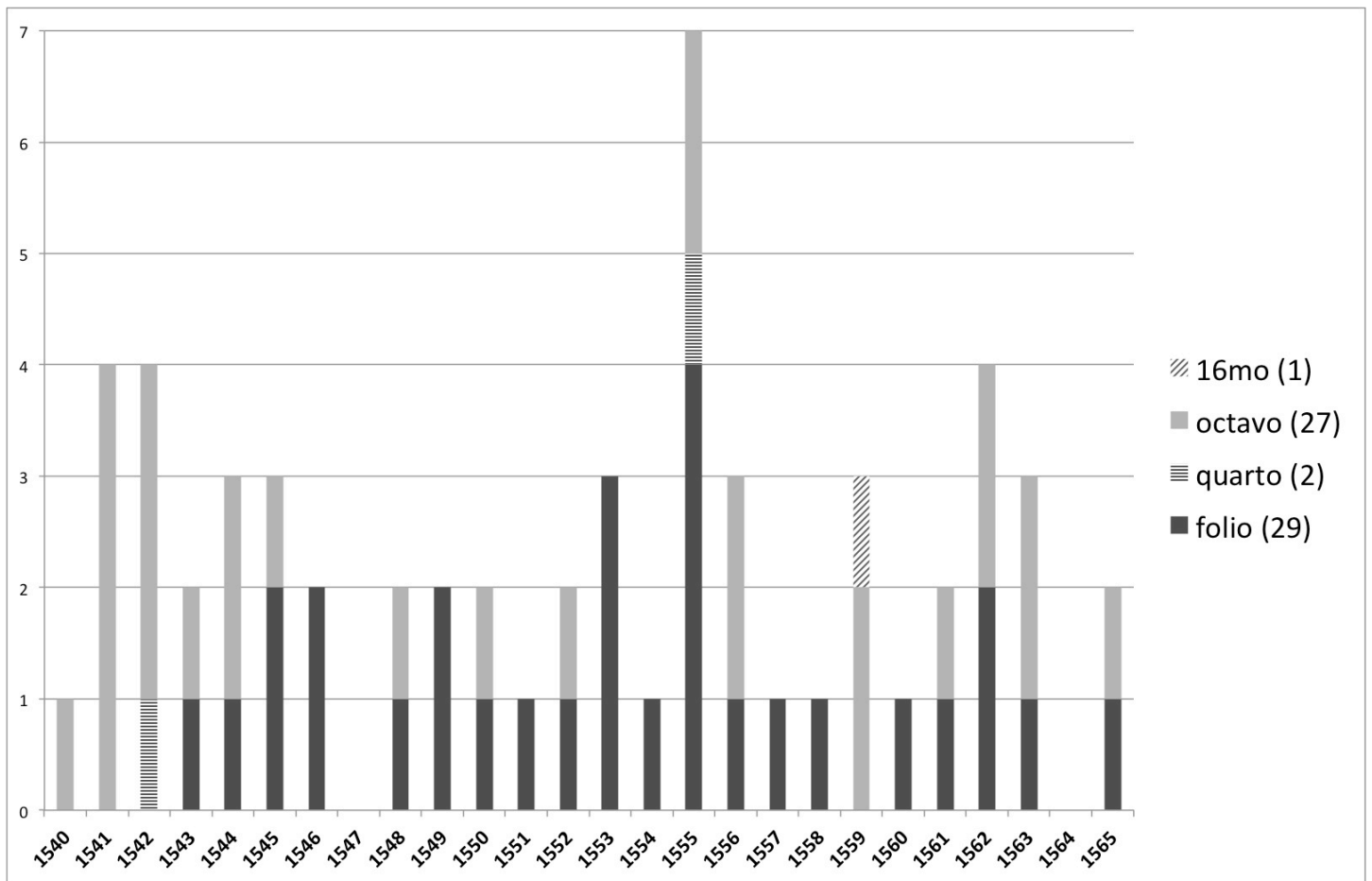


Figure 1. Graph of Gessner's publications by date and format.

factors contributed to Gessner's remarkable productivity, including his wide range of interests and of scholarly contacts and an indefatigable capacity for work, but crucial among them was his clear sense of the benefits of printing.

The role of printing in early modern Europe has proved a topic of enduring study and debate, especially since Elizabeth Eisenstein's 1979 blockbuster *The Printing Press as an Agent of Change*. Eisenstein passed away in 2015, after more than forty-five years of membership in the RSA, leaving us with a body of synthetic work and incisive argument about the multiple impacts and uses of printing.⁷ In this essay I'll argue that Gessner viewed printing as a source of income, as a bulwark against loss—preserving ancient and new texts for the future—and as a working tool essential to his methods of research and writing. Explicitly, Gessner hailed printing as a means of transmitting texts into the indefinite future, like monuments made impervious to destruction. Tacitly, he used printing as a means of communication in the here and now, serving purposes we associate with today's social media—from profusely thanking those who contributed to his projects, to subtly shaming those who could have done more, and addressing unknown readers in the hope of eliciting new correspondents. Gessner also communicated with himself through printing, using his copies of his own publications as the basis for storing information, for planning revisions and new compositions. As a result his five dozen publications have both withstood the test of time and carried with them traces of Gessner's reliance on print as a tool for rapid impact in his day—including signs of and apologies for haste, digressive paratexts that stray from the theme of the book, and texts brought together in one volume opportunistically in combinations that strike us as haphazard and closer to the medieval miscellany than we might expect from a printed book.

PUBLISHING AS A SOURCE OF INCOME FOR GESSNER

By Gessner's time printing was well established, as were the conventions of the “modern book” (to use Henri-Jean Martin's parlance), including title page, pagination, and multiple paratexts, some of them specific to printed books, like lists of errata.⁸ The distribution of printing centers and of the book trade had also stabilized by this point after the rapid proliferation of printing cities followed by sharp consolidation at the end of the fifteenth century.⁹ Gessner's Zurich was a minor printing center compared to nearby Basel, which was closer to distribution networks given its position on the Rhine and had the seventh-highest output among printing cities in sixteenth-century Europe.¹⁰ Gessner published more than half his books with two printers in Zurich: Christoph Froschauer, who published twenty-four of Gessner's books between 1541 and 1565, and his relatives Andreas and Jacob Gessner, who published fourteen of them between 1552 and 1565. The remaining twenty-odd books of Gessner's appeared mostly in Basel, but also in Strasbourg, Lyon, Geneva, and Venice.

We have no systematic record of Gessner's or his printers' finances, but piecemeal evidence indicates that one motivation for Gessner's prolific publication was financial. Although Gessner was paid for his work as city physician and for teaching natural philosophy at the Carolinum in Zurich, he felt under constant financial pressure, as he complained in a letter he wrote in 1558 to Heinrich Bullinger, Zwingli's successor as religious and temporal leader of Zurich: “Frobenius (the bookseller) in Basel, demands that I compare for him the Latin translation of Galen's complete works with the Greek original text (a work that demands an immeasurable amount of labour), and I have to give him my decision within a month. Froschauer (the famous printer in Zurich) asks me to make for him an excerpt from my three large volumes of the natural history of animals. Exhausted from so many exertions, emaciated, enfeebled, half blind, . . . shall [I] again take on a work that would not let me breathe freely for two or three full years. Would

you, my friend, advise me to do this?”¹¹ This emotional appeal indeed resulted in a raise from the city and Gessner declined both these printers’ solicitations, which suggests that he would have taken them on only for the income they would have provided.

In fact, Gessner ended up contributing to Froben’s complete works of Galen mentioned in his letter to Bullinger, but at a higher level than what Froben had initially requested: whereas someone else was paid fifteen pounds to collate the translation as Gessner had originally been asked to do, Gessner was paid a total of thirty pounds for providing the preface to the edition.¹² This was a tidy sum, which corresponded to more than a month of his pay from the city (before the raise). But this was also no ordinary preface: at seventy-three folio pages it was a significant piece of scholarship including a complete bibliography of Galen’s works.¹³ In dedicating that work to Basil Amerbach and the faculty of the University of Basel, Gessner offered an oblique acknowledgment of what he owed the printers: “Since it pleased the printers, from whom I am conscious of many great benefits toward me, that I should write the preface, I could not dare refuse them, however much I was aware of my weakness.”¹⁴ In addition Gessner could also receive payment from dedicatees. In fact, we know that Gessner received five taler (worth two gulden each) from the senate of the University of Basel to whom he dedicated this particular work.¹⁵ We know about these payments in part because collective bodies like city councils and university senates made and preserved records better than individual authors or dedicatees. But I will also argue below that many of Gessner’s individual dedicatees likely made contributions in kind to Gessner’s projects rather than in monetary form.

We must not infer from Gessner’s letter that he was actually indigent. Urs Leu has recently concluded that Gessner earned 142 gulden per year from the city of Zurich, including a monetary value placed on the annual allotment of wine and grain awarded by the city council in response to his dedication to them of the first volume of his *Historia animalium* in 1551.¹⁶ He could earn additional sums from private medical practice and agreements with publishers. But Gessner’s commitment to research on so many fronts clearly also incurred considerable ongoing expenses—to pay for books, writing supplies, and mail services, and to maintain in good condition his growing collection of research materials, which ranged from papers to dried and living plants and even a few animals. In 1558 Gessner added a third floor to his house, complete with fifteen windows to accommodate his collection and his working space—perhaps this exceptional expense motivated him to write to Bullinger.¹⁷ In his letter Gessner also invoked the needs of his large and poor family, mentioning his mother and many nieces and nephews since Gessner and his wife had no children. Similarly, two years later Gessner explained that he was “very poor” and had “forty needy relatives” when he appealed to Elizabeth I to recoup the expenses he incurred in sending her his *Icones animalium* after she took offense at his dedication.¹⁸ Although that claim of poverty may have been mostly a ploy by 1560 (and a successful one), Gessner likely felt under financial pressure for most of his life, due to his income being insufficient to his expenses and the expectations of his relatives.

Printers who paid him to edit, translate, compile, and compose offered a valued source of additional revenue. In 1559 Gessner wrote to a friend with relief that he no longer felt as subject to the pressures of printers.¹⁹ In fact, Gessner continued to publish at the same prolific rate and interestingly devised a distinctive prefatory trope in a number of his late publications, in which he explained that he was responding to a request from his relatives Andreas and Jakob Gessner to give them something to print. While he had not explicitly invoked financial straits as a justification for publishing, once he was financially more comfortable Gessner emphasized the role of family obligations in motivating his activity. Presumably, he sought in doing so to deflect criticism,

whether because publishing so much seemed immodest or because it conflicted with Gessner's earlier appeal for increased support to free him from publishing.

The complexities of Gessner's relations with his printers are well worth further exploration, but my first point is simply that both Gessner and his printers expected to and likely did make money from his publications.²⁰ Of course the particular forms of Gessner's relentless publishing resulted from an intellectual agenda: to rescue and transmit texts that had been or were at risk of being lost, and to advance multiple information-gathering projects in the here and now. Different features of printing were crucial to each of these goals.

PRINTING FOR PRESERVATION

Printing was no prerequisite for either the ideal or the reality of long-term preservation of text. The metaphor of text as a monument to withstand time dates back far before printing, to an era of oral publication and of writing on papyrus rolls that rarely lasted more than two or three hundred years, when Horace ended his Odes with this: "I have finished a monument more lasting than bronze, more lofty than the regal structure of the pyramids. . . . I shall not wholly die and a large part of me will elude the Goddess of Death. I shall continue to grow, fresh with the praise of posterity."²¹

It is hard not to be impressed with the accuracy of Horace's prediction. The poor durability of the medium of his day proved of no consequence given the strength of the cultural survival of the text, thanks to its place in a long-lasting canon that ensured copying onto new media as needed—fresh papyrus rolls, parchment codices, printed books, and now electronic formats.²² By contrast, Mayan petroglyphs, for example, have proved durable materially but not culturally; the knowledge required to read them was not transmitted, so scholars struggle to decipher them. Effective preservation requires material longevity if there are significant gaps in the cultural durability of the text. And even if Horace accurately forecast his transmission, I suspect that we are poor judges of the cultural or the material longevity of our own productions.

Preservation was a problem that preoccupied Renaissance humanists greatly, given their focus on recovering ancient learning. It is supremely difficult to estimate the extent of the loss of ancient learning because many authors and works are no doubt completely consigned to oblivion, but we know some of what is missing thanks to references and excerpts that have come down to us from authors whose works were not transmitted. On that basis one scholar has recently estimated that less than 4 percent of the ancient plays that once existed have survived.²³ What percentage of ancient writings Renaissance humanists thought had been lost is the more historically interesting question. Aaron Shapiro, who recently finished a dissertation on this topic, points out that in an oration of 1494 Pietro Bembo estimated the survival rate of Greek manuscripts at one in one hundred.²⁴ This dire estimate motivated humanists to cry "never again": for any ancient text they could rescue from near oblivion and for their own compositions, a top priority was to ensure safe and durable transmission to posterity. Elegant copies on parchment were certainly expected to achieve this goal and they did, but printing offered further protection through the production of large numbers of copies. Moveable type (which required printers to decide in advance how many copies to print) and the commercial motives of printers ensured that books were each printed in hundreds of copies; a print run of 1,000 copies is considered a reasonable estimate for learned books in the late sixteenth century.²⁵ Humanist efforts to recover, edit, and transmit lost ancient texts had been underway for more than a century before the invention of printing, but humanist texts were also among the first to be printed, as early as the late 1460s, with the publication of Cicero and then other classical texts by Sweynheym and Pannartz in Subiaco and then Rome. Of course printers would only undertake these editions if they perceived sufficient cultural demand,

and they could easily miscalculate, as the rapid demise of Sweynheym and Pannartz's printing business illustrates.²⁶

Gessner felt the trauma of the loss of ancient learning especially keenly. The desire to aid in the recovery of lost texts and the preservation of found ones was the main reason that Gessner adduced for taking on at age twenty-six a novel and arduous task, to compose a "universal library or most abundant catalogue of all writers in the three languages of Latin, Greek and Hebrew, extant and not, ancient and recent, learned and not, published and hiding in libraries."²⁷ When he was done three years later—after composing a text of 1,300 folio pages listing 10,000 works by 3,000 authors—he compared the experience to having climbed the tallest steep mountain.²⁸ The work begins with Gessner's mourning the terrible record of destruction of books and libraries, from antiquity to his own time: "Where are now the 700,000 volumes of the library of Ptolemy Philadelphus or the 3,000 volumes of Tyrannion [a Greek grammarian]? Aulus Gellius describes that 70,000 volumes of Alexandria were burned by soldiers."²⁹ Gessner goes on for two pages in this vein, ending with the sack of Buda, which occurred "in the memory of our fathers" and destroyed the great library formed there by Matthias Corvinus. Then Gessner exclaims: "But what now remains of all these glorious libraries except an empty reputation? . . . So many and such precious books in every philosophy were gradually lost, some consumed by flames or the tumult of war, some by age itself corrupted by worms or an unhealthy location, many dissipated by negligence and the hatred of barbarians for learning."³⁰ What could be done? Gessner explained his solution: "I have opened a way and given a great occasion to others, by which the wealthy and the princes can establish libraries, which are necessary for transmitting books to posterity."³¹

In his alphabetical listing of authors Gessner included not only those whose works were well known and already printed (which he did diligently, often including tables of contents and excerpts from prefaces), but also those whose works had not yet been found. To include the names of ancient authors of which little or nothing survived Gessner explained that he trawled through doxographically rich works like Athenaeus, Stobaeus, or the Byzantine Suda dictionary, and, "I regularly noted with excessively exquisite or curious diligence any names that occurred while reading them: . . . even those from whom nothing published survives, or only some prefaces, or even just one, or a single letter."³² As a late humanist seeking to make a contribution after the major ancient texts were already available in print, Gessner was especially alert to the value of bare names and fragments that had not yet been published.³³ In his correspondence Gessner was on the lookout for new texts to publish and he aided substantially the knowledge of fragments by publishing in Greek and Latin the sententiae of Stobaeus from the fifth century and a collection of theological sententiae by two Greek monks of the seventh and eleventh centuries, Maximus and Antonius of Melissa.³⁴ With the *Bibliotheca* as a guide, scholars would know what lost works to look for and the princes on whom Gessner called to build great libraries would know what works they were missing in order to commission and buy them.

Like many contemporaries, Gessner considered printing a providential gift in this worthy enterprise of rescuing and transmitting texts: "Today the art of typography, granted by God to the men of our time for the preservation of letters to posterity, will supply authors of every kind. By this art as much is produced in one day by one man even unskilled in letters, as it was barely possible to produce in a whole year by several men with the speediest quill."³⁵ But Gessner also noted that printing posed a new kind of risk of oblivion—due to good (i.e., ancient) works becoming lost in a sea of new ones of little worth: "Although the typographical art seems to have been born for the conservation of books, most of the time nonetheless the silliness and

useless writings of the men of our time are edited, to the neglect of the old and better ones.”³⁶ For this problem too a well-funded library was the solution, including libraries devoted to manuscript books alone, which Gessner advocated. Gessner was not unusual in these observations, echoing Erasmus, among others,³⁷ but he directed them to someone he thought could act on them: his dedicatee, the imperial counselor Leonard Beck von Beckenstein. Gessner praised Beck von Beckenstein’s library and clearly hoped to inspire him to further patronize scholarship, but beyond Gessner’s multiple addresses to him in 1545, 1548, and 1555, we know little about his interest in learned books.³⁸

Gessner viewed the combination of printing and libraries as the key to transmission to posterity not only of recovered ancient texts, but also of his own books. In dedicating his edition and translation of Aelian’s natural history to Johann Jakob Fugger in 1556, Gessner thanked him for the loan of Fugger’s very old Greek manuscript that he had used and expressed the hope that Fugger would add to his library Gessner’s new edition: “Welcome easily and benevolently the return of your Aelian, now complete, corrected, bilingual, and published, and admit it into your library as if by the law of hospitality.”³⁹ Gessner addressed a similar injunction to the city council of Augsburg to whom he dedicated his edition of Dioscorides in 1565. On that occasion too he had worked from a manuscript from Augsburg, but a recent manuscript left unfinished at the death of the scholar Joannes Moibanus. In his dedication Gessner explained that during his fatal illness Moibanus sent his edition of Dioscorides’s *De curationibus morborum* to Gessner to finish and publish, requesting that he dedicate it to the city of Augsburg on behalf of his three orphaned children. Gessner did his part and even delayed other projects to carry out this one, which he indeed dedicated to the city council on behalf of the Moibanus orphans, but he also put in it a good word for his book: “Please add this volume to your library, that ornament to your city which was begun by you and which will grow in perpetuity.”⁴⁰ Gessner had high hopes for the preservation of both his own work and the manuscripts that he published through the combination of printing and well-maintained libraries.

Of course there have been losses of early printed texts, especially of unbound printed matter and ephemera, but by and large Gessner’s hopes for the improved preservation of books through printing and early modern libraries have been borne out.⁴¹ We have not in the intervening 500 years experienced a loss of learning of the kind that had traumatized Gessner and generations of humanists. Gessner’s works themselves are preserved, though not all in one library, from the lavishly illustrated expensive folios, to the cheaper, smaller, functional books that never became collectibles. The redundancy and wide geographical diffusion made possible by printing were central to their survival, as Gessner understood. One of Gessner’s motives in publishing was to transmit for the long term works of others, ancient and contemporary, and his own.

PRINTING IN GESSNER’S WORKING METHODS

Publicizing Thanks

In addition to carrying texts far into the future, printing and the book trade also carried them rapidly throughout Europe at the time. Gessner used printing both to encourage his readers to contribute to his projects, and to develop his own works through successive printed iterations. Gessner’s principal *modus operandi* was to accumulate material over many years that fueled the steady stream of his publications. Gessner himself traveled only occasionally beyond the Swiss cantons, e.g., to Lyon, Paris, Montpellier, Strasbourg, Augsburg, and Venice. Instead, working from Zurich, Gessner gathered information from correspondents and visitors from all over Europe.⁴² His correspondence survives only in part thanks to two volumes published soon after his death and various extant

manuscripts.⁴³ I have focused on his publications, and especially his paratexts, as a trove of evidence about how he received and elicited materials for his many projects—manuscripts for editions, bibliographical references for the *Bibliotheca* and its sequels, images, specimens, and observations about animals and plants for multiple volumes on natural history, but also medical remedies or samples of foreign languages.⁴⁴

For example, Gessner's *Mithridates*, named after the king in second-century Anatolia who inured himself to poison by taking small doses but who also reportedly spoke the twenty-two languages of all the areas he controlled, was dedicated to John Bale who lived in Zurich at the time as a Marian exile. Gessner thanked Bale for his contributions to the *Bibliotheca* of ten years prior and for contributing to this new book, in particular a specimen of Old English. Then Gessner requested further input: feedback about things to change or correct in this book, and more specimens (especially the Lord's Prayer) from other languages of Britain, e.g., from Ireland or the Isle of Man.⁴⁵ But what use would these contributions be since he had just published his book on the topic? Gessner addressed that concern explicitly in a closing epilogue: "I have dared to write about all languages, not really because I hoped to do justice to the inquiry . . . but in order to excite others to write, either by their own reflections on one or more [languages], which I would prefer, or to write to me in order to augment or emend this work some day."⁴⁶ So Gessner envisioned himself continuing to gather material on the topic, and perhaps he actually received some input, although he did not in fact publish about the diversity of languages again.

We can catch a rare glimpse of how Gessner accumulated material from three volumes prepared for publication after his death but left in manuscript at the Zentralbibliothek: the "Thesaurus practicae medicinae," gathering medical remedies appropriate for various diseases. The folio pages ready to be printed consist of a collection of remedies organized by disease. The remedies were written on slips, some of them copied in Gessner's hand, others cut out from letters Gessner had received, or from printed material. Before this final compilation, the slips would likely have been stored loose, in bags, pigeonholes, or an equivalent sorting device, to which new material could be added as it arrived. Gessner thus explained to a correspondent who asked him to refer back to an earlier letter that he could not since he had already cut the letter up.⁴⁷ Who knows what that correspondent thought, but we can understand that Gessner was distributing the information so he could use it later. Gessner's hallmark method was to gather together material from all kinds of sources: books already in print, manuscripts never printed before, his own observations, letters from correspondents far and near, people he knew well, and scholars whom he never met in person. And printing proved a crucial tool for soliciting new input. Gessner used his frequent publications to thank those who had contributed to his projects and to invite others to follow suit.

Paratexts proliferated in sixteenth-century books—printing may have favored the multiplication of paratexts in a variety of ways—but acknowledgments were not among them. Acknowledgments motivated by a desire to record intellectual debts appeared in the late nineteenth century with the professionalization of academic fields, as nicely studied by Françoise Waquet.⁴⁸ Nonetheless, Gessner said a lot of thank-yous, sometimes in the body of his texts, but especially in his paratexts—in dedications, but also in addresses "to the reader" and in the unique "catalogue of learned men who helped," which Gessner introduced at the front of three volumes of his *Historia animalium*.

Dedications are not unique to printed books. Ancient and medieval authors from Pliny to Dante composed dedications to rulers and patrons that typically circulated beyond the dedicatee when the manuscript was copied. But printed dedications reached a broader public, and printing added to the impact of receiving a dedication and explicit thanks within it.⁴⁹ Occasionally, Gessner alluded to

the lasting honor associated with print. After forecasting long-lived glory to his dedicatee given his virtues, Gessner explained: “For that reason I wanted to dedicate the writing of some learned man to you, which would be of the sort that, so it seems, would last forever; which I must not and cannot hope for my own works.”⁵⁰ Gessner made explicit how the reputations of noble dedicatee (Beck von Beckenstein), the deceased learned author (Antonius Thylesius), and the learned editor (Gessner) were all bound together through the printed dedication, aiming to extend their reputation into the future. Of course Gessner did so by declaring that the glory of the dedicatee redounded to the deceased author, but was not the subtext here that Gessner was the true source of their bid for immortality by putting them both into print? In dedicating his *Onomasticon* (dictionary of proper names) to a group of nine young Zurich patricians and former students of his, as a New Year’s gift in 1549, Gessner observed with less convolution, “I thought you would enjoy the dedication of this book to your names.”⁵¹

Gessner’s thanking of course showed off the range of his personal contacts and enhanced the authority of his work as a result. But it also offered the promise to anyone who would contribute material to Gessner that they could appear and be thanked in print too. To Joannes Echtius, a doctor in Cologne, Gessner began his dedication: “I finally received the images of fish of the German ocean you gave me which I had been longing for: for which I wanted to thank you not by words alone but by showing you some tangible example of my gratitude.”⁵² To Johannes Pontisella, rector of the Latin school in Chur, Gessner wrote recalling his help on the topic of plants, inviting him to send more observations from the mountains of the Grisons, then requesting that he greet mutual friends there—the ministers Ioannes Fabricius and Philippus Gallicius and the doctors Zacharias Belinus and Hieronymus Brixinus.⁵³ Gessner’s dedication to John Parkhurst, bishop of Norwich, similarly mentioned Gessner’s multiple English contacts—many of them Marian exiles recently returned to England at the accession of Elizabeth I—and Gessner cross-thanked especially John Caius, “from whom I received very many images of birds and other animals, along with descriptions accurately and carefully written by him.”⁵⁴ With thanks came explicit requests, designed to keep stimulating the cycle of contributions and thanks. Of Parkhurst, Gessner went on to ask: “If you could use your authority so that some learned men among you would send me images of those birds which are found in England beyond those which I have shown here, I will be sure to augment this book with those images and perhaps others (if I receive some from elsewhere in the meantime), God willing.”⁵⁵ Gessner spells out here how his appeal for new images would result in publication: he promised to include images sent in after this volume in the next volume. Indeed, in his many successive treatments of natural history Gessner regularly included sections entitled *paralipomena* or *addenda*. Gessner included there images received after the rest of the volume had been completed as a supplement to that volume or to an earlier one in the series.

Serial Printing

Gessner started his *Historia animalium* in 1551 with a volume on viviparous quadrupeds—a monumental book of 1,160 folio pages. The book comprised so many paratexts that Gessner included a unique table “of the things are treated before the entry into the work,” listing the paratexts in order of appearance.⁵⁶ The volume looks like the achievement of a lifetime, carefully brought to completion. But it was in fact only the start of a long sequence. In 1553 Gessner offered a new iteration on the topic, the *Icones animalium*, focused on images of viviparous and oviparous quadrupeds, with minimal learned discussion—this kind of picture-book version in the same format was a way to maximize revenue from the costly images by reaching a different audience than the original massive volumes in which the images were outweighed by Latin text.⁵⁷ But the *Icones* were also the opportunity for Gessner to add an appendix of ten pages of quadrupeds not listed in 1551 (fig. 2):

APPENDIX.

STATueramus Quadrupedes omnes, nō temere, sed certis singulis ordinibus & inter suas cōgeneres, enumerare. Impediuit institutum hoc sculptoris tarditas: quare hīc reliquas adiicimus, quas ut facile unusquisque ad suum ordinem redigat, ad quem referendæ sint quæq; adscribemus.

AD ORDINEM II. QVADRVPEDVM
VIVIPARORVM MANSVETORVM.

CANIS Britannicus odorifequus, qui apud Anglos & Scotos fures deprehendit, etiam longissimo intervallo.

SCOTICE Sluthowind.

GERMANICE Schlatthund.



CANIS Britannicus omniū sagacissimus, qui feras, aues & pisces inter saxa latentes odoratu perquirit.

SCOTICE Ane Kache.

GERMANICE Wasschund.



Figure 2. Icones animalium (1553), appendix, page 59, featuring images delayed by the carver. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark AW 1.

“We decided to list quadrupeds according to certain orders. But the delay of the carver prevented this plan, therefore we have added these images here which each reader will be able to bring to its proper order easily.”⁵⁸ The first entries in the appendix are English dogs (sleuthhound, ratch, and greyhound), based no doubt on information from John Caius who later published a book on the topic.⁵⁹ But even this appendix was incomplete: at the end of it Gessner apologized in a brief “to the reader” that he had received some images for which woodcuts could not be carved in time (e.g., for the Scottish white bison), and promised to print them in an upcoming volume (fig. 3). Along with that promise he appealed to readers to send him new images too: “Perhaps friends or others unknown to me but who are men studious of natural things will send other images as well which they notice we are lacking. We will add those separately at the first convenient opportunity so that they can be joined to these; and the same is true for other images about other kinds of animals.”⁶⁰ Indeed, the following year Gessner published the second volume of the *Historia animalium*, on reptiles. After 125 pages on reptiles Gessner offered a twenty-five-page appendix devoted to quadrupeds, including some of the images he had apologized for not including in 1553, like the Scottish white bison, as well as several others (fig. 4).⁶¹ As a result, one-sixth of the book on reptiles actually concerned viviparous quadrupeds. But Gessner’s system of soliciting new contributions in each book worked because he could be counted on to have another work in press before long in which these could be included, regardless of the topic.

In 1555 Gessner published the third volume of his natural history, on birds. In the front matter to this volume Gessner cast his widest appeal yet, after the catalogue of learned men who helped, addressing all readers in a general plea for contributions, but targeting especially those in far-flung locations like Spain and the remote regions of Scandinavia from which he had little material (fig. 5): “I ask that all learned men in remote regions who might come across these books, first to be fair and benevolent judges, then if they have something to correct or add with new descriptions or images or to illustrate in some other way, that they do so honestly and generously and rapidly.”⁶² Gessner assured readers that, even if they could contribute even just one thing, it would be most welcome. Gessner explained how readers wishing to send him something should find a merchant in their hometown who frequented the fairs of Antwerp, Venice, Lyon, or Frankfurt; there, their merchant could pass on to a merchant from Zurich material to reach Gessner. Gessner promised to answer by the same route in reverse “to the learned and generous men who will tell me their name and to whom I can express my gratitude in writing or by sending them something they would desire.”⁶³ Gessner thus offered to fill a request in return, in case getting thanked in print was not reward enough.

But the following year Gessner was still dissatisfied with his sources for Northern Europe, so he tried a cold-call dedication. His *De piscibus* of 1556 included four dedications, one for each of its four parts since the main text is followed by three additional ones (fig. 6). Most were dedications of the common type (“thanks for what you sent and please send more”) but in the section on German and English names of fish Gessner addressed his dedication to someone he did not know—Burchard Mythobios, “most noble physician and philosopher . . . in a remote part of Northern Germany” (fig. 7).⁶⁴ Gessner started by dropping the name of a mutual acquaintance: “Thomas Erastus, my countryman, in writing to me recently praised splendidly both your erudition and your humanity.” Then he got to the point: “Erastus added that you had some rare images of animals, especially fish from the Baltic sea, which you promised to communicate to me if some opportunity arose to send them across such a large distance. . . . I chose you above all as the best patron of this work and the most learned judge of it . . . also so that you would deem me worthy to share with me as many images, painted or drawn that you have, especially of fish.” And Gessner closed with a little more flattery: “I

Ad Lectorem.

SVPER SVNT nobis adhuc Quadrupedum generis icones quædam, ut Musimonis è Sardinia, Simiæ Tartarinæ quæ cynocephalorum generis uideatur, Bifonis seu bouis feri albi Scotici, Rana rubetæ, & Testudinis terrestris, quæ hoc tempore à sculptore perfici non potuerunt. Mittent & amici quidam fortassis aut etiam ignoti nobis, sed rerum naturæ studiosi homines, etiã alias effigies quas nobis deesse animaduertent. Eas quoque nos prima quæ commoditate separatim ædemus ut hisce adiungi possint: ut & reliquas de cæteris animantium generibus figuras. Ipsius quidem Historiæ & descriptionis animalium reliquorum post Quadrupedes Volumen Latinum iam sub prælo est: & Tomus primus de Quadrupedibus in Germanicum sermonem translatus: qui etiam Gallicè propediem excudetur. Quòd ad ipsas figuras non est quòd hîc quicquam excusemus, cum id in Præfatione primi de animalibus Tomi, iam præstiterimus. Omnes fanè ad uiuũ depictæ sunt, præter paucissimas, in quibus quod res erat monuimus. Vale.

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Figure 3. Icones animalium (1553), sig. [H5]r, following the appendix, Gessner's apology for images that were not included. Reproduced with permission from Zentralbibliothek Zürich, shelfmark AW 1.

um syluestrium hystoria, (ubi etiam ostendi scriptores aliquot urum, bisonem, bubali & bouam, confundere;) & de uro, eodem libro pagina 157. & rursus in Paralipomenis pagina 1097. ubi boue hic pro bione ex Sigismundi Liberi sententia pictum, pro uro copiosius descripsi. Miserat enim illum tum temporis ad me doctissimus felicitis memorie uir Sebastianus Munsterus pro uro, ut etiam ipse acceperat, quoniam sic uulgò uocatur. Quod si quis utrunq; ex hisce bubus Latine urum appellarit, minoris tantum & maioris, aut barbati iubarue differentia adiecta, rectè illum facturum arbitror, quoniam bionis aliud Latinum nomen non habemus.

BISON. Germanice Wisent. De quo ea tantum cognouimus, quæ iam inter cætera de Vro scripta sunt.



DE BIONE ALBO SCOTICO.



IN

Figure 4. Historia animalium II (1554), appendix, page 4, featuring the white Scottish bison, which Gessner apologized for omitting in 1553. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 5.2.

Ad Lectorem.

alterius innominati de accipitribus eorumque cura libros similiter Græcè scriptos; item Aelsani animalium historiam Græcam, quæ tamen interprete Petro Gillio iandudum Latine legitur. Edoardus ^{Publicati quibus} Vuottonus Anglus nuper de animalium differentijs libros decem edidit, in quibus etiam suarum observationum quod ad historiam nihil adferat, neque noui aliquid doceat, laude tamen & lectione dignus est, quod pleraque ueterum de animalibus scripta ita digesserit, ac inter se conciliari, ut ab uno ferè auctore profecta uideantur omnia, stylo satis æquabili & puro, scholijs etiam ac emendationibus utilissimis adiectis: & quod priusquam ad explicandas singulorum naturas accederet, quæ communia & in genere dici poterant doctissime exposuerit, Petri Bellonij Cenomani de auibus librum Lutetia hoc ipso tempore excudi audio, qui fortè iam absolutus est, ad nos quidem nondum peruenit. In illo non dubito raras aliquot auium & icones & descriptiones haberi. Nam ille partim in Gallia, partim in remotissimis orbis regionibus, quas peregrinationibus suis ei inuisere datum est, non pauca quibus nos caremus sibi comparare potuit. Idem in libro Gallico, quem Singulares obseruationes inscripsit, passim aliquot auium meminit, unde nos & alia quædam & meropis effigiem mutati sumus.

CATALOGVS DOCTORVM VIRORVM, QVI

AD ABSOLVENDAM AVIVM HISTORIAM

liberalissimè nos adiuuerunt,

Aegidius Tschudus Claronensis, uir illustris.	Ioannes Caius Anglus medicus.
Guliel. Rondeletius, medicus, in Schola Mospeliensi professor regius, cuius nuper doctissimi absolutissimiq; de piscibus libri prodierunt.	Ioannes Dryander, medicus & professor in Academia Marpurgensi.
Hieronymus Zanchus Italus, theologiæ & philosophiæ interpres in Schola Artentinensi.	Leodigarius Grimault Normannus.
Hierony. Massarius Vicetinus medicus.	Ludouicus Lauaterus Tigurinus, Ecclesiæ ministrifer.
Melchior Guilädinus Borussus medicus.	Nicolaus Dalonuille diocesis Charnoteñ.
	Raphael Seilerus Augustanus CL. V. Geryonis Seileri medici F.
	Thomas Erastus Helueticus medicus.
	Vlysses Aldrouandus Bononiensis medicus.

¶ Et præter hos alij in primo & secundo libro à me nominati, tum ab initio librorum, tum etiam cum iconibus, descriptionibus uel historijs quas singuli communicarunt, ex diuersis Germaniæ, Gallia, Angliæ & Italia regionibus ad me missis. Scio etiam in Hispanijs, in Dania & remotioribus ad Septentrionem Scandinauia locis, multos esse doctissimos uiros ad quos fortassis nostri quoque libri deportantur: quorum si quis liberalitate ac beneuolentia sua me prosequi, ac laboribus nostris fauere dignabitur: nã ille & mihi alacritatem & stimulum ad reliquos de aquatilibus, serpenti bus & insectis libros citius absoluendos addiderit, & publicum in promouenda hac naturæ historia beneficium præstiterit. Rogo itaque doctos omnes in remotissimis regionibus, qui in hos libros inciderint, primum ut æquos ac benignos censores se nobis exhibeant, deinde si quid ad eos emendandos, augendos, iconibus & descriptionibus nouis, aut quoquo modo illustrandos conferre possunt, id candidè, liberaliter matureque ut faciant. Quod si quis non multa docere aut communicare possit, illum utcumque pauca, & uel unum aut alterum quippiam duntaxat nobis præstitisse, gratissimum fuerit. Scribendi quidem mittendique occasio nõ deerit, per mercatores præcipue, qui magna emporia frequentant, Antuerpiam, Venetias, Lugdunum, Francfordiam & alia, ad quæ etiam maiorum Germaniæ nostræ ciuitatum mercatores adire solent, per quos curari & transmitti ad me facile poterit quicquid acceperint. Ego quoque eadem uia ad uiros doctos & liberales, quorum nomina & uoluntatem cognouero, tum scribendo, tum si quid desiderauerint mittendo gratum me declarare poterò.

Figure 5. Historia animalium III (1555), sig. [a6]r, a list of the learned men who helped, with instructions on how to send further information to Gessner. Reproduced with permission from Zentralbibliothek Zürich, shelfmark 5.2,2.

DE PISCIBVS

ET AQUATILIBVS

OMNIBVS LIBELLI
III. Noui.

*AUTHORE CONRADO GES-
nero Medico & philosophiæ naturalis in-
terprete in Schola Tigurina.*

**I. SCHOLIA & emendationes in Ha-
lieuticon P. Ouidij Nasonis.**

II. AQUATILIVM *Animantium Enumera-
tio iuxta Plinium, emendata & explicata,
serie literarum.*

III. EORVNDEN *Nomenclator Germanicus
longè copiosissimus. Et alia quædam ad
Piscium historiam pertinentia.*

**TIGVRI APVD ANDREAM
GESNERVM F.**

107 637

Figure 6. De piscibus (1556), title page, featuring four parts, each dedicated to a different person. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 18.2031.

CLARISSIMO VIRO BVRC-
 hardo Mythobio Medico & Phi-
 losopho nobilissimo Con-
 radus Gesnerus me-
 dicus S. D.



OMAS Erastus Heluctius,
 ciuis meus, vir in omni philoso-
 phia ac rei medicae scientia præ-
 clare doctus, suis nuper ad me li-
 teris eruditionem simul & humanitatem tu-
 am, clarissime Mythobi, splendide prædica-
 uit. Et icones aliquot animantium raras, Bal-
 thici præsertim maris aquatilium, te posside-
 re adiecit, quas mihi communicaturum te sis
 pollicitus, si qua commoditas tanto locorum
 interuallo mittendi daretur: cum ego in Helue-
 tijs non procul summis alpibus & Rheni fon-
 tibus habitem, tu verò in remota ad Septen-
 triones Germaniæ parte, Mundæ (ni fallor) ci-
 uitate illustri ad nobile flumen Visurgim si-
 ta, apud Ericum illustrissimum ducem Brun-
 suicensem honestissimo loco degas. Hac e-
 go benignitate tua excitatus, cū hunc de Ger-
 manicis Aquatilium vocabulis editioni para-
 rem

saw a few years ago that your outstanding books on stereometry and the composition of the astronomical ring were received with great applause by learned men.”⁶⁵ Philippe Gardon has argued that *De piscibus* with its assortment of fish lore in four parts was a “kind of open letter to existing and future correspondents, designed to display certain skills, such as drawing up lists, naming unknown species and even classifying them.”⁶⁶ This dedication suggests that Gessner also saw it as an opportunity to show that he was a credible expert on fish in order to elicit material for the final volume of the *Historia animalium*. That volume was in progress at the time and appeared in 1558. But if Mythobius did respond to Gessner’s dedication of 1556, it was not in time to be included in the list published in 1558 of those “illustrious men who kindly aided our efforts, several of whom are named here and there from the beginning in the previous volumes of the history animals or in this one.”⁶⁷

Gessner wrote considerably more dedications than he published books: 57 of his publications contain a total of 102 dedications addressed to 127 individuals and six collectivities.⁶⁸ For comparison, Erasmus composed 150 dedications across his 220 imprints.⁶⁹ Only about one-quarter of Gessner’s dedications, usually in high-profile folio volumes, were addressed to the kind of grandee that we have come to expect as dedicatees given the emphasis historians have placed on patronage: patricians and city council members in Zurich and a few other cities, imperial counselors and ambassadors, members of the Fugger family, and the great rulers of the day—Emperor Ferdinand, his son Maximilian, and Elizabeth of England. The bulk of Gessner’s dedications were addressed instead to his peers in the republic of letters, including dozens of physicians and many professors, ministers, lawyers, a few merchants, and even some apothecaries. Gessner’s attempts at seeking macro support did not succeed very well, in fact. Gessner declined Fugger’s invitation to move to Augsburg and become his client (religious difference being an important factor in that decision, one suspects). We learn from the English state papers that Elizabeth I took offense at his dedication to her (even though it included a thirty-line Greek ode of Gessner’s composition) and Gessner was only reimbursed his expenses.⁷⁰ At least Gessner netted a coat of arms from Ferdinand I, though this was hardly a bankable reward.⁷¹

Despite minimal support from grantees Gessner produced a remarkable number of expensively illustrated volumes of natural history and large collections of information on all kinds of topics. And he did so where other contemporaries failed. For comparison, Ulisse Aldrovandi, working one generation after Gessner, targeted exclusively the patronage of Italian cardinals to fund the publication of his illustrated natural histories, but only managed to publish two volumes in his lifetime—many more appeared after his death, paid for by the proceeds of selling his remarkable collection of *naturalia*.⁷² Gessner by contrast built his projects on the accumulated micro support of over 100 learned contacts who offered him hospitality on his occasional travels and sent him information and manuscripts, costly painted and engraved images, and priceless accounts of unique phenomena. For example, Gessner thanked Joannes Placotomus, a doctor in Danzig, for giving him two globules of oriental amber, which is so highly valued that “it was given in dowry to the king and queen of Portugal and burned in Lisbon for its most sweet and precious smell, of which there has been, as far as I know, no record until now.”⁷³

Gessner thanked his contributors in his dedications (generally composing just one dedication per person, so he often included thanks on multiple counts) and in his lists of “those who helped” in his *Historia animalium*. Gessner first created this unique type of list in 1551 as an extension of the bibliography on quadrupeds that figured in the front matter of the volume. This “catalogue of learned men who to illustrate our work and the republic of letters either sent from somewhere images, names or descriptions of animals, or communicated them in person” comprised fifty-one names, including a number of Gessner’s dedicatees and correspondents.⁷⁴ The

names were listed alphabetically by first name following the pattern of the bibliography to which the list was appended and, more generally, the arrangement of the *Bibliotheca* of 1545. Gessner specified place and profession in most cases. He provided similar lists for volumes 3 and 4 of the *Historia animalium*, with thirteen and twenty-seven names respectively, for a total of eighty-one people thanked in this way since a handful of names appeared on two of the three lists.⁷⁵ Among those twice thanked (in 1555 and 1558) we recognize John Caius and learn of Hieronymus Massarius of Vicenza, a physician who lodged with Gessner for two months as a religious refugee in 1554 and who will make another appearance shortly.⁷⁶

Gessner not only used the different books within one series (e.g., natural history) to provide regular updates as they became available. He also used the front matter of books of natural history to publicize new developments in his bibliographical projects. For example, the front matter of the *Historia animalium* of 1551 includes a “typographer to the reader,” which issues a stern rebuke of those responsible for an unauthorized “elenchus,” or abridgment, of Gessner’s *Bibliotheca* published in Basel in that year. After announcing plans to publish an epitome of the *Historia animalium* (presumably the *Icones* of 1553), Froschauer added: “And as I say in passing, we would perhaps have given an epitome of the first volume of the *Bibliotheca* published from our business a few years ago, if we had not already heard that it was being made by someone else unbeknownst to us”—and (he notes) with many unfortunate omissions.⁷⁷ The *Historia animalium* and the *Elenchus* appeared almost simultaneously, judging from their dedications dated August and September, respectively—clearly this message from Froschauer to his colleagues in Basel needed to go out at the earliest opportunity to lodge a strong protest against the *Elenchus*, which was publicized in print, but not (to my knowledge) pursued in a legal setting.

Similarly, four years later Gessner himself used the front matter to his natural history of birds to call attention to developments in his bibliographical projects. In his “to the reader” of his *Historia avium* Gessner announced the publication of the authorized epitome of the *Bibliotheca*, which appeared nearly simultaneously since both dedications were dated March 1555. Gessner also announced there his plans to complete the *Pandectae* of 1548 and 1549 with a long-awaited volume on medicine. In particular Gessner explained that, “I recently wrote to my friend Hieronymus Massarius, the excellent Italian doctor, to collect the best and oldest authors of medicine in his *Pandects*, a work that he has already almost completed and that I hope will soon be printed at Basel.”⁷⁸ In this case, by publicizing in print that this last volume of the *Pandectae* was in progress, Gessner likely sought to apply some pressure to Massarius to goad him into completing it. But Massarius ostensibly never did—the medical volume of the *Pandectae* announced as forthcoming in 1555 was never printed. Nonetheless, Massarius still appeared on the list of “those who helped” in 1558, so their relations had apparently not soured, at least by then.

In discussing in these paratexts works on topics different from the book at hand (e.g., bibliographical publications in works of natural history), Gessner may have assumed with good reason that the readership for both series of learned folio volumes presented considerable overlap. He also knew that a printed book was an excellent vehicle for broad publicity and so seized the opportunity to announce books forthcoming from the same printer, even on other quite different topics (fig. 8). Similarly, Valentina Sebastiani has shown how Froben disseminated news of Erasmus’s edition of the New Testament in the paratexts of some of his other publications.⁷⁹ Not surprisingly Gessner also made regular use of the books in the *Historia animalium* series to announce forthcoming additions to it. For example, the *Icones animalium* of 1553 announced that the “Latin volume of the History and description of other animals after the quadrupeds is already in press; and the first volume on quadrupeds has been translated into German, and is very soon

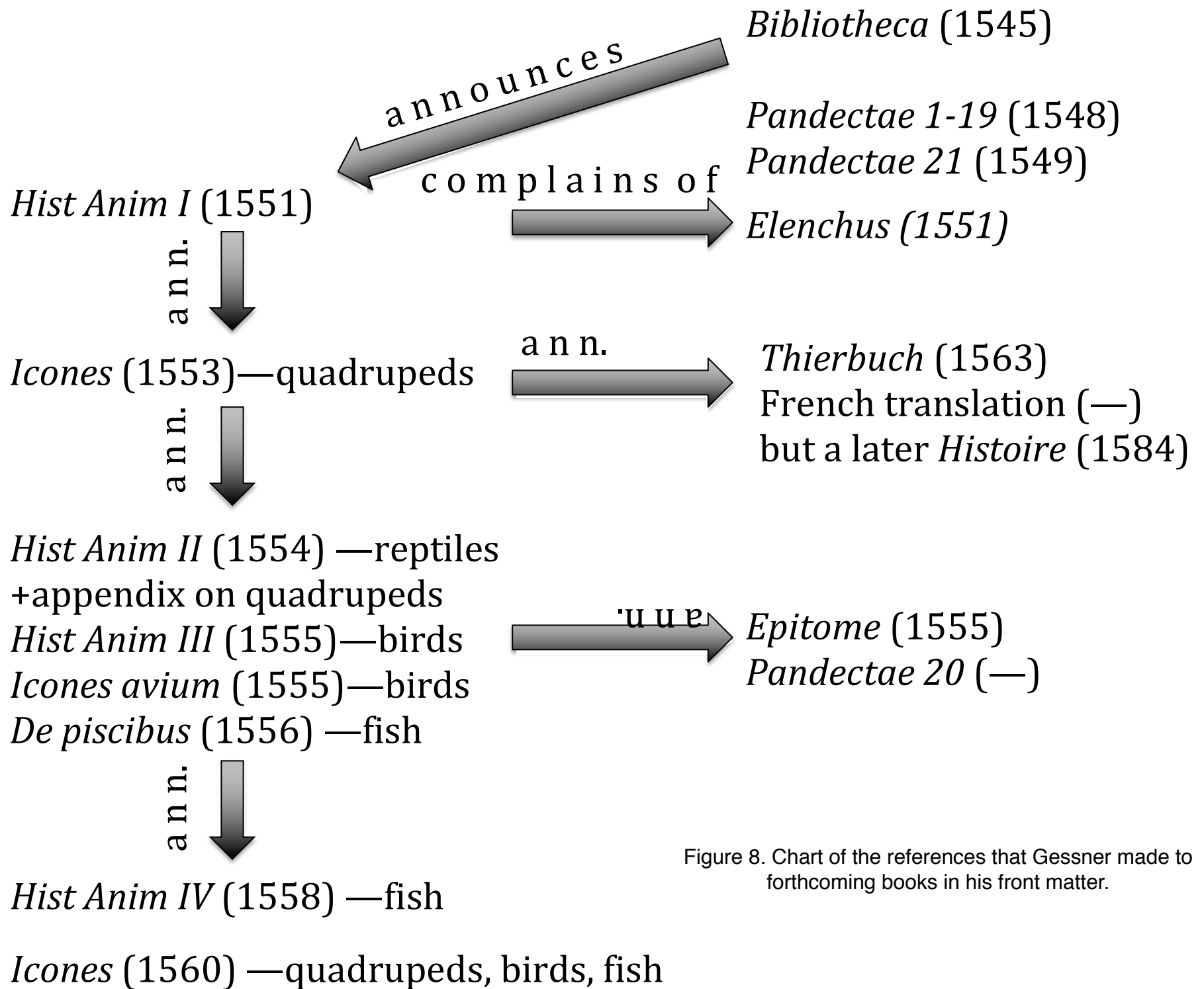


Figure 8. Chart of the references that Gessner made to forthcoming books in his front matter.

being written in French.”⁸⁰ These announcements of future publications risked being inaccurate of course. The volume on reptiles indeed appeared the following year, but the German *Thierbuch* appeared a full ten years after it was announced in this way, and no French translation was ever published, although an *Histoire des plantes* of 1584 included an abridgment of Gessner’s histories of animals, of which Gessner likely had no inkling since it appeared long after his death.

Gessner also called attention to his plans for publication in two extensive auto-bibliographies. The *Bibliotheca* and its sequels featured entries for Gessner (among the “Conrads”) that were considerably longer than average—ten pages in 1545 and a full page or more in the *Epitome* and *Appendix* of 1555 in which most entries were just a few lines long.⁸¹ In 1562 Gessner also published a twenty-four-page booklet on his publications, *De libris a se editis*, couched as a response to a request from his English correspondent William Turner.⁸² He used the longer texts (of 1545 and 1562) also as an opportunity to advertise works in progress or in planning, some of which came to fruition, others not. In 1545 Gessner mentioned his work underway on the history of animals along with an explicit invitation to a Maecenas to support the work—Gessner completed that project, although he remarked in the last volume that he never had a patron or Maecenas.⁸³ But in 1545 Gessner also mentioned texts of Oppian and Eusebius, which he never published. In 1562 his list of works in progress included eighteen items, including the Oppian still on his to-do list—he explained that he had copied the text in Venice long before (presumably in the 1540s) and had used bits of it in his natural history but still hoped to publish it along with other Greek works on animals, “if the opportunity arose.”⁸⁴

Printing as Word Processing

Publishing for Gessner was not the occasional and long-planned process that it was (and is) for many authors. Gessner was clearly a regular in many printing houses. He maintained especially close ties to Froschauer and his relatives Andreas and Jacob Gessner but also described noticing a manuscript he proposed to prepare for publication in the “abundant library” of Oporinus in Basel.⁸⁵ Instead of the classic line in Renaissance prefaces that friends or students had urged publication, Gessner invoked the pressure of his printers, especially his relatives, who turned to him when they were in need of something to keep their press occupied or to flesh out a slim volume with an extra text.⁸⁶ As Gessner explained in his auto-bibliography of 1562, this pattern started in 1552 when Andreas and Jacob Gessner had first launched their business and Gessner gave them his book of remedies, *Thesaurus Evonymi*, to publish; but Gessner felt so rushed into print that he did not put his name on it until a few years later, after it had proved a success.⁸⁷ The printers appeared in Gessner’s telling as eager takers of the manuscripts Gessner proposed, but they no doubt also supplied him with projects and exceptional access to manuscripts and recently published books. When Gessner recommended cutting and pasting from printed books he probably had in mind not commercially viable copies, but rather copies that had served as exemplars from which to compose a new edition, marked up in the process and ready to be discarded, which he could have picked up on one of his visits to printers.⁸⁸

A printed text was a tool for Gessner. Each new publication in the series of his natural-historical books was the object of revision and augmentation in the next one. This same attitude is visible in books that were never published in revised form, when Gessner nonetheless recorded his plans for revisions—changes, additions, and subtractions—by annotating his own copies of his books.⁸⁹ Print served not only as the substrate of revisions, but as a means of annotation too when Gessner occasionally cut and pasted printed passages onto a page to record revisions. For example, Gessner pasted into his copy of his dialogues urging the expurgation of Martial a section from Propertius in which the poet decries “the hand that first painted obscene pictures, placing filth in

chaste homes for all to see,” which Gessner presumably viewed as further support for his argument for censorship (fig. 9).⁹⁰ In the case of his annotated copy of the *Bibliotheca universalis*, the changes Gessner made by crossing out some sentences and inserting a new printed section occurred at the stage of a proof copy since the version of the text that was diffused contained the new passages instead of the old ones crossed out. The changes involved replacing some sharp criticism of a recent edition of a work by the Syriac physician Ioannes Serapion, published in Basel in 1543, with a more anodyne discussion of the confusion of names due to Serapio’s being called John Damascenus (fig. 10). In the deleted sentences Gessner complained of interpolations and perversions of the text, and he warned the reader specifically against the work of Albanus Torinus, a physician and professor at Basel, who was responsible for part of the work.⁹¹ Gessner may be alluding to this late decision to omit his criticism when he noted in the front matter of the *Bibliotheca* that friends had dissuaded him from denouncing by name some who, “although they wish to be counted among good and learned men, change the titles and interpolate the contents of works so they are sold as if they were new books”—a crime that Gessner promised to make them regret, even if (I surmise) he gave up on his initial plan to shame them in print.⁹²

Even when there were no plans for a later edition in which to implement revisions, Gessner was always preparing for one. Just as he continued to invite contributions on a topic like linguistic diversity on which he never published again, so too any printed book of his was an opportunity to prepare for another version. Similarly, Henry Woudhuysen has observed of some near-contemporary English poets that “a first printing was only an intermediate stage in the creation of a work . . . [once a work was printed] the process of revising, rewriting, and rearranging could properly begin, sometimes almost at once.”⁹³ The English ecclesiastical historian Matthew Parker took malleability in print to an extreme, generating at his own press in London as many different versions of his *De antiquitate Britannicae ecclesiae* (1574) as there are extant copies, by rearranging and changing the contents of the folio-sized booklets that comprised the work.⁹⁴ Tony Grafton has proposed suggestively that printing functioned for these writers like word processing, only with slow updating speeds. Printing was a tool not only for diffusion, but also for the process of composing texts, at least for those who had especially easy access to the technology—like Gessner, given his close contacts with printers, or Parker who owned his own press.

CONCLUSION

Gessner always had multiple projects underway and many more in waiting. He could respond on a dime to requests from his favorite printers to contribute a short text to round out a work in press, to edit a manuscript left unfinished at someone’s death, or to combine multiple elements into a publishable book. And he generally used the occasion to issue a few messages of his own—to thank contributors to his projects or to plead for more materials, to announce an update on work in progress, or to advertise his willingness to entertain new proposals.

We can watch Gessner’s method of working on the fly, finishing the end of a book while the beginning was already being printed, and creating works that are more miscellaneous and multi-authored than a simple attribution to Gessner suggests by looking at one text particularly rich in disparate elements. In 1561 Gessner published an edition of manuscripts by the not so recently deceased botanist Valerius Cordus (1515–44), which had been handed down from the uncle of the deceased to Ioannes Placotomus and on to Gessner, who saw it through publication in Strasbourg, not completely happily judging from the complaints he made to two friends about the printer.⁹⁵ Cordus’s commentaries on Dioscorides occupied the bulk of the title page, but the work also included eight other sections, to each of which Gessner supplied a dedication (fig. 11). A long (250-page) “historia plantarum” by Cordus was followed by a short (eight-page) discussion by

facias? ut homo est, ita morem geras. DEM. Satis iam satis te Syre et excusationes hasce tuas per noui. Verū scio te etiam instigare Mitionē, ne gnatum ab istis studijs remoueat. Nam tu qui meliora non didiceris, ex nequitijs huiusmodi, quas egregie calles, si dis placet, lucrum tibi comparare satagis. Vnde tandem tuæ fomenta gulæ suppeterent, nisi defenderes hæc spurca tam sedulo? SYR. Iam iam seruulus Mitionis nos uocatos festinanter accedere iussit. DEM. Vide ut mentitur impudens caput: sic nullū uitium solum est. Iam hortatus fuerat Aeschinum ad deambulationem, nunc aliud fingit.

AESCH. Eamus. SYR. Vale Demea. Sed eni tibi fratrem huc accedentem, cum illo age, ut lubet. Mea in hac re nulla est culpa.

DEM. Non tandem hinc abitis in malam rem,

AESCH. Eamus

inquam.

Z 4

Quæ manus obscenas depinxit prima tabellas,
 Et posuit casta turpia uisa domo,
 Illa puellarum ingenuos corruptit ocellos,
 Nequitiaeq; suæ noluit esse rudes.
 Ah gemat in terris ista qui protulit arte,
 Iurgia sub tacita condita letitia.
 Non istis olim uariabant tecta figuris,
 Cum paries nullo crimine pictus erat.

ppr. l. 2.
 an elegia
 ad Cythia, e
 iupit, Ganisa e.

Figure 9. Martialis epigrammata (1544), in Gessner's own annotated copy. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 7.377.

IN HOC VOLUMINE CONTINENTVR

1 VALERII CORDI SIMESVSII ^{Text} Annotationes in Pedacij

Dioscoridis Anazarbei de Medica materia libros V. longè alia quam ante hæc sunt euulgatæ. +3 extra plants (tulip)

2 EIVSDEM VAL. CORDI HISTORIAE STIRPIVM LIB. III. POST hæc humi, nunc primùm in lucem editi, adiectis etiam Stirpium iconibus: & breuissimis Annotatiunculis.

4 SYLVA, qua rerum fossilium in Germania plurimarum, Metallorum, Lapidum & Stirpium aliquot rariorum notitiam breuissimè persequitur, nunquam hætenus uisa.

5 DE ARTIFICIOSIS extractionibus Liber.

6 COMPOSITIONES medicinales aliquot, non uulgares.

Thomas Charles Morgan M.B. F.R.S. HIS ACCEDVNT

7 STOCCHORNII ET NESSI IN BERNATIVM HELVETIORVM DISTICTIONE montium, & nascentium in eis Stirpium, descriptio Benedicti Aretij, Græcè & Hebraicè linguarum in schola Bernensi professoris clarissimi.

+9 appendix ITEM

8 CONRADI GESNERI DE HORTIS GERMANIAE LIBER RECENS, unà cum descriptione Tulipæ Turcarum, Chamæcerasi montani, Chamæmespili, Chamænerij, & Conizoidis.

Omnia summo studio atque industria doctiss. atque excellentiss. uiri CONR. GESNERI medici Tigurini collecta, & præfationibus illustrata.

Figure 11. Valerius Cordus, Annotationes in Dioscoridis De Materia medica libro V (1562), title page, annotated to show the nine texts included in the book. Reproduced with permission from ETH-Bibliothek Zürich, Alte und Seltene Drucke, shelfmark Rar 9149 q, with my annotations in Photoshop.

Gessner of additional plants, untitled, but which has attracted the attention of historians because it featured the first representation of the tulip in Europe.⁹⁶ Then Gessner edited three short works by Cordus—on metals, on “artificial extractions” (e.g., distillation), and on medical compounds. Next came an eight-page description of Mount Stockhorn in the Bernese Alps, composed by Gessner’s friend Aretius, professor of Greek and Hebrew in Bern, who had reportedly asked Gessner to write the dedication to the text and publish it. Just as the collection seemed to be winding down in this series of short pieces, Gessner introduced his own 100-page catalogue of the gardens of Germany, arranged in alphabetical order. But that text proved hard to finish. After the “finis” marker (a much ignored piece of paratext recently given its due by Bill Sherman) Gessner continued to add to it lists of plants in notable gardens—those of Ioannes Schmidlapp in Wittemberg, Petrus Michaelus in Venice, and the duke of Florence.⁹⁷ This last list of just ten plants was clearly added after the rest of the page was set, and extends into the margin (fig. 12). After four iterations of “finis” in just two pages Gessner launched into a twenty-four-page appendix to his discussion of German gardens. In that dedication, to the Veronese pharmacist Francesco Calzolari, Gessner apologized for not having included Calzolari’s plants in the work he had just finished, “since my book on the gardens of Germany to be printed at the end of the works of Valerius Cordus was not at hand and could not be recalled, because the printer was rushing to the end of the work.”⁹⁸ After the appendix Gessner included closing paratexts: an unusually long list of errata (in six pages), born from the combination of haste in production and concern for correction, followed by a poem in honor of the upcoming wedding of the daughter of the dedicatee Gessner had initially chosen but who had died in the meantime (Ioannis Ralla), as he explained in the dedication that was actually printed (addressed to Ralla’s young son, who is not named). The book finally ended with word indexes for three of Cordus’s works.

The result is a fine folio volume, which transmits botanical and medical manuscripts that might otherwise have been lost—a monument of the kind printing was so good at producing—but one that is larded with the signs of Gessner’s immediate engagement with the myriad people in his social network. These included personal contacts—friends like Aretius or the bereaved relatives of a scholar he knew (the son was a dedicatee, the daughter the object of the poem); socially prestigious connections, like the owners of gardens that Gessner kept adding at the last minute as if worried about offending someone by omitting them; and scholarly contributors, notably the nine other dedicatees, whom Gessner thanked for information already sent or anticipated. These comprised five doctors, including the high-ranking imperial physician Stephanus Lauraeus; two pharmacists; and one minister—each of whom Gessner thanked as in so many other cases for sharing information, variously about mountain plants and roots, medical remedies, rare and foreign plants in the emperor’s gardens, and the unique experience of the amber burnt for the king and queen of Portugal. All of these Gessner included in the limelight of this publication. What Gessner could offer in return was the impacts of publication—both in the immediate context of spreading thanks and credit (and occasional criticism and subtle pressure) fast and far among contemporaries, and in the long-term impact of carrying these glimpses of the workings of late humanist scholarship across almost 500 years.

CATALOGVS PLANTARVM
HORTI CLARISSIMI VIRI PETRI MICHAELIS
ciuis Veneti, in uico S. Gerualdi: quem Ita-
licè scriptum ab amico ante annos
quatuor ferè accepi.

CELEBRATVR ET
Ducis Florentini hortus:
in quo præter alia pul-
chra aut rara, hæc ca-
tiam uisuntur,
ut audio.

Acanthus radicis glandifera.	Eupatorium Mesuæ è Syria.	Osyris flore coeruleo aut uio- lacco.
Aegolethros Plinij.	Faba Aegyptia.	
Alaternus Plinij.	Fascolus purpureus Indicus.	Panaces Chironium Theo- phrastr.
Alnus Cratae.	Ficus Aegyptia.	
Alliaria alpina.	Foenogracum recentiorum.	Polycnemum.
Aristolochia radicis crasse.	Folium, Dioscoridis nimirum.	Pyramidalis quædam plan- ta.
Aster Plinij.	Galeti, si rectè lego, nescio quid.	Quadrifolium.
Aspalatus uerus.		Radix Ideæ.
Aspodeli species aliquæ.	Gingidium Plinij, si rectè lego.	Rhaponticum.
Balanus Myrephica.		Rosæ moschate, sine spinis.
Batrachium, Ranunculi species.	Hyacinthus, Tulipa Turcarum, uel Lalle.	Sanicula fœmina. Sebastus ex Oriente.
Bello Plinij.	Hyoisycamus Aegyptius.	Sedum maius Dioscoridis.
Canelle, seu Cinnamomi uulgo dicti, folia.	Hysopus quædam, uel Serpyllum rectum.	Sedi plures species. Sementina ex Oriente.
Carduus nobilis.	Lichen Plinij.	Sion Plinij.
Carus.	Lilium Alexandrinum.	Sisari plures species.
Caryophyllorum ex Oriente folia.	Lonchitis prima et secunda.	Smilax lenis ex Creta.
Cedronella, species Nigellæ.	Lunaria Borissæ, species Centaurij minoris.	Spina ceruina. Staphylodendron puto: nã de l' uua
Cepæa.	Lycium secundum Indicum.	Italice scribitur Albero de l' uua
Cherisium (forte Corsium, quod est radix Lotti Aegyptiæ) Theophrasti.	Mandragoras mas- sina spinosa.	Tomentaria è Creta. Trastr uel Dulcichini.
Chondrilla Plinij.	Musa.	Verbascum utcosum è Cre- ta.
Chrysogonum.	Narcissus flore multiplici, è Constantinopoli.	Et aliæ quædam incognitæ, uariæ.
Corniola, Lutea Plinij.	Narcissus luteus, species Turcicæ. Alius luteus autumnalis, species Colchici.	
Colocynthidis duo genera.		
Daucus Creticus.		
Diclamnus marinus.		
Elatine secunda.		
Epimedium.	Nardus montana uera.	

Myrtus laureæ.
Laurocerasus.
Laburnum.
Solanum somniferum uerè.
Geniste species trifolia, quã aliqui non rectè pro Cy-
tiso accipiunt.
Thapsia.
Ferula.
Smilax lenis uera, quam et in monte Atho sibi uisam Bellonius ait.
Caprifolium Memphiticum, ut Bellon. uocat, quod et in Memphidem Aegypti in sepibus prouenit, apocyno simile, liquore etiam albo inanas, ut illud crocog: sed amplexi caule & in altum ascensum: species Smilacis læuis aut apocyni.
Herba baccifera, folio Silis quasi Fuchsi, &c.

FINIS.

FINIS.

CONRADI GESNERI APPENDIX

LIBRI SVI DE HORTIS GERMANIAE, AD FRANCISCUM Calceolarium, pharmacopolam Veronensem ad insigne Campanæ aureæ.

POSTquam Dominicus Monthisaurus, (uir non solum felici artis medicæ usu summus, sed etiam philosophus præclarus, & Græcis Latinisq; literis instructissimus,) mutæ nobis amicitie, humanissime Calceolari, author fuit, multa ab eo tempore beneficia tua copiose & liberaliter in me collata percepti. Quæcunque enim in genere Stirpium & uniuersa materia medica abs te petij, ea tam aliquoties cumulatisimè, & magno semper petitionis meæ fœnore ad me misisti: uti cum altàs, tum proximo uere proprio ad te nuncio tam longinquo itinere misso, qui Stirpes aliquas rariore tuè citòq; abs te mihi adferret, benignissimè sum expertus. Et quanquam ego perparum uicissim mitto, (quoniam regio nostra paucissima fert, & ego negocijs alijs occupatissimus operam rei hortensi, ut uellem, dare non possum: ac tunc unus aut alter præter me apud nos huic cultui deditus est,) non tamen idcirco desistis, & noua subinde donas, quæcumq; occurrunt. quod quidam bonitatis tuæ, & sincere amicitie, non uulgaris illius, quæ utilitatem magis quam uirtutem ac honestatem spectat, argumentum illustre est.

Vu

Figure 12. Valerius Cordus, Annotations in Dioscoridis De Materia medica libro V (1562), fol. 288r, the last page of Gessner's Horti Germaniae and beginning of the appendix.

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CAPTIONS

Figure 1. Graph of Gessner's publications by date and format.

Figure 2. *Icones animalium* (1553), appendix, page 59, featuring images delayed by the carver. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark AW 1.

Figure 3. *Icones animalium* (1553), sig. [H5]^r, following the appendix, Gessner's apology for images that were not included. Reproduced with permission from Zentralbibliothek Zürich, shelfmark AW 1.

Figure 4. *Historia animalium II* (1554), appendix, page 4, featuring the white Scottish bison, which Gessner apologized for omitting in 1553. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 5.2.

Figure 5. *Historia animalium III* (1555), sig. [a6]^r, a list of the learned men who helped, with instructions on how to send further information to Gessner. Reproduced with permission from Zentralbibliothek Zürich, shelfmark 5.2,2.

Figure 6. *De piscibus* (1556), title page, featuring four parts, each dedicated to a different person. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 18.2031.

Figure 7. *De piscibus* (1556), page 94, the dedication to Burchard Mythobios of Gessner's *Aquatilium animantium nomina Germanica et anglica, serie literarum digesta*. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 18.2031.

Figure 8. Chart of the references that Gessner made to forthcoming books in his front matter.

Figure 9. *Martialis epigrammata* (1544), in Gessner's own annotated copy. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark 7.377.

Figure 10. *Bibliotheca universalis* (1545), fol. 454^v, in Gessner's own annotated copy. Reproduced with permission from the Zentralbibliothek Zürich, shelfmark Dr M 3.

Figure 11. *Valerius Cordus, Annotationes in Dioscoridis De Materia medica libro V* (1562), title page, annotated to show the nine texts included in the book. Reproduced with permission from ETH-Bibliothek Zürich, Alte und Seltene Drucke, shelfmark Rar 9149 q, with my annotations in Photoshop.

Figure 12. *Valerius Cordus, Annotationes in Dioscoridis De Materia medica libro V* (1562), fol. 288^r, the last page of Gessner's *Horti Germaniae* and beginning of the appendix. Reproduced with permission from ETH-Bibliothek Zürich, Alte und Seltene Drucke, shelfmark Rar 9149 q.

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¹ The activities marking the 500th anniversary of Gessner’s birth included a conference and major exhibit in Zurich and a number of publications: Leu, 2016a; *Facetten eines Universums*; and a special issue of *Gesnerus* (2016).

² For one recent exception, see Gessner, 2009. For digitizations of Gessner’s works see www.e-rara.ch and www.bsb-muenchen.de, but also Gallica and Google Books.

³ In defining Gessner’s corpus, I have relied on Wellisch, section A, 31–100. See the bibliography for a complete list of Gessner’s works, ordered chronologically by year and within each year by the month specified in the dedication; for the specifics of these dates, see the appendix in Blair, 2016. In the tally for fig. 1, I counted only first editions (although some later editions involved substantial additions) and I omitted works published without Gessner’s involvement (*Elenchus* [1551]; *De stirpium epistolae* [1557]) or when his contribution was minimal, as I judged from the

fact that someone other than Gessner composed the dedication (Josias Simler, *Epitome* [1555]; Josua Maler, *Dictionarium germanicolatinum* [1561]; Henri Estienne, *Dictionarium medicum* [1564]; Jacques Houllier, *Viaticum novum* [1565]). I opted to attribute the *Dictionarium graecolatinum* to 1545, when Gessner was named on the title page and composed the dedication for the first time, although Gessner prepared contributions to this work as early as 1537 and complained that they were not properly included.

⁴ On Gessner's philological activity, see Müller; Baldi.

⁵ In addition, Gessner edited and translated the sententiae of the Greek monks Maximus and Antonius of Melissa (1546), the apology of Athenagoras (a church father of the second century, 1559) and the quaestiones of Cassius Iatrosophista (second–third century, 1562); he also translated texts by Porphyry and Proclus (1542), Michael of Ephesus (1541), Michael Psellos and Georgios Pachymeros (1542), and Tatian (1546).

⁶ Gessner edited manuscripts by Antonius Telesius (1545a), David Kyber (1553b), Valerius Cordus (1561a, 1563a, 1565b), Jodocus Willich (1563c), and Ioannes Moibanus (1565a); he calls attention to this activity in Gessner, 1563c, sig. *3^v.

⁷ See for example Eisenstein, 98, 109–11, on the use of print to gather information, by Gessner and others.

⁸ Martin; McKitterick.

⁹ Pettegree, 53–55.

¹⁰ Leu, 2014a.

¹¹ Wellisch, 14. For the most complete discussion of Gessner's finances see Leu, 2016a, 94–96, 348 and, for a German translation of this Latin letter, see 348–53. John Foxe similarly reported working for Froben and Episcopus under financial duress; see Grafton, 2011, 67–68.

¹² Wackernagel, 20 re Elias Philippinus (paid *15l 2s 2d* “pro Galeni recognitione”); 39 (“Gessnero pro praefatione,” *15l* from Froben) and 41 (“Gessnero d.d.” *15l* from Episcopus).

¹³ Gessner, 1562c. With one gulden worth two pounds, Leu, 2016a, 96, points out that this rate of pay per folio sheet was double what Froschauer paid Bullinger per sheet in 1535.

¹⁴ Gessner, 1562c, sig. a+3^v: “Quoniam typographis placuit me in eos praefari, quibus ego propter multa praeclara eorum in me beneficia, quamvis probe tenuitatis meae conscius, meam operam negare non sum ausus.” All translations are my own unless otherwise noted.

¹⁵ Letter of Simon Sulzer in Basel to Gessner, Staatsarchiv Graubünden in Chur, shelfmark D V/37 C 36.06.26. Many thanks to Urs Leu for this information and reference.

¹⁶ Kapp, 1:319 (chapter 5); and Leu, 2016a, 348.

¹⁷ *Ibid.*, 194. Gessner received his raise in mid-September 1558 but Gessner's neighbors expressed concern about disruption due to the planned extension already in June 1558. I am grateful to Urs Leu for this information. On the more general development of spaces devoted to study in early modern Europe, see Algazi.

¹⁸ Nutton, 96. See the entry of 7 March 1561 in the 1561–62 Calendar of State Papers, <http://www.british-history.ac.uk/cal-state-papers/foreign/vol4/pp1-16#fnn1>. A few months later William Cecil disbursed six pounds to Gessner. See <http://www.british-history.ac.uk/cal-cecil-papers/vol1/pp257-263>.

¹⁹ “I am freer now by the grace of God; and my work is not as bound to and constrained by the printers, as it was entirely until now”: Gessner to Kenntman, 27 Feb 1559, in Gessner, 1584, fol. B3^v–C1^r; discussed in Leu, 2016a, 354.

²⁰ I discuss this in more detail in an article that will appear in *Professors, Physicians and Practices in the History of Medicine: Essays in Honor of Nancy Siraisi*, ed. Cynthia Klestinec and Gideon

Manning. On the special financial challenges and strategies involved in publishing illustrated books, see Kusakawa, 48–61.

²¹ Horace, 216–17: “Exegi monumentum aere perennius / regalique situ pyramidum altius / . . . Non omnis moriar multaque pars mei / uitabit Libitinam; usque ego postera / crescam laude recens.” On publication in the ancient world, see Johnson.

²² On the formation and long reach of the canon of Latin language and literature, see Leonhardt.

²³ See <http://www.roger-pearse.com/weblog/2009/10/24/what-percentage-of-ancient-literature-survives-some-data/>. Without venturing an overall survival rate, an earlier scholar estimated that we have surviving works for only 20 percent of the Latin authors we know existed, and those works represent only part of those authors’ production, while there were of course other authors of whose existence there is no trace; see Bardon, 13.

²⁴ “To understand this better, gentlemen of Venice, consider also the following. How much of their literature did the Greeks lose since, at the time of their misfortunes, the Latins became so neglectful of these matters? What I am about to say is perhaps strange, but it is perfectly true. If we count the poets, orators, philosophers, and to put it briefly, past writers of works read by earlier generations of interested students, if we count all these, we shall find that perhaps we do not even have one per cent of them available to us now”: Bembo, 36–37. I am grateful to Aaron Shapiro for this reference; see Shapiro, 49–50.

²⁵ On the difficulties of estimating early print runs, see Dane. For evidence from a primary source, see Gerritsen.

²⁶ Pettegree, 49–50.

²⁷ Gessner, 1545b, title page: “Bibliotheca universalis, sive Catalogus omnium scriptorum locupletissimus, in tribus linguis, Latina, Graeca, et Hebraica: extantium et non extantium, veterum et recentiorum in hunc usque diem, doctorum et indoctorum, publicatorum et in Bibliothecis latentium.” As entry into the studies of the *Bibliotheca*, see Zedelmaier; Nelles.

²⁸ Gessner, 1545b, sig [*6]^r: “I rejoice and give thanks to God immortal that I finally came out of this labyrinth which ensnared me for about three years. . . . Now I look with joy on my labors and it pleases me to remember them: just like those who have come down a very high and steep mountain admire that they have returned when they are below again and congratulate themselves on overcoming a difficult path.”

²⁹ Ibid., sig *2^r: “Ubi nunc sunt septingenta milia librorum bibliothecae Ptolemaei Philadelphi, et Tyrannionis tria milia. A. Gellius scribit Alexandriae milia voluminum septingenta per milites combusta esse.” In his copy of the *Bibliotheca* Gessner corrected “tria” to “triginta” in a manuscript note because, indeed, the Suda reported that the Greek grammarian Tyrannion had collected 30,000 books, not 3,000. See the copy at the Zurich Zentralbibliothek Dr M 3, which has been digitized on e-rara.

³⁰ Gessner, 1545b, sig. *2^v: “Quid vero nunc ex omnibus illis tam gloriosis bibliothecis praeter inanem famam reliqui est? . . . Quandoquidem igitur tot et tam pretiosi in omni philosophia libri paulatim amissi sunt, partim flammis aut bellorum tumultibus consumpti partim ipsa vetustate tineis ac situ corrupti, plurimi vero dissipati negligentia et odio in literas barbarorum.”

³¹ Ibid., sig. *3^r: “Viam aperui, et magnam alijs occasionem praebui, qua facile divites aut principes viri Bibliothecas instituant, libris ad posteritatem transmittendis necessarias.”

³² Ibid., sig *3^{r-v}: “Et nimium exquisita forte aut curiosa diligentia, quaecunque inter legendum citata nomina occurrebant, statim annotavi: . . . et illos, a quibus nihil editum extat, nisi praefationes quaedam, aut etiam una solum, vel epistola una.”

³³ On early modern interest in *nuda nomina* (bare names) (mostly after Gessner's time), see Clark, 119–61.

³⁴ For example, Gessner wrote to Caspar von Niedbruck to inquire on behalf of the printer Isengrin whether he knew of any good-quality manuscripts of unpublished ancient texts; Leu, 2016a, 133. Nor was Gessner alone in his interest in fragments. In 1564 Henri Estienne published a collection of fragments from ancient Latin poets drawing on the work of Robert Estienne in the 1550s; see Grafton, 1983, 93.

³⁵ Gessner, 1551b, sig. a[4]^v–b1^r: “Suppeditabit hodie autores omnis generis ars typographica, ad literas posteris conservandas nostrae tempestatis hominibus divinitus concessa, qua tantum una die ab homine etiam literarum imperito exprimitur, quantum vix toto anno a compluribus penna licet properantissima exarari esset possibile.”

³⁶ Ibid., sig. *3^r: “Quamvis enim ars typographicae librorum conservationi nata videatur, ut plurimum tamen nostri temporis hominum nugae et inutilia scripta, vestustis et melioribus neglectis in lucem eduntur: quare pro manuscriptis saltem libris opus est Bibliothecis.”

³⁷ See Erasmus, *Adages* 2.1.1 (“festina lente”) in Erasmus, 7–28, especially lines 280–376.

³⁸ Beck von Beckenstein was the only person, along with Johann Jakob Fugger, to receive three dedications from Gessner: in 1545a, 1545b, and the foldout table to 1555h. In addition Gessner thanked him in 1548b, sig. *2^r. On his ownership of Greek manuscripts, see Serrai, 90.

³⁹ Gessner, 1556c, sig. α2^r: “Redeunti igitur ad te Aeliano tuo, iam integro, emendato, bilingui, publico, facilem ac benignum te praebe, et in bibliothecam tuam veluti hospitij iure admitte.”

⁴⁰ Gessner, 1565a, sig. [α7]^r: “Et hoc volumen, si placet, Bibliothecae vestrae (urbis ornamento per vos inchoato, et in perpetuum augendo) addite.”

⁴¹ Andrew Pettegree has estimated at 1 percent the overall survival rate of early printed books, taking into account the many editions of small-format and cheap books that likely do not survive at all: Pettegree, 334. The survival rate is higher for large-format and more expensive books—remarkably, for example, the Gutenberg Bible survives in forty-nine copies out of the 150 that were printed. But the central point of Pettegree's observation is that the considerable number of extant early printed books results not from the survival rate itself, but from the large number of copies printed.

⁴² See the list of correspondents in Leu, 2016a, 389–406, and a graph of their locations, in Leu, 2016b, 66–67. Gessner's *liber amicorum*, available online through the National Library of Medicine, contains entries from 227 different visitors, as studied in Durling.

⁴³ Gessner, 1577 and 1584, and Zentralbibliothek Zurich, MS C50a, available on e-manuscripta. Studies include Delisle, 2006 and 2008.

⁴⁴ For a survey of Gessner's paratexts, see Blair, 2016.

⁴⁵ “I especially ask, if there is another language in the British kingdom (indeed I hear that the islands of Ireland and of Man have their own) that you send us at an opportune time some specimen of them, especially from the Lord's Prayer”: Gessner, 1555h, sig. A2^v.

⁴⁶ Ibid., 78^r: “De omnibus enim linguis scribere sum ausus, non sane quod argumento me satisfactorum sperarem . . . sed ut excitarem alios, qui de singulis pluribusve sive ipsi lucubrationibus propriis, quod mallet: sive ad me nostra aliquando augendi aut emendandi gratia perscriberent.”

⁴⁷ Zentralbibliothek Zurich MS 204a–c; for some discussion, see Blair, 2010, 216–24. For his correspondence with Caspar Bauhin about cutting up letters, see also Leu, 2016a, 116–18.

⁴⁸ See Waquet.

⁴⁹ For an entry into studies of dedications, see Bloemendal; Gilmont and Vanautgaerden;

Schottenloher.

⁵⁰ Gessner, 1545a, sig. a4^{r-v}: “Itaque eruditi alicuius viri scripta tibi nuncupatim dedicare volui, quae quidem huiusmodi forent, ut perpetua viderentur futura: quod ego de meis sperare nec possum, nec debeo.”

⁵¹ Gessner, 1549c, sig. ++3^{r-v}: “Non iniucundam eius in nomina vestra inscriptionem vobis futuram existimavi.”

⁵² Gessner 1559c, sig. A2^r (internal dedication to Joannes Ectius): “Accepi tandem piscium Oceani Germanici quas ad me dedisti Eicones tam diu desideratas ornatissime Ecti: pro quibus ne verbis tantum gratias tibi agere, re ipsa etiam quaecunque gratitudinis specimen exhibere volui.”

⁵³ Gessner 1563c, sig. *6^r, *7^r.

⁵⁴ Gessner, 1560c, 128: “Poterit [praestare] et Io. Caius, medicus ille et philosophus summus: a quo imagines tum Avium tum aliarum animantium, una cum descriptionibus accurate ab eo perscriptis, hactenus permultas accepi.”

⁵⁵ Ibid.: “Quod si autoritate tua effeceris, ut viri aliqui docti apud vos, illarum avium quae in Anglia reperiuntur ultra eas quas hic exhibui, effigies mihi communicent, librum hunc alias ijs ipsis iconibus, et alijs forte (si quas aliunde interim nanciscar) Domino Opt. Max. vitam largiente, augendum curabo.”

⁵⁶ Gessner, 1551a, sig. [α6]^v; discussed in Blair, 2016, 77–78.

⁵⁷ Kusakawa, 59.

⁵⁸ Gessner, 1553c, 59: “Statueramus Quadrupedes omnes, non temere, sed certis singulas ordinibus et inter suas congeneres, enumerare. Impedivit institutum hoc sculptoris tarditas: quare hic reliquas adijcimus, quas ut facile unusquisque ad suum ordinem redigat, ad quem referendae sint quaeque adscribemus.”

⁵⁹ See Caius; on his relationship with Gessner, see Anthony Grafton’s lecture at the Gessner conference in June 2016 entitled “John Caius and Conrad Gessner,” which will be published in a volume from the conference, edited by Urs Leu.

⁶⁰ Gessner, 1553c, sig. [H5]^r: “Mittent et amici quidam fortassis aut etiam ignoti nobis, sed rerum naturae studiosi homines, etiam alias effigies quas nobis deesse animadverterint. Eas quoque nos prima quaque commoditate separatim aedemus ut hisce adiungi possint: ut et reliquas de caeteris animantium generibus figuras.”

⁶¹ Compare Gessner, 1553c, sig. [H5]^r, and “Appendix historiae quadrupedum viviparorum,” in Gessner, 1554, 4 (*biso Scoticus*), 10 (*musmonis*), 16 (*simia tartaris*); but the images of the *rana rubeta* and the *testudo terrestris* are not supplied in 1554.

⁶² Gessner, 1555b, sig. [a6]^r: “Rogo itaque doctos omnes in remotissimis regionibus, qui in hos libros inciderint, primum ut aequos ac benignos censores se nobis exhibeant, deinde si quid ad eos emendandos, augendos, iconibus et descriptionibus novis, aut quoquo modo illustrandos conferre possunt, id candide, liberaliter matureque ut faciant.”

⁶³ Ibid.: “Ego quoque eadem via ad viros doctos et liberales, quorum nomina et voluntatem cogovero, tum scribendo, tum si quid desiderarint mittendo gratum me declarare potero.”

⁶⁴ “You live (if I am not mistaken) in a remote part in the North of Germany, in the honorable town of Munda situated on the noble river Weser, at [the court of] the most illustrious Eric of Braunschweig”: Gessner, 1556b, 94. Today’s Hannoversche Münden is indeed where the river Weser (Visurgis) is formed.

⁶⁵ Gessner, 1556b, 94–95: “Thomas Erastus Helvetius, civis meus, . . . suis nuper ad me literis eruditionem simul et humanitatem tuam, clarissime Mythobi, splendide praedicavit. Et icones

aliquot animantium raras, Balthici praesertim maris aquatiliū, te possidere adiecit, quas mihi communicaturum te sis pollicitus, si qua commoditas tanto locorum intervallo mittendi daretur. . . . [T]e ante omnes et patronum illius optimum et censorem doctissimum, deligendum mihi constitui. . . . Id autem ut perficias, et simul quotquot habes pictas aut delineatas, imprimis Aquatiliū, effigies, earum me participem facere digneris. . . . Vidi ante annos aliquot egregias lucubrationes tuas, Stereometriam et Annuli Astronomici compositionem, magno ab eruditis hominibus applausu acceptas.” Burkhard Mithoff was the author of a few German works, including a *practica*, and of *Stereometria, ars oeconomica* (Frankfurt: Christoph Egenolph, 1544) and *Annulicum sphaerici tum mathematici usus et structura* (Marburg: Eucharius Cervicornus, 1536), which Gessner mentions here.

⁶⁶ Gardon, 167; it is striking that “bare names” were a challenge common to philology as well as natural history.

⁶⁷ Gessner, 1558, sig. [b5]^r: “Clarorum virorum, deque nobis in hoc opere bene meritorum, qui nostros conatus benigne iuverunt, plerique vel ab initijs praecedentium librorum Historiae animalium, vel in hoc ipso opere suis locis passim nominantur.”

⁶⁸ For a list of dedications, see Blair, 2016.

⁶⁹ On Erasmus’s remarkable publishing savvy, see Jardine; see also Vanautgarden, who enumerates the 221 works in his appendix. On Erasmus’s dedications, see Hoyoux, 43–49.

⁷⁰ Calendar of State Papers, 7 March 1561.

⁷¹ Reproduced in Leu, 2016a, 248; see Weber.

⁷² See Pinon.

⁷³ Gessner, 1561a, sig Bbij^r: “Sunt et Succini orientalis globuli duo, carissima munera [for munera] tua, candore et perspicuitate crystalli: Quod tantae auctoritatis est, sicuti scribis, ut reginis Portugalliae dotem impleat, et pro suavissimo preciosoque suffitu Ulyssibonae uratur: cuius in literis nulla hactenus, quod sciam, memoria fuit.”

⁷⁴ Gessner, 1551a, sig. γ1^r: “Catalogus doctorum virorum, qui ut opus hoc nostrum et rempub. literariam illustrarent, vel aliunde imagines animalium, aut nomina et descriptiones miserunt: vel praesentes communicarunt.”

⁷⁵ Ibid., sig. γ^{r-v}; Gessner, 1555b, sig. 6^r; Gessner, 1558, sig. b4^r.

⁷⁶ Others thanked twice, in 1551 and 1558, are Achilles Gasser, Cornelius Sittard, Georgius Fabricius, William Turner, Hieronymus Froben, Ioannes Falconer, Ioannes Kenntman, and Ioannes Ribittus. On Massarius, see Leu, 2016a, 122.

⁷⁷ Gessner, 1551a, sig [α6]^r: “Typographus ad lectorem: ‘Et, ut hoc obiter dicam, dedissemus forte etiam primi Tomi Bibliothecae ex officina nostra superioribus annis publicatae Epitomen, nisi iam a nescio quo inscijs nobis id fieri audiremus.’” It is less clear whether Gessner was displeased. In any case in 1555 Gessner explained that “the printer was pleased to reprint that same epitome compiled by Lycosthenes (the copies of which we had heard were all sold out) augmented with what we collected.” Gessner, 1555d, sig [*5]^r. I am grateful to Carlos Gilly for this observation.

⁷⁸ Gessner, 1555b, sig. [A5]^v: “Et ego nuper amico meo Hieronymo Massario Italo medico excellenti auctor fui, ut optimos vetustissimosque rei medicae auctores in Pandectas redigeret, quod opus iam propemodum ab eo confectum et brevi Basileae excudendum spero.”

⁷⁹ Sebastiani, 235nn48–50.

⁸⁰ Gessner, 1553c, sig. [H5]^r: “Ipsius quidem Historiae et descriptionis animalium reliquorum post quadrupedes Volumen Latinum iam sub praelo est: et Tomus primus de quadrupedibus in Germanicum sermonem translatus: qui etiam Gallice propediem excudetur.” See *Thierbuch*, trans.

Conrad Forer (Zurich: Froschauer, 1563); and Geoffroi Linocier, *Histoire des plantes* (Paris: Charles Macé, 1584).

⁸¹ Gessner, 1545b, 180^v–185^r; Gessner, 1562e. The entries for him in Gessner, 1555d, 38^{r-v}, and 1555c, 24^v–25^r, list only his published works. In the *Bibliotheca instituta* of 1574 and 1583 the entry for Gessner comprised the text of the *De libris a se editis* with a corollarium listing works published after 1562 and many manuscripts that Gessner left at his death. On the prominence of autobiography in his work, see Sergeev.

⁸² Turner also appears on two lists of “those who helped,” in 1551 and 1558. Turner had visited Gessner in 1540; see Leu, 2016a, 63, who cites Gessner, 1555f, 34.

⁸³ “If some kind Maecenas would come forward, under whose auspices the project would be carried out, the whole project would be accomplished more perfectly”: Gessner, 1545, 182^v. “Others who have written recently on fish in France and Italy had popes or cardinals as their wealthy Maecenas. Since I lack so far in this project a patron and Maecenas, I am more worthy of pardon if in any place I do not satisfy expectation”: Gessner, 1558, sig. [a5]^v.

⁸⁴ See Gessner, 1545b, 182^v–183^r; Gessner, 1562e, sig. [B7]^r, para. 5. On Gessner’s reliance on images in a manuscript of Oppian, see Leu, 2016a, 208, 423.

⁸⁵ “And when about three years ago as a guest of Oporinus I found this book in his very abundant library, and attracted by the novelty of the title, when I asked if he could give it to me to read, I obtained it easily; just so did my cousin obtain recently from him permission to print it on his press”: Gessner, 1563c, sig. *2^r.

⁸⁶ “When these days my cousin Andreas Gessner was printing Ioannis Leo’s Africa and asked if I could add something new of mine, since I did not have leisure for greater things, I suddenly translated into Latin the *Navigatio* of Hanno and added some comments written altogether too rapidly, in the work of just a short day”: Gessner, 1559b, sig. α2^r. “My cousin the printer coincidentally had this in press . . . and asked me if I could add something new of my own”: Gessner, 1563b, 721. “Now finally, at the request of my cousin the printer to supply something for his idle press, I put together this little book from my papers”: Gessner, 1562b, sig. A2^v.

⁸⁷ “When I published this book prematurely for the sake of my cousin Andreas Gessner, then a new printer, I did not want to add my name”: Gessner, 1562e, sig. A8^v–B1^r, para. 37.

⁸⁸ On Gessner’s advice to cut and paste from printed books, notably in order to index a work, see Gessner, 1548b, 19^v–20^r, as discussed in Blair, 2010, 96–97.

⁸⁹ The Zentralbibliothek Zurich holds Gessner’s own annotated copies of 1544b, 1544c, 1545b, 1546a, 1546b, 1556c, 1560a–c, 1563c, and 1565a. For a full bibliography of works annotated by Gessner, see Leu, Keller, and Weidmann.

⁹⁰ “Quae manus obscenas depinxit prima tabellas, / Et posuit casta turpia visa domo, / Illa puellarum ingenuos corrumpit ocellos, / Nequitiaeque suae nolui esse rudes.” The eight lines Gessner adds are from Propertius, *Elegies* 2.6 (lines 27–34); translation from Propertius, 103. The selection is marked up with instructions to the printer: “pone post lin. 2 ante elegiam ad Cynthiam, quae incipit, Gavisa es,” that is, “to position [these lines] after line 2 before the elegy to Cynthia which starts ‘Gavisa es.’” Indeed Elegy 2.7 begins “Gavisa es certe sublatam, Cynthia, legem” (“Cynthia delights, certainly, that the law has been lifted”): see Propertius, 105. These instructions might be remnants of an earlier use of the text, e.g., in proofs for publication. It is not clear what if anything the annotations mean here, but the printed passage is clearly relevant to Gessner’s point about the need for expurgation. On Gessner’s arguments in this edition, see Leu, 2014b.

⁹¹ Gessner was no doubt referring to *Iani Damasceni . . . Therapeuticae methodi hoc est curandi artis libri VII* (Basel: Henricpetri, 1543). See Gessner, 1545b, fol. 454^v, in Gessner’s own copy at the

Zentralbibliothek Zurich, shelfmark Dr M 3, as digitized on e-rara, and compare with that page in Gessner, 1966. For a reproduction of fol. 455^r in Gessner's copy, which features a further printed paragraph that was substituted for the page printed originally, see Blair, 2010, 224.

⁹² Gessner, 1545b, sig. *5^r: “Novi et hodie quosdam (qui inter bonos et doctos homines numerari cupiunt) a quibus librorum tituli ad imponendum emptoribus dolo malo immutantur, et opera tota interpolantur, ut pro novis obtrudi possint: quorum nominibus quanquam in praesentia abstinuerim, ab amicis persuasus, si tamen ita pergant, et Deus mihi concesserit, efficiam ut eos sui facinoris poeniteat.”

⁹³ Woudhuysen 15, referring to Samuel Daniel and Michael Drayton.

⁹⁴ On Parker, see Knight, 47–51, and the paper delivered by Madeline McMahon on “Parker and Ecclesiastical History” at the conference “Matthew Parker: Archbishop, Scholar and Collector,” held at CRASSH and Corpus Christi College, Cambridge, in March 2016, which will appear in a volume in due course. See also Anthony Grafton's Sandars Lecture at Cambridge University delivered on 27 January 2016, available here: <http://www.lib.cam.ac.uk/about-library/prizes-and-fellowships/sandars-readership-bibliography/sandars-lectures-2016>.

⁹⁵ On Cordus, see Dannenfeldt, 229–35. On Gessner's discontent with Rihel, see Leu, 2016a, 257.

⁹⁶ Nyffeler, 168–71.

⁹⁷ Leu, 2016a, 261. On “finis,” see Sherman.

⁹⁸ Gessner, 1561a, sig. Vu^v: “Cum liber meus De hortis Germaniae ad finem operum Val. Cordi Argentinae imprimendus, ad manum non esset: nec revocari, typographo ad operis finem festinante, ut suis quaeque locis alphabeticae seriei insererentur, posset.”