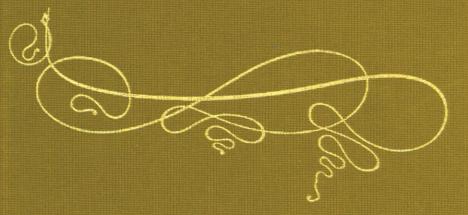
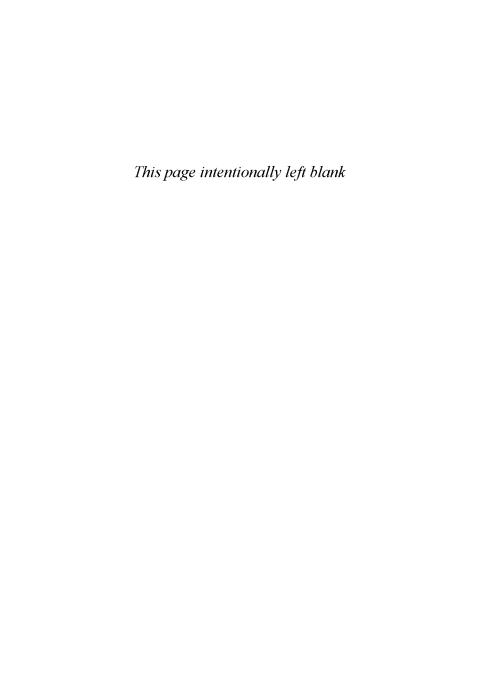
MIRA CALLIGRAPHIAS MONUMENTA



# MIRA CALLIGRAPHIAE MONUMENTA



## MIRA CALLIGRAPHIAE MONUMENTA

A Sixteenth-Century Calligraphic Manuscript Inscribed by Georg Bocskay and Illuminated by Joris Hoefnagel

LEE HENDRIX AND THEA VIGNAU-WILBERG

THE J. PAUL GETTY MUSEUM MALIBU, 1992

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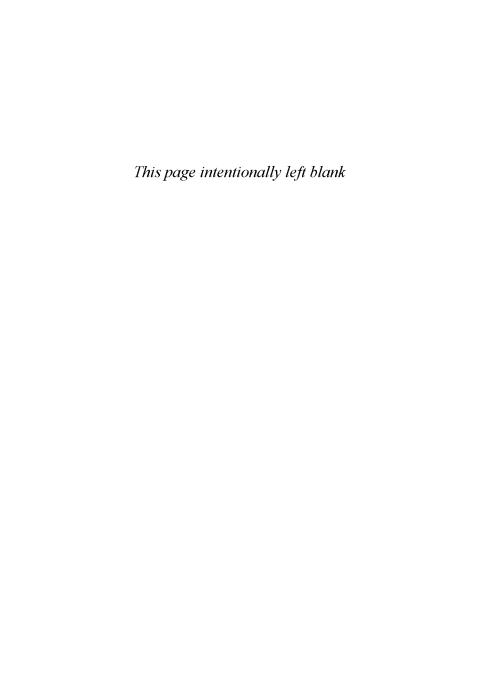
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### **FOREWORD**

Ever since Joris Hoefnagel's Mira calligraphiae monumenta, or Model Book of Calligraphy, entered our collection in 1986, it has had a spellbinding attraction for our visitors. The startling precision of the pictures and the uncanny complexities of Georg Bocskay's writing still arouse wonder, as they were meant to. What better Getty manuscript to be the subject of our first facsimile publication?

In this volume you will find a complete pictorial record of the manuscript, with a thought-provoking commentary by two specialists. The text offers much unpublished information about both artist and scribe, as well as a novel interpretation of the work. Through this book we hope to provoke a productive dialogue about the puzzling aspects of this extraordinary work of art.

The Hoefnagel-Bocskay manuscript was acquired at the urging of our knowledgeable (and persuasive) curator of manuscripts, Thomas Kren, himself a specialist in Flemish illumination. It is Dr. Kren who advocated the formation of the collection nine years ago, who has guided its subsequent growth, and who has planned the series of facsimiles inaugurated by this book. We owe him a great debt of gratitude.

John Walsh Director

#### PREFACE

Illuminated manuscripts are among the most beautiful and intriguing works of art that survive from the Middle Ages and Renaissance. Regrettably, they are also among the least known to the general public. This is in part because the great collections of illuminated manuscripts are housed more often in libraries than in museums; more importantly, however, their special character as books and their fragility as objects require carefully controlled conditions for display. And while the Getty Museum always has a selection of its finest manuscripts on view in the galleries, by their nature books only permit the display of one opening at a time. Due to these inherent limitations, the museum visitor can only gain a more complete idea of any book and its intricate program of continuous decoration with the aid of modern technology, such as the videodisc format, or the traditional form of the published facsimile. It is thus both for the delectation and instruction of the general public and for the information of scholars that museums, libraries, and collectors publish full or partial facsimiles of particular manuscript treasures.

The Getty Museum has the pleasure to inaugurate its facsimile series with the spectacular Mira calligraphiae monumenta written in 1561–62 by Georg Bosckay for Emperor Ferdinand Hapsburg I and illuminated some thirty years later by Joris Hoefnagel for Ferdinand's grandson, Rudolf II. The manuscript stands at an art historical crossroad. It constitutes one of the last important monuments in the grand tradition of medieval European

manuscript illumination. In addition to its meticulous studies of flora and fauna, however, it points directly to the emergence of Dutch still life painting, an essentially new artistic genre of the seventeenth century. Bocskay's achievement bears an analogous relationship to the history of Western writing. Produced at a time when printed books had almost totally replaced manuscripts, it celebrates the function of the handwritten book as the principal preserver and disseminator of knowledge while also showing the concern with self-expression that would dominate the uses of script from the sixteenth century on.

The present publication is conceived in two volumes. The first is this facsimile, which includes an introduction to the manuscript. The second, companion volume will have a more detailed and scholarly commentary on the book—its illumination, its script, its creators, and its patrons.

The Manuscripts department would like to thank two noted specialists on Joris Hoefnagel – Lee Hendrix, Associate Curator of Drawings at the Museum, and Thea Vignau-Wilberg, Curator of Netherlandish Prints and Drawings, Staatliche Graphische Sammlung, Munich – for preparing the introductory texts to this volume, which include both new ideas about the manuscript and new documentary evidence about the artist and scribe. Dr. Hendrix has also conscientiously and creatively played a role in nearly every aspect of the facsimile's production. With great generosity and good spirit, Carla S. Oldenburger-Ebbers and D. O. Wijnands, Land-

bouwuniversiteit Wageningen, provided the botanical identifications, and A. J. de Winter and K. W. Robert Zwart, the insect and mollusk identifications. Further assistance was provided by Robert L. Bezy and James H. McClean, Natural History Museum of Los Angeles County, and by Robert Cowan, who translated Dr. Vignau-Wilberg's original German text. Charles Passela, the doyen of photographers of illuminated manuscripts, labored with characteristic determination and resourcefulness to produce the most faithful possible renderings on film of the varied and sometimes elusive hues contained in the book. We are deeply appreciative of the marvelous work he has done. Nancy Turner supervised the book's photography on behalf of the Manuscripts department. We thank the staff of the Publications department, under the direction of Christopher Hudson, for their willingness to undertake a complex type of project which is more familiar in European than in American publishing: especially Andrea P. A. Belloli, the editor of this book, Karen Schmidt, Production Manager, and others who contributed to the project's realization. The graceful book design is by Lorraine Wild. To all of these individuals we offer our most sincere thanks.

Thomas Kren
Curator of Manuscripts

# MIRA CALLIGRAPHIAE MONUMENTA: AN OVERVIEW

The art of the Western illuminated manuscript resonates in large measure due to the dynamic relationship between word and image. The spirited interplay between the two systems of representation results in part from their alternative sources of affective power: that of the written word, rooted in its character as transmitted speech, and that of imagery, springing from its direct appeal to vision. Another critical aspect of this relationship is that the texts were written, just as the images were painted, by hand. The handwritten character of scripts preserves their link to human experience, to the word both spoken and heard, just as surely as the illuminations implicate the faculty of sight.

In the production of an illuminated manuscript, the writing and illuminations were usually carried out by different people. This division of labor contributed to the evolution of the manuscript page into a dynamic, compelling field from which image and text alike actively reached out to the viewer in an effort to communicate. Alongside the self-evident animation of the illuminations, script possessed a vitality of its own, born of such elements as the kinetic energy of the pen, the palpability of letters formed in gold and silver leaf, and the pure luminosity of words written in gold pigment. As centuries passed, there was an increasing tendency to relegate words and images to separate fields on the page surface. At the same time, artists and scribes alike invented myriad ways to transgress and satirize these boundaries, such as intricate framing devices or script flourishes extending into the

margins to interact with figural imagery. Such play with the relationship between word and image, however, was generally subordinated to other tasks performed by the illuminated codex, such as the transmission of information and the propagation of devotional practices.

Mira calligraphiae monumenta is a singular artistic creation in the history of illuminated manuscripts. This very uniqueness, coupled with the absence of contemporary textual references to the work, force one to rely principally on internal evidence when forming a theory as to the work's meaning and significance. It is argued here that Mira calligraphiae monumenta in its present state provides an extended meditation on the efficacy of imagery versus that of the written word. The manuscript evolved in stages over a long period of time and now consists of two distinct parts. The first of these, comprising 123 vellum and 5 paper folios, was originally written as a model book of calligraphy in 1561-62 by the imperial secretary Georg Bocskay for the Holy Roman Emperor Ferdinand I Hapsburg (r. 1556-64). Bocskay created the model book as proof of his own preeminence among scribes and as a testament to the universal power of the written word both past and present. In so doing, he assembled a vast selection of contemporary and historical scripts as well as many exhibition hands, scripts intended not for practical use but for virtuosic display. Bocskay's employment of the finest white vellum as a writing surface complements his flamboyant technical prowess and exceptional sureness of hand. The visual splendor of scripts was pushed to even greater extremes by the lavish use of gold and silver.

More than fifteen years after Bocskay's death in 1575, illuminations were added to the model book by the Flemish miniaturist and imperial court artist Joris Hoefnagel at the behest of Emperor Rudolf II (r. 1576–1612), the grandson of Ferdinand I. Europe's last great manuscript illuminator and a man of immense learning, Hoefnagel devised an ingenious figural response to Bocskay's scripts. Marshaling all of the resources of pictorial illusionism, he sought to demonstrate the superior affective power of images over written words. Hoefnagel's illuminations present a world of flowers, insects, fruit, small animals, and other forms of natural minutiae as

extensive in its own way as Bocskay's collection of scripts. Painted at close range in painstaking detail, the specimens make use of a palette of calculated intensity and high saturation. Full-blown forms and extensive cast shadows enhance the illusionistic presence of the objects.

Hoefnagel's decorative program transformed Bocskay's manuscript into a visual paragone, a kind of debate arguing the superiority of one art form over another. Such debates were closely associated with the rise of the visual arts—painting in particular—from craft to liberal art status during the Renaissance. Leonardo da Vinci, for example, discussed the relation of painting to sculpture and poetry, while Michelangelo wrote a famous letter asserting sculpture's supremacy over painting.¹ Among Renaissance paragoni, however, that of Hoefnagel is unique, insofar as it is the first extensive exploration of the relation of painting to writing.² Its partisanship toward figural imagery is consistent with the wider tendency among artists at the court of Rudolf II to depict themes glorifying the visual arts and asserting their status among the liberal arts.³

The second part of Mira calligraphiae monumenta consists of constructed alphabets of Roman majuscules (upper-case letters) and Gothic minuscules (lower-case letters). Of slightly heavier vellum than the writing model book, the constructed alphabet is comprised of twenty-two folios illuminated by Hoefnagel on both recto and verso with elaborate, colorful borders. The illuminations of the majuscules are elevated in tone. Each is inscribed at its base with a verse from the Psalms that begins with (or includes near the beginning) the letter in question and is composed of imagery illustrating the biblical text. Much of this imagery refers symbolically to the patron, Emperor Rudolf II. By contrast, the illuminations of the minuscules are humorous, featuring natural specimens, hybrid creatures, and a series of fanciful masks. A characteristic creation of Renaissance artists and literati, the constructed alphabet expresses the then widespread belief in a universe governed by principles of measure and proportion revealed through the correspondence of microcosm to macrocosm. Hoefnagel's illuminations imbue this association with specific religious and political content by linking the

alphabet to the word of God and thence to his representative on earth, the Holy Roman Emperor.

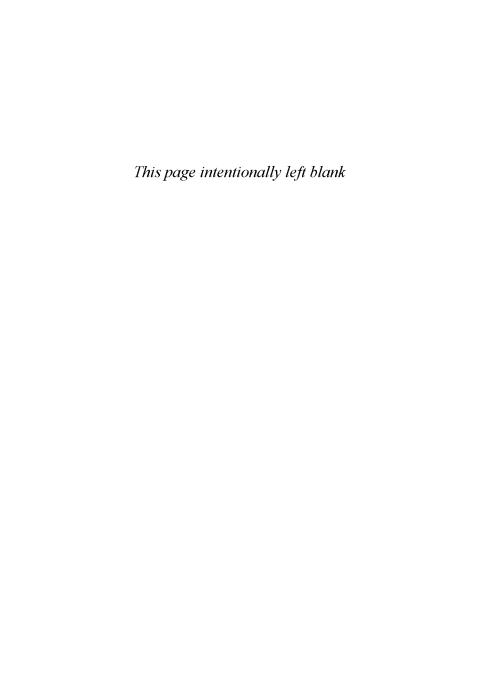
It was almost certainly the decision of Hoefnagel and the emperor to bind the two manuscripts together as a single work. The addition of the constructed alphabet to the calligraphic model book is critical to the effect of the whole, for the pair can be fairly described as encompassing all that had been achieved in Western writing until that time. As we will see, Hoefnagel deliberately avoided symbolism in the illuminations of the first part, the calligraphic model book. The numerous symbolic references to Rudolf in the alphabet section serve to establish his presence and authority. Thus, the addition of the constructed alphabet resulted in a manuscript that reflects the greater world in microcosm, encompassing humanity's most powerful forms of representation—writing and painting—under the domination of the emperor.

Emperor Rudolf II was especially fascinated by objects bearing microcosmic/macrocosmic associations, having founded on this very principle his own vast and renowned collections housed at the imperial castle in Prague. Chief among these collections were the picture gallery -which contained such masterpieces as Correggio's series of paintings representing the loves of the gods (now in Berlin, Rome, and Vienna) and Albrecht Dürer's Madonna of the Rosary (Prague, Národní Galerie) - and the so-called Kunstkammer, an encyclopedic assortment of natural specimens, fossils, bones, minerals, scientific instruments, sculpture, goldsmith's work, illustrated manuscripts, jewels, and other objects. The Kunstkammer was intended to represent the contents of the entire world divided according to the categories of artifice and nature.4 In all likelihood, Bocskay and Hoefnagel's manuscript was housed there. At some point after Rudolf's death in 1612, the manuscript was removed from the imperial holdings. Its subsequent history remains unknown until the nineteenth century, when it surfaced in a European private collection. After passing through a number of such collections, it was acquired by the J. Paul Getty Museum in 1986.5

## Notes

- The author is indebted to Egbert Haverkamp-Begemann and Thomas DaCosta Kaufmann for reading the typescript and offering many constructive comments. This publication has also benefited from the advice, criticism, and support rendered by Barbara Anderson, Carol Armstrong, Andrea P.A. Belloli, Richard Day, George Goldner, Glenn Harcourt, Peter Kidd, Amy Meyers, Linda Ogden, Carla Oldenburger-Ebbers, Charlotte and John Plummer, Nancy Turner, Ton Croiset van Uchelen, Thea Vignau-Wilberg, and Nancy Yocco. Thomas Kren deserves special thanks for shepherding every phase of the production of this facsimile.
- 1. D. Summers, Michelangelo and the Language of Art (Princeton, 1981), pp. 269-82; L. Mendelsohn, Paragoni: Benedetto Varchi's "Due Lezzioni" and Cinquecento Art Theory (Ann Arbor, 1982), pp. 37-40, 156-59.
- 2. This subject was to gain wider currency in seventeenth-century Dutch art and theory. Of particular note is the thirteenth chapter of Karel van Mander's Den Grondt der Edel Vrij Schilder-const (Foundation of the Noble and Free Art of Painting) (1604). This text discusses writing in the context of a consideration of the function of color in painting and indicates an approach diverging from that

- of Hoefnagel, in that it subordinates painting to writing. In a convincing explication of this passage, W. Melion points out that van Mander praised writing as holding fast the memory of the arts, sciences, and history and thus implicitly equated writing with the art forms of drawing and reproductive engraving ("Hendrick Goltzius's Project of Reproductive Engraving," Art History 13, no. 4 [December 1990], p. 481).
- 3. T. DaCosta Kaufmann, "The Eloquent Artist: Towards an Understanding of the Stylistics of Painting at the Court of Rudolf II," Leids Kunsthistorisch Jaarbock (1982), pp. 119–48.
- 4. For a discussion of the Kunstkammer and additional literature, see T. DaCosta Kaufmann, The School of Prague (Chicago, 1988), pp. 16–17.
- 5. Emperor Ferdinand I Hapsburg, Vienna; by descent to Emperor Rudolf II Hapsburg, Prague; Albert Milde, Vienna, by 1887; Goldschmied, Frankfurt-am-Main, 1907; Fritz Gans, Frankfurt-am-Main, 1916; Louis Koch, Frankfurt-am-Main, by 1923; private collection, Europe, by 1942; Malibu, The J. Paul Getty Museum, 1986.



### GEORGE BOCSKAY, THE CALLIGRAPHER

"Like the Hungarian Zeuxis with his pen, so the Belgian [Zeuxis] decorates your treasures with his artistic ability, eminent Rudolf. Both are equal in talent, learning, and reputation. Let him burst who bursts with envy." Joris Hoefnagel, who composed this epigram, inscribed it on folio 48 of Georg Bocskay's writing model book now in the Kunsthistorisches Museum, Vienna (Sammlung für Plastik und Kunstgewerbe inv. 975). 'As the epigram states, Bocskay and Hoefnagel, who shared a first name in their respective mother tongues, collaborated on the Vienna manuscript as equal giants in their respective fields. The illuminated writing model book in the Getty Museum harnessed their talents once again. In both instances, illuminations and script are subtly and ingeniously wedded.

One cannot speak of collaboration in the strictest sense, however, since the artists never knew one another personally. When Bocskay died in Vienna in 1575, Hoefnagel was still a young businessman in Antwerp. He illuminated the Vienna writing model book approximately twenty years after it had been written, while in the case of the Getty codex, more than thirty years separate the scripts and the illuminations.

Bocskay<sup>2</sup> wrote that he himself had been born in Razinia,<sup>3</sup> a part of Croatia then belonging to Hungary. He also indicated that he was the scion of an old Hungarian noble family<sup>4</sup> that held property in both present-day Croatia and Hungary. At the end of the fifteenth century, this family had received the noble surname de Razinia,<sup>5</sup> referring to their fiefdom,

which constituted a castle and village near Kreuz, northeast of Zagreb.

Bocskay may have been in imperial service well before 1561. In the 1960s, Tibor Szánto<sup>6</sup> discovered an elaborately inscribed document in the state archive in Budapest in which Emperor Ferdinand I confirms the nobility of one Nikolaus Oláh. The first decorated page of the document is dated 1560 and monogrammed HBG. The style, technique, decoration, and monogram indicate that "Georgius Bocskay Hungarus" probably inscribed it, thus providing evidence that Bocskay's service to the emperor began prior to 1561. On March 10 of that year, the Hungarian Chamber, a governmental body, authorized a raise in salary for Bocskay of fifty forints, retroactive to the beginning of the year. As Chamber secretary -he was called "scriba noster"-Bocskay was paid a fixed salary of 250 forints from then on. 8 In 1562 he referred to himself as "the ancient servant and court servant of His Majesty" (Maiestatis suae veteranus servitor et Aulae familiaris). 9 Documents preserved in Vienna and Budapest state that Bocskay was employed as scribe (scriba) and secretary (secretarius) of the royal Hungarian Chamber. In addition, a record of 1563 describes him as court historian (annaligraphus).10 Finally, Bocskay refers to himself in the Vienna writing model book (inv. 975, fol. 48) as a royal adviser (Maximiliani secundi... consiliarius).

Bocskay served Emperor Ferdinand I and his successor Maximilian II (r. 1564-76). He did not, as has been claimed," serve Emperor Rudolf II, since he died one year before Rudolf's coronation. The seat of the imperial court during Bocskay's lifetime was Vienna, only shifting to Prague with Rudolf's ascension to the throne. Bocskay thus certainly resided in the former city, where, as he himself recorded, he wrote both the Getty and Vienna model books."

The Getty codex is the earliest surviving work that attests to Bocskay's universal calligraphic mastery. His pride is implied in the inscription Mira calligraphiae monumenta placed by a later owner on the flyleaf opposite the first folio. The work is dated 1561 (fols. 14, 29, 96, 104, 120, 129) and 1562 (fols. 71, 72, 89, 96, 99, 113, 115, 116, 119, 121, 125). The repeated and almost exclusive written references to Emperor Ferdinand I make it

likely that the writing model book was commissioned by him. In 1562, Bocskay completed a third model book of calligraphy, also preserved in Vienna. Its large, oblong format, less expressive calligraphy, and less costly material—paper instead of vellum—suggest that it was not conceived as a display piece but was intended to serve a pedagogical as well as an aesthetic function. Dedicated to Ferdinand I, it was probably commissioned by him as well. 4

Bocskay's descent from Hungarian nobility and his technical prowess assured him a high position at court. It is noteworthy in this connection that the Hungarian Chamber presented him with a set of gold-plated silver vessels, valued at sixty forints, at his wedding in October 1564.<sup>15</sup> On this occasion, Emperor Maximilian's brothers, the archdukes Ferdinand II (later Ferdinand of Tyrol) and Charles of Steiermark, also presented gifts. Charles gave a set of gold-plated silver vessels valued at between sixty and eighty guilders, hie while Ferdinand gave a similar set, which he ordered presented to the groom by a nobleman.<sup>17</sup> At this time Bocskay was living in a villa called Getthia.<sup>18</sup>

Bocskay received special payments for each of his various functions and was awarded extra moneys on special occasions and in recognition of exceptional achievements. According to court accounts, he was paid a yearly salary of one hundred guilders from 1565 on. <sup>19</sup> For his services to the Hungarian Chamber, he was also paid 200 forints a year, which amount was raised to 250 forints in 1561 and 400 forints in 1568. <sup>20</sup> His salary from the Chamber was frequently in arrears, however. Bocskay pleaded repeatedly for at least partial payments or contributions toward such expenses as assistance to his family (in 1565), <sup>21</sup> help toward the purchase of a house for himself and his family, <sup>22</sup> and the marriage of a niece (in 1571). <sup>23</sup> These pleas included the remarkable request for aid in purchasing fifty serfs, also in 1571. <sup>24</sup>

Bocskay participated in one of the major imperial projects of the sixteenth century: the construction of the monumental tomb of Emperor Maximilian I (r. 1493–1519) in the court church in Innsbruck. For the cenotaph, the sculptor Alexander Colin had executed twenty-four reliefs depict-

ing scenes from Maximilian's life. For the tablets bearing inscriptions, several wagon-loads of black marble slabs were ordered from Italy, to be prepared by the mason Georg von der Werdt. Ready by April 1564, the tablets were given to Bocskay in Vienna so that the inscriptions could be carved and gilded.<sup>25</sup>

With the tomb itself nearing completion, the tablets with inscriptions had not yet been delivered. In March 1567, the Tyrolean government in Innsbruck intervened through Emperor Maximilian II. It became clear that Bocskay's apparently dilatory approach to the project was the result of various problems. He informed Maximilian II that five of the forty tablets had arrived broken. Bocskay had often been sick, he had had family problems, and other business had put demands on his time and energy. Nonetheless, he had completed the inscribed tablets except for the five broken ones. On May 23, 1567, the Tyrolean government commissioned new tablets to replace the five and advised Bocskay that these, packed in felt, were being shipped to Vienna. It was specified that he should deliver the completed tablets to Innsbruck by ship.

By May 11, 1568, Bocskay had obviously completed all of the tablets. Mindful of previous losses, he demanded a payment of four hundred thalers before shipping them; this payment was guaranteed by the broker Blasius Kuhn. To the Tyrolean government, the advance seemed high, since the project had been commissioned by the emperor, who already was paying Bocskay a salary. On June 8, 1568, however, the government did issue a payment of two hundred thalers. The tablets were delivered to Innsbruck in October. Bocskay recovered his expenses in 1570, when the emperor awarded him an honorarium of another two hundred thalers.<sup>26</sup>

In addition to his other responsibilities, Bocskay inscribed one of the Vienna writing model books (inv. 975) between 1571 and 1573.<sup>27</sup> The quality of the script of this elaborately designed manuscript equals that of the Getty codex. In general, however, more of the texts are secular than in the Getty manuscript. For example, they include more preambles to official documents and epistolary salutations.

In March 1575, Bocskay fell gravely ill. Archduke Charles

attempted to pay him the total due from his court salary.<sup>28</sup> Bocskay died in Vienna before April 8. His widow received his salary for April in order to pay for his funeral.<sup>29</sup> She requested that the Hungarian Chamber pay his outstanding salary as well as an amount corresponding to the value of the fifty serfs the emperor had awarded him in 1571.<sup>30</sup>

"Cum suis sanctis mereamur aulam ingredi caeli, simul et beatam ducere vitam" (Let us deserve to walk with the saints into the hall of heaven and to lead a holy life with them). To this text, which is written on folio 29 of the Getty codex, Bocskay added the year 1561 and his initials as an indication of his personal regard for the prayer. He concluded the Getty codex on folio 129 with another text that represents the humanistic counterpart of the Christian belief in eternity, adding his name and the date 1561: "Fama seu virtutis nomen superest tantum, sed caetera universa mortis erunt" (Only reputation survives; everything else belongs to death).<sup>31</sup>

### Notes

- 1. Hereafter Vienna inv. 975. Vellum, 127 folios, with 3 paper flyleaves at front and back; 119 folios inscribed and illuminated. Written and illuminated on recto only. Later foliation. 18 x 13.2 cm (8 x 5 ½ in.). Written by Georg Bocskay, 1571-73; illuminated by Joris Hoefnagel, 1591-94. See Prag um 1600 (Freren, 1988), vol. 2, no. 599 (with bibliog.).
- Also spelled Bochkhay, Bokhey, Bosskhay, or Botschkai.
- 3. Malibu, The J. Paul Getty Museum, Ms. 20 (hereafter Getty Ms. 20), fols. 118: "a Razynia"; 119: "de Razinia Hungarus." See also Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, Ser. n. 2664 (hereafter Vienna Ser. n. 2664), fol. 1: "a Razinija Pannonius."

- 4. Vienna Ser. n. 2664: "ex... vetustissimo nobilissimo atque clar[issimo] Hungaricae et Sclavonicae gentis stemate oriundus."
- 5. See F. Ritter, "Ein Wiener Schriftmusterbuch aus dem 16. Jahrhundert mit Miniaturmalereien," Mittheilungen des K.k. Oesterreich: Museums für Kunst und Industrie, n.s. 2 (1887), p. 340.
- 6. T. Szánto, "Ein großer Schreibkünstler des XVI. Jahrhunderts," Gutenberg Jahrbuch (1963), p. 40.
- Szánto (ibid.) interpreted the monogram as "Hoefnagel Georg Bocskay." However, a collaboration between Bocskay and Hoefnagel could not have occurred in 1560.

- 8. J. Kapossy, "Adattár-müvészettörténeti regeszták a királyi határozatokból és rendeletekből. I. XVI. Század," ed. G. Bánrévi, Művészettörténeti Értesító (1956), p. 51, no. 88: Vienna, March 10, 1561. I wish to thank Géza Galavics, Hungarian Academy of Science, Budapest, for this reference, and Aranka Pósa, Zentralinstitut für Kunstgeschichte, Munich, for help with the translation of Hungarian texts.
- Vienna Ser. n. 2664.
- 10. Kapossy (note 8), p. 52, no. 107: Vienna, May 5, 1563, a document in which Archduke Maximilian commits the Hungarian Chamber to pay Bocskay's travel expenses in the amount of fifty forints.
- 11. By E. Chmelarz, in "Georg und Jakob Hoefnagel," Jahrbuch der Kunsthistorischen Sammlungen des Ah. Kaiserhauses (hereafter JKSAK) 17 (1896), p. 284; Szánto (note 6), pp. 37, 40.
- 12. Vienna inv. 975, fol. 54; Getty Ms. 20, fols. 89, 119, 129.
- 13. Vienna Ser. n. 2664: paper, 33 folios. 24.6 x 67.5 cm (9<sup>5</sup>/8 x 26<sup>1</sup>/2 in.).
- 14. Ibid., fol. 1: "Ferdinando... imperatore... foeliciter regnante Georgius Bochkay... in perpetuum artificii sui testimonium diversas characterum formas in hoc libro contentas rara ac singulari quadam ingenii dexteritate ex gratiosa eiusdem Maiestatis voluntate... effigiavit."
- 15. Kapossy (note 8), p. 52, no. 129: Vienna, October 25, 1564.
- 16. JKSAK 13 (1893), Reg. 8657: Vienna, October 20, 1564.

- 17. JKSAK 11 (1890), Reg. 7885: Prague, October 20, 1564.
- 18. Kapossy (note 8), p. 52, no. 129.
- 19. JKSAK 7 (1888), Reg. 5000: Vienna, November 5, 1565; Reg. 5087: September 30, 1567; Reg. 5139: October 18, 1568; Reg. 5181: May 5, 1570.
- 20. Kapossy (note 8), p. 51, no. 88: Vienna, March 10, 1561; p. 191, no. 170: Vienna, February 16, 1568. For further entries regarding Bocskay's salary, see ibid., p. 53, no. 139: Vienna, September 29, 1565 – November 13, 1574.
- 21. Kapossy (note 8), p. 53, no. 139.
- 22. After years of devoted service, Bocskay received a subsidy of two hundred forints to purchase a house. See ibid., p. 53, no. 151: Vienna, December 27, 1566.
- 23. Kapossy (note 8), p. 195, no. 275: Vienna, October 13, 1571.
- 24. Ibid., p. 195, no. 266: Vienna, August 17, 1571.
- 25. On Bocskay's work on the tablets, see D. Ritter von Schönherr, "Geschichte des Grabmals Kaisers Maximilian I. und die Hofkirche zu Innsbruck," JKSAK 11 (1890), pp. 214, 217, 218; also (in the same volume) Reg. 7860: August 21, 1564; Reg. 7879: October 9, 1564. See also JKSAK 14 (1893), Reg. 9747: April 12, 1565; Reg. 9762: May 9, 1565; Reg. 10026: March 3, 1567; Reg. 10032: April 3, 1567; Reg. 10035: April 13, 1567; Reg. 10039: May 23, 1567; Reg. 10120: May 11, 1568; Reg. 10121: May 22, 1568; Reg. 10122: June 2, 1568; Reg. 10123: June 8, 1568; and in 19 (1898), Reg. 16100: March 22, 1567.

26. JKSAK 7 (1888), Reg. 5209: October 24, 1570.

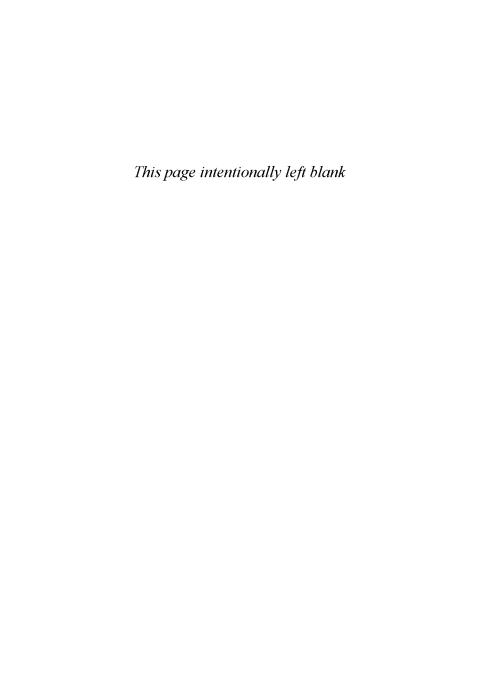
27. 1571: fols. 33, 48; 1572: fol. 30; 1573: fols. 21, 51.

28. Kapossy (note 8), p. 319, no. 353: Vienna, March 7, 1575.

29. JKSAK 7 (1888), Reg. 5314: April 8, 1575.

30. Kapossy (note 8), p. 320, no. 359: Vienna, April 30, 1575.

31. As is the case with the Vienna writing model book (inv. 975), the folios in the Getty codex were not written in the order in which they appear in the manuscript. As a result, folios 72, 89, etc., are dated 1562. Folio 129, however, was clearly always intended to be the final folio in the volume.



## JORIS HOEFNAGEL, THE ILLUMINATOR

The artist Joris Hoefnagel illuminated both parts of the Getty codex during the last decade of his life. Together with the writing model book in Vienna (inv. 975), also illuminated for Rudolf II, the Getty manuscript constitutes the crowning achievement of Hoefnagel's artistic production. The miniatures prove that manuscript illumination around 1600 had by no means reached a final state of decay, as is often claimed, but was actually moving in new directions.

The multitalented Hoefnagel cannot be adequately described as a painter, in part because he was a self-proclaimed autodidact who consciously eschewed guild apprenticeship. He was born in 1542 into the large family of the wealthy merchant Jacob (Jacques) Hoefnagel in Antwerp. The elder Hoefnagel dealt in jewels and tapestries. His wife, Elizabeth Veselaer, came from the same professional and social class. Her father, Joris Veselaer, and his wife, Margaretha Boghe, were an equally influential and prosperous couple. Joris Hoefnagel received his given name from his maternal grandfather. Veselaer's business dealings with the crown regent Maria of Hungary, for whom he procured a succession of tapestries, show that he enjoyed high standing in court circles. J

Jacob Hoefnagel probably intended his sons to enter business and educated them accordingly. Joris was educated in accordance with the humanistic ideals of the Renaissance, which placed the highest value on the development of the individual. Likewise, most of his sisters married into wealthy and prominent families with humanistic leanings. Susanne Hoefnagel, for example, married the Dutch jurist and diplomat Christiaan Huyghens.<sup>4</sup>

Long before religious and political pressures forced Protestants to flee Antwerp, various of Joris's brothers had established business connections abroad. Indeed, through ties of kinship and friendship, several families developed an extensive trade network at this time among important trading centers, including London, Hamburg, Stade, Frankfurt-am-Main, Nuremberg, Vienna, and Prague. Hoefnagel's relatives resided in several of these cities, as did other Flemish merchants who provided lodging and aid to compatriots passing through.

A gifted linguist who wrote poetry, sketched, and played several musical instruments,<sup>6</sup> Hoefnagel lived from 1560 to 1562 with other young merchants in France, where he studied at the universities of Orléans and Bourges. He probably made his first landscape sketches in France. These contain figures documenting the artist's lively interest in the costumes, traditions, and cultures of the indigenous populations.<sup>7</sup> In August 1562, religious unrest in Bourges forced him, his fellow students from Antwerp, and his tutor, Robert (Obert) Jansz. van Giffenen, to leave the city and return to Antwerp.<sup>8</sup>

Shortly thereafter, Hoefnagel departed for Spain for a longer sojourn, most probably in connection with his business. Dates on a number of his sketches document his travels throughout the country between 1563 and 1567, including a lengthy stay in Andalusia. His imagination was particularly fired by Seville, the major center for Spanish sea trade with the West Indies and elsewhere. Here could be seen a wealth of exotic animals and plants as well as the lush native vegetation, which Europeans regarded as almost as exotic as natural specimens imported from overseas. Hoefnagel's fascination with the city is clear from his topographical rendering of it captioned "Qui non ha visto (Sevilla) non ha visto maravilla" (He who has not witnessed Seville has not witnessed miracles). As well as drawing land-scapes, Hoefnagel probably began to depict exotic plants and animals while in Spain. These he appears to have compiled into a notebook that provided

motifs for later miniatures.

After 1567, Hoefnagel returned to Antwerp. He probably had visited the city intermittently during his years in Spain, since he traveled continually on business. In 1568 and 1569, he was in London for a few months. From this period, two signed works survive, both of which foreshadow, albeit dimly, the detailed miniatures of his later career. One of these, a painting of a festive procession in Bermondsey, near London, includes an unmistakable portrait of Joris Hoefnagel himself. In its interweaving of genre and landscape painting, the work follows the tradition of Pieter Bruegel the Elder. It also exemplifies the intense interest in rendering contemporary costumes that informs the topographical drawings Hoefnagel made in France and Spain."

In London, Hoefnagel established friendships with other Netherlandish businessmen, some of whose portraits probably are included in the Bermondsey procession painting. Among these acquaintances, Johannes Radermaker (Radermacher), who had emigrated to London for religious reasons in 1566, remained his friend and correspondent for several decades.12 To him Hoefnagel dedicated a remarkable set of emblematic drawings entitled Patientia, which in focusing on patience and suffering reflects the religious persecution in their native Antwerp.<sup>13</sup> The genrelike character of Patientia anticipates later Netherlandish emblem books such as De rerum usu et abusu by Bernard Gerbrand Furmer (1575) and Recht Ghebruyck ende Misbruyck van Tydlyke Have (1585) by Dirck Volckertszoon Coornhert. 4 Patientia also anticipates political emblem books of the seventeenth century. It is clear that these books, published by the Plantin Press in Antwerp and Leiden, and Hoefnagel's unpublished Patientia reflect the influence of Neo-Stoic philosophy, which flourished in the circle around the publisher Christophe Plantin. This adherence of the Antwerp intelligentsia to Neo-Stoicism was fueled by the political and religious turmoil in the Netherlands under Spanish domination, in the face of which it offered spiritual consolation and the promise of survival.

While in England, Hoefnagel also drew views of Windsor

Castle and Nonsuch Palace, images that attest to his acceptance by the Crown and the nobility. Among his highborn associates was the Germanborn English poet and internationally recognized diplomat Daniel Rogers, with whom Hoefnagel stayed in contact for years. It is probable that the artist's proclivity for miniature painting, well known to him from his native country, was fueled by his English sojourn. He had probably learned this art in the Netherlands, where—according to his biographer Karel van Mander—he had studied with Hans Bol. This association remains undocumented, however. In late sixteenth-century England, portrait miniatures had become a major art form due to the efforts of Hans Holbein the Younger and Flemish artists such as Hans Ewout (Eworth), Levina Teerlink, and Marcus Gheeraerts. Possibly inspired by contact with such works, Hoefnagel produced his earliest known miniature shortly after his stay in England, the view of Seville dated 1570 and 1573.

Although Hoefnagel's art reveals nothing of his life at this time, he presumably was based in Antwerp until 1576. The "Spanish Fury" of that year, in which mutinous Spanish soldiers pillaged and plundered the wealthy city, was a turning point in the lives of many of its merchants. The insecurity of the times prompted a lot of them to emigrate. Hoefnagel's now widowed mother, together with her daughters Susanne and Catherina and the latter's husband, Jacob Sweerts, emigrated after 1585 to Stade via Hamburg.<sup>20</sup> The eldest son, Balthasar, stayed behind to maintain the Hoefnagel residence on Lange Nieuwstraat, taking charge of the family firm. A pragmatist, he conformed to the religious and political policies of various regimes, eventually achieving a high position in the state hierarchy.<sup>21</sup>

At this time, according to van Mander, Hoefnagel decided to move to Venice, where he hoped to found a branch of his firm or join another trading company. He appears to have considered the trip as an educational experience, a kind of grand tour. Traveling with the famous cartographer Abraham Ortelius, he arrived in Frankfurt in September 1577, in time for the autumn trade fair, one of the most important opportunities for diplomats, scholars, intellectuals, artists, printers, and publishers to meet. Here, the

exchange of information on the latest political and intellectual developments accompanied the exchange of goods. Hoefnagel reestablished contact with his English associates Thomas Camden and Daniel Rogers.<sup>22</sup>

In early October, Hoefnagel and Ortelius spent several days in Augsburg, where they visited Marx Fugger and the physician Adolf Occo, whose important coin collection they examined.<sup>23</sup> Both Fugger and Occo wrote Hoefnagel and Ortelius letters of introduction to Duke Albert V of Bavaria,<sup>24</sup> imploring him to grant access to the art collection of the Munich Residenz to the famous cosmographer and his (unnamed) traveling companion. Occo added that Ortelius's companion produced paintings worthy of the duke's collection, which he might be willing to show. Occo's letter appears to have prompted Albert V to take a greater interest in Hoefnagel than in Ortelius. After examining the works Hoefnagel had with him – miniature portraits of himself and his wife, Susanne,<sup>25</sup> as well as a view of Seville<sup>26</sup> – Albert offered Hoefnagel the position of court painter, to replace the miniaturist Hans Mielich, who had died in 1573. Hoefnagel accepted the appointment.

Hoefnagel and Ortelius continued to Rome via Ferrara and probably Florence.<sup>27</sup> From the Eternal City, they traveled through the countryside around Naples, the "Campania felix" of antiquity.<sup>28</sup> Proceeding along the Via Appia in January 1578, through Terracina, Mola, Gaeta, Baiae, and Cumae,<sup>29</sup> they followed the route of the wealthy ancient Romans who withdrew to their villas to escape the city. They also visited other ancient sites such as the sulfur springs at Solfatara and Posillipo, the craggy mountain ridge above Naples, which Hoefnagel sketched.<sup>30</sup> He did not draw these sites for private purposes but rather as preliminary sketches for engraved illustrations in Georg Braun and Frans Hogenberg's Civitates orbis terrarum, the greatest of the sixteenth-century atlases and an ongoing publication to which Hoefnagel contributed for the remainder of his career.

In early February, Hoefnagel and Ortelius returned to Rome. At this time, according to van Mander, Cardinal Alessandro Farnese asked the artist to succeed Giulio Clovio, his court painter and miniaturist, who had died in January 1578. Hoefnagel declined due to his commitment to the Munich court. The high regard in which Clovio was held is testimony to the great reputation enjoyed by Hoefnagel.<sup>31</sup> Hoefnagel probably returned to Munich via Venice.<sup>32</sup>

The conditions of Hoefnagel's service to the Munich court differed significantly from those of other court painters such as Friedrich Sustris and Peter Candid.33 Probably on the basis of his own request, he was granted the freedom to pursue interests not directly related to his duties. His average annual salary of 15 guilders, when compared with the 200 and 350 guilders granted to other court painters, indicates that he was probably concerned less with money than with the security the post offered. Under the court's protection, he was able to pursue his activities unhindered by city regulations and guild rules. He worked for the entire court - for the duke; his brother, Ferdinand;<sup>34</sup> and other distinguished patrons, who paid him separately. The most important project of this period was the illumination of a Roman missal between 1581 and 1590 for Ferdinand of Tyrol, uncle of Duke William V of Bavaria.35 Also documented are commissions from the Fugger family of Augsburg and the Este family of Ferrara. While in Munich, Hoefnagel also seems to have maintained his business dealings.<sup>36</sup> Even after 1577, he continued to refer to himself as "merchant of Antwerp" (mercator Antwerpianus).<sup>37</sup>

Duke William V, who in 1579 succeeded his father, Albert V, was an equally avid collector of art and antiquities. Also called William the Pious, he was a devoted patron of the Jesuits, who had established Munich as the stronghold of the Counter-Reformation north of the Alps and who exerted great influence on the city's educational and cultural life. William initiated the lengthy and expensive construction of the church of Saint Michael, which, while it became the city's most splendid ecclesiastical structure, also plunged the treasury into debt. Simultaneously, the originally liberal position of the court in regard to the religious affiliation of its members gradually became more rigid. A "Professio fidei" passed in 1591 required that all members of the court had to proclaim officially their belief in the faith as stated by the Tridentine Council. Hoefnagel, whose iconography attests to his

commitment to interdenominationalism and whose correspondence reflects his profound sympathy for his Protestant countrymen, probably refused to comply. Allegedly to save money, his service to the court was terminated in 1591, at which time he lost the official protection that had enabled him to reside in Munich.

Prior to this, however, Hoefnagel had entered the service of the Holy Roman Emperor Rudolf II, not as court painter but as a painter under court protection.<sup>38</sup> This protection enabled him to acquire temporary residence in the imperial city of Frankfurt-am-Main. As he himself stated, he wished to reside there in order to paint and complete various works commissioned by the emperor.<sup>39</sup> Most importantly, he was referring to the writing model book by Georg Bocskay now in Vienna (inv. 975).<sup>40</sup> Hoefnagel's residence in Frankfurt lasted from September 1591 until the summer of 1594, between which years he illuminated the Vienna codex.

In 1585, Antwerp was taken for the Spanish king by the duke of Parma and its status as a flourishing port ended due to the forced closing of the Schelde River. At this point, refugees from the Netherlands, Antwerp in particular, emigrated to Frankfurt. Many had friendly relations with Hoefnagel. The great botanist Carolus Clusius was there during most of the artist's residency. The likelihood that they were personally acquainted is supported by Hoefnagel's documented relationships with many members of Clusius's circle. Such a friendship would have played a critical role in the artist's decoration of the Getty codex, which is distinctive among his manuscripts for its extensive illustrations of the plant world.

Although Lutheranism was the official denomination of the city of Frankfurt, the Dutch and French (Walloon) Reformed churches were tolerated there. In 1594, however, the recently appointed minister of the Dutch Reformed congregation, Franciscus Gomarus, was ordered to leave by the city council. The Dutch Reformed church was closed, forcing its members to emigrate. The reasons for this sudden persecution of Netherlandish refugees were probably economic rather than religious, since by 1594 this group had progressed from merely invigorating the economy to dominating it, pro-

viding what was regarded by local merchants as unfair competition.41

Hoefnagel and his family were among those who left Frankfurt in 1594. His offspring now included his eldest son, Jacob; two other siblings who had been born in Antwerp; and Albrecht and William, who had been born in Munich, the former in 1579 (during the reign of Duke Albert) and the latter in 1581 (during the reign of Duke William V). Traveling east, either to Prague or Vienna, the family arrived in Regensburg in the summer of 1594, while the Imperial Diet was still in session.<sup>42</sup>

Little is known of the last years of Hoefnagel's life. According to van Mander, he often visited Prague, the seat of the court of Emperor Rudolf II, his principal employer during this period, but made his home in Vienna. Van Mander's contention that he did so in order to escape the tumult of the court remains doubtful. His brother Daniel had lived in Vienna for a number of years, had married the widow of the sculptor Matthias Mannmacher (Mannemaker), and had set up a business under court protection. During the late 1590s, Joris (Georg) and Daniel Hoefnagel were registered in the records as constituting a business firm. <sup>43</sup> Joris, however, was probably less concerned with business than with art. Much of his greatest work dates from this period, including the illumination of the Getty codex, a large portion of the four-volume natural history manuscript known as The Four Elements, <sup>44</sup> and various cabinet miniatures made for the most part for illustrious clients.

Hoefnagel also attempted to procure a secure position for his son Jacob, who had completed an apprenticeship—according to the older craft and guild tradition—as well as been trained by his father as an artist and humanist. While still in Frankfurt, the elder Hoefnagel had begun to promote Jacob's career by allowing him to engrave Archetypa studiaque patris Georgii Hoefnagelii... after his own model books; it was published in Frankfurt in 1592.<sup>45</sup> During the final years of the sixteenth century, father and son produced cabinet miniatures that are jointly signed. While the elder Hoefnagel embellished their borders with plants, insects, and small animals, his son contributed a more contemporary specialty by providing mythological and allegorical scenes as the main images.<sup>46</sup> Jacob eventually achieved consider-

able status and was hired as court painter to Emperor Rudolf II after the death of his father.

Given van Mander's tendency to round off the dates of Hoefnagel's life (for example, he placed Hoefnagel's birth in 1545, when in fact the artist had been born in 1542), it is possible that Hoefnagel did not die in 1600 as van Mander contended. It is noteworthy that even after 1600, Joris is mentioned in documents concerning his and Daniel's firm.<sup>47</sup> On July 24, 1601, his death was first noted archivally.<sup>48</sup> He was most likely buried in Vienna in the family crypt, the "Hoefnagel'schen Begräbnus," in the new cemetery in front of the Scottish Gate, also the burial place of Daniel's large family.<sup>49</sup> Hoefnagel's name, however, is not mentioned in the burial records of the congregation which have been preserved.<sup>50</sup>

## Notes

- 1. K. van Mander, Het Schilderboeck (Haarlem, 1604), fol. 262v. Van Mander's almost contemporary biography of Hoefnagel is the principal source for knowledge of his career. See also A. Pinchart, Archives des arts, sciences et lettres: Documents inédits, 1st ser., 2 (Ghent, 1863), p. 91.
- 2. Portraits of the couple by Joos van Cleve are in Washington, D.C. (National Gallery of Art inv. 1962.9.1–2). For further information on Joris Veselaer, see J. O. Hand and M. Wolff, The Collections of the National Gallery of Art: Systematic Catalogue: Early Netherlandish Painting (Washington, D.C., 1986), pp. 57ff.
- R. Bauer, Tapisserien der Renaissance nach Entwürfen von Pieter Coecke van Aelst, exh. cat. (Schloss Halbturn, 1981), p. 84.

- 4. The most thorough genealogy of the Hoefnagel family remains T. Jorissen, "Genealogie van Hoefnagel," De Navorscher, n.s. 5, 22 (1872), pp. 260ff.
- 5. The brothers Gilles and Jacob Hoefnagel were active as merchants (parteners) in London during the 1560s. In 1561, a Willem Hoefnagel was also registered in the city. In 1571, it was documented that Jacob had lived in London for thirteen years (since 1558) and Gilles for fourteen years. See R. E. G. Kirk and E. F. Kirk, Returns of Aliens in the City and Suburbs of London, vol. 1: 1523-71 (London, 1900), pp. 284, 332, 366; vol. 2: 1571-97 (London, 1902), pp. 28, 84. Daniel Hoefnagel resided permanently in Vienna from at least 1585/87. From 1500, Melchior Hoefnagel attempted to establish residence in Frankfurt.

- 6. A painting by Frans Pourbus the Elder in Brussels (Musées Royaux des Beaux-Arts inv. 4435) portrays the Hoefnagel family dancing to harpsichord music. See C. van de Velde, "Nieuwe Gegevens en Inzichten over het Werk van Frans Pourbus de Oudere," Gentse Bijdragen Tot de Kunstgeschiedenis 25 (1979–80), pp. 136ff. The musical instruments in Hoefnagel's border illuminations in the second part of the Getty codex, the Vienna writing model book (inv. 975), and the missal in Vienna (see note 35) are rendered with great accuracy.
- 7. Many of these drawings were later engraved in Georg Braun and Frans Hogenberg, Civitates orbis terrarum, 6 vols. (Cologne, 1572–1617); see esp. Orléans and Bourges, vol. 2, no. 11a–b; Blanmont, vol. 2, no. 17; Poitiers, vol. 5, no. 18 a–c, dated 1561; Tours and Angers, vol. 5, no. 20, dated 1561.
- 8. For this period, see the seminal essay by A. Monballieu, "Joris Hoefnagel bij Obertus Gyfanius te Orléans en te Bourges (1560–1562)," Jaarboek van het Koninklijk Muscum voor Schone Kunsten (Antwerp, 1980), pp. 99ff.
- 9. The drawing, which was based on sketches made in situ and which is dedicated to Nicolas Malpaert, was executed in 1593 as a model for the engraving in Braun and Hogenberg (note 7), vol. 5, no. 7. Vienna, Graphische Sammlung Albertina inv. 22 402. Pen and brush and gray-brown, gray, and blue ink, and blue wash. 37.1 x 51.1 cm (14<sup>1</sup>/2 x 20 in.). See Prag um 1600 (Freren, 1988), vol. 2, pp. 158ff. According to Braun and Hogenberg, the title is an old maxim.

- 10. Hatfield House. Oil on panel. 73.8 x 99.2 cm (29 x 39 in.). Signed in lower left corner. See P. Norman, "On an Allegorical Painting in Miniature by Joris (George) Hoefnagel and on Some Other Works by This Artist," Archaeologia 57, no. 2 (1901), pp. 321ff.; F. M. Kelly, "A Horselydown Wedding," Burlington Magazine 31 (1917), p. 91; E. Auerbach and C. Kingsley Adams, Paintings and Sculpture at Hatfield House (London, 1971), no. 49, pp. 53ff., pl. 3, fig. 27 (with bibliog.).
- 11. The complex iconography of this painting cannot be discussed in detail here.
- 12. See Kirk and Kirk (note 5), vol. 2, p. 24, "Report of Strangers of November 10, 1571." Space limitations make further discussion of Radermaker and his role in the Dutch colony in London impossible here. As late as 1590, Hoefnagel dedicated an allegorical painting to Radermaker as a token of their lasting friendship: oil on panel. 22.5 x 34.5 cm (87/8 x 13<sup>1/2</sup> in.). Rotterdam, Museum Boymans-van Beuningen inv. 1308. See T. A. G. Wilberg Vignau-Schuurman, Die emblematischen Elemente im Werke Joris Hoefnagels (Leiden, 1969), vol. 2, pl. 106.

- 13. Patientia: Traité de la patience par emblèmes inventés et dessinés par George Hoefnaghel à Londres, l'an 1569. Pen and brown ink on paper, 58 folios. 42 x 28.5 cm (16½ x 11¼ in.). Half written by Hoefnagel and half by a nineteenth-century hand. Rouen, Bibliothèque Municipale, Coll. Leber, Ms. 2916. See R. van Roosbroeck, Patientia: 24 Politieke Emblemata door Joris Hoefnagel 1569 (Antwerp, 1935; 2d. ed., Leiden, 1975); M. E. H. N. Mout, Bohemen en de Nederlanden in de Zestiende Eeuw (Leiden, 1975), pp. 106ff.
- 14. Bernard Gerbrand Furmer, De rerum usu et abusu (Antwerp: Christophe Plantin), with engravings by Hieronymus Wierix; Dirck Volckertszoon Coornhert, Recht Ghebruyck ende Misbruyck van Tydlyke Have (Leiden: Christophe Plantin), with the same engravings.
- 15. The engraving of Windsor Castle in Braun and Hogenberg (note 7), vol. 2, no. 2b, was based on a number of preliminary drawings. That of Nonsuch Palace (also preceded by preparatory drawings) appears in vol. 5, no. 1. Compare it with the view of Oxford (vol. 2, no. 2a). For recent literature, see M. Biddle, "The Stuccoes of Nonsuch," Burlington Magazine 126 (1984), pp. 411ff.
- 16. See Danielis Rogersii Albimontii Angli... Compleza ipsius poemata (San Marino, Huntington Library inv. HM 31188, fols. 323-24), a poem in praise of Rogers's 51-endship with Hoefnagel. Although undated, it is adjacent to a poem dedicated to Lucas de Heere and dated London, 1569.

- 17. Van Mander (note 1), fol. 262v:
  "Doe hij weder in Nederlandt was
  ghekeert... hadde eenigh onderwijs van
  Hans Bol vercreghen" (When he had
  returned to the Netherlands... he took
  some instruction from Hans Bol).
  According to van Mander, this instruction
  took place after Hoefnagel's Spanish
  sojourn in 1567 and before November
  1576. After 1572, Bol moved from his
  native Mechelen to Antwerp, where he
  entered the guild in 1574 and became
  a citizen in 1575.
- 18. For English miniature painting around 1600, see R. Strong, Artists of the Tudor Court: The Portrait Miniature Rediscovered, 1520–1620, exh. cat. (Victoria and Albert Museum, London, 1983); J. Murdoch et al., The English Miniature (New Haven and London, 1981).
- 19. Brussels, Bibliothèque Royale Albert Ier, Cabinet des Estampes inv. SI 23.045. Watercolor and gouache on vellum. 21.6 x 32.3 cm (8½ x 12¾ in). Signed and dated 1570 and 1573. For recent literature, see Splendeurs d'Espagne et des villes belges 1500–1700, exh. cat. (Palais des Beaux-Arts, Brussels, 1985), vol. 2, p. 373, no. A6.
- 20. A. H. Kan and G. Kamphuis, De Jeugd van Constantijn Huyghens door Hemzelf Beschreven (Antwerp, 1946), p. 10.
- 21. Ibid., pp. 11ff.

- 22. See the entry by William Camden in the Album amicorum of Abraham Ortelius (Amsterdam, 1969), fol. 113v, dated September 21, 1577. Further entries written in Frankfurt include those of Daniel Engelhard of Breslau (fol. 7v, September 12, 1577) and Theodoor Poelman and Hubert Languet (fol. 120v, September 20, 1577). For Rogers's presence in Frankfurt at this time, see his poem in HM 31188 (note 16), fol. 218, inscribed Frankfurt, Idibus Octobris 1577.
- 23. Entries in Album amicorum (note 22) by Adolf Occo (fols. 37v-38v) and Jeronimus Wolf (fol. 57v), both dated October 7.
- 24. For Hoefnagel's relations with the Wittelsbach court at Munich, see T. Vignau-Wilberg, "Joris Hoefnagels Tätigkeit in München," Jahrbuch der Kunsthistorischen Sammlungen in Wien 81 (1985), pp. 103ff.
- 25. See the engraved portrait of Hoefnagel by Hendrick Hondius (F. W. H. Hollstein, Dutch and Flemish Etchings, Engravings and Woodcuts Ca. 1450–1700, vol. 7 [Amsterdam, n.d.], p. 32, no. 47), in which he wears a portrait miniature of his wife around his neck, following the Elizabethan custom of placing portrait miniatures in costly gold frames to be worn as jewelry. An example is Isaac Oliver, Portrait of an Unknown Man. Vellum. 6.6 x 5.1 cm (2½ x 2 in.). London, Victoria and Albert Museum inv. P5-1917. For an illustration, see Strong (note 18), p. 109, no. 163.
- 26. See above (note 19).

- 27. Entries in Album amicorum (note 22), by Augustino Musto (fol. 121) and Pirro Ligorio (fol. 121V), both dated Ferrara, October 30, 1577.
- 28. L. Nuti, "The Mapped Views by Georg Hoefnagel: The Merchant's Eye, the Humanist's Eye," Word and Image 4 (1988), pp. 563ff.
- 29. Terracina was engraved after Hoefnagel in Braun and Hogenberg (note 7), vol. 3, no. 54; Mola and Gaeta in vol. 3, no. 55; Baiae in vol. 3, no. 56; Cumae in vol. 3, no. 57.
- 30. The Forum Vulcani, for which preparatory drawings survive, was engraved in Braun and Hogenberg (note 7), vol. 3, no. 58, as was Posillipo in vol. 5, no. 65, dated 1578.
- 31. G. Vasari, Le vite de' più eccellenti pittori scultori e architettori, ed. R. Bettarini and P. Barocchi (Florence, 1987), vol. 6, pp. 213ff.
- 32. Hoefnagel's drawing of the burning of the doge's palace in Venice was engraved for Braun and Hogenberg (note 7), vol. 5, no. 6 ob, with the inscription Autoptes (As witnessed), next to which appears the date 1578. The fire occurred on December 20, 1577, when Hoefnagel was in Rome. As the basis for his drawing, he used a composition by his countryman Lodewijk Toeput (Pozzoserrato). One assumes that Hoefnagel visited the scene of the disaster some months after it occurred, on his return trip. See also L. Nuti, "Alle origini del Grand Tour:

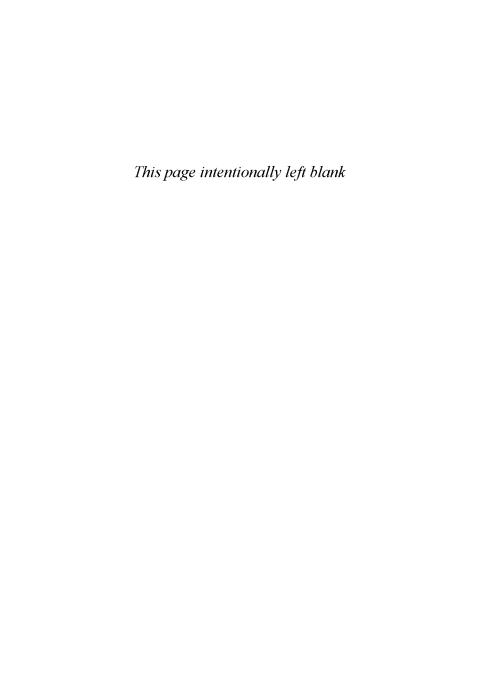
Immagini e cultura della città italiana negli Atlanti e nelle cosmografie del secolo XVI," Storia urbana 27 (1984), p. 28, n. 49.

- 33. See above (note 24).
- 34. The city council minutes of Frankfurt for 1591–92 (fol. 36v, September 3, 1591) contain Hoefnagel's request for residency. In addition to work for Emperor Rudolf II, he refers to works ordered by Ferdinand, Duke of Bavaria.
- 35. Vellum, 658 folios, with a paper flyleaf at the front and at the back. Written on both sides. 39.2 x 28.6 cm (15<sup>1/2</sup> x 11<sup>1/4</sup> in.). Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, Cod. 1784 (hereafter Vienna Cod. 1784). Hoefnagel's illuminations are dated between 1581 and 1590. See Vignau-Schuurman (note 12).
- 36. T. Vignau-Wilberg, "Qualche deseigni d'importancia: Joris Hoefnagel als Zeichnungssammler," Münchner Jahrbuch der bildenden Kunst 38 (1987), pp. 185ff.; idem (note 24), pp. 121ff.
- 37. In the inscription on the engraving of Landshut in Braun and Hogenberg (note 7), vol. 3, no. 45.
- 38. See the informative essay on court, Chamber, and court-protected craftsmen by H. Haupt in Jahrbuch der Kunsthistorischen Sammlungen in Wien (forthcoming).

- 39. Frankfurt, Stadtarchiv, Bürgermeisterbuch 1591, fols. 79v, 80, cited in H. Meinert, Die Eingliederung der niederländischen Glaubensflüchtlinge in die Frankfurter Bürgerschaft 1554–1596: Auszüge aus den Frankfurter Ratsprotokollen (Frankfurt, 1981), p. 452.
- 40. See p. 11, n. 1.
- 41. The principal discussion of these events is Meinert (note 39).
- 42. Jacob Hoefnagel made a drawing with a view of Regensburg, noting that it was done during the Imperial Diet of 1594. The drawing served as a model for Braun and Hogenberg (note 7), vol. 5, no. 51.
- 43. Vienna, Hofkammerarchiv, Hoffinanz, nos. 520-E (Prague), 1599, fol. 118; 525-R (Prague), 1599, fol. 34v; 191-E (Lower Austria), 1600, fols. 232, 329.
- 44. 4 vols. totaling 277 vellum folios, with animal representations in water-color and gouache, inscribed with Latin texts and maxims: Ignis: Animalia rationalia et insecta; Terra: Animalia quadrupedia et reptilia; Aqua: Animalia aquatilia et conchiliata; Aier: Animalia volatilia et amphibia. Washington, D.C., National Gallery of Art inv. 1987.20.5-8. See M. L. Hendrix, Joris Hoefnagel and the "Four Elements": A Study in Sixteenth-Century Nature Painting, unpub. Ph.D. diss., Princeton University, 1984.

- 45. The full title of this work is Archetypa studiaque patris Georgii Hoefnagelii Iacobus fil: Genio duce ab ipso scalpta, omnibus philomusis amice D: ac perbenigne communicat. Ann: sal: XCII Aetat: XVII.
- 46. For example, Diana and Actacon, framed by flowers, insects, and small animals. Vellum mounted on panel. 22 x 33 cm (85% x 13 in.). Signed by Joris and Jacob Hoefnagel and dated 1597. Paris, Musée du Louvre, Cabinet des Dessins, on deposit from a private collection. See Prag um 1600 (Freren, 1988), vol. 1, p. 67 (ill.).
- 47. Vienna, Hofkammerarchiv, Hoffinanz, nos. 194-E (Lower Austria), February 9, 1601, fol. 137v; 537-E (Prague), 1601, fol. 280; 539-E (Prague), 1601, fol. 202v; 543-R (Prague), 1601, fols. 141v, 406v.
- 48. Antwerp, Stadsarchief, Certificatie-boek 1601, fol. 71v.
- 49. This is mentioned in the will of the court painter Reinhart Junger, dated Vienna, September 22, 1619. Junger requested burial in the new "Gottesacker" in front of the Scottish Gate next to his deceased wife, "zunegst der Hufnaglischen Begräßnuss" (the Hoefnagel family grave). Quoted in A. Hajdecki, "Die Niederländer in Wien," Oud Holland 23 (1905), p. 5.
- 50. The name of Joris Hoefnagel appears neither in the death registry of the parish of Saint Stephen nor in that of the Scottish Church.

# THE WRITING MODEL BOOK



#### THE WRITING MODEL BOOK

### THE WRITING

In order to understand Bocskay's writing model book in the Getty Museum, it is necessary to grasp the basic chronology of the emergence of calligraphy, or writing as a fine art, during the sixteenth century. One of the decisive factors in this chronology was the rise of printing, which displaced writing as the primary means of transmitting information.

During the Early Christian period and the Middle Ages, before printing arrived in Europe, writing emphasized the preservation of knowledge over its dissemination. Executed on vellum and often embellished with costly gold and silver, writing assumed great palpability and permanence. This was also expressed by the letter forms themselves, ranging from Carolingian minuscule (a classically based, upright, rounded lower-case script), with each individual letter carefully formed and separated from the next, to textura (upright, closely packed, Gothic blackletter), the thick, dark strokes of which lent words a physical presence on the page. The inseparability of a text from its physical embodiment in a finite number of codices contributed much to the resonance of the written word. Life resided in the word as it was recorded, and each scribe formed an integral link in a chain, acting as a kind of medium through which one codex spawned another. By alleviating the problem of preservation, printing helped to transform the function of the written word. No longer required to serve as the material embodiment of the text, script evolved into a vehicle for self-expression, deriving its vitality from the hand of the calligrapher.

Also crucial to this development was the spread of writing, which ceased to be regarded primarily as the province of trained scribes and professionals and came to be valued as an essential humanistic accomplishment, expressive of one's intellectual background and social position. Just as an educated person was expected to be conversant in many languages, so he or she was required to have mastery over a corresponding number of script forms. Dominant among these was italic, or chancery, script. Rising to prominence during the late fifteenth century in Italy, where it became the favored script of the papal chancery in Rome, italic was based on the clear, upright, round script known as humanist antiqua, which, when written quickly, became slanted, attenuated, and cursive. Italic effected the still uncontested wedding of Western handwriting to line. The kind of line required by italic emphasized dynamism, the impression of which was created by such qualities as thinness, consistency of width and tone, curvature, and minimal breaks. Writing thus came to constitute the trace of the hand in motion and in so doing, imparted a new sense of life to the written page. The tangibleness, splendor, and permanence of older letter forms had helped to convey the authority of the written word by stressing its physical transcendence over its mortal readers and its link to sources of power both divine and terrestrial. Promoting the concept of unique selfhood which lay at the core of the humanistic movement, italic derived authority by evoking the living presence of the writer, accomplishing this by stressing the act of writing. To this end, it was of paramount importance that italic script appear spontaneous and fresh.

It can hardly be accidental that the rise of italic occurred simultaneously with the growing regard for the art of drawing in Italy. Regarded as the foundation of the other visual arts, drawing was thought to record most directly the imaginative world of the artist. Artistic creation itself was increasingly defined in terms of process; this resulted in drawing becoming a far freer and more experimental medium than it had been in the past. Among the most explicit signs of this was the emergence of the sketch, which assumed a primary role in the creation of works of art. A radically

dynamic notion of drawing, the sketch avoided the mere description of outward appearance, seeking instead to capture the movement and vitality of nature as filtered through the imagination of the artist.2 Drawing so defined had much in common with italic script. Both used line to transcribe touch in an attempt to become a pure physical extension of the maker. Both stressed ongoing process rather than finish, with italic accomplishing this through features such as slant and the cursive linking of letters. In short, the emphasis in both was the creation not of an independent object but of an object whose primary function was the affirmation of its creator's living presence. Proclaiming that art had been perfected by Leonardo da Vinci, Raphael, and Michelangelo, the sixteenth-century historiographer Giorgio Vasari cited as a critical constituent of this process the depiction of motion, by which he meant the illusive motion of the soul.3 In similar senses, drawing and writing turned this mimetic imperative in on itself, script even more radically than drawing. For while the draftsman sought to capture his own imaginative processes through the portrayal of the animate physical world, the scribe self-reflexively recorded his own vital motion, free from the demands of figural representation.

In a curious turn of events, printing further contributed to the emergence of writing as an art form, since it was principally through the publication of model books that scribes became widely recognized as distinctive personalities. Among the earliest and most influential of such handwriting manuals were *Lo presente libro* by Giovannantonio Tagliente (Venice, 1524) and *La operina* by Ludovico degli Arrighi (Rome, 1522). Both were printed from woodblocks (engraved manuals becoming common only later in the century). Moreover, both were devoted principally to instruction in italic, which is indicative of the great cultural weight attached to classically inspired letter forms during the Renaissance. Yet, despite the pedagogical intent of their manuals and the classical clarity of italic as it was ideally conceived, neither Tagliente nor Arrighi could resist demonstrating their ability to exploit the aesthetic potential of italic script, the result of its singularly free and linear character. The publications of both scribes contain variations of

classic chancery cursive in which lines are repeatedly drawn out to form webs of fluent ascenders, descenders, and serifs which hamper legibility.

With the publication of Giovanni Battista Palatino's Libro nuovo d'imparare a scrivere (Rome, 1540), the practical function of the writing manual gave way more dramatically than before to both the aesthetic potential of script and the force and personality of the scribe.4 The focus of Palatino's book remained chancery cursive, and, as in earlier writing manuals, it included a full complement of practical scripts ranging from chancery alphabets to various mercantile and bastard (localized Gothic cursive) hands. Not content merely to equal the expertise of earlier authors, however, Palatino aimed for encyclopedic mastery of all writing, which he demonstrated by including an unusually large and inventive selection of indigenous and foreign hands as well as exhibition scripts such as florid Gothic letter types, mirror writing, and decorative alphabets. His work also reflects the growing pressure to excel in the athletic manipulation of the pen that emerged as a salient feature of later sixteenth- and seventeenth-century writing manuals. As time went on, personal rivalries among scribes grew more feverish, as is evidenced most clearly by the public competitions among writing masters that sprang up in England and the Low Countries.5

Taking up the thread where Palatino's Libro nuovo left off, Georg Bocskay, in Mira calligraphiae monumenta, set out to assemble a collection of scripts of still greater immensity and to display unparalleled technical wizardry. Unlike the printed manuals, pedagogy plays no role in Bocskay's model book, which is intended solely as a display piece. The script forms are disposed according to no overarching order, thus underscoring the fact that the samples are not meant primarily to be read but to be appreciated visually. Most of the texts are prayers, canticles, and psalms, but they also include imperial briefs and other forms of correspondence. The predominant type of script is italic. One finds a range of classic italic hands (fols. 12, 18, 19, 61, 94) that are also furnished with an assortment of initials extending from florid examples written in gold to unadorned Roman capitals. Complementing such correct, restrained demonstrations of italic is the repertoire of flamboyant

exhibition scripts to which italic gave rise, such as the examples of interlacing cursive, which are among the manuscript's most beguiling calligraphic demonstrations (fols. 34, 84, 98). Akin to this type are italic letters with exaggerated, interwoven ascenders and descenders (fols. 82, 87). Satirizing the stress on linear continuity are two forms that also appear in Palatino's manual, "cut letters" (lettere tagliate), in which the upper and lower halves of a line of script seem to be cut loose from one another (fols. 41, 43, 96), and "scabby letters" (lettere rognole), in which protrusions break up the lines forming the letters (fols. 55, 93, 119). Backwards slant, a transgression in italic as it is normally written, becomes a source of amusement in numerous script samples (fols. 49, 65).

Second in number to italic in Bocskay's model book are the various forms of *rotunda* (Italian Gothic) and *antiqua* (a classicizing humanist script based on Carolingian minuscule) which – because of their classical origins – were also employed as humanist hands (fols. 5, 6, 45, 128). These tend to be among the most sumptuous calligraphic specimens; the interstices between the lines of script are often filled with dense running vines in black, gold, and silver. Also common is an outlined *rotunda* known as "traced letters" (fol. 1), which are sometimes painted with dots of gold and blue (fol. 81). The classically based scripts include Roman inscriptional capitals as well (fols. 40, 53).

The flowering of writing during the sixteenth century was fueled not only by the cultural idealism of the Renaissance humanists but also by the growing bureaucratic substructure in Europe, which required the services of ever larger numbers of secretaries. While italic became the principal secretarial hand in many countries, Gothic blackletter, which evolved into Fraktur, and Gothic chancery cursive remained dominant in Germany and the Holy Roman Empire, where they were also featured in writing manuals. As would be expected of a model book made for the emperor by an imperial scribe, Bocskay's codex contains a wide selection of Gothic scripts. Indeed, such a thoroughgoing synthesis of the traditions of Germanic and Italic writing manuals was achieved by no other scribe of

the century.7

The delicate German chancery cursive on folio 116 of Bocskay's book is based on a sample from the seminal German writing manual Eine gute Ordnung und kurzer Unterricht, published by the famous writing master Johannes Neudörffer in Nuremberg in 1538. The knotted prayer on folio 118 was borrowed from folio h(iv) of Ein nuzlich und wolgegrundt Formular manncherley schöner Schriefften by Neudörffer's pupil Wolfgang Fugger (Nuremberg, 1553). Among the most impressive and numerous samples of Fraktur are those from imperial briefs. Folios 85 and 86, which contain salutations to Ferdinand I's brother, Emperor Charles V (r. 1519–56), represent two of the manuscript's five imposing black folios. Instead of vellum, they are paper, which was painted white, after which the letters appear to have been drawn in a clear substance resistive of the black ink wash applied over them. Other accomplished demonstrations of Germanic Gothic scripts are folios 112 and 117, salutations from Charles V and Ferdinand I, which feature magnificent swashed capitals composed of multiple strokes ending in extended flourishes.

Bocskay further substantiated his implicit claim to universal mastery of his art by a succession of historical, invented, and exhibition hands. Continuing a practice initiated by Tagliente of presenting ancient non-Roman scripts, Bocskay included samples of Greek and Hebrew (fols. 69, 70), copying a Hebrew alphabet (fol. 35) from Palatino. There is also a range of Gothic scripts, such as the "bollatic" letters with their exuberantly flourishing ascenders and descenders (fols. 57, 67) and a sample (fol. 44) that resembles Tagliente's "French Gothic." Many of the scripts appear to be hybrids, such as the spiky Gothic capitals on folio 7 or those on folios 21 and 33, whose thick, black serifs and flourishes appear to have been inspired by mercantile hands. Bocskay, however, excluded pure mercantile and bastard scripts from his manuscript, presumably because the presence of business hands would have dulled the luster of his display piece.

Exhibition hands other than those already mentioned include decorated alphabets (fol. 2); "squared ciphers" (fol. 90) copied from Palatino; mirror writing in a variety of scripts (fols. 31, 49, 66, 98); a calligram, or text

picture whose shape or layout is determined by its subject (fol. 15); diminishing writing (fol. 106); and micrography, writing too small to be read with the naked eye (fol. 118). Displaying script at its greatest remove from conventional writing, exhibition hands epitomize the drive for virtuosity that dominated calligraphy by the end of the sixteenth century. This focus on virtuosity is in turn the most obvious manifestation of the effort to elevate writing to the status of a fine art that scribes appear to have undertaken in imitation of Renaissance visual artists. This was accomplished by flaunting calligraphy's distance from utility and also by demonstrating that writing was constantly improving its technical and conceptual means in conformity with the Renaissance dictum that art had to involve progressive historical development.8 Above all, however, virtuosity was the scribe's principal expressive device, a vehicle for asserting his possession of the wit, skill, and vision to push writing past its own limitations. Unlike Arrighi, Tagliente, or Neudörffer, Bocskay was not a great formal innovator. Rather, his contribution to the art of writing lies in his transformation of it into a powerful medium for self-expression.

### THE ILLUMINATIONS

Hoefnagel's illuminations for Bocskay's model book are among his latest works, probably done during the second half of the 1590s. The seamless integration of script and image belies the more than thirty-year hiatus separating the two phases of production, and the question of whether the manuscript was originally intended to be illuminated is not easily answered. Bocskay's tendency to inscribe a folio with a single text positioned on the upper portion of the page surface gives the impression that he purposely left space for illuminations. This free space at the bottom of the page, however, is frequently interrupted by descenders or flourishes (fols. 7, 17, 41, 61, 67, 93), pointing to the likelihood that the calligrapher found it aesthetically advantageous to leave copious blank space around his often expansive calligraphic samples. This coupled with the relatively numerous

folios preponderantly or entirely given over to calligraphy (fols. 5, 14, 84, 89) casts further doubt on the likelihood that Bocskay's model book was originally planned to contain extensive figural embellishment.

In any event, it is certain that Bocskay could not have anticipated the decorative program Hoefnagel devised. The illuminator's program hinged on the preexistence of the script and his own capacity to formulate a witty and often satirical figural response to it. His illuminations consist of a diverse assemblage of natural specimens united by their small size. Most prominent among these multifarious objects are flowers, especially the many colorful bulb-grown ornamentals such as the tulip (fols. 23, 25, 51, 53, 60), anemone (fols. 13, 30, 39), various lilies (fols. 43, 92), fritillary (fol. 40), and narcissus (fols. 12, 48). A number of these as well as other botanical specimens including the sweet flag (fol. 59) and tomato (fols. 42, 102) were considered rarities, having only recently been imported to Northern and Central Europe from the Levant, the New World, Andalusia, and elsewhere. Also represented in the manuscript is a vast range of native species such as the periwinkle (fol. 1), stock (fol. 5), foxglove (fol. 93), rose (fols. 10, 11, 15, 17, 22), columbine (fols. 12, 28), violet (fol. 20), and pansy (fols. 18, 64). Hoefnagel demonstrated great sophistication as a botanist both in the sheer number of genera represented and in the presentation of ranges of species of given plants, as can be seen in his Nigellas (fols. 3 [N. damascena plena], 9 [N. damascena], 110 [N. sativa]) or dianthus (fols. 68 [D. caryophyllus], 79 [D. barbatus]). His focus on flowers reflects the waning of the tradition of medieval herbals, in which plants were valued principally for medicinal or other utilitarian purposes, in favor of an aesthetic and natural historical appreciation of plants, which placed emphasis on the beautiful and the rare. This formalistic and visually oriented interest in natural variety for its own sake was a manifestation of the larger effort to collect and classify all of nature's production that dominated sixteenth-century natural history.

Although flowers appear in Hoefnagel's earlier works, they became a major feature of his oeuvre during the 1590s, as is most eloquently expressed in the Getty manuscript. His increasingly artistic treatment of flowers coincided with his move in 1591 to Frankfurt, where he joined a circle of Netherlandish expatriate artists and intellectuals which included the greatest of all Renaissance botanists, Carolus Clusius. The courts of Rudolf II and his father, Maximilian II, were also among the principal centers of sixteenth-century botany. A number of prominent botanists, including Clusius between 1573 and 1587 and his fellow Netherlander Rembert Dodoens between 1574 and 1579, had been employed there. Due to their presence and also to Vienna's geographical situation at the crossroad between Europe and the Near East, the Hapsburg court became a center for the propagation and European dissemination of Levantine ornamentals such as the tulip. Maximilian II and Rudolf II built a number of gardens in which to cultivate these and other botanical rarities, such as those at the Neugebäude in Vienna, on the grounds of the imperial castle in Prague, and at other imperial residences in Bohemia and Austria.9

The earliest florilegia (illustrated books of flowers) were published during the late sixteenth century in response to this burgeoning interest in floriculture. Unlike the botanical encyclopedia of which it was an outgrowth, the florilegium eschewed text, with the occasional exception of nomenclature. As a floral picture book, it called attention to flowers as Nature's artifice and, simultaneously, to the imagery as human artifice. Besides offering visual delectation, such books often served ancillary purposes. The earliest printed florilegium, that of Adriaen Collaert, published in Antwerp around 1590, has small, generalized illustrations and might have been used as a pattern book for embroidery. Florilegia also advertised the wares of flower dealers like Emanuel Sweerts, whose volume, which appeared in 1612, is one of several major florilegia published in Frankfurt. Sweerts, a former prefect of the imperial gardens in Prague, dedicated his florilegium to Emperor Rudolf II, whom he described as "the greatest, most enthusiastic admirer" of flowers in the world. O As is clearly indicated by Sweerts's publication, perishable flowers had come to be regarded as precious objects and hence as emblems of princely splendor.

Initially, Hoefnagel's illuminations take up the analogy between

natural and human artifice presented in contemporary florilegia. They call to mind Sweerts's assertion that in his own book he took pains to show the "flower and bulb with its color, as they ordinarily grow before the eyes." Hoefnagel often presented a brilliantly colored flower parallel to the picture plane (fols. 23, 25, 51, 52, 66). Yet, these ethereal blossoms read simultaneously as a colored surface, consisting of nothing more than a thin (but magical) layer of paint on a page. This likening of flowers to nature's paintings bolstered the prestige of painted artifice insofar as it, like brilliantly colored flowers themselves, laid claim to value not on the basis of intrinsic worth but on the basis of the hold on humanity exerted by visible phenomena. Hoefnagel made this point most clearly by inserting rather unprepossessing natural specimens into those folios in which Bocskay had made lavish use of gold and silver (fols. 102, 103, 113). By virtue of the irresistible power of illusionism, which in turn testifies to humanity's capacity to manipulate and transform materials, such specimens overshadow the more conventional and tangible splendor of the writing.

Besides flowers, Hoefnagel depicted a host of other *naturalia* such as shells, insects, fruits, nuts, and small animals. These otherwise disparate specimens are uniformly minute, a quality that immediately invites close visual scrutiny. Such scrutiny is facilitated by the manner in which the specimens were painted. In the first place, all of them are brightly illuminated and vividly colored. Their very smallness provided the opportunity for the artist to capture all that would be visible to the naked eye, as can be seen in a sliver of pear whose entire contents, down to the interior of its seed, have been exposed and represented (fol. 22). In short, Hoefnagel's images do not permit superficial scanning but rather draw the eye ineluctably to detail and ultimately into nature's recesses: to look is to participate in the artist's own process of visual investigation.

This effort opposes the active gathering of knowledge directly from nature to the passive acquisition of the received knowledge of texts. In this regard, Hoefnagel's project can be connected with the much more generalized attempt to amass and array natural knowledge found in the rudolfine Kunstkammer, with its display of bones, shells, nuts, fossils, and other natural specimens.12 His manuscript would have supplemented this extensive, if haphazard, collection just as the other compendia of handpainted natural history illustrations kept in the Kunstkammer would have.<sup>13</sup> Hoefnagel's images not only collect and classify nature; they also investigate its underlying structure. Accordingly, the surfaces of natural elements are consistently peeled away to reveal their hidden internal fabrics in minuscule detail: a split mussel offers a contrast between its opalescent shell and the soft irregularity of the organism (fol. 37). Hoefnagel rediscovered the latent strangeness of quotidian objects such as a kidney bean (fol. 31) or walnut (fol. 74), which display their contents as if revealing occult secrets. Pears, figs, and other familiar fruits shown from odd angles (fol. 39, 43, 51) take on an aura of the exceptional, as does a gourd whose pimply surface is depicted in exaggerated detail (fol. 38). Such commonplaces made to seem extraordinary appear alongside true aberrations and exotica such as an apple with a double core (fol. 107) or a rhinoceros beetle (fol. 43).

To peruse Hoefnagel's imagery is to embark on an optical voyage into uncharted terrain. This pervasive sense of estrangement from nature, which in turn fueled an intense determination to penetrate this vast world cut off from humanity, links his sensibility to empiricism as it would develop later. It was probably this feature more than conformity to "scientific" standards of accuracy that inspired the art historian Ernst Kris to apply the term "scientific naturalism" to the manuscript's style.14 Hoefnagel, however, only stood on the threshold of the age of Hooke and Leeuwenhoek, when the invention of the microscope would facilitate the penetration of the world of minutiae to a degree previously unimagined. <sup>15</sup> Dependent on vision and unaided by the extreme sense of power vis-à-vis nature which such scientific instruments engendered, Hoefnagel viewed the visible world as pointing beyond itself to a natural domain of mystery and secrecy, closed off to investigation by the limitations of vision. Within this framework, Nature was still viewed as harboring knowledge that she could freely choose to dispense. The manner in which minutiae hover on the brink between the seen

and the unseen crystallized Hoefnagel's conception of natural knowledge as arising from both rational investigation and revelation, a dualism that would bifurcate during later centuries into the increasingly separate realms of science and religion.

Hoefnagel's dualistic conception of nature is intimately tied to his preoccupation with the paradoxical mimetic striving to "paint what could not be painted," in the words applied by Pliny the Elder to the work of Apelles, the greatest of classical painters. <sup>16</sup> For Hoefnagel, whose imagery centered on the world of nature rather than on the human figure, this approach was tantamount to capturing nature's animate quality. This is apparent in the prominent role played in the Getty model book by insects and small animals, whose vivacity often contrasts with the weightiness and fullness of the fruits. Winged insects dart ethereally among the letters, fruit, and flowers, while snails and caterpillars are no less animated. Objects are distributed on the page according to their elemental realms: butterflies and dragonflies often appear toward the top, with the bottom occupied by fruit, flowers, creeping insects, and small animals. The latter are shown dead or dying on several occasions (fols. 50, 70, 108). As much as Hoefnagel's "living" specimens, this trope alludes to the effort to exceed the physical limitations of paint in order to capture the vital spirit animating matter. His fascination with minutiae as nature's threshold to the unseen reflects his profound consciousness of the dualistic character of the manuscript folio, comprising not merely a surface to be drawn upon but a recto inherently pointing in space and time toward its invisible verso.

Many of the specimens depicted in the Getty codex appear in other works by or after Hoefnagel. The Hours of Philippe of Cleves (Brussels, Bibliothèque Royale Albert Ier, Ms. IV 40), a fifteenth-century Flemish book of hours to which Hoefnagel added border illuminations in the late 1570s or early 1580s, contains corresponding elements, such as the split sour orange (Brussels fol. 70; Getty fol. 33) or the bright orange Maltese cross (Brussels fol. 64; Getty fol. 37) (fig. 1). The Archetypa studiaque patris Georgii Hoefnagelii... contains an especially large number of matching motifs, such

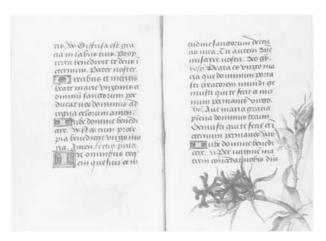


Figure 1. Joris Hoefnagel. Border Illuminations with a Maltese Cross and a Rose. Watercolor and gouache on vellum. From Hours of Philippe of Cleves. Brussels, Bibliothèque Royale Albert Ier, Ms. IV 40, fol. 64.

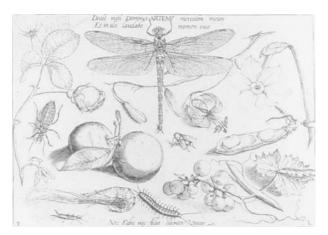


Figure 2. Jacob Hoefnagel after Joris Hoefnagel. A Dragonfly, Bunch of Grapes, and Other Natural Elements. Engraving. From Archetypa studiaque patris Georgii Hoefnagelii...([Frankfurt], 1592), pt. 2, fol. 3.

as the bunch of grapes (Archetypa, pt. 2, fol. 3) (fig. 2) which appears on folio 54 of the Getty codex. As prints, the related specimens in the Archetypa appear in reverse of their counterparts in the Getty codex, and many contain details at variance with, or absent from, the painted specimens. The corresponding bunches of grapes, for example, differ in their disposition of tendrils, leaves, and stems. Both the Archetypa and the Getty codex include specimens that do not occur in any other surviving works by Hoefnagel. All of this suggests that the former was not modeled on, and indeed probably predates, the Getty codex, and that both works include motifs based on other images by Hoefnagel, now lost.

As we have seen, in the Getty codex the illuminations were placed in the residual spaces of the text column, which most commonly occur in its lower portion. When such areas were lacking, the illuminations were sometimes squeezed into smaller spaces at the top and bottom of the page or within the script itself (fols. 45, 55, 91). The bounds of the script column were thus transformed into framing devices, affording frequent opportunities to play with the paradoxical rigidity of the invisible constraint, as can be seen in the image of a pear brought to the edge of the text column and flattened slightly (fol. 13). The placement of weightier objects toward the bottoms of the compositions tends to reinforce the lower margin of this implied rectangle; cropped cast shadows sometimes emphasize its lower corners (fol. 28). As exemplified by folio 44, the space occupied by the objects is ambiguous and, in the end, indeterminate. On the one hand, it is coextensive with that of the script, with (in this case) the arc of the geranium and the attendant caterpillar matching the width of the top three lines of writing. The mushroom, however, sits in front of that plane, causing the last six lines to appear to recede into space rather than simply decrease in size. Here, the prominent cast shadows encourage a reading of the specimens as strewn on the page, and yet the composition simultaneously flattens out, refusing to occupy a position consistent with the living space of the viewer. The lack of other spatial indications causes the blank vellum to act as both surface and amorphous space.

Hoefnagel continually shifted his point of view. Compositions

tending toward verticality (fol. 6) are lent depth by cast shadows at the bottom, yet they become more planar as the forms move up the page, thereby allowing the space of the objects and that of the script to fuse imperceptibly. Horizontal compositions (fol. 46) recede slightly but at the same time seem scattered on top of the page surface. The shadows often appear more substantial than the objects, thus enhancing the latter's planar effect. The extension of objects to the edge of the script column while neither overlapping this edge nor being cropped by it is another device linking the space of object and script. Such tricks elide the distinction between surface and depth and in so doing effect a radical reconception of the illuminated page.

The central problem occupying manuscript illuminators from the early fifteenth century on was the tension between the two-dimensional page and the three-dimensional image, which intensified as manuscript illumination became increasingly spatial in imitation of large-scale painting.<sup>17</sup> The page surface was thus called on to serve two functions simultaneously: as a planar support for writing and as a picture frame opening into depth. The structure thus created was weighted in favor of the script, which remained the focal point, with the narrative receding behind it and the border illuminations surrounding it. This structure was emphasized by the usual procedure of first inscribing and then illuminating a manuscript, a practice that in essence required that the imagery accommodate itself to the writing. Due to these and other factors, imagery grew increasingly competitive with script, occupying a growing proportion of the page in relation to it but at the same time never actually questioning its priority.

Netherlandish artists attempted to resolve this problem through the use of illusionistic "strewn pattern" borders, which became common during the late fifteenth century. In such borders, which enframed narrative scenes, flowers and other small objects were painted to appear as if they had been scattered over a plane just above the surface of the page, extending into the viewer's space (fig. 3). Otto Pächt attributed the invention of strewn pattern borders to the so-called Master of Mary of Burgundy, who was active in the Ghent-Bruges area during the last several decades of the



Figure 3. The Master of Mary of Burgundy. Saint Barbara. Pen and ink, golf leaf, and tempera colors on vellum. From Hours of Engelbert of Nassau. Oxford, Bodleian Library, Ms. Douce 219, fol. 41.

fifteenth century.<sup>18</sup> Pächt presented what remains the most widely accepted description of the significance of strewn pattern borders to the evolution of the illuminated folio:

The place of the page... is conceived as a barrier dividing the two kinds of space, the imaginary space of the picture behind the page and the space of reality in front of it. The forms and objects appearing in either sphere have severed contact with the plane of the page and at the same time have become widely separated from each other. The ornament of the border has moved closer to the spectator, the scene in the picture has receded further into the background. Every visible form now lives in space, has atmosphere around it, and yet we are made conscious of the existence and presence of the plane of the page as the central organizing factor. '9

While Pächt discussed this phenomenon essentially in formal terms, it is important to consider its epistemological implications. The realm of the picture and that of the border had become polarized in time and space, the former portrayed as three-dimensional, distant, and past, the latter as flattened, proximate, and present. Their subject matter had also become polarized, on the one hand human and narrative and on the other hand composed of natural elements, which, rather than telling a story, simply offered themselves up to sight. The visible world was likened to a kind of surface and as such was portrayed as more closely analogous to the manuscript's text than to its pictures. This portrayal of the visible world as a surface placed on top of that of the text challenged the priority of the text by suggesting that vision was more immediate than reading. Yet, as Pächt's discussion makes clear, the plane of the script-bearing page remained the unit around which the images were organized, while its own surface remained inviolate and its nature and character unquestioned.

Comprehending this, Hoefnagel set out to demystify the text and the surface on which it was inscribed. Having occupied a zone outside time and space while the border images were placed within the confines of a fixed relationship to the viewer, the script in Hoefnagel's new configuration

became a specific, stationary element in relation to both the viewer and the protean antics of the illuminations. Hoefnagel placed his imagery directly on the surface bearing the text, thus claiming equality with that text, and went even farther by abandoning the implied margins of this plane and invading the central space of the writing. The most fundamental reversal of the traditional relation between text and image, however, was his refusal to permit the imagery to imitate textual narrative. As long as imagery imitated narrative, the priority of the text was insured, since the implication of this relationship was that figural imagery could never fully capture invisible language. Instead, Hoefnagel imitated words themselves, turning them into objects and thereby reversing the basic terms of the earlier relationship by privileging vision. In so doing, he asserted that visual rather than verbal mimesis was the prime and superior form of imitation.

Hoefnagel's illuminations imitate Bocskay's writing not only through their confinement to the script column but also through the calligraphic flow of their forms (fol. 94). On occasion, the shapes of the specimens may even echo the accompanying script form, as on folio 16, which juxtaposes peas and beadlike flourishes in the writing. The left-to-right flow of these compositions causes them to "read" like script. Just as the imagery interlocks with the script in a continuation of its planar expanse, so the forms interlock with one another. Indeed, they seem to have been chosen largely for their capacity to fit together like pieces of a puzzle. Folio 50, for example, features a water insect, a pectoral view of a dead frog, a lily, and a shell-natural forms that have been made to fit into the unnatural confines of a rectangle, bearing no further symbolic or conceptual relation to one another. Rather than constituting a "natural whole," they maintain a sense of separateness from one another, pointing up the additive character of words and sentences. Hoefnagel strove continually to make the viewer aware of the stationary and hence lifeless character of words in comparison to images.

The competitive tone of the model book as a whole is determined by Bocskay's extroverted display of calligraphic virtuosity. Hoefnagel's answer to this self-assured (in its creator's eyes, no doubt consummate) per-

formance was to challenge it from within—by pitting visual imagery, with its attendant mimetic capacities, against the visual power of words—and from without—by aggressively flaunting the capacity of figural imagery to imitate nature. This is evident in the use of bright and sometimes jarring color. Folio 13, for example, juxtaposes orange-brown medlars, a fuchsia anemone, and an orange-green pear, while a highly saturated red poppy anemone dominates folio 30. The assault on visual perception is reinforced by the spatial assertiveness of the natural elements, such as the lily, pomegranate, and rhinoceros beetle on folio 43 or the pomegranate blossom, earthworm, and peach on folio 83, all of which have emphatically inflated appearances.

Hoefnagel's emphasis on looking implies that sight is a more direct and hence superior method of investigating the natural world than reading, an implication strengthened by the nonreferential character of the images. With the exception of several of the black folios, they apparently bear neither a symbolic relation to the script samples nor any further iconographical significance. Sight, then, is treated not just as a medium to guide one to verbal truth but as an autonomous form of knowledge.

Hoefnagel's challenge to Bocskay's script also makes effective use of wit. This is nowhere more evident than on those folios with plants illusionistically stuck through the page, yielding a surprise encounter with the stems painted on the versos (fols. 20, 20v; 26, 26v; 37, 37v; 41, 41v; 61, 61v; 67, 67v; 89, 89v; 112, 112v; 117, 117v; 124, 124v; 126, 126v). While late fifteenth- and early sixteenth-century books of hours commonly contain this trompe l'oeil device, they only rarely exploit the opportunity to portray the motif piercing the verso as well as the recto –a device used so successfully by Hoefnagel. His highly self-conscious use of such tricks to upstage the script is particularly effective in those specimens painted to appear as if they are threaded underneath trailing flourishes (fols. 20, 20v; 37, 37v; 61, 61v). This clever fillip points up the writing's stationary character as it contrasts with the illusionistic imagery's capacity to weave around it. The artist's practice of squeezing imagery into the residual spaces of the text column, no matter how small (fols. 14, 24, 91), undermines Bocskay's sometimes excessive

displays of virtuosity with the most meager bits of visual form.

In its widest sense a contest of words versus imagery, the model book is concomitantly a match between artistic personalities. While Hoefnagel inveterately signed and inscribed his other manuscripts and single leaves, he did not do so here. Indeed, he appears to have maintained a self-imposed ban on writing throughout the work, while Bocskay's signature or monogram appears repeatedly. Even when wordless, however, Hoefnagel is present: the black caterpillar creeping over a box containing Bocskay's initials (fol. 29) or the golden beetles beside his florid signature on the model book's final folio (fol. 129) must have been intended as comedic reminders of the artist's contribution. Capturing animation in paint, they contrast with Bocskay's epitaphic signatures.

Hoefnagel's focus on the revelatory power of nature is consistent with the broader cultural context of the rudolfine court. There, the acute interest in the natural world that manifested itself in so many areas - from "scientific" endeavors to the collecting of naturalia in the Kunstkammer to the production of art-formed an integral component of an occultist project aimed ultimately at intuiting the invisible reality underlying nature.21 Indeed, the centrality of nature to rudolfine occultist thinking is nowhere more impressively displayed than in the illuminations of the Getty codex. They help one to appreciate how, according to this approach, the physical world was not viewed as merely a pale shadow of the immaterial but quite literally as holder of the key to divine mysteries; indeed, according to this outlook, the visible and invisible were enmeshed, and the boundaries between the two were imprecise. This is made explicit in Hoefnagel's depictions of ethereal insects or sliced-open fruits revealing their seeds, images that attempt to discover the source of life by dissecting the world into ever smaller units. If matter and spirit were mysteriously predicated on one another, so were vision and revelation. Notably, Hoefnagel's images do not evince an interest in texture, neither in those of diverse specimens nor in the working of paint itself. Uniformly smooth and meticulously executed, inflated rather than sculpted in appearance, they suggest that vision, not touch, plays the critical role in gaining knowledge of nature. This process is not one of passively recording nature's surfaces, however; rather, vision acts aggressively on nature, prying into its recesses. This process implies that revelation can only be induced by a forceful and direct confrontation with the visible world.

The profound and revelatory experience of nature offered by Hoefnagel's imagery in the Getty codex is paralleled in the writings of the sixteenth-century German physician Paracelsus, whose thought deeply influenced many of the alchemical writings that issued from the Prague court.22 Avoiding abstract philosophical language, Paracelsus expressed himself in powerful natural metaphors that often involve the stripping away of nature's layers in a search for hidden essences: "As we know by the rind what fruit lies concealed within it, and as the spirit is known by its body, just so, in the case of minerals, the spirit of the metal is recognized, though hidden, beneath its corporeal, or mineral bark."23 Accordingly, Paracelsus's method hinges on the rejection of textual authorities such as Galen or Aristotle in favor of acquiring intimate and total knowledge of nature by actual confrontation and union with it. True knowledge of nature resulted from this union, which Paracelsus described as "Erfahrung" (experience) as opposed to the illusory insight gained from consulting texts: "He who wishes to explore nature must tread upon her books with his feet. Writing is learnt from letters, Nature, however, (by travelling) from land to land: One land one page. Thus is the codex of Nature, thus must its leaves be turned."24 As opposed to conventional reading, one "reads" the codex naturae by direct experience, by "treading upon her books." According to Paracelsus, nature is the archetypal text and the reading of words a flawed imitation of primal reading, since nature, as opposed to words, retains the link between form and essence, surface and depth. As he put it:

Whatsoever Nature generates is formed according to the essence of the virtues.... It is known to all that if a seed be cast into the earth and concealed therein, the latent nature of that seed, at the proper time, manifests it above the earth, and anyone may see clearly what manner

of seed has lain in that place.... We men in this world explore all things which lie hidden in the mountains by means of traces and external signs. For we investigate the properties of all herbs and stones by their signed sign [signatum signum].... The foundation is in this, that all things have seed, and in seed all things are contained, for Nature first fabricates the form, and afterwards she produces and manifests the essence of the thing. 25

The writings of Paracelsus provide a philosophical context in which to place Hoefnagel's imagery. Like the physician, the artist posited that nature is the gateway to true knowledge. Nature's revelatory power stands in opposition to Bocskay's words, which sit inert on the surface of the page. The images are thus reminiscent of Paracelsus's archetypal natural text, holding the promise of united surface and depth, just as they intimate that the outer layers of forms conceal inner mysteries. Aggressively presenting themselves for investigation, the objects provide a direct encounter with nature, which –in circumventing the logic of texts –promises to yield revealed truths.

While Hoefnagel's illuminations aid us in comprehending the centrality of the study of nature at the rudolfine court, they are more interesting still for what they reveal of the force of images in that milieu. His imagery insists that by virtue of mimesis, pictures claim nature's own power to confront the individual directly and so to inspire revelation. Existing like apparitions on white vellum, the images simultaneously convey the magical power involved in confronting nature and the magic of artistic creation. More than the trompe l'oeil devices, the mimicking of the serifs and flourishes of script, or the clever structuring of the page surfaces, it is the unsettling intensity with which nature confronts the viewer that poses the most profound challenge to Bocskay's script in the Getty codex. Hoefnagel asserted that images, like nature, are the sources of human experience at its most profound level, from which the written word remains ever at a remove.

## Notes

- Cf. A. S. Osley, Scribes and Sources: Handbook of the Chancery Hand in the Sixteenth Century (Boston, 1980), pp. 19-21.
- E. H. Gombrich, "Leonardo's Method for Working out Compositions," in Norm and Form: Studies in Renaissance Art (London and New York, 1971), pp. 58-63.
- 3. G. Vasari, Le vite de' più eccellenti pittori scultori ed architettori, ed. G. Milanesi (Florence, 1906), vol. 4, p. 8; see D. Summers, Michelangelo and the Language of Art (Princeton, 1981), pp. 51-55, 71-96.
- 4. O. Ogg, Three Classics of Italian Calligraphy: An Unabridged Reissuc of the Writing Books of Arrighi, Tagliente and Palatino (New York, 1953) (includes list of editions of the manuals of Arrighi, Tagliente, and Palatino).
- 5. See D. Jackson, The Story of Writing (New York, 1981), p. 122; B. P. J. Broos, "The 'O' of Rembrandt," Simiolus 4 (1971), pp. 150–83; T. Croiset van Uchelen, "Dutch Writing-Masters and the 'Prix de la Plume Couronnée," Quaerendo 6, no. 4 (Autumn 1976), pp. 319–46.
- 6. Osley (note 1), pp. 17-18.
- 7. For a discussion of the development of German writing manuals during the sixteenth and seventeenth centuries, see W. Doede, Schön schreiben, eine Kunst: Johann Neudörffer und seine Schule im 16. und 17. Jahrhundert (Munich, 1966).

- 8. E. H. Gombrich, "The Renaissance Conception of Artistic Progress and Its Consequences," in Norm and Form (note 2), pp. 1–10.
- 9. J. Krcálová, "Die Gärten Rudolf II.", Leids Kunsthistorisch Jaarboek (1982), pp. 149-60; R. J. W. Evans, Rudolf II and His World: A Study in Intellectual History 1576–1612 (Oxford, 1973), pp. 119-21.
- 10. E. F. Bleier, trans. and ed., Early Floral Engravings: All 110 Prints from the "Florilegium" by Emanuel Sweerts (New York, 1976), p. xi.
- 11. Ibid.
- 12. For the contents of the Kunstkammer, see esp. R. Bauer and H. Haupt, eds., "Das Kunstkammerinventar Kaiser Rudolf II., 1607–1611," Jahrbuch der Kunsthistorischen Sammlungen in Wien 72 (1976), pp. vii–191, no. 36. A proposed reconstruction of its display and interior configuration is found in E. Fučíková, "The Collection of Rudolf II at Prague: Cabinet of Curiosities or Scientific Museum?" in O. Impey and A. MacGregor, eds., The Origins of Museums: The Cabinet of Curiosities in Sixteenth-and Seventeenth-Century Europe (Oxford, 1985), pp. 47–53.
- 13. For natural history manuscripts from the rudolfine Kunstkammer, see Prag um 1600 (Freren, 1988), vol. 2, nos. 602/1-2, 603/1-2, 604/1-2, 605

- 14. E. Kris, "Georg Hoefnagel und der wissenschaftliche Naturalismus," in A. Weixlgartner and L. Planiscig, eds., Festschrift für Julius Schlosser (Vienna, Leipzig, and Zurich, 1927), pp. 243–53.
- 15. Svetlana Alpers's discussion of the relation of microscopy to the seventeenth-century Dutch tendency to conceive of the art of painting as the presentation of optically based natural knowledge is enlightening for a consideration of Hoefnagel, one of the chief precursors to this development. See The Art of Describing (Chicago, 1983), pp. 1–25.
- 16. Pliny the Elder, Natural History 35.74.
- 17. The conception of the illuminated page as tension-ridden as a result of the introduction of three-dimensional space was advanced by Erwin Panofsky in Early Netherlandish Painting: Its Origins and Development (Cambridge, Mass., 1953), p. 28.
- 18. O. Pächt, The Master of Mary of Burgundy (London, 1948).
- 19. Ibid., p. 25.
- 20. T. DaCosta Kaufmann and V. Roehrig Kaufmann, "The Sanctification of Nature: Observations on the Origins of Trompe-l'ocil in Netherlandish Book Painting of the Fifteenth and Sixteenth Century," Journal of the J. Paul Getty Museum 19 (1991), pp. 43–64; D. Thoss, "Georg Hoefnagel und seine Beziehungen zur Gent-Brügger Buchmalerei," Jahrbuch der Kunsthistorischen Sammlungen in Wien 82–83 (n.s. 46–47) (1986–87), p. 210.

- 21. Evans (note 9), pp. 243-74.
- 22. Ibid., pp. 199-200.
- 23. A. E. Waite, trans. and ed., The Hermetic and Alchemical Writings of Paracelsus (Berkeley, 1976), vol. 1, pp. 93-94, from Paracelsus, Opera omnia (Frankfurt, 8vo., 1584).
- 24. W. Pagel, Paracelsus: An Introduction to Philosophical Medicine in the Era of the Renaissance (Basel, 1958), pp. 56-57, from Paracelsus, Opera omnia (Defensiones und Verantwortungen wegen etlicher Verumglimpfung seiner Missgönner, Vierdte Defension), ed. J. Huser (Basel, 1589), vol. 1, p. 259.
- 25. Waite (note 23), pp. 190-91, from Explicatio totius astronomiae. See K. Sudhoff, ed., Theophrast von Hohenheim gen. Paracelsus: Sämtliche Werke, I. Abteilung: Medizinische naturwissenschaftliche und philosophische Schriften, vol. 12 (Munich and Berlin, 1929), pp. 470-71 (reprint of Philippi Theophrasti Bombast gennant Paracelsi Magni, Astronomia magna: oder die ganz Philosophia Sagax des grossen und kleinen Welt [Frankfurtam-Main, 1571]).

## Editor's Note

The botanical and other identifications on the following pages were prepared by the following: at the Natural History Museum of Los Angeles County, Robert L. Bezy, Section of Herpetology; and James H. McClean, Section of Malacology; at the Landbouwuniversiteit Wageningen, The Netherlands, A. J. de Winter, Section of Animal Taxonomy; K. W. Robert Zwart, Department of Entomology; Carla S. Oldenburger-Ebbers, Library; and D. O. Wijnands, Botanical Garden; and at the J. Paul Getty Museum, Andrea P. A. Belloli, Department of Publications; and Lee Hendrix, Department of Drawings.

The identifications of specimens proceed from top to bottom and left to right. Common names have been provided wherever possible. In the case of the insect identifications, British English common names have been used, since most of the specimens represented do not exist in the United States. Where a different American common name is known, it has been included following the British name, separated by a slash.

The names of higher taxonomic groups (families and orders) have been printed in regular type, while genus and species names appear in italics.

Seorgii BochKaj

Mira Calligraphia monumenta
et pictoria patientia
riligentifima indica.
46 an 1562 ad 1596.



Verso of fifth flyleaf Georgii Bochkaj Mira calligraphiae monumenta et pictoriae patientiae diligentissima indicia. Ab an. 1562 ad 1596.

Folio 1

Vinca minor L. Common periwinkle Malus domestica Borkh. Common apple Lacerta (?) Lizard

Folio 2

Ephemeroptera Mayfly Silene dioica (L.) Clairv. Red campion (spotted petals

unusual for species)

Pyrus communis L. Common pear, gourd type



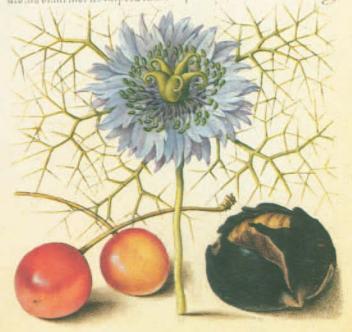
Folio 3

Nigella damascena L. "Plena" Prunus avium (L.) L. Love-in-a-mist Sweet cherry

Castanea sativa Mill.

Spanish chestnut

po canam Agm promidi erstolis albis Candidi. post transsum maris rubri Christo conamus Principi. Cums corpus antissimum in Ara strucis torridumir unre cus voice ous transcribente angelo: Erepti de durissimo Pharaonis Imperio. Lam paschanos christus est qui immolatus agnus est. sinceritatis agynto, caro cius oblata est. O uere digna Hossia per quam fracta sunt tartara redempta plebs captuata reddita una pramia. Cum surgir Christus tumulo victor redit de barathro tyrannum trudens vinculo et re serans paradisum. Quas simus autor omitium in loc paschali gau dio ab omni mortis impetu tuum desende populum. Cloria ibi ecest.



Diptera Syrphidae or Coleoptera Meloidae (?) Campanula persicifolia L. "Album"

Cucurbita pepo L.

Convolvulus arvensis L.

Folio 4

Hover fly/flower fly or blister beetle Willow bellflower

Gourd

Field bindweed



Matthiola incana (L.) R. Br. Gillyflower

Ephemeroptera Mayfly

Diptera Cyclorrhapha Fly

Heleomyzidae (?)

Pulmonata Helicidae Cepaea sp. Garden snail

Loria enim parentum natis pre clarus est magnificulque thela urus. Ornatus quidam est temperantia et a voluptatibus abstimentia. Vir sapiens ornat munus suum suaustate ser



Caterpillar of owlet moth Lepidoptera Noctuidae (?) Erythronium dens-canis L.

Dog-tooth violet "Candidum"

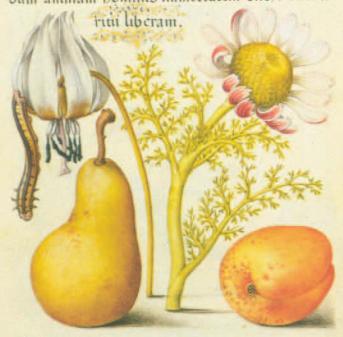
Anacyclus pyrethrum (L.) Link

Pyrus communis L. Common pear, gourd type

Prunus armeniaca L. Apricot per amozem Dei amoz pzorimi gigniurza
per amozem pzorimi amoz Dei nutritur.

Mgros e vr bes lapientia e nauem gubernat. Gau
oto afficitur ille qui vilcendo et contemplando.

tpla intelligentia electatur. Memini est ignozan
oum animam bominis immoztalem este e ab inte



Diptera Syrphidae (?) Lepidoptera Sphingidae Hyles euphorbiae (L.) Pyrus communis L. Lep. Satyridae Melanargia galathea ssp. galathea (L.) Chilopoda Folio 7 Hover fly/flower fly Horntail caterpillar of spurge hawk-moth Common pear, gourd type Marbled white



Folio 8 [Excised]

Folio 9

Arachnida Araneae Pisauridae Dolomedes fimbriata (Clerck) Nigella damascena L. Hymenoptera Eumenidae Eumenes sp. Ribes rubrum L.

Nurseryweb spider

Love-in-a-mist

Potter wasp

Red currant

um gentem' upe. cos tam in nollrie tribu uram te abus legimus! be Quamin ubruat ex requenter

Odonata Zygoptera Damselfly

Rosa gallica L. French rose, pink, semidouble

Castanea sativa Mill. Spanish chestnut

Arachnida Araneae Spider

Estraparam consilla linamagnicisco cryaman nella funt peccasa de punto ma non imparama dominan peccanan nel estra lorren considera, estavam esta minera acernar alla men dani camarem resa de punto ma estavam menten alla mendan camarem resa de punto ma estavam peccana de persona de la maria competenta perfetum menu common non les estavam menun lana demanda estavam peccana demanda al metana menun al litara mancam demanda, et mestavalla, insperiasam peccanan estavam al litara antica estavam estavam peccana demanda estavam mulicio menda demanda estavam estavam estavam mulicio menda demanda estavam estava



Southern or obscure wainscot

Lepidoptera Noctuidae Mythimna straminea (Treitschke)

or M. obsoleta (Hübner)

French rose, bud Rosa gallica L.

Imaginary wasplike insect

Bellis perennis L. "Hortensis"

English daisy Lep. Lasiocampidae Caterpillar of lasiocampid moth (?)



Folio 12 Hymenopteran insect (?)

Narcissus pseudonarcissus L. Aquilegia vulgaris L. Quercus robur L. Daffodil European columbine English oak, acorns fflictus sum et humiliatus sum nimis, rugicha à gemitu fordis mei. Domine ante te omne desiderium meum et gemitus meus à te non est absconditus. Cor meum conturbatum est dereligt me uirtus mea. A lumen oculorum meorum, Gip sum non est meeum. A mici mei er proximi mei ad uersum me appropinguauerunt, et Steterunt, Com qui inquirebant mala mihi locuti sunt uanitates ef



Mespilus germanica L. Medlar

Anemone coronaria L. Poppy anemone

Pyrus communis L. Common pear, gourd type

Voniam iniquitate mea super gre se funt caput meum, & sicut onus grane granate funt lupe & me. Tutruerunt & currapte funts cicatrice meg: a facie in ipientia Men'mierfaltuf fum Octur catul lum ulque infinem tora die contri fatul fugrediebar. Quo-Niam lumbi mei impleti lunt illufionipul: & non es fsantas to Folio 14 Two imaginary beetlelike insects

## LIMIA JAMAS ERATESUMPI MALEBEMEN LEROBESI.

rationago immente Lanctati et lempe terne pictati tue Domine lande Pater omni potena Dena, qui me indignum lamulum tun et peccatorem milerum, millia meia meritia led tuia multia, e immentia exacutibus milerationi.

bus Anno domini Lance milerationi tuno quimaentelimo lexaceturo primo.

Muscari botryoides (L.) Mill.

Common grape hyacinth (growth habit unusual) Imaginary wasplike insect

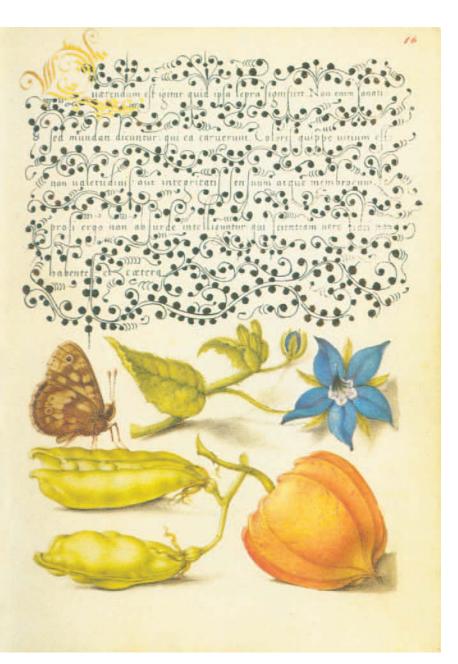
Rosa rubiginosa L. Rosa foetida J. Herrm. Lepidoptera Geometridae Abraxas grossulariata (L.)

Eglantine Austrian brier Magpie moth

Folio 15



Lepidoptera Satyridae Pararge aegeria (L.) Borago officinalis L. Pisum sativum L. Physalis alkekengi L. Folio 16 Speckled wood Talewort Garden pea Lantern plant



Rosa gallica L. French rose, three buds

Pistacia vera L. Pistachio, fruit

BELLOS SPILLINIS STATES tionem meam: en proferant mon THERE MICHELLE CE OF tendam Valor uer sa mica onna moca LAN CE T CARAGE

Malus domestica Borkh. Common apple

Viola tricolor L. European wild pansy

Corylus maxima Mill. Giant filbert

omine non est exastasum con menum near clan sunt oculi ment Reance ambulani su magnit, near su mirabilibus Supre me Si non humili ter senticibam. sed exastani O nimam meam Sint Ibsateratus est supre Itateem sel supre Si supre sel su mune. So sel si su supre su mante se supre se su si supre su supre supre su supre supre su supre su supre su supre su supre su supre su supre supre su supre supre su supre su supre su supre su supre su supre supre su supre su supre sup

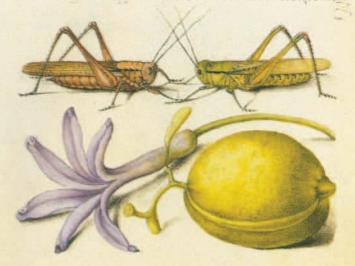


Orthoptera Tettigoniidae Decticus verrucivorus (L.) (?)

Orth.

Hyacinthus orientalis L. Prunus dulcis (Mill.) D. A. Webb Folio 19 Wart-biter (?)

Grasshopper (characteristics of Acrididae and Tettigoniidae) Hyacinth, single flower Almond ensqui Centritor un un desfects demitum et us rentina um speria affertum adelto pracibus norteis quas tidi pro tribalatione, nestra effundimun en que de concette emandi at quirquid contra nos diabelice, atque bumane meliun tur adverfitates, ad nibilam redigueur et consilio eon pictatis allidatum quatenus nullis advertivesibus lasi. Set de comus tribulatione, et angultia erepti legi en corlecia tua tido postiva referemas, et un tido postata nestra domine, et colore nobis mescrissordian tuam, quan pousamer et lumilitatem no stra attendes. Vencala coloras delicia deleas strebulationem professor angultas effectiones petitiones necesarios desputas enventas, advertitaren resellas effectiones petitiones no litera la especia enventar emportar empolicio en colores.



Viola odorata L. Sweet violet Spartium junceum L. Spanish broom

Folio 20v

Trompe l'oeil stem of sweet violet

Folio 21

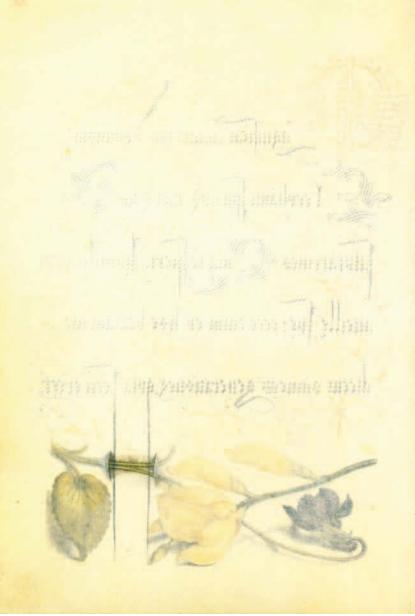
Dianthus sp. (petals fringed on all sides, not just at top, as is usual)

Prunus dulcis (Mill.)

D.A. Webb

Almond







Rosa gallica L. Fi

French rose

Diptera Tipulidae

Crane fly

Corylus avellana L.

European filbert

Pyrus communis L.

Common pear, gourd type





Tulipa gesneriana L. Hymenoptera Ichneumonidae

> Tulipa gesneriana L. Phaseolus vulgaris L. Phaseolus coccineus L.

> > or lunatus L.

Folio 23 Tulip, pink Ichneumoni

Ichneumonfly (inaccurate; Ephialtes sp. apparently served as model)

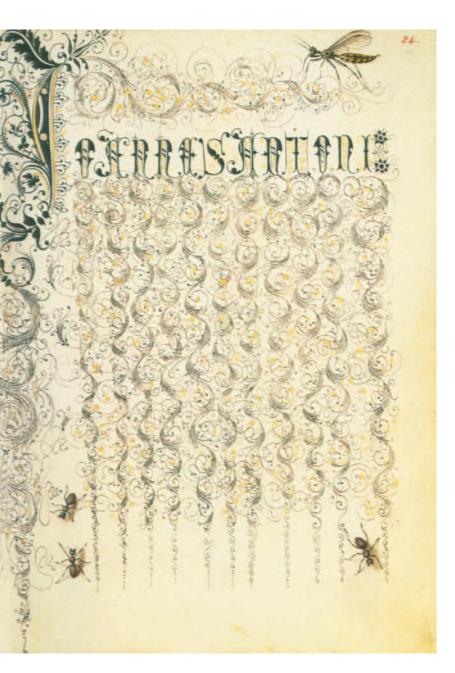
Tulip, striped yellow/blue/pink Kidney bean

Scarlet runner bean or Sieva bean PERSONAL PROPERTY AND CONTROL OF THE PERSONAL PROPERTY AND CONTROL THE CONTROL



Folio 24
Diptera Tipulidae Crane fly

Hymenoptera Formicidae Three ants



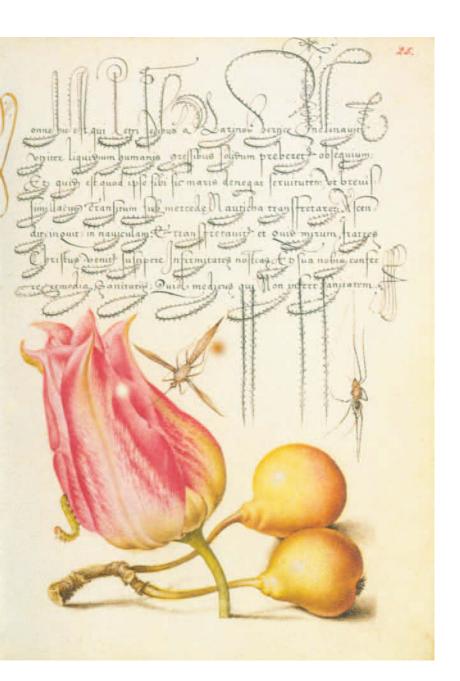
Imaginary insect

Tulipa gesneriana L. Tulip, striped pink/white/yellow

Unidentifiable caterpillar

Arachnida Araneae Spider

Pyrus communis L. Common pear, round type



Adonis annua L. Pheasant's-eye

Orthoptera Tettigoniidae

Imaginary bush-cricket/longhorn grasshopper (?)

Coleoptera Elateridae (?)

Folio 26v

Wireworm (?)

Trompe l'oeil stem of pheasant's eye

Folio 27

Ribes uva-crispi L. European currant

Caussime Propost beatissimorum pedum ofcula la Santità bia secara gauagliaia qualmente à giorni quattorider secembre gli Ruezendissim Et filhis trissimi Cara Grymano et Sadoletto, noncio si vostra fannta, et di quella beatissima sede nelli ed di Franza, et Scoria Ginsieme con il Clarisimo et ambasciatore. Dello sinuttissimo et multo potentissimo simperatore furono a strettis simi ragionamenti con la republica. Christiana si materia delle quatto decima



rego m cam brucu ommborenen presiem cap a teste a m fejum fir - asnet wingt zo murqsznos murtton munmob musunu, sus murtt mur to munitrom mucilione, otaliq ostno dul multagoniquei anum xominan Self-surrom e monograpor de extras secretar be mornabasiste, munluopi danism in carlos ledontem in dartermi Pa patros ominipotentis s redo in - acilmente Ji comprendeno gli minni priesordy delli Donuni, confabulando fero quidiciofamente some doue'es ser dalli quottidiani ragionamenti, dalli soro moui Neramente da alire mille sopranements No drumo occasiom Onde ali sapie iffin I Spermentatis fing Philosophi infegnorono ofla posteritade que s fe documeny Per d che obligatis fum sempre dobbiamo essere alle memorie lovo imitando con ogni noffro Indio V. dili gentra. Vigilanti framente quanto guelle Graffinmo N firmendo a nos fro benefino ornamento e perpetna bu litade, Q cofi Venumente fuggiremo nota de ingratudine, some Vrigiliano vadre et Macftro de Toen lann Ginducofamente fome fa fempre Nel

Aquilegia vulgaris L.

Aquilegia vulgaris L. "Multiplex"

Prunus avium (L.) L.

European columbine

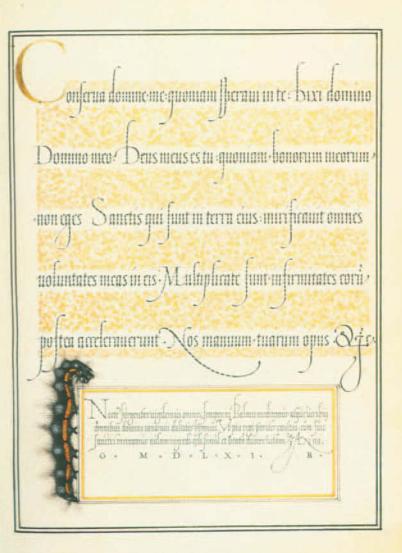
European columbine

Sweet cherry



Folio 29 Dagger

Lepidoptera Noctuidae Acronicta euphorbiae (D. & S.), menyanthides (Esper), or related species



Satureja acinos (L.) Scheele Anemone coronaria L. "Plena" Myrtus communis L. Folio 30 Basil thyme Poppy anemone Myrtle demnam Agnisprovide er felie albis candide post transfirum Maris rubre Christia canamias Principi. Chius corpus santus maniam a sea crucis territami cruse re cuis Resea gustande minimus des Pratectis pastina de pere ac devas funtes. Angele crepti de durissime Pharaonis Imperio. Lam Pascha nosfirum Christias est cui immalatus Aonus est sinceritans azyma caro cius oblista est. O ucre Liona hosha per quam fracta sunt tarrara redenspia plebs capituda readita una promoa. Cum sinces cui beristus tamulo nictor redu de barathree agrandum studens uniculo exercicans para distina. Quassimus auctor Coum sin hose Pascholi anudia ad omni mortis impetu timus desende papulion. Ciloriatus Danne qui surexisto a mortis cum have et entre



Phaseolus vulgaris L.

Kidney bean

Anemone coronaria L.

Poppy anemone

Vipera berus (?)

Adder

es tua pietans Minissima Deus inclina precibus meis: Et gratia fanc ti spiritus illumina Cor meum:Vt tu is mysterijs dignæ ministrare teque eterna charitate diligere merear Deus qui tribus lucris mitigalli flam mas Ignum Concede propitius ut NOS famulos tuos Non exurat eta

Mirabilis jalapa L. Four-o'clock, pink/yellow

Lepidoptera Lycaenidae Brown hairstreak

Thecla betulae (L.) Geranium robertianum L. Herb robert

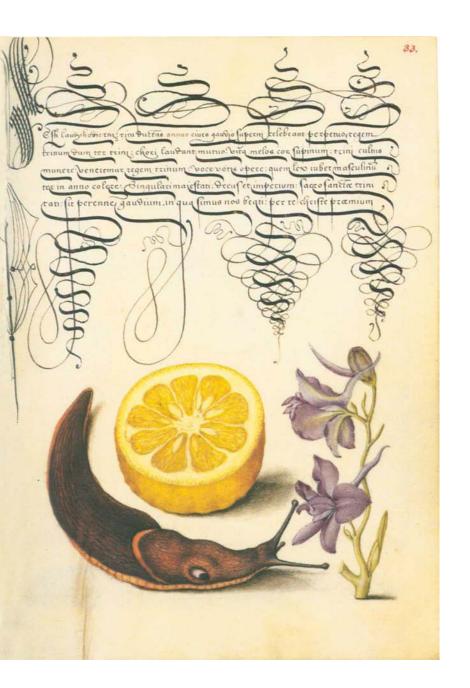
Cantherellus cibarius Fr. Chanterelle



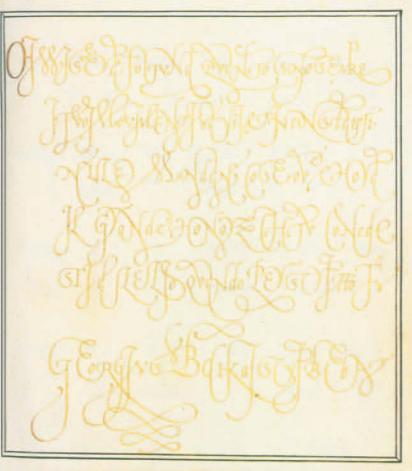
Citrus aurantium L. Sour orange
Pulmonata Arionidae Terrestrial mollusk

Arion cf. rufus (L.)

Consolida regalis S. F. Gray Larkspur



Lepidoptera Lasiocampidae Lasiocampa quercus (L.) Folio  $_{
m 34}$  Larva of oak egger moth





Folio 35 Hebrew Alphabet



Matthiola incana (L.) R. Br. Gillyflower

Imaginary insect

Veronica chamaedrys L. Germander Prunus dulcis (Mill.) Almond

D. A. Webb

Rana (temporaria [?]) Common frog

venist pro nobil qualumul domine lolu heisto, nune a hora Morri nostre Jud tuam elementiam beata viros Maria Mater tua sucul acratilimam Animam In bora Pastionif tur dolori pladin pererantinet, Perto lofa Grille Sunacor Mundi Qui com patre ana per omnia acula aculorum H men

Lychnis chalcedonica L. Bivalvia Mytilidae Mytilus edulis (L.) Coleoptera Coccinellidae Propylaea quatuordecimpunctata (L.)

or Adalia decempunctata (L.) var.

Folio 37 Maltese cross European edible mussel

Fourteen- or ten-spot ladybird (inaccurate color pattern; eight legs shown instead of six)

Folio 37v Trompe l'oeil stem of Maltese cross

Folio 38

Viola odorata L. Sweet violet

Cucurbita pepo L. Gourd

Erythronium dens-canis L. Dog-tooth violet

bolehre autem reliebif Judeif habitaruruf In affettibuf genhum templum dommuf afeendir Hoc enim off lemplum berum: In quo non In litera : Sed in spicitu dominus Abocatue: Hoc Sei templum eft: quod fedog ferief non Tapidum Azudura fil Dauit De foruntus Cigo qui adorant Chquatur ou ama (furi Erant Ct Joso admonfem venit Dhuehist novellat sling In fublime Svietutum blantacet quarum Dater the que fur fum eft Hierufalem dominul mecum e



U hoc monte off illo cale he & Lgucola: in Bromo Doming polling in vertate dicerce. Coo lieut D rullifican In Somo Domini & doctalle sple Mono bultul Quis enim aline tales tiuffus ferret, cleazum; non curue congum Chertate Beccarung: Tudine gennum freundazum Able elpher Quem & Cento moe: Et a quem denomues: ible el Canna Lible el Coia: Que aperituz: Ct quis ingredientibu et begredientibu

 $\label{eq:conditional} An \textit{emone coronaria} \ L. \qquad Poppy \ an \textit{emone, two flowers}$ 

Lepidoptera Unidentifiable caterpillar

Ficus carica L. Common fig Cydonia oblonga Mill. Common quince mupotens eradifericoro deus qui calos calogas permes ad mabile de penfanone regis et omna infro indicio di cernis. Lui de minis et electis lapidebus atternum Lodis habitaculum nue manefu in Dedicasti: Le per fancre et submidue trinitano nomen e con sessionem omnum froelum Luo inferimis inmundis labijs exorure prastimo set per intercel sonce et el seria fanctor, quorum sodie se setu en celebrami del quor inferime del perme et pertori mei dinitami no sumi mao comare di indiagnia allustrare, et pertori mei dinitami nio sumi mao comare di aneri I de vespicias in memisero creatina ma. Dinimpotens Deus opin manuum marami. Sod in por templo Luius hodic viem dedicationis celebramius: crandi praces mei indiani sumuli tui, ne per innumeras sumo rum meorum Luiuse milii misero illa et cetera.



Lepidoptera Pieridae and Papilionidae, elements of Aporia crataegi (L.) and Parnassius mnemosyne (L.)

> Fritillaria meleagris L. Juglans regia L.

Prunus avium (L.) L.

Folio 40

Imaginary butterfly (elements of black-veined

white and clouded apollo)

Snakeshead

English walnut

Sweet cherry

TILIDELS SANCIISSIME

QVANILVCIDVIN CENTRUMEO

LI CANDORE PINGIS IGNEO

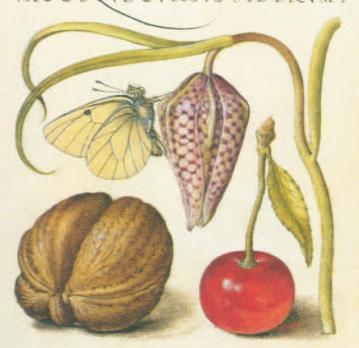
MIGENS DE CORO LUMINI

QVARTO DIE QVI FLAMMA SO

LIS ROTAM CONSTITUENSIV

MR MINISTRAMS ORDINEM

VAGOSQVE CURSUS SIDERUM:



Phalaris arundinacea L. "Picta"

acea L. "Picta" Reed grass Rosa gallica L. French rose

Buso (buso [?]) Common toad

Matthiola incana (L.) R. Br. Gillyflower

Folio 41v Trompe l'oeil blade of reed grass and stem of French rose

Folio 42

Folio 41

Hymenoptera Chrysididae Unidentifiable insect

or Diptera Tachinidae (?) (colors suggest gold wasp;

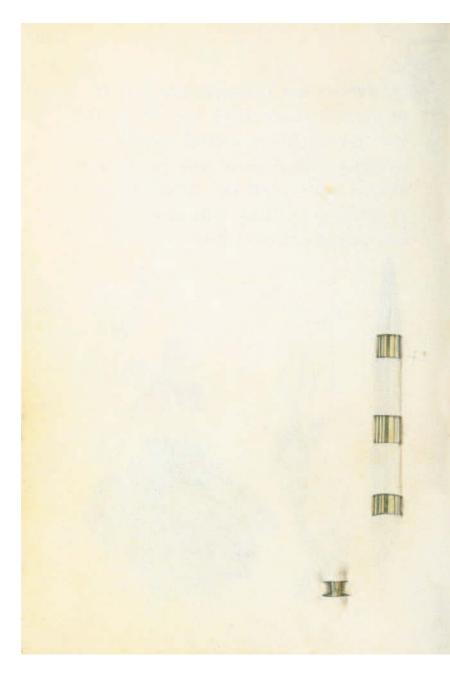
may derive from parasitic

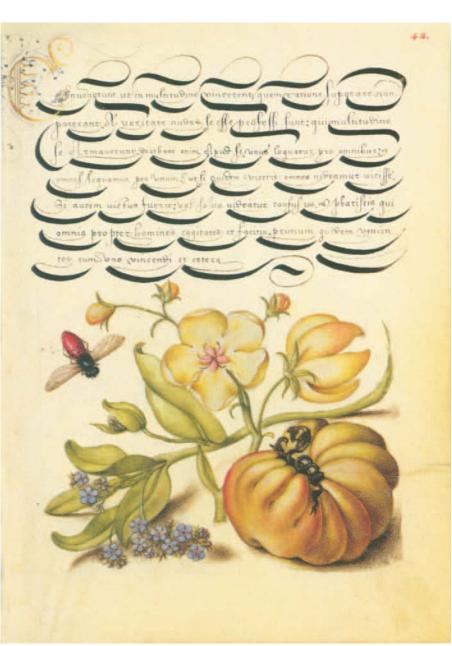
fly/tachina fly) Verbascum blattaria L. Moth mullein

Myosotis palustris (L.) L. Forget-me-not

Lycopersicon esculentum Mill. Tomato







Lilium chalcedonicum L. Scarlet Turk's cap

Coleoptera Scarabaeidae Common rhinoceros beetle Oryctes nasicornis (L.)

Punica granatum L. Pomegranate, fruit

nterrogauit Telumunuf ex pharifeif legif doctor ten
tano cum, magufer, quod est mandatum magnum in le
ac Maguferum nocat cumo mon unit esse discipiuno
fimplicissimus interrogator. Et malignissimus insediatoride magno mandato interrogat qui irec mun
mum observat. Mo cum debet et catera.



Chilopoda Centipede Geranium sylvaticum L. Wood cranesbill

Unidentifiable mushroom



Diptera Tipulidae Ctenophora atrata (L.) or related species

Dipt. Tipulidae

Rosa gallica L.

Male crested crane fly

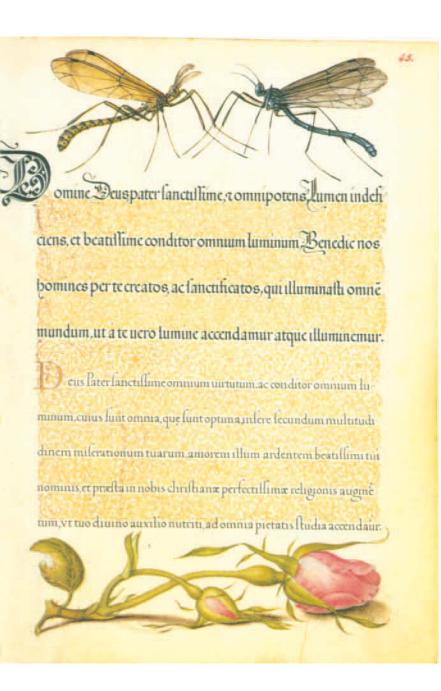
(inaccurate venation; characteristic

shape and antennae) Imaginary insect

(resembles crane fly;

four wings shown instead of two)

French rose



Arachnida Araneae Prunus avium (L.) L. Quercus robur L. with galls of Hymenoptera Cynipidae Cynips quercusfolii L. and Neuroterus quercusbaccarum (L.) Folio 46
Spider
Sweet cherry, flower
English oak, leaf with cherry-galls
(three big galls) and spangle-galls
(two small galls)

ottaquam aunquie ctus chia regionem el longinguine me Viin Cepararcil moriba Tum ese non terris

Lepidoptera Nymphalidae Queen of Spain fritillary

Issoria lathonia (L.)

Malus domestica Borkh. Common apple

Mouse

Omphalodes verna Moench Creeping forget-me-not

FAMFULIS TVIS ET
PERLETVANS BEND
PERLETVANS BEND
PERLETVANS STATE AVE
TOTAL SERVICE AVE
TOTAL SERVICE AVE



Adonis annua L. Pheasant's eye

Narcissus minor L. Buttercup

## CRATRES NOLUMISTOS

ionorare de dormientibe ût non contriltemini lieut et reliquit qui fem non habent. Si enim credimiis, quod Deus Christe mortuus d'telurieut ita et Deus cos qui dormiuerunt per le fum adducet eum co. Hoc enim uobis in ucrbo domini dicime qui a nos qui unumus, qui relidui lumiis in aduentu domini no previeniemus cos, qui dormiuerunt, quomam iple dominiis, in unha et in uoce Irelianochi et in ruba Dei deleendei decelo et mortui qui in (hirilto lunt, relingent primii dende nos qui unumus qui relinquimur lumul rapiemur eum illis in nubibus obuiam (hirilto in aera, ache etim domini allelimo quinoemelimo de muerbis illis eti Anno dominii).

no ar so munoscanar seomer ar mus rinxo dangel su an so munoschrotos duncelos duncelos su munos duncelos alle munos duncelos alle munos de se munos de se munos duncelos alle munos de securo musuales alle munos de securo de securo de munos de securo de securo de munos de securo de secur



Colutea arborescens L.

Folio 49 Bladder senna Scilla bifolia L. Alpine squill

150

mm, Subo panamental santa submas al manament de santas per minament de santas prominament de santas prominament santas prominamentes p

Matema in the property of the confinence manufacture in the property of the confinence of of the co

and inquirement commiss makes the form produce. Elements agreement active to obtain conclusion in temperaturation of Lagrane ingestions in polarities in committee accurate space quied an about approxime necessaries a faile of highest replacement active and the latter of the polarities and the latter of the

Heteroptera Hydrometridae Hydrometra stagnorum (L.) or gracilenta Horv. Lilium martagon L. "Album" Bombina variegata Prosobranchia Turritellidae Turritella communis Risso Folio 50
Water gnat/water measurer
(eyes too far forward on head)
Martagon lily
Yellow-bellied toad, ventral view
European screw shell

I R. andissimo dileno gustano le humane menti beniquissimo lenore, nella dolce rimenbranza, delli santi preventi de antichi Philosophi, et delli prestavissimi satti de'inditti et sortisimi simper atori. Onde'il gran s'supore, di natura et Principe di Peripatenti insegnana ad A sess M. acedi uosgere'er mosgere sti annali de'la antichita da quali sempre hancina per la sola mevende delli sara, n'augesti dello antico Tullamede'li quali a malgrado del tempo ne siberano dalla oblinione di cose tanto dedenc'et eccellenti. Desideroso caldamente dimoni brare alla Illi en R. S. V. suffettione grandis.

TR unas ago immense Maiestati ac sempiterne bonitati tue domine sancte Pater omnipo tens æterne Deus gui me indignum samulum tuum et peccatovem miserum millis meis meis meritis, immo tius musus et immensis exigentibus miserationibus corpore et sangui uedominu nostri sesu (brish fily tiu dignatus es saturave). Præcoe ut bec sacrosancia commu



Lepidoptera Pyrus communis L. Tulipa gesneriana L. Prosobranchia Muricidae Murex brandaris (L.) Folio 51 Unidentifiable caterpillar Common pear Tulip, pink, bordered white Purple snail Omine exandi Common meanier clamos meus adre Veniar. Mon auez ras facion mam a mem quaeunque die tribulor melina ad me An zem, mom. In quaeunque die muocaureo re sielociter exaudi me Luia deferrir ficus fumius dies mei l'ofia men ficus cremium acuezum. Percufsus fum ve fenamier acuit cos meum suita oblicus fum comedeze banem neum . A noce gemitus men adapti os misum caim men Similis factus fim pellicano futitu dinis factus fum fuui nleticorax in domicilio. Vialiani e- factus fum fini pafee folicascus in certus fora die expraboa bant mem immici mes e- qui laudabir me adurefum me incabant. Tina concreta tanquam panem manducabam. O poculum meum cum fletumitebam. A faire era maignationia tuaequita exp



Castanea sativa Mill. Iris latifolia Mill.

Corylus avellana L.

Folio 52 Spanish chestnut English iris European filbert Iferere mei deus secundum magnam miseritordiam inam et secundu multitudinem miserationium inarum de le iniquitatem meam. Amphus saua me ab iniquitate mea C- à peteato meo munda me. Quonom iniquita tem meam ego conosco et peteatum meum contra me est semper. Teli solt petaus et malum contra te feti, ut instituteris in sermonibus tuis, et unicas sum tudi caris. Ette enim ininquitatibus conceptus some et up peteatis conceptu me mater mea. Ette enim ueritatem dilexisti in certa et occulta sapientia inca manife stasti milit. Asperato me domine solici pete sum de albabor. Auditui meo dabis gaudium et latitum et exultabunt ossa humiliata. Auerte saccen tuam a peteatis meis et omnes iniquitates meas de le. Cor mundum trea m me deus et spiritum retum innoua et meas de le.



Folio 53 Rocket lark

Consolida ambigua (L.) Rocket larkspur

P. W. Ball & Heyw.
Tulipa gesneriana L. Tulip, yellow

Consolida ambigua (L.) Rocket larkspur P. W. Ball & Heyw.

Arachnida Scorpiones Scorpion

Diplopoda Millepede

Corylus avellana L. European filbert

A DTE LEVAVI OCVLOS MEOS
OVI HABITAS IN CELIS ECCE SI
CVT OCVLI SERVORVM IN MA
NIBVS DOMINORVM SVORVM
SICVT OCVLI ANCILLE IN MA
NIBVS DOMINE SVE ET CET.



Vitis vinifera L. Matthiola incana (L.) R. Br. Pulmonata Helicidae Folio 54
Wine grape
Gillyflower
Imaginary land snail
(derived from *Cepaea* sp. [?]),
sinistral (left wound)

fluenta dividens calum dedicti limitem firmans losso calestibus simulg Terra rivulis. Vi vnda flam mas Temperet terra folum Ste diviper. In fundo nunc pupi me donum peremais docia fraudis noua ne casibus. Nos error deterar vetus lucem fides inveniat fie luminis lubar ferat. Vt vaca cuneta.

Lepidoptera Sphingidae Resembles (horntail) caterpillar

of Agrius (=Herse) convolvuli (L.)

(convolvulus hawk-moth)

Lep. Sphingidae Horntail caterpillar

of Macroglossum stellatarum (L.)

(hummingbird hawk-moth) (?)

uctus et magnuspictas cum anuno ua lorte contento imus in hunc mundum, iudelieet

Rumex patientia L. Chard

Orthoptera Acrididae

Red-winged grasshopper

Oedipoda germanica (Latr.)

Rumex patientia L. Chard

Omphalodes verna Moench

Homoptera Berytinidae (?)

Homoptera Flatidae

Folio 57

Creeping forget-me-not

Imaginary eight-legged insect

(Hymenoptera-like abdomen;

resembles superficially larva of Neides tipularis [L.], species of "stilt bug")

Flatid planthopper (?)

(species does not occur in Europe)



Lepidoptera Lycaenidae

Based on Polyommatus icarus (Rottemburg) (common blue) (?)

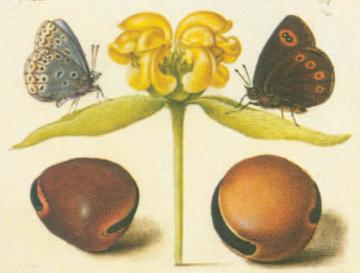
Phlomis russeliana (Sims) Benth Lep. Satyridae

ims) Benth | Jerusalem sage . Satyridae | Woodland ringlet

Erebia medusa (D. & S.)

Mucuna urens (L.) DC. Two sea beans/horse eye beans

cur qui Conserveran Mon des piere genetam el merca fran em sirenie effection abella pranibue austris, quas cibi pro ribulation e novera effection abella pranibue austris, ele monter emundi et quequid (ontra Mer biabolire atquo sumare nelliunter ebacelitette es civilam redigaran et centilis tun pietaria allidator, quatrono nellis ad atrifitatibus la secolofia fua tibi aratico referenza, en imité e peccata neclofia fua tibi aratico referenza, en imité e peccata neclofia fua tibi aratico referenza, en imité e peccata neclos de mino es fribue Medio mis cricochiam tuam, en imperiore con fuente la soluzi, delicia deleas, trebalationem paspiciae, absorbi tatem rapellas effectaming petitionis agrica lacquemo fuenticos russ (lementer e maralica. America)



Lilium candidum L. Madonna lily

Pulmonata Helicidae Terrestrial mollusk

Arianta arbustorum (L.)

Acorus calamus L. Sweet flag

tin quarum remilli lina iniquiesas a quarum rempo per ata beama vor no con impuratur dimensa precamin neceli del primo cen doto, poeme con continuo per estare ano non secundo secundo del propo cen doto, poeme con trastitudo en estaren en antique en acesta el imper me manus rea estaren el suma remmos mesa dirección la lega cantire bar altaren menum esta dirección el lega cantire bar altaren en monde en un termillo monocarem peragnes.
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Tulipa gesneriana L. Tulip, pink

Imaginary insect

Tulipa gesneriana L. Tulip, red/green

Worm

urbatus esta furore oculus meno mucherani mice annoc munico meso. Estente a me annoco qui operanimi inquinatem que dia e cantidur voncinus voccon setus meno seriorem me qui operanimi inquinatem que dominimo orazionem me am softente e e e e volve fenut en contribemente orazionem me contribemente el esta en la peccataz su mistro este menpre qua necesita en el ocite de esta esta en la peccataz su mistro este menpre qua necesita para el elemente el contribe de en posiciono de entre de contribemente. Lucius el genis sola ipsa mouelta, esto per entre posiciono de contribemente el cunta o sela, edundos parermilminos lucipse lucio el une anoctem camendo rumponus assiste postulaminhos. Lucier tenebase menunim signi caternas personant espesie somo de mondo contribui en pregenomente espesie somo de mondo contribuita no contribuita de espesie somo de mondo contribuita de espesie el espesie somo de mondo contribuita de espesie el espesie somo de mondo contribuita de espesie el espesie el



Lepidoptera Satyridae Aphantopus hyperantus (L.) Solanum pseudocapsicum L. Polygala vulgaris L.

Folio 61 Ringlet (dots on underside of wings do not match this or related species) False Jerusalem cherry

Folio 61v Trompe l'oeil stem of common milkwort

Folio 62

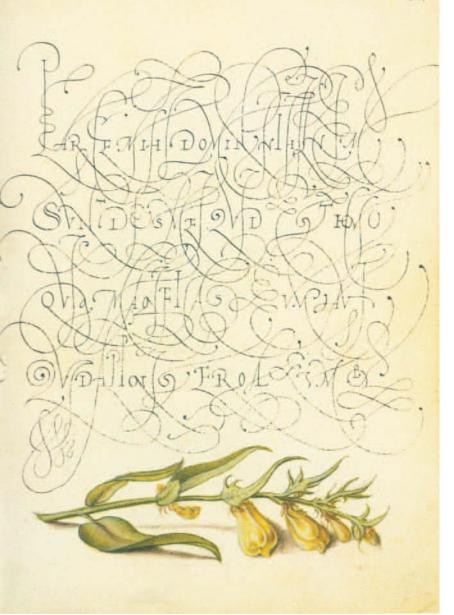
Melampyrum pratense L.

Common cow-wheat

Common milkwort







Pyrus communis L. Common pear

Rosa gallica L. French rose

Lepidoptera Unidentifiable caterpillar

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Section and the section of the secti

mpinguat caput oleum pecatozis quim cemulcet, mentem fautoz adulantis Qui ce amoze non ne nut bonoz non bonoz fed adulanto est. Opes un prozum ceficiunt, non alter atque riuns ericeatur. Ona mensura metumini, cacim remeciciur



Viola tricolor L. European wild pansy

Cynara scolymus L. Artichoke Ranunculus sp. Lamani in mo corde exaudime Domine infilicationes tras requirate i lamani ad te lalium me faccui cultodiam mandate usa Praticini in manuritate et el lamani quia in nerior mandate usa Praticini in manuritate et el lamani quia in nerior mandate per iperani Praticini montici conditi me ad ir discussi ut meditatere et filundation indicioni tuono numbratione. Approprinqui autenti perfequentes me miquirate a lere antein ma longe fain lufu Prope es su Domine et omnes via fus vecras lutine cominei direthmoni; sinis quas in attrina lumalifica. Vide lumilitationi meam et cripe me dominei quia lerem na non bim ablitus ludica indicium meum et redime me prother elòquium num munifica me l'onge a peccatoritus lalus quia indificatione's mas non ex qualitrum. Miltriverdie pia multa Domine freundam nudicium num minifica me Milti qui perfequiumme me et ribulante me a refino on quanticativa vide quo incam mandata tra didexi Domine in mileri cir dia tana minifica me. Principuem occibie ma didexi Domine in mileri cir dia tana minifica me. Principuem occibie me reforma custivam uerita in aternic omina midica infinita tuxa.

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Odonata Zygoptera Lestidae (?)

Iris xiphium L.

Odon. Zygoptera

Coenagrionidae (?)

Ornithogalum umbellatum L.

Folio 65

Lestes-like damselfly

Spanish iris

Coenagrion-like damselfly

Star-of-Bethlehem

sand revoca) tiece intervendre tres aniche ( e fre ver) he fame more prestamente son tentamente version en fre ernie film Ena I de te la fresione econorie et freserva her la correspondre son tra la composition tra son tra versione de composition de la composition del la composition de la compositio



Pulmonata Helicidae Arianta arbustorum (L.) (?) Anemone coronaria L. Diptera Tipulidae Folio 66 Terrestrial mollusk Poppy anemone Crane fly(?) Est expansations met a metual met den fant. Super despois met a toden action metalism und penetrum min Super den schaff abstraction enter expension enter percond-metalism metalism, interferonant absur tenada fermet present estate und et expension enter et enter enter et enter et enter ente



Lepidoptera Unidentifiable caterpillar

Trollius europaeus L. Globeflower

Folio 67v

Trompe l'oeil stem of globeflower

Folio 68

Odonata Zygoptera Unidentifiable damselfly

Dianthus caryophyllus L. Carnation

Heteroptera Pyrrhocoridae Derived from Pyrrhocris apterus (L.)

(common firebug) (?)

Lepidoptera Lasiocampidae Caterpillar (resembles superficially

Philudoria potatoria [L.]

[drinker]; Lasiocampa quercus [L.] [larva of oak egger moth] [?])

Cornus mas L. Carnelian cherry, in fruit

Chilopoda Centipede





AA.

freeduces and nonempert familiation from the first conferre remedia familiation from the medicus and nonempert familiation from these encare nesting and non-infert familiation from the conferre nesting and non-infert familiation from the conferre nesting and non-infermation from the conferre familiation from the conferre familiary familiary from the conferre familiary familiary from the conferre familiary f



Papaver. somniferm L. Opium poppy Silene vulgaris (Moench) Garcke Bladder campion

Vicia faba L. Broad bean

A referred of Beronzens ides Anoroviv Konkunevoviv with ear mit were oceany in sinonger, dragal early Baonhew werner, the Toxus rahay wer in egering motor. महाम प्रमुखनमान विकार का प्रदूष्ण का प्रदूष्ण का व्यावस्था O autor Capuli initations The cuntres of ocuminator EDH, EV TOOLY I THE CIW TOELS METCHELENCE ELVOIL MICH HAN STELL IN YMMINI WITCHOOM ROYOU CHOREN Tox etapor de mhavous, emo devalor - relevous. THY A Torne, Blicker Auegory ochatelos enerver.

Leucojum vernum L. Hyla arborea Cheiranthus cheiri L. Prosobranchia Nassidae Nassarius circumcinctus (A. Adams) (?) Folio 70 Spring snowflake Common tree frog Wallflower Marine mollusk

## אטרי

תּאִישׁ אֲשֶׁרִילֹא חָלֵהְ בְּעצֵרְ רְשָׁעִּים וּכְנֶרָה חַפָּאִים לֹא צַמָּד וּכְמושׁכ לֵצִים לָא יָשֶׁכ: בִּיי אָס בְּחֹרַח יָחֹנָח חֶבְּ צּוֹ וּכְחוֹרָחוֹ יָחַנָּח יוֹמָס וָלְיֵלָח: וְחַלָּחְ

B



Folio 71 Two imaginary insects

Dianthus caryophyllus L. Carnation

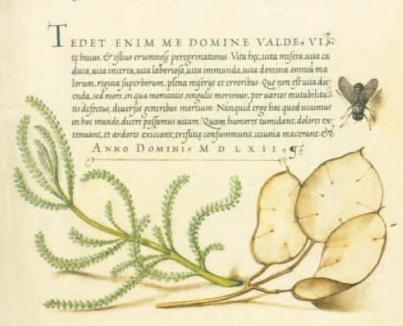
G varias ago immensa Maieshtu ac sempiteeriae pietati tuae domine sancte Prominipotens actevise. Deus qui inc indignum familium tuu et seccatorem iniscauni nullis incis incisus setevise. Deus qui inc indignum familium tuu et seccatorem iniscauni nullis incis incisus setevis sed inis multis et immens sexigentibus iniscaunionibus corpore et sancta communio non se solutio sed servis ad penan sed interesso ad ucumin. Sit inibi armatura ser intisdici actuami promini cuarum successi o ad ucumin. Sit inibi armatura se solutionis extraminato solutionis sexigentialis se solutionis cuarum successi o successi

torus functionis et faluns augmentatio contra aquibas commi municoris meorism firma defença communi actionium mens, tam cor por alium qua fini malium perpetua gabecmana in te uero D E O censuo firma adbefoo et finis denique inta feclus confunmana 15 o z

fanction delectionifeera miscrationium benionitatem modes ham e mansuctudinem lentatem sufferentes vos inuicem. O condoná uobis munio, si quis aduersus aliquem habuerit querelam que admodum o Christus condonauit uobis, ita et uos. Super au tem omnia hac char itatem, qua est uinculum perfectionis set par Dei palmam serat in cordibus uestris, in quam Dei ctomine DE 1 S Pater sanctissme o manpotens, lumen indescrens obeau some Conditor omniu lummum benedic nos homines per te creatos sanctisse acque benedic sos qui illuminatio omnem hominem, ut a te uero lumine accendamur atque lliminemur sone claritatis sua ut ad uitam acternam peruentre mercamur per Christian dominium nos frum. Amen. 9

Diptera Muscidae Musca domestica (L.) (?) Santolina chamaecyparissus L. Lunaria annua L. Folio 72 Common house fly Lavender cotton Money plant ANIMA MEA 51 QUOTIDIE OPORT

ret nos tormenta perferre. Si ipam gehennam longo tempore tolerare ut xportu gloria uidere possemus, er sanctis eius sociari. Nonne dignum esset pati om ne quod triste esse, ut tanti bom, tanteque glorie participes haberemur. Insidie tur ergo Demones, paret suas tentationes, françant corpus iciuma, premant uestimenta, sabores grauent, uigilie exiccent, clamet in me iste, inquietet me ilse ineli se Erious incuruet, conscientia murmuret, calor urat, caput doleat, pectus doleat, in sseur stomachus, passes uistitus, insiremetur totus; Desiciat in dolore uita mea, et anni mei in geminbus, ingrediatur putredo in omnibus ossibus meis, et subterme sca



Dianthus caryophyllus L. Carnation

Lilium martagon L. Martagon lily, pink Pyrus communis L. Common pear

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Odonata Zygoptera Dianthus caryophyllus L.

Lepidoptera Coleoptera Coccinellidae Adalia bipunctata (L.) Juglans regia L. Prosobranchia Naticidae

Prosobranenia Naticidae Naticarius millepunctatus (Lamarck) Folio 74 Imaginary damselfly Carnation Imaginary insect Unidentifiable caterpillar Two-spot ladybird/two-spotted lady beetle English walnut Marine mollusk Partie in the contraction layer through only a purity parties to the commentation of the commentation in last of the commentation of the commentat



Pyrus communis L. Common pear

Odonata Zygoptera Lake demoiselle (a damselfly)

Calopterygidae Calopteryx virgo (L.)

Rana (arvalis [?]) Moor frog

Hyacinthus orientalis L. Hyacinth

## REPORTED HER DER OF THE REAL O



Odonata Anisoptera Aeshnidae Aeshna sp.

Pyrus communis L.

Dianthus caryophyllus

Hymenoptera Ichneumonidae

Folio 76 Dragonfly

Common pear Carnation

Imaginary "hymenopterous" "ichneumonfly-type" insect

Livernicate pre Moto grazionas limino losa (Social Abadenian Climentam ele configenciam presente conservation del mater trae. (mine sacratificam me presentation in losa particulares et morres com delenie eladore pertenerant e pom de for climente factore del conservation del forte del les estas per del conservation del forte de la forte de per madian qual sedure quando se vida e le material de la conservation de conservation de



Imaginary "hymenopterous" Hymenoptera Ichneumonidae "ichneumonfly-type" insect

Folio 77

Juglans regia L. English walnut Hypericum maculatum Crantz Imperforate Saint John's wort

Crustacea Decapoda Crayfish



Rubus fruticosus L. Blackberry

Silene nutans L. Nottingham catchfly

ROMERT HIRMON ROMES HOR HOR HOR THEM HOLD HOR THEM HOLD OF MILD PROPER HOLD OF THE HOLD OF THE HOLD OF THE HOLD OTHER HOLD OTHER HOLD THE HOLD OTHER HOLD THE HOLD THEM HOLD THE



Dianthus barbatus L. Arachnida Araneae Prosobranchia Columbellidae Columbella rustica (L.) Turbinidae, operculum of Astraea rugosa (L.) Folio 79 Imaginary insect Sweet william Spider Marine mollusk Eye of Santa Lucia

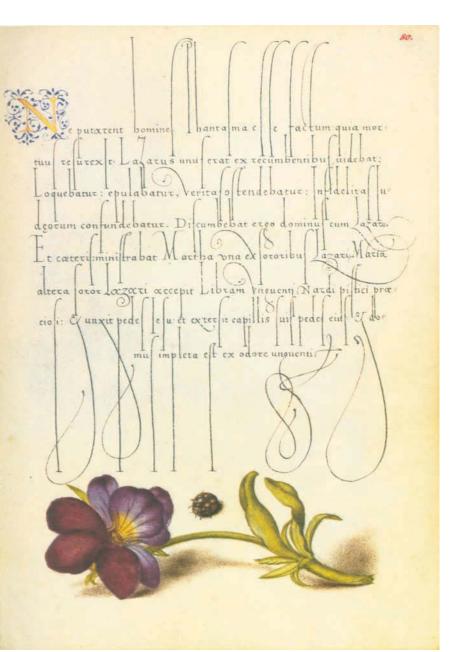


Coleoptera Coccinellidae Propylaea quatuordecimpunctata (L.)

or Adalia decempunctata (L.) var. Viola tricolor L. Folio 80

Fourteen- or ten-spot ladybird

European wild pansy



Folio 81 Imaginary insect (elements of butterfly, moth)

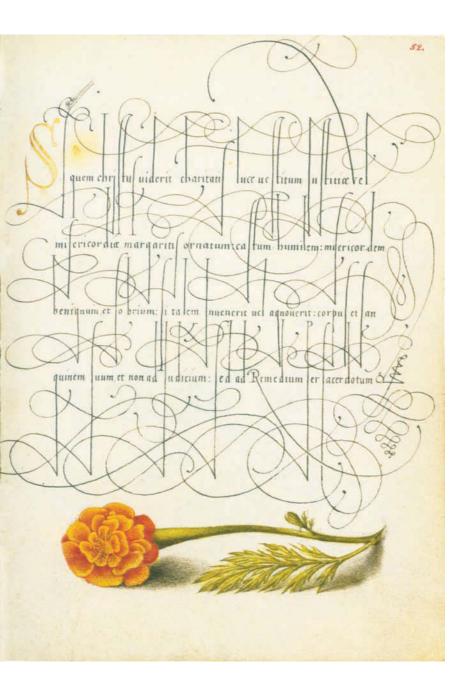
Crataegus monogyna Jacq. Lepidoptera English hawthorn
Unidentifiable caterpillar

Corylus avellana L. European filbert, fruits grown together

anciam expendentalizated processing to the contract of the con



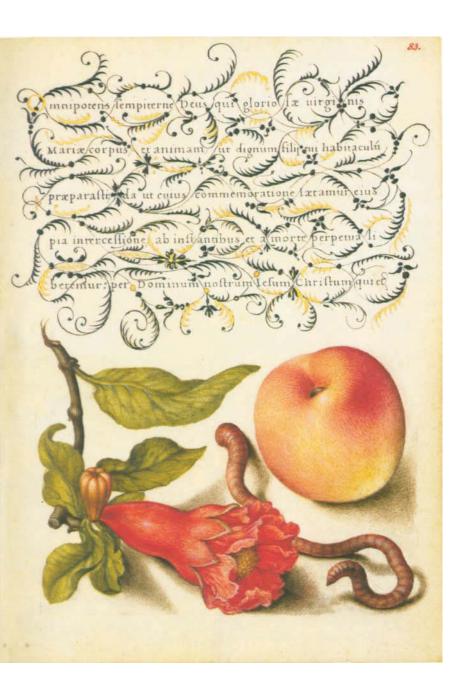
Folio 82
Tagetes patula L. French marigold



Punica granatum L. Pomegranate

Worm

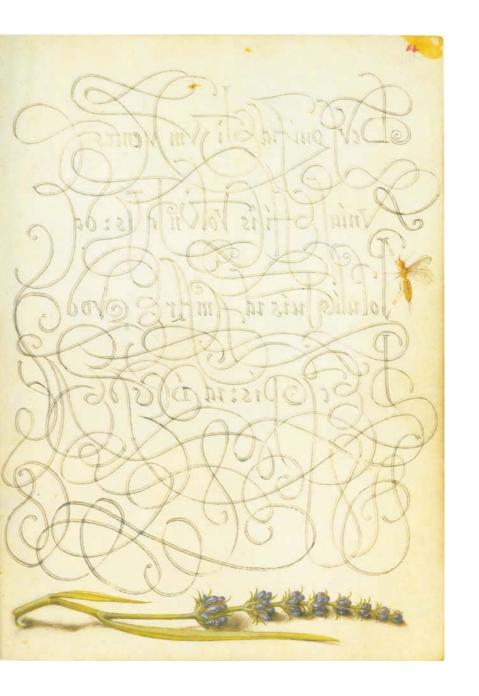
Prunus persica (L.) Batsch Peach



Folio 84 Imaginary insect

Hyssopus officinalis L.

Imaginary insec Hyssop



LEFT ARRANGEMENT:

Lilium candidum L.

Madonna lily European columbine

Aquilegia vulgaris L. Tulipa gesneriana L.

Tulip, white/pink

Rosa centifolia L.

Cabbage rose

Orange lily

Peacock

RIGHT ARRANGEMENT:

Lilium bulbiferum L.

Tulipa gesneriana L. Tulips, red/brown and yellow

Viola tricolor L. European wild pansy

Rosa gallica L. French rose

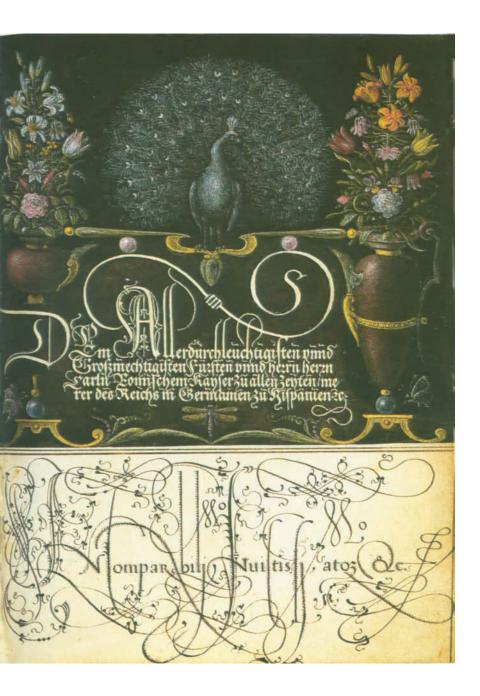
Anemone coronaria L.

Poppy anemone Aquilegia vulgaris L. European columbine

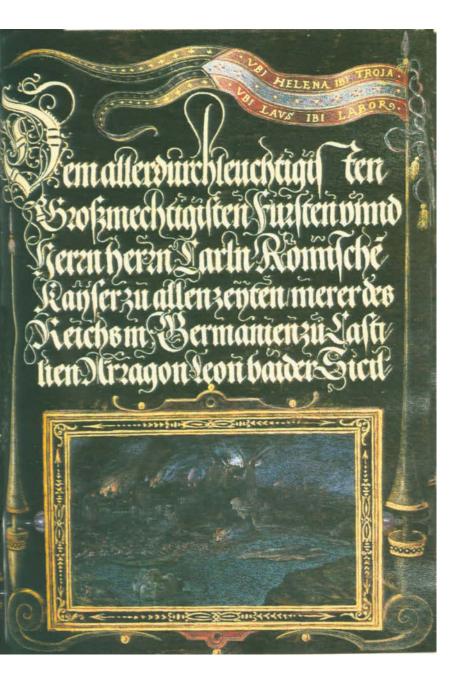
Lepidoptera Unidentifiable butterfly

Unidentifiable dragonfly-type insect

Lepidoptera Unidentifiable butterfly



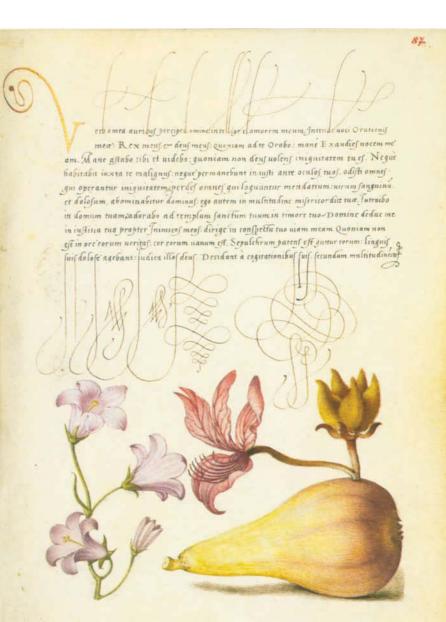
Folio 86 The Burning of Troy



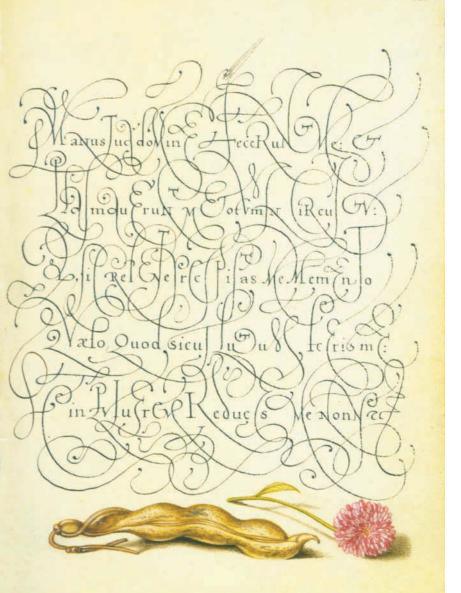
Campanula rapunculus L. Rampion

Dictamnus albus L. Dittany

Pyrus communis L. Common pear



Phaseolus vulgaris L. Bellis perennis L. "Hortensis" Folio 88 Kidney bean English daisy



Satureja acinos (L.) Scheele

Pulmonata Helicidae

Folio 89
Two imaginary insects
Basil thyme
Two imaginary insects
Two imaginary land snails
(derived from Cepaea sp. [?])

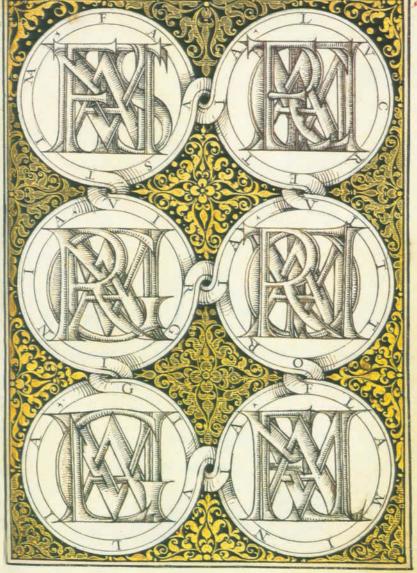
Folio 89v Intertwined trompe l'oeil stems of basil thyme

Folio 90 Superimposed Letters Spelling the Names of Illustrious Women of Ancient Rome









Bivalvia Arcidae Arca noae L. Achillea ptarmica L. Folio 91 Noah's ark shell Sneezewort

Enta Hobis gaudia Anni redunit orbita cum bhiritus Para cletus: Effulsit in discipulos Janis Vibrante lumine: lingua Giouran detalit. Verbis ut epent proflui Gesarita te feruidi linguis Loquantur omnium: Turbe panent & sentilium Musto madere coeputant: onos Spiritus le plenerat Tatrata Sunt bac Mostice paste a peratto Rempore Sacro Dierum Mumero: quo lege fit Demissio Aune Deus Lyssime vultu pracamur ? legonelle of Compagn de Lione dion dare grate on bing De Ottobre per la ualua di tanti drappi hanti gi di detto f somma, of quantità of duc & nouecent & dy Camera Equely Dinas Sono da pagarsi pertuti el sopradetto Come in grappare per of ricordi ing Cofpin deno daze as to si Sper fonima el

Unidentifiable insect

Lilium bulbiferum L. Orange lily

Imaginary mayfly-type insect

Lepidoptera Unidentifiable caterpillar
Malus domestica Borkh. Common apple

Diptera Tabanidae Horse fly

acris solemnys uncha fine gandia Ce eso pracordys

Sonent processure receaunt Votera nona fine amnia:
corda noces le opera Nottis recolitur cana noniflima gna
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scipulis: vie totum omnibus: qued totum singulis eins fate
mur manibus dedit fragilibus: forporis ferenlum: dedit et es



Crocus augustifolius Weston

Coleoptera

Digitalis purpurea L.

Folio 93

Cloth-of-gold crocus Unidentifiable beetle

Common foxglove

omine ar interest the argicas mes acque m na tua corripias me Quom am sügettä ina nifixa sunt miliert con firmasa superme mannu manis an elt famtas in carne meda facie na luaris

Hyacinthus orientalis L. (?) Hyacinth, white bud

Morus nigra L. Black mulberry

Lepidoptera Unidentifiable caterpillar

tatem accendit. Ipse est christianus qui in do mo sua pereorinum se cognoscit. Nouit Deus mutare sententiam: Si tu noueris emendare delictum. Vehemen ter Ecclesiam Dei destruit meliores laicos esse quam clericos. Quocunque tempore non cogitaueris Deum putate tempus illud amisisse Indicitia est virtus non solum impetum libidinis coercens, sed et siona cobibens. Patria nostra sursum est ibi hospites non erimus. Sicut ligat Diabolus qui peccata conellit: ita soluit christus qui delicta remittit. Nil mas quum in rebus humanis, nisi animus magna despis



Folio 95 Lepidoptera Two unidentifiable caterpillars

omine Deus later anctifine ac ommipotens, limen indeficiens, et beatiffine fonditor omniù lumini, benedie Coshomines per te' creatos fanctificatos, atque benedictos qui illumma fi mundú omnam,ut a teuero lumme accendamur, atq illummemur, TO ME TO SEE SEE STATE OF THE SEE igne daritatis tue ut ad intam eternam per uenire mercamur Grunus ago immenfer no Sempiterite Ala et pretati time, Donn' famulum of paraturem mileri nullis mais mornis sed permuls tis Commentes tues congentibus milerationibus cieftodis co

Lepidoptera Three imaginary lepidopterans (two

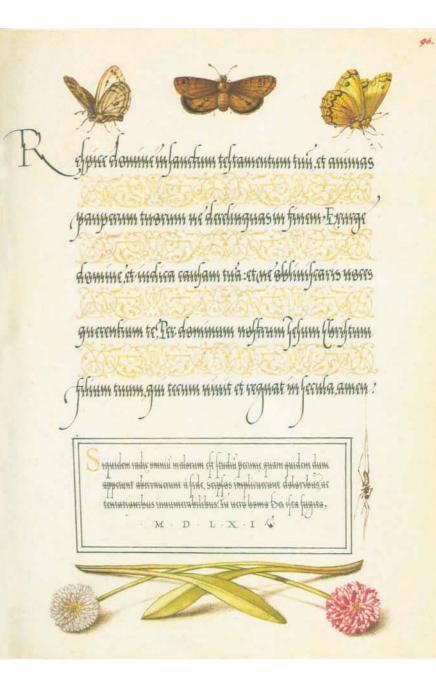
imaginary butterflies; one imaginary

moth with butterfly antennae)

Arachnida Araneae Spider

Bellis perennis L. "Hortensis"

English daisy, two flowers



Unidentifiable insect (fly or bee [?])

Primula vulgaris

Balkan primrose

Huds. var. rubra (Sibth. & Sm.) Hayek

Cyclamen purpurascens Mill. Alpine violet

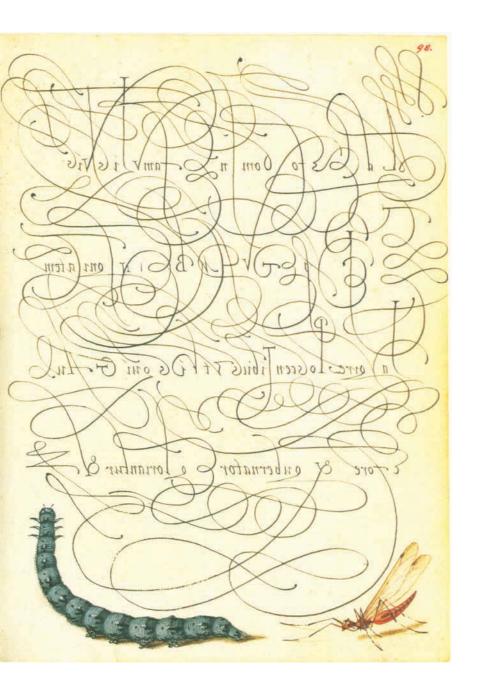
l'erique narias Significationes de vinea appellatione derivant, sed evidenter esaias Vineam domini sabaots domum Israel esse Commemorat Sanc uineam quis alius Misi Deus condiditi Sic est ergo qui loca uit eam: et peregre profectus est: non quia en loco ad locum profectus caominus qui vbique semper præsens est: sed quia presentior est diligentibus Legligentibus abest. Multis autom Temporibus abfuit ne propera videretur en actio &



Lepidoptera Imaginary caterpillar

(inaccurately placed abdominal legs)

Imaginary insect



Odonata Zygoptera Two damselflies

(inaccurately shown copulation)

Lepidoptera Unidentifiable caterpillar Lep. Pieridae Caterpillar of Pieris brassicae (L.)

(large white) (?)

Dianthus caryophyllus L. Carnation

Jasminum officinale L. Poet's jasmine



Hymenoptera Eumenidae Potter wasp (inaccurate rendering

of Eumenes sp.)

Diptera Syrphidae Hover fly/flower fly Lepidoptera Sphingidae Horntail caterpillar

(derived from Hemaris [=Haemorrhagia]

fuciformis [L.] [broad-bordered bee

hawk-moth] [?])

Lep. Sphingidae Resembles (horntail) caterpillar of

Macroglossum stellatarum (L.) (hummingbird hawk-moth)



Lepidoptera Sphingidae Horntail caterpillar

> (resembles superficially Hemaris fuciformis [L.] [broad-bordered bee

hawk-moth])

Lep. Sphingidae Smerinthus ocellata (L.) Eyed hawk-moth

Coleoptera

Unidentifiable beetle Col. Coccinellidae Two-spot ladybird/two-spotted

lady beetle Adalia bipunctata (L.) (?)



ren Gon heut seinen dienst leisten bir nach seinem befehl den Feirtag das ist

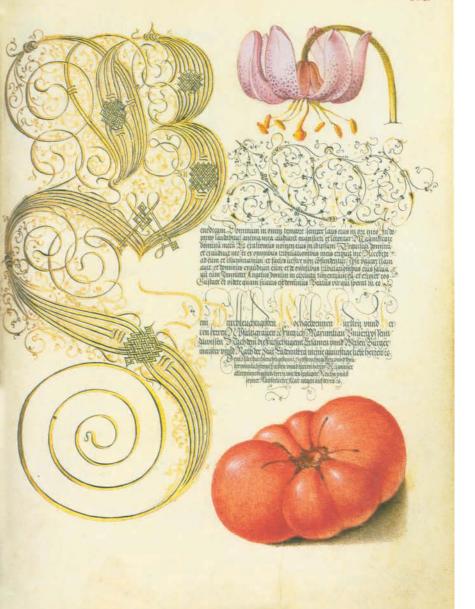


beiligen nut Sottes wort welches allem beilig it ond alles beilig machet Jubringen So wollen wir junnd das beilig Guangetion boren/bud Gott brib gnadbitten Das wirs alfohoren auff das fem Chr gepreifetes



Lilium martagon L. Martagon lily

Lycopersicon esculentum Mill. Tomato



Folio 103 Vicia faba L. Broad bean

Hepatica nobilis Mill. Liverleaf



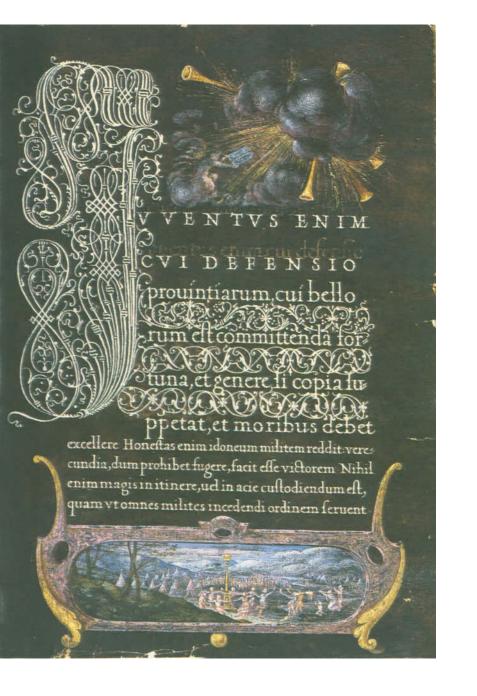
Dianthus caryophyllus L. Hyacinthoides non scripta (L.) Rothm. "Carnea" Lepidoptera Saturniidae Carnation Bluebell Saturniid caterpillar

Folio 104 Imaginary insect

Saturniid caterpillar (derived from young larva of Saturnia pavonia L. [emperor moth] [?])



Folio 105 Moses Receiving the Ten Commandments The Israelites Dancing around the Golden Calf



Folio 106 A Sloth (?)



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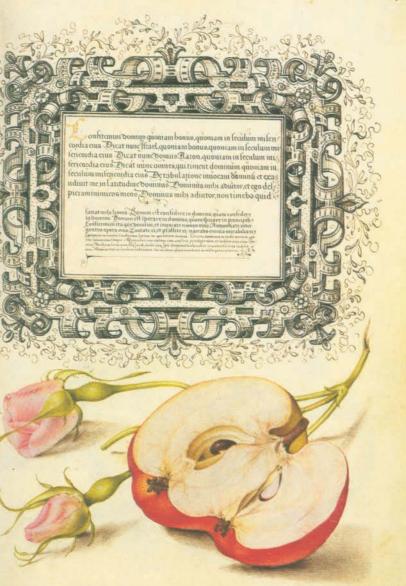
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Rosa gallica L. French rose

Malus domestica Borkh. Common apple, two cores





Mecoptera Panorpidae Panorpa communis (L.)

or other Panorpa sp.

Lacerta vivipara (?)

Hymenoptera Tenthredinidae (?)

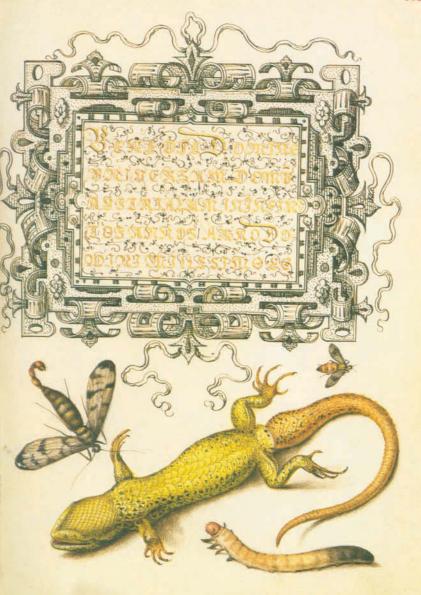
Folio 108

Common scorpionfly (?), male

Imaginary insect

Viviparous lizard, ventral view

Unidentifiable insect larva (sawfly larva [?])



Pyrus communis L.

Common pear

Omphalodes verna Moench Creeping forget-me-not

on dormientibus pronent' Regnum Colorum Necocio et defidia torpentibus heatitudo aternitaiis repromititut. Time' dominum' ex toto corde et facerdotes eius omin honore uenerare. Pigrina est anim mertia uel fatigatio qua guis bonum inchoatum consumare fastidie. Saus ibi vacillar humanum studium ubi non requiritur dei auxilium. Irmi ceps dei uniam refert imaginem. Vir institus non est nocet qui nemini. Sed qui potest malum nec unit admittere. O mina sint ex deo, se cunde simul res. O aduerse mors a una paupertas o dinitia. Irimo quertie regnum dei et om ma aduentur nobis dicit donunus. Sicut fulgiar exit ab oriente. Et apparet usque in occidentem ita erit aduentus siin hominis.



Nigella sativa L. Black cumin, double flower

Imaginary Hymenoptera-like insect

Nigella sativa L. Black cumin, single flower

ITA SEMPER VITANDA PERNICIOSA TOVICEDO: HOLOCAVSTVM IVSTI ALTARE ORNATET DITAT, ET ODOR SVAVISSIMVS EST CORAMALTISSIMO. AMEN DICO VOBIS QVATENVS FECISTIS. VNI DEHIS FRATRIBVS MEIS MINIMIS, MIHI FECISTIS: EMOLIRI ADVLATIONIBVS NON SOLVM FORTITV DINIS NON FSSE SED FITAMIGNA VIA VIDETVR NOS AD PATRIAM FESTINANTES. MORTIFEROS STRENARVM CANTVS SVRDA AV



Primula veris L. Aquilegia vulgaris L. Corylus maxima Mill.

once infested with Curculio nucum L.  $(Coleoptera\ Curculionidae)$ 

Folio 111 Cowslip European columbine Giant filbert; hazelnut weevil



Lepidoptera Pieridae Imaginary butterfly

(based on Pieris or related

species [white]) Sweet cherry

Prunus avium (L.) L. Pulmonata Helicidae

Two imaginary land snails

(derived from Cepaea sp. [?])

Folio 112v

Trompe l'oeil stem

of sweet cherry

Folio 113

Odonata Zygoptera Damselfly

Imaginary insect

(based on hymenopteran; vespidlike abdominal color; ichneumonidlike ovipositor;

nonhymenopteran wings)

Prosobranchia Columbellidae Marine mollusk

Columbella rustica (L.) Prosobranchia Cassidae

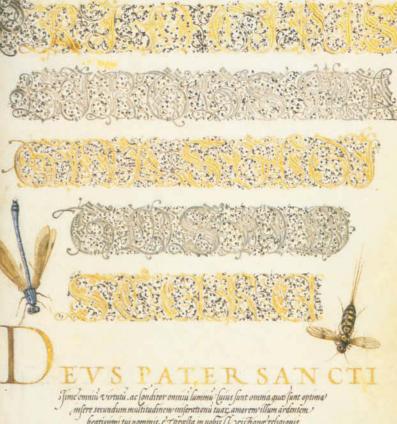
Galeodea echinophora (L.)

Marine mollusk









beatissimi tui nommis, Epirosla muobis (Viristiana religionis augmentum vit tuo duimo auxilio nutrit, ad onuna pie tatis studia accedamue Ertiby Deo soli mmor TALI PERPETVIS TEM PORIBVS SERVIRE VALEAMVS M

DIXII.

· G · F

Folio 114

Rosa gallica L. French rose

Tropaeolum minus L. Dwarf nasturtium



Lepidoptera Pieridae

Folio 115 Two butterfly pupae (right one resembles pupa of Pieris brassicae [L.] [large white]) Randissimo dileno dustano le bumane menti beniquissimo lettore, nella dolce rimen pranza delli fanti precenti de antichi Philosophi, et delli preclarissimi fatti de inditti et fortissimi simperatori Onde il gran stupore di natura; et principe di Peripatetici in segnana ad Aless Maced; nolgere Erinolgere, gli annali della antichita, da guali

E sideroso caldamente dimonstrare alla Illi, et R. S. V. lassenione grandissima che gli porto, ho seritto queste imostre ad instantia del Clarissimo et molto maginsico M. R. av mondo Mansfredonio dignissimo proveditore del sacro et invittissimo simperatore. Pero le ho voluro prima fur vedere alla Illi. E m. S. v. accio che occorrendogli serviris dellopra et di quella minima un tude che dallo manporente Iddio. E dalla maestra natura me stato concesso quella sappia esserve patrone e alla buona grana della Illi E R. S. v. humilima mene un tacommando.

RATIO PVLCHERRIMA AD DEVM PATREM M.D.L.X.11

D cus Pater fancifisme omna suradir ac Conditor comin-format casus finit omnia qua's unt optima infere serundam multimadise insfentioniam maria-amorioni ili activitim bentifismi tua nominis set optima in nobis cirisfinia perfectissimo refonomis sempletariam auquientis ver baschiano aliveido, muniti ad omnia, pietentis studia accredamini ereption D E O soli (cumarrali) perpetuis temperabus ferunzi audenamis Per Chrisfio domnia nostrio . apr A N-M D LX 11

Confirmin domino, Emmorate nomen cus Annunciate inter gentes opera cus Catate Epsallite et narrabo onnua mucabilia cus laudanun; in nomine Janelo cus letetur cos guerentus dominis Querre dominis, Econfirmanis, querre fatte cus femper Mementote mucabilium cus que feut, produția cus in unuer la rerra

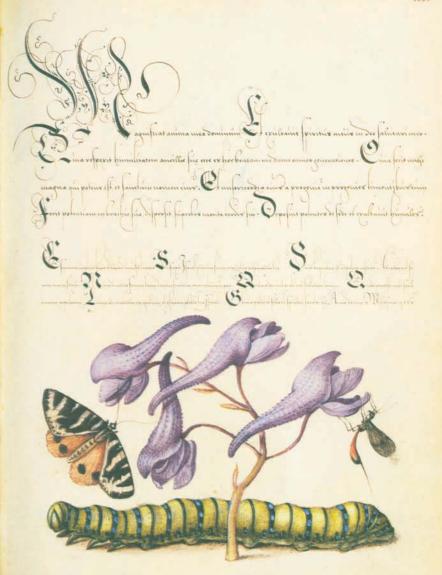


Lepidoptera Arctiidae Callimorpha dominula (L.) Consolida regalis S. F. Gray

> Lep. Papilionidae or Saturnidae

Folio 116 Scarlet tiger-moth

Larkspur
Imaginary ichneumonflylike insect
Imaginary caterpillar
(based on Papilio machaon L.
[swallowtail] or mature larva of
Saturnia pavonia L. [emperor moth] [?];
colors and structure different from both;
inaccurately placed legs)



Ephemeroptera (?)

Prunus armeniaca L. (?)

Phalaris arundinacea L. "Picta"

Folio 117

Mayfly (?)

Apricot, fruits grown together

Reed grass

Folio 117v

Trompe l'oeil stem of reed grass

Folio 118

Lepidoptera

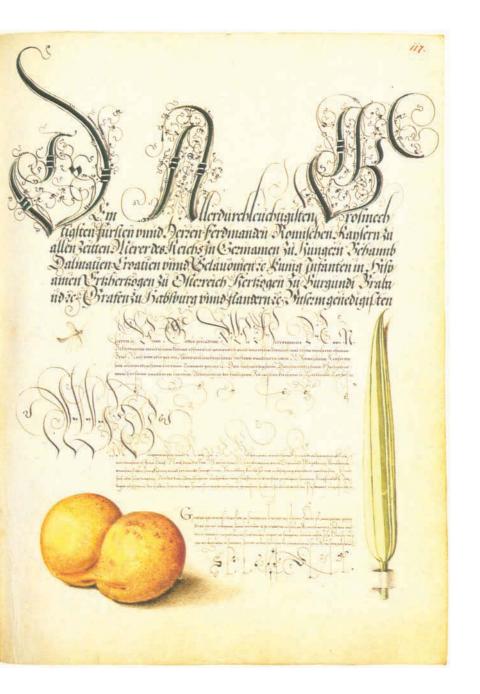
Imaginary butterfly

(shows characteristics of Lycaenidae [copper] and Satyridae [brown])

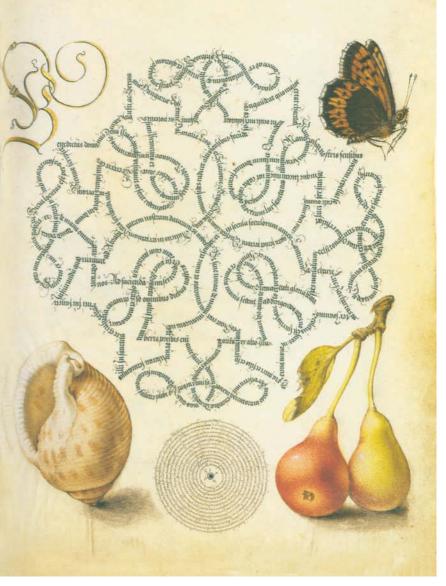
Marine mollusk

Prosobranchia Cassidae Phalium saburon (Bruguière)

Pyrus communis L. Common pear



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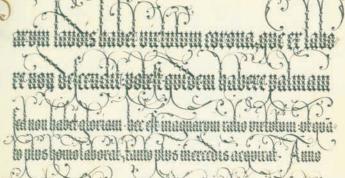


Folio 119
Odonata Zygoptera Two imaginary damselflies



Folio 120 Lychnis flos-cuculi L. Cuckoo flower





nomm amiljuno quino midjuno losardimo primo. L'arum irravparabilium juuma chalus ch'oblimo. Avivum ch mataria laborom paravlou politikantuur. Avivum aravatio vurbitum malis nomimis se ra

non Arenmoscur Lenmoscrizunophra Lenmoscrizunophra priedrep idmidiren Prunus dulcis (Mill.) Folio 121
Prunus dulcis (Mill.) Almond, in flower
D. A. Webb

## I SISTEMA INSTANTA INSTANTA INSTANTA INSTANTA

PACIENTIA RELIGIOSITIRI EST LABORIA, AL BOLORE OMNITAM SPECTITO RARREM RERIM SOLAMORE, DOS MINITAR SPECTITO RARREM RERIM SOLAMORE, DOS MINITARIA, POLERANTIA PALICENTIA EST, CVETT NCTTO OMNIA, LOTERAS LACON COLITOTA NO SED SI TERREMONONOMINAMORE ESTRURITA AL REPORTE DIRECTOR FICE TOTALITA PARTICIPALITA POLITICIS PORTURA POLITICIS POLITICIS PORTURA POLITICIS POLIT



Folio 122

Imaginary Hymenoptera-like insect

Imaginary mothlike insect

Imaginary Hymenoptera-like insect

Dianthus caryophyllus L. Carnation Cercis siliquastrum L. (?) Judas tree

Lepidoptera

"Alba"



## OISCOROTHA SECURER GR WOET LURSU MAISPERMI (SCIENCE)

cus uenerum gentes in bereihistem tusin polluerum templum landrum tuum, poluerum bierufstem in pomorum cultodism. Soluerum morticipis feriori tuorum eleum uolatilibus celi carnos lantrori tuorum beline terre. Ethaderint fanguinem plose tanqua squa in circuitu hierufstem et non crat qui irpeliret. Pacti limpte



Convallaria majalis L. Lepidoptera Pieridae Pulmonata Helicidae Folio 123
Lily-of-the-valley
Resembles pupa of Pieris sp. (white)
Imaginary land snail
(derived from Arianta arbustorum
[L.] [?]), sinistral (left wound)



elereremei ommwiens Deus fecundum magnam et immen

fam mifericordiam tuam Et fecundum multitudinem mi

sezationum tuaru dele omnes imquitates meas Amplijis

laua ine ab imquitate mea et a receato meo minda me

Quomam inquitatem meam ego cognofco et receatu etc

Jounne Deus Later fanctiffine et ommwtens Lumen moe ficiens et leatiffine conditor omnum lummum Senedic tu nos fomines qui illumnasti bunc mandum vi derolumme

Folio 124

Hyssopus officinalis L. Hyssop

Imaginary Hymenoptera-type insect

Scopiurus sulcatus L.

Lychnis flos-cuculi L. Cuckoo flower

Folio 124v

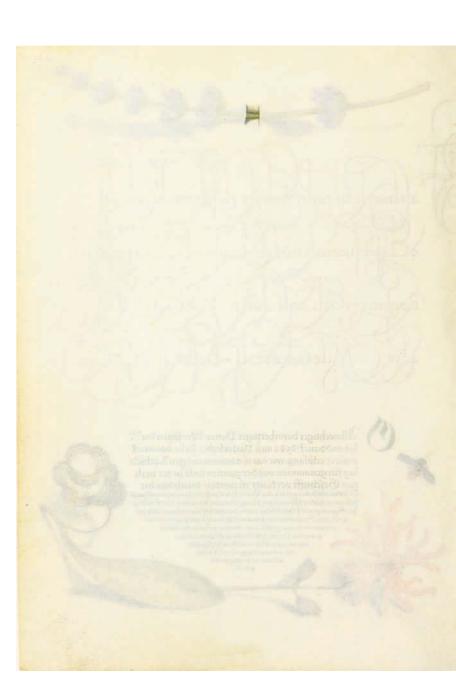
Trompe l'oeil stem of hyssop

Folio 125

Erythronium dens-canis L. Dog-tooth violet

Lepidoptera Two imaginary butterflies









Satureja acinos (L.) Scheele

Folio 126 Basil thyme

Imaginary insect

Geranium robertianum L. He

Herb robert

Folio 126v

Trompe l'oeil stem of basil thyme

Folio 127

Linaria sp. Toadflax







Folio 128

Lepidoptera Pyralidae Crambinae Two species of grass moths

Polygala vulgaris L.

Common milkwort





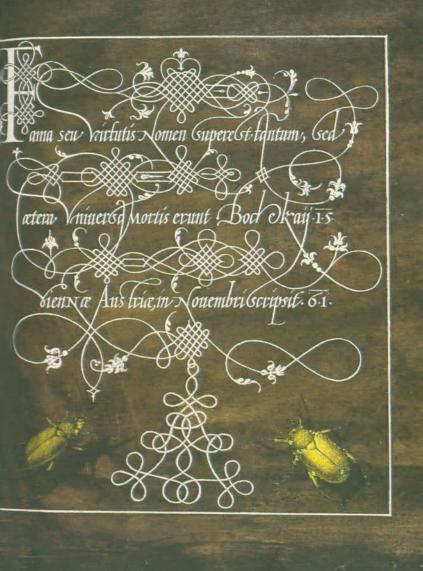
Coleoptera Carabidae

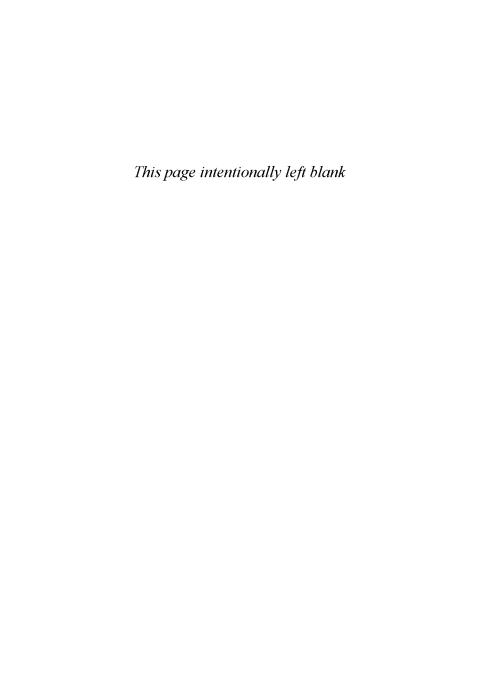
Folio 129 Ground beetle (?)

Scarab

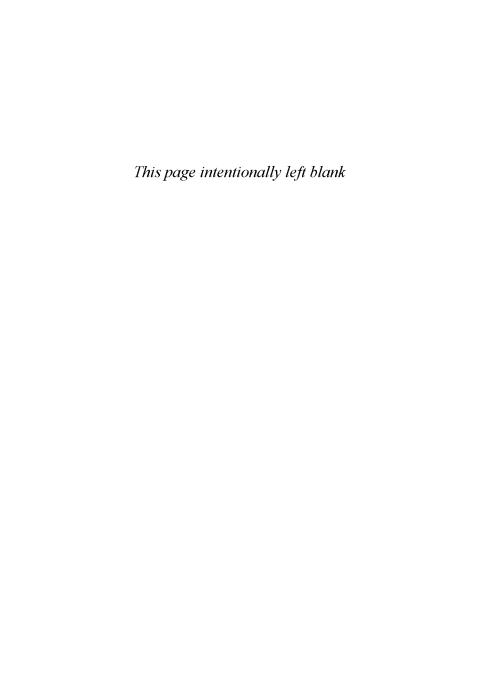
(inaccurate dimensions)

Col. Scarabaeidae Anomala dubia (Scop.)





## THE CONSTRUCTED ALPHABET



#### THE CONSTRUCTED ALPHABET

#### INTRODUCTION

The constructed alphabet bound together with Georg Bocskay's calligraphic codex differs considerably from it. It is made up of heavier vellum, and both sides of each leaf carry writing and illuminations. In contrast to Bocskay's varied, often florid script, the writing is austere, providing a highly simplified guide to the construction of the letters of a Roman majuscule and Gothic minuscule alphabet, including ligatures. The date of the execution of these alphabets is unknown. Obviously, the manuscript was treasured by Emperor Rudolf II, who further enhanced its value by commissioning Joris Hoefnagel to illuminate it. The constructed alphabet may even have been conceived with such decoration in-mind.

Rudolf's high regard for the constructed alphabet becomes clear when it is considered against the backdrop of the reform of letter forms which took place in the fifteenth and sixteenth centuries. During the late Middle Ages, first in Italy and then north of the Alps, the movement later known as the Renaissance took hold, establishing as its main objective the revival of contemporary art and culture through an understanding of the ancient Greco-Roman world. Accordingly, many surviving Roman monuments were measured in order to discover the ancient rules governing proportion.¹ It was believed that through the application of classical proportional systems, new works could be created in the antique spirit.

Interest in ancient Roman letter forms increased dramatically following the invention of printing with movable type around 1440. Ancient

literature and contemporary texts written in the classical style were printed and disseminated in classically based fonts.2 Roman letter forms had been preserved in inscriptions on architectural monuments, among the most notable of which was that on the Column of Trajan in Rome. These inscriptions consisted exclusively of capital letters. The letters were traced and, like the monuments themselves, analyzed in order to deduce their underlying rules of construction. For example, Albrecht Dürer, the leading proponent of classical proportional theory in the North, appended an essay on the construction of various letters to his printed handbook on proportional theory, Unterweisung der Messung (1525). Dürer constructed Roman upper-case letters on square grids, each composed of a hundred (10 x 10) equal parts, repeating this exercise on similar grids of  $81 (9 \times 9)$  equal parts.<sup>3</sup> He then proceeded to construct a lower-case alphabet in the Gothic script known as textura. Unterweisung der Messung reflects Dürer's attempt to establish a valid proportional system for textura, later called Fraktur, the dominant typeface used for the printing of texts in the German language.

It is likely that neither portion of the constructed alphabet in the Getty codex is an original creation. Rather, they probably represent copies or revised versions of earlier alphabets.<sup>4</sup> This is suggested by the absence from the diagrams of actual construction lines and compass circles.

When Hoefnagel received the emperor's commission to illuminate the alphabets with appropriate imagery, he approached the task as one would have expected a painter who was also a humanistic homo litteratus (man of letters) to do. He considered each alphabet as a whole, as a system of signs enabling humanity to create and disseminate its intellectual heritage, a system forming, as it were, an intellectual universe.

This approach is especially clear in the Roman majuscules, where the significance of each letter<sup>5</sup> is elucidated by a biblical verse that begins (or almost begins) with it. The format is based on medieval alphabets composed of prayers of supplication or penance or songs of praise to God which also served didactic and cautionary purposes. Since biblical verses accompany the entire upper-case alphabet, it can be interpreted as an all-

embracing statement and a microcosmic reflection of the macrocosm.6

Hoefnagel's organization of the constructed Roman majuscules thus conforms to an abecedarium, that is, a collection of verses that begin with different letters in alphabetical order from A to Z. With the exception of folio 1, he chose verses from the Psalms exclusively. The imagery on each folio is based on the meaning of the initial word in the verse, the significance of several words, or the message conveyed by the verse in its entirety. Hoefnagel's figural imagery is balanced and symmetrical, uniformly filling the top, bottom, and side margins as well as any empty space in the middle. The folios illustrating the Roman upper-case letters present an integrated whole due to their thoroughgoing reciprocity of form and content. The imagery is both witty and playful. Among Hoefnagel's other manuscript illuminations, it calls to mind those of the Roman missal in Vienna.

The Gothic lower-case alphabet differs markedly from the classically inspired Roman upper-case alphabet. Regarded as barbaric and uncultivated by the Italian humanists of the Renaissance, the former was decorated accordingly. Excepting the ligatures, each page presents two letters against a total of four grids. Some of the letters appear on more than one page. A grotesque mask usually occupies the center of the folio, from which point intricate forms emanate in all directions. This dynamically constructed page surface contrasts with the classical serenity of the imagery surrounding the Roman capitals.

The relationships among the individual elements in the illuminations are loose in terms of both form and content. Fruits, flowers, various ornaments, and animals, while fancifully and organically intertwined, are not usually depicted naturalistically. There are a few exceptions, especially dogs, monkeys, and live and dead birds. The grotesque masks of the lower-case alphabet are either based on or inspired by a popular series of masks engraved on copper by Frans Huys after works by Cornelis Floris. The influence of the Huys series was widespread, not only in painting but also in the applied arts. For example, it inspired the decoration of one of the walls of the so-called "Spanish Stable" in the imperial castle in Prague.

The emperor thus would have taken particular delight in this aspect of Hoefnagel's decorated alphabet. Indeed, the relaxed, expansive ornamental program of the minuscule alphabet comes as something of a revivifying jolt after the extremely refined representations of the first 129 folia of Mira calligraphiae monumenta.

### Editor's Note

Biblical quotations in Latin are from Robertus Weber, ed., Biblia sacra iuxta vulgatam versionem, vol. 1: Genesis – Psalmi (Stuttgart, 1983). English translations are from The Holy Bible: Douay Rheims Version (Baltimore, 1899).

## THE ROMAN MAJUSCULE ALPHABET



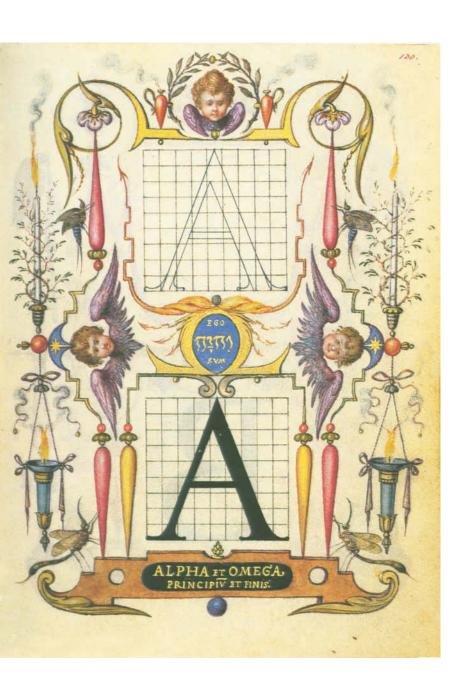
Folio 130

Alpha et Omega, principium et finis ego sum.

Rev. 1.8: Ego alpha et omega, principium et finis (1.8: I am the A and the O, the beginning and the end).

The first written symbol, the letter A, pays homage to God, the ruler of heaven and earth, "the beginning and the end," to whom the Revelation of Saint John the Divine is consecrated. The biblical verse, accompanied by the tetragram of God's name, is quoted within a stylized omega in the middle of the page and in a cartouche in the bottom margin. With this verse, the first letter of the Greek alphabet" simultaneously refers to the last one; the illumination of the page thus encompasses the entire alphabet. God is understood as the beginning and end of time and space, as universe and eternity. The blue medallion containing the tetragram of his name occupies the center of the folio. It connects the constructional drawing of the letter A with its executed version and is surrounded by the omega, which generates flashes of lightning and thunderheads as symbols of God's might."

In the upper margin, a cherub is surrounded by a laurel wreath—a sign of God's fame<sup>13</sup>—and flanked by incense burners. This angel praises the Lord along with the cherubim in the side margins. At both left and right, eternal lights burn in praise of God, as do candles entwined by olive branches, which symbolize his peace. <sup>14</sup> Four demonic winged insects (the two antennae on the abdomens of the two upper ones indicate that they are Ephemerae, whose life span is a single day) are attracted by the flames, in which they will perish, just as God's enemies are destroyed by divine power. <sup>15</sup>



B

Folio 130v

Benedic anima mea Domino, et omnia quae intra me sunt nomini sancto eius. Psal. 102

Pss 102.1: Benedic anima mea Domino et omnia viscera mea nomini sancto eius (102.1: Bless the Lord, O my soul: and let all that is within me bless his holy name).

Just as the illumination of the first page of the constructed alphabet honors God as ruler of the universe, Hoefnagel dedicated the illumination of the second page to the worldly ruler, the emperor, dominating the earthly realm through God's grace and under his aegis. While the biblical verse, which begins with the letter B, praises the celestial Lord, the representation transfers the praise of God to the worldly ruler, Emperor Rudolf II, the illuminator's patron. Occurring at the beginning of the constructed alphabet, this leaf functions as a dedication.

Like the medallion with the tetragram on folio 130, a medallion with the letter R (Rudolf) under the imperial crown occurs at the center of this illumination. In the top margin are symbols of the emperor's sovereignty, the orb and the sword of state; the sword is crossed with a palm frond, a symbol of victory. To the left and right of these imperial insignia are the crowned Hungarian and Bohemian coats of arms, representing the royal dignity of Rudolf, king of both Hungary and Bohemia. In each side margin, an eagle, symbol of the emperor, holds in its beak a swag tied to one coat of arms and to Rudolf's medallion. As on folio 130, flashes of lightning and thunderbolts emanating from colorful wings indicate the emperor's mighty sovereignty. Likewise, the pair of incense burners that lure insects to their death symbolizes his capacity to destroy his enemies. The first and second pages of the alphabet were thus intentionally illuminated as reciprocal folios demonstrating that the power of the Holy Roman Emperor was the earthly reflection of the power of God over the universe.

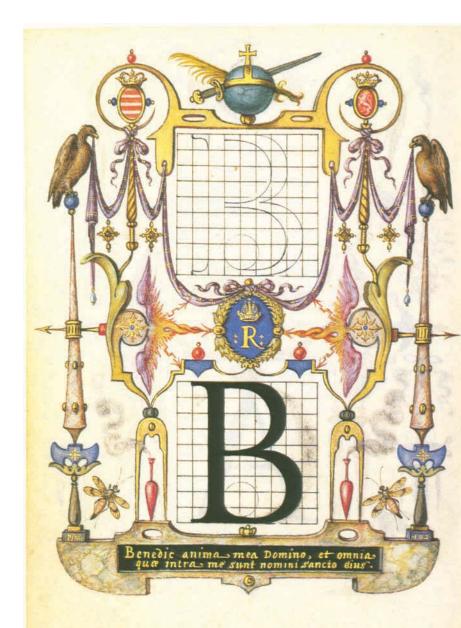
Folio 131 Cantabo

Cantabo Domino in vita mea, psallam Deo meo quam diu sum. Psal. 103

Pss 103.33: Cantabo Domino in vita mea, psallam Deo meo quamdiu sum (103.33: I will sing to the Lord as long as I live: I will sing praise to my God while I still have my being).

The letter *C* initiates a series of illuminations based on the theme of praising God. The scrollwork that frames the finished, as opposed to the constructed, letter forms a lectern that supports a small songbook partly hidden by a stylized lyre. The activities of singing (cantabo) and its instrumental accompaniment (psallam; literally, to play the psaltery) are referred to by almost every other motif in the illumination. Thus sing the cherub with half-open mouth and the two thrushes (Turdus philomelos) with open beaks, all with their heads turned toward heaven.

Hanging down on both sides of this folio are woodwind and string instruments – tied together with tasseled ribbons – which yield soft tones that blend harmoniously with the human voice. At the left are a spelter, a shawm, and a cister; at the right, a lute replaces the latter instrument. Below them, on both sides of the executed letter, bright parrots alight on the marbled scrollwork. Though the parrot is not a songbird, they too have open beaks. From the Middle Ages on, the capacity of the parrot to imitate the human voice fostered its symbolic identification with the devout person. <sup>17</sup> Thus, here the creatures of heaven (angels) and earth (humans, birds) sing and make music to praise the Lord. Within this holy concert, only the two insects in the bottom corners of the scrollwork frame are out of tune.





D

Folio 131v

Deus meus es tu: in manibus tuis sortes meae. Psa. 30 Pss 30.15-16: Deus meus es tu. In manu tua tempora mea (30.15-16: Thou art my God. My lots are in Thy hands).

This verse heralds the psalmist's devotion to and faith in his Creator. The illumination of the folio, too, is intended as a glorification of God. The astrolabe in the middle of the top margin, a symbol of eternity, is pierced by two olive branches, symbols of peace; palm fronds, symbols of victory, unfold to the left and right. From each of the palm fronds hangs a laurel wreath –a sign of fame –surrounding a gold medallion set with precious gems and pearls. In this context, such treasure stands for the Divinity. If Just as the devout person praising the Lord is portrayed by the parrot on folio 131, the pious person is here represented in the middle of the page by the head, of the dog, who accompanies his master faithfully through every situation in life. The dog, already regarded as man's best friend by the sixteenth century, symbolized fidelity in contemporary iconography.

Folio 132 Exaltare super coelos Deus et in omnem H.

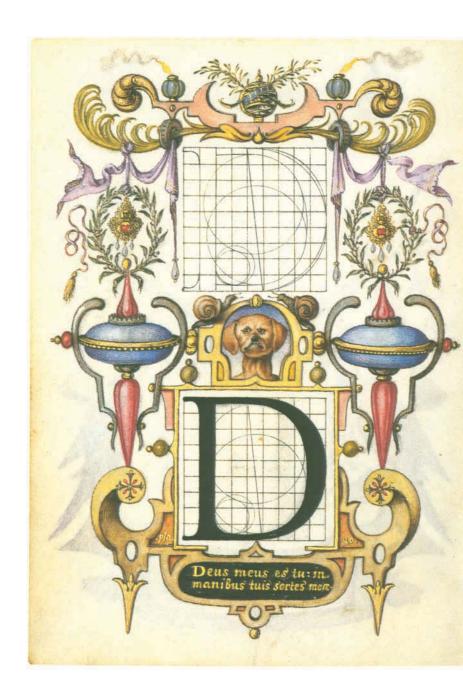
TERRAM GLORIA TUA. Ps.56

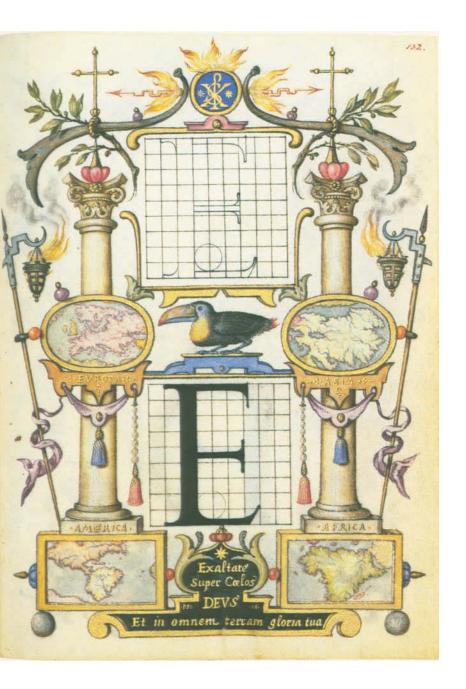
Pss 56.12: Exaltare super caelos Deus in omni terra gloria tua (56.12: Be thou exalted, O God, above the heavens: and Thy glory above all the earth).

In the top margin is an azure medallion with the Greek letters X, P, and S (the chi-rho-sigma monogram for Christus) surrounded by a frame. Lightning flashes and thunderheads emanate from the name of Christ as do horns, attached to laurel branches, signs of his glory. The empire of Christ, symbolized by the Latin cross, stretches across the entire world, as is evidenced by maps of Europe, Asia, the Americas, and Africa. Combined into a single map, they appear in the same context on folio 101 of one of the writing model books in Vienna (inv. 975).22

The two columns at the left and right not only create a decorative framework but, together with the maps, bring to mind the so-called Pillars of Hercules, which Emperor Charles V used as his emblem, accompanied by the motto "Plus ultra" (Even farther). 23 This motto proclaimed that his empire extended even beyond the Pillars of Hercules, that is to say beyond the mountains flanking the Strait of Gibraltar. With the Pillars of Hercules, Hoefnagel alluded in the Vienna writing model book (inv. 975) to the power of the emperor.24 Here, they glorify the power of Christ.

The toucan in the middle of the page probably does not have specific symbolic meaning but indicates, through its exotic appearance, the foreign peoples and lands that had been incorporated into the empire and converted to Christianity since the beginning of the sixteenth century. Apparently, Hoefnagel first saw a toucan in 1578, the same year in which he rendered it in an early design for the engraving of Cadiz, Spain,25 used in Braun and Hogenberg's Civitates orbis terrarum.26 That drawing is dated and inscribed Avis sive pica Peruviana allata (Imported bird, so-called Peruvian magpie). At this time, Cadiz, together with Seville, possessed the trade monopoly on raw goods and exotica from Spanish territories overseas.





F

Folio 132v Firmamentum meum Dominus, refugium meum et liberator meus. Ps.17

Pss 17.3: Dominus firmamentum meum et refugium meum et liberator meus (17.3: The Lord is my firmament, my refuge, my deliverer).

Whereas the psalmist calls out to the heavenly Lord as his support and refuge, the illumination depicts the wealth and abundance resulting from the rule of God's earthly representative, thus referring to the alphabet's patron, Rudolf II. Rudolf here is considered as the originator of the contemporary golden age, not, however, in his capacity as Holy Roman Emperor but as the ruling archduke of the house of Austria. The lightning flashes representing his might and the abundant cornucopias are attached to the Austrian coat of arms in the middle of the page. Pouring from the cornucopias are ripe fruits of the orchards and fields such as melons, grapes, peaches, cherries, a pomegranate, squash, and ears of corn. This imagery expresses thanks to the emperor of the house of Austria for the overflowing abundance of the golden age newly dawned under his regime.

Fruit garlands and fruit-filled cornucopias – traditional elements of the repertoire of Netherlandish grotesque imagery – burst with life in Hoefnagel's work. On folio 13 of the Vienna writing model book (inv. 975), Rudolf II is honored, this time as emperor, with similar bundles of fruit,<sup>27</sup> while cornucopias on folio 60v of Hoefnagel's Roman missal point to the realm of the heavenly ruler.<sup>28</sup> The incense bowl in the middle of the top margin, which in the Vienna writing model book burns in God's honor (fol. 13), probably also burns here to honor the heavenly emperor. The two insects, whose comical forms fit so organically into the fantasy architecture of the grotesque ornament, are probably to be understood here in a general sense as beleaguering those who yearn for faith, peace, and abundance.

 $\subset$ 

Folio 133

Gustate et videte quam suavis est Dominus:

BEATUS VIR QUI SPERAT IN EO. Ps.33

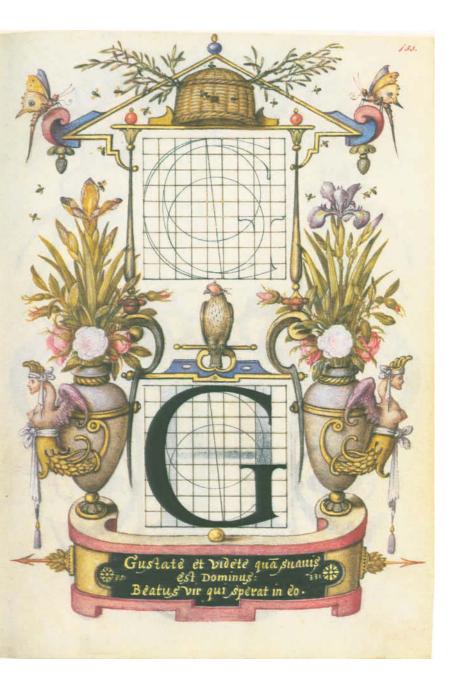
Pss 33.9: Gustate et videte quoniam bonus Dominus. Beatus vir qui sperat in eo (33.9: O taste, and see, that the Lord is sweet. Blessed is the man that hopeth in him).

The invitation of the psalmist to taste the sweetness of the Lord is taken literally here: bees—i.e., pious creatures<sup>29</sup>—swarm around luxuriant bouquets of roses and irises, exemplifying God's creation, and sip nectar from ripe blossoms. This nectar is transformed into the honey in the hive in the middle of the top margin. Out of the hive, which refers to the house of God and the community of all believers,<sup>30</sup> grow olive branches, symbolizing peace. Devilish adversaries in the form of mothlike insects lie in wait for the bees (God's servants) outside the hive. In spite of their small size, the bouquets are composed of flowers based on studies from nature. The partly opened, symmetrical iris bloom at the left is based on the same model used for the iris depicted on folio 65 of the Getty writing model book.

It is difficult to determine whether the symbolism of this illumination transcends natural symbolism such that the bees might refer to believers and the other natural elements to God's creation. Irises and roses are early summer flowers that were closely associated with the Virgin Mary; it is possible that there is a deeper symbolic significance to the bees' sipping nectar from the flowers. In the second half of the sixteenth century, the image of the hive—which is probably used as a symbol here, as is indicated by the olive branches—often referred to the Roman Catholic church, due to the formal similarity to the papal tiara. The image was also used to parody the church, however.<sup>31</sup>

The falcon patiently awaiting removal of its hood in order to regain its sight illustrates the second part of the biblical verse. In sixteenth-century emblematics, the hunting falcon embodied hope<sup>32</sup> due to its confidence in its imminent release from darkness.





# H

Folio 133v

HI IN CURRIBUS ET HI IN EQUIS, NOS AUTEM IN NOMINE

Domini nostri. Ps.19

Pss 19.8: Hii in curribus et hii in equis, nos autem nominis Domini Dei nostri recordabimur (19.8: Some trust in chariots and some in horses; but we will call upon the name of the Lord our God).

This verse forms part of a prayer to be said in time of war, praising the power of the Lord and predicting the downfall of his enemies. The psalmist continues: "They have fallen and died, but we stand resurrected."

The psalmist's plea for protection from the enemies of Israel has been transformed in this illumination into a contemporary prayer for God's help in the battle against the enemies of the empire, especially the Turks, who posed an ongoing threat. In 1593, war broke out again. Like the battle waged by the children of Israel, the fight against the Turks was understood primarily as a religious war. The Muslim Ottomans are symbolized here by monkeys with spurred boots and feathered headgear. They ride into battle on sea horses and fly the Ottoman crescent-moon banner. Lightning flashes and thunderheads, symbols of power, are directed against the charging apes, enemies of the faith. The source of the former is a three-pointed star inscribed with the motto "Sum unus qui unus sum" (I am the triune union), a sign of the Trinity. Hoefnagel frequently depicted apes imitating human behavior; he also delighted in the peculiar shape and scaly tails of sea horses, as can be seen on folio 112 of the Vienna writing model book (inv. 975).

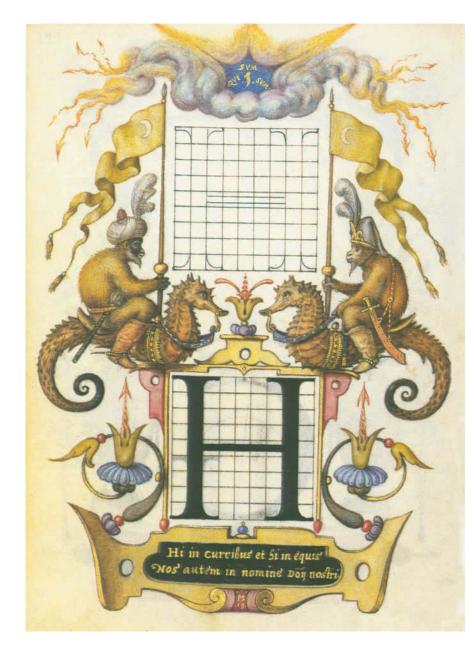
Folio 134

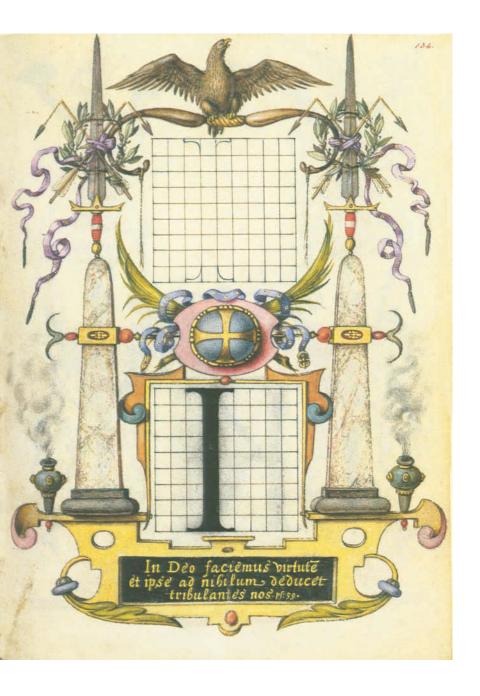
In Deo faciemus virtutem et ipse ad nihilum deducet tribulantes nos. Ps.59

Pss 59.14: In Deo facienus virtutem et ipse ad nihilum deducet tribulantes nos (59.14: Through God we shall do mightily: and he shall bring to nothing them that afflict us).

Here, too, the battle of the Israelites against their enemies serves as a typological counterpart of the Holy Roman Emperor's war against the Turks. This struggle was waged under the protection and shield of God. The central oblong shield of faith<sup>34</sup> decorated with the sign of the cross was to be worn in battle; hence the belt or straps. Behind the shield are two palm fronds signifying certain victory. Hoefnagel's pictorial language here reflects the iconography of the militant Ignatius Loyola and the Jesuit order, which portrayed life as military service for the Catholic church.

An obelisk – symbol of imperturbability<sup>35</sup> – at each side of the composition supports a sword whose hilt is decorated with the colors of the house of Austria, red and white. Representing justice,<sup>36</sup> these weapons simultaneously refer to the imperial insignia of the sword of state, just as they do on folio 130 v. Their decoration with laurel wreaths signifies the emperor's fame. The two broken arrows crossed behind the swords are meant as trophies of his victory, for, according to the second part of the biblical verse, enemies are defeated with the help of God. The one-headed eagle enthroned between the two swords refers to Rudolf II.





K

Folio 134v Kantabo Domino qui bona tribuit mihi et psallam nomini Domini altissimi. Ps.12

Pss 12.6: Cantabo Domino qui bona tribuit mihi et psallam nomini Domini altissimi (12.6: I will sing to the Lord, who giveth me good things: Yea I will sing to the name of the Lord the most high).

For the K missing in the classical Latin alphabet Hoefnagel substituted the homophonic C. The content of this verse is roughly equivalent to that on folio 131 for the letter C. The song of praise to God is sung on both folios by birds (cantabo), though here the instrumental music-making is expressed by two knotted, winged horns. The birds have alighted on urns decorated with grotesques, out of whose lids spring thin streams of water. The water refreshes three wreaths of roses in the colors of the house of Austria that hang down from the winged horns.

According to the psalmist, fresh, blooming flowers are among the gifts that God gives humanity. Other gifts (bona) are the fruits of the fields and trees—here, sheaves of wheat and grapes arranged in a shallow bowl in the middle of the page. The earthly gifts are themselves references to the bread (wheat) and wine (grapes) of the Eucharist. The fountainlike water refreshing the flowers alludes to the sacrament of baptism. Baptism and the Eucharist are the most important sacraments, accepted by all Christian denominations. Hoefnagel also refers to them several times in other works.<sup>37</sup>

Folio 135

١,

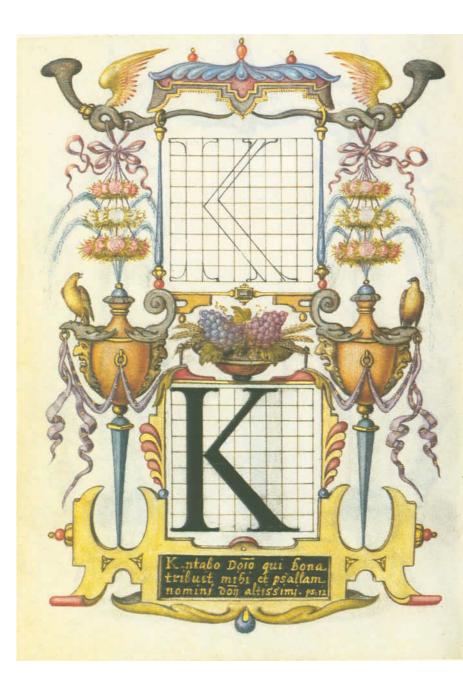
Laudans invocabo Dominum et ab omnibus innimicis meis salvus ero. Ps.17

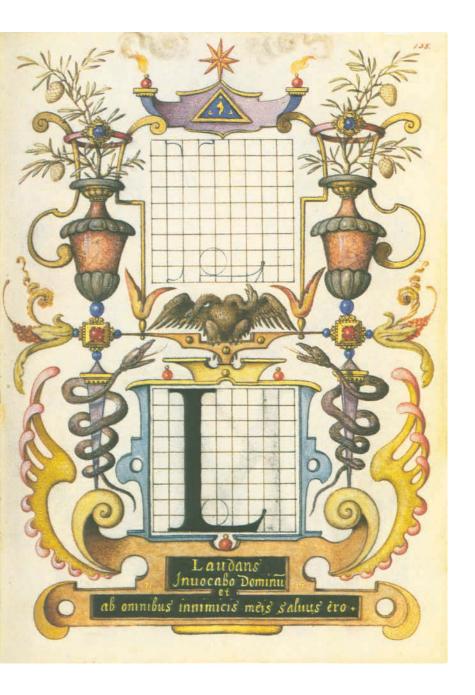
Pss 17.4: Laudans invocabo Dominum et ab inimicis meis salvus ero (17.4: Praising I will call upon the Lord: and I shall be saved from my enemies).

The upper part of this illumination glorifies the Divinity, symbolized by the equilateral triangle, a sign of the Trinity.<sup>38</sup> As on folio 133v, the number one in the center refers to the triune union. Also, the eight-pointed star, the incense burners, and the branches with pinecones signify the veneration of the eternal (star<sup>39</sup>) and immortal (pine bough<sup>40</sup>) God.

The second part of the verse is illustrated on the bottom half of the folio: helical snakes – i.e., hostile powers<sup>44</sup> – hiss furiously with wide-open mouths at the double-headed eagle in the middle of the page. One of the eagle's heads looks down, toward one of the snakes, while the second head looks up, in adoration of God. The eagle thus connects the two parts of the verse referring to God on the one hand and humanity's enemies on the other.

Although there is neither monogram nor coat of arms alluding to Rudolf II, the entire illumination is nevertheless to be associated with him. One of his emblems was the double-headed eagle, which here turns one head toward the sun–i.e., God<sup>42</sup>–and the other toward the snakes that threaten it. "Colit et pendit" (He adores and weighs) is the motto accompanying this imperial emblem on folio 119 of the Vienna writing model book (inv. 975). In the emblem book of Jacobus Typotius published in Prague in 1601,<sup>43</sup> this image is accompanied by the motto "Utrunque" (To both sides). The text on the reverse of Typotius's medallion (the obverse bears the image) refers to Rudolf's war against the Turks in 1596 –the same year, incidentally, in which the illumination of the constructed alphabet was completed.<sup>44</sup>





M

Folio 135v Mihi adherere Deo bonum est ponere in Domino Deo meo spem meam. Ps.72

Pss 72.28: Mihi autem adpropinquare Deo bonum est, posui in Domino Deo spem meam (72.28: But it is good for me to adhere to my God, to put my hope in the Lord God).

Like all flowers that open their blooms toward the light, day-lilies symbolize creatures that turn toward God in adoration and confession. 45 As such, they embody the first part of the biblical verse here. The well-known verse from Matthew, "Look at the lilies in the field, how they grow; they do not work, nor do they spin" (Matt. 6:28), was the origin of the lily's identification with the devout person who puts his or her life in God's hands with the greatest confidence.

The illuminations connected to the second part of the verse refer to hope fixed on God. The many-pointed star, God's symbol, generates lightning flashes and thunderheads as signs of his power and crowns an anchor that forms the basic framework for the illumination of the page as a whole. The anchor is a traditional symbol of hope.<sup>46</sup> Here, it has been rendered in trompe l'oeil as if piercing the vellum behind the constructed M. On the anchor's arms sit two hooded falcons. As on folio 133, they embody the hope of the faithful for release from the darkness. The first-person voice of the biblical verse is associated with Rudolf II through the initial R in medallions on the red and white banners of the house of Austria. The flags are fastened to the scrollwork frame by colorful bands. This folio has been transformed by its illuminations into a personal confession of faith by the emperor.

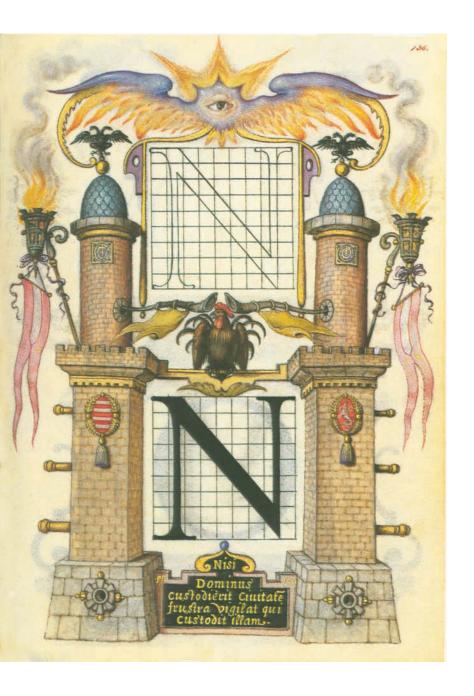
# N

Folio 136 Nisi Dominus custodierit civitatem frustra vigilat qui custodit illam. Ps.126

Pss 126.1: Nisi Dominus custodierit civitatem frustra vigilat qui custodit eam (126.1: Unless the Lord keep the city, he watcheth in vain that keepeth it).

Here, we see fortifications composed of square foundations of large stone blocks, with square towers surmounted by battlements. On these are round towers pierced by marksman's holes. The entire structure protects the universal *civitas* of the terrestrial ruler, the Holy Roman Empire, here symbolized by the double-headed eagles atop the two domes, the coats of arms of Hungary at the left and Bohemia at the right, and the banners in the colors of the house of Austria that hang from the incense burners. The clock strikes midnight, the watchman sounds the horn. A cock—symbol of supreme vigilance<sup>47</sup>—sits between the two towers with its wings spread. Defenses and vigilance would be in vain, however, were it not for God—the three-pointed star of the trinity—and his might (wings with flames) watching protectively over the empire, as is evidenced by the wide-open eye within the star.







Oculi mei semper ad Dominum: quoniam ipse evellet de laqueo pedes meos. Ps.24

Pss 24.15: Oculi mei semper ad Dominum quia ipse educet de rete pedes meos (24.15: My eyes are ever towards the Lord: for he shall pluck my feet out of the snare).

The illumination of this page is difficult to interpret. The eyes of the believer, who is the subject of the biblical verse, look toward God; the heart of the believer, with its wide-open eyes and wings signifying its heavenly orientation, refers to spiritual insight that turns the heart of the believer to God. The Divinity is honored by the presence of incense bowls in the top margin. The diamond in the ring above the heart might symbolize Christ, since he was as invulnerable as a pure diamond that could not be cut.<sup>48</sup> The peacock feathers in the side margins, which elsewhere symbolize pride, are probably to be understood here as references to people of virtue. The "eyes" on these feathers recall the "oculi" of the biblical verse. Hoefnagel employed the peacock as a symbol of virtue in other instances.<sup>49</sup>

The long-necked bird in the middle of the page, which seems to be curled up in sleep, is most likely a swan. Since the Latin word for swan, *olor*, begins with the letter *O*, this may be why Hoefnagel chose it as the symbol of evil.<sup>50</sup> In its somnolent state, however, the bird is unable to threaten the vigilant faithful.

# p

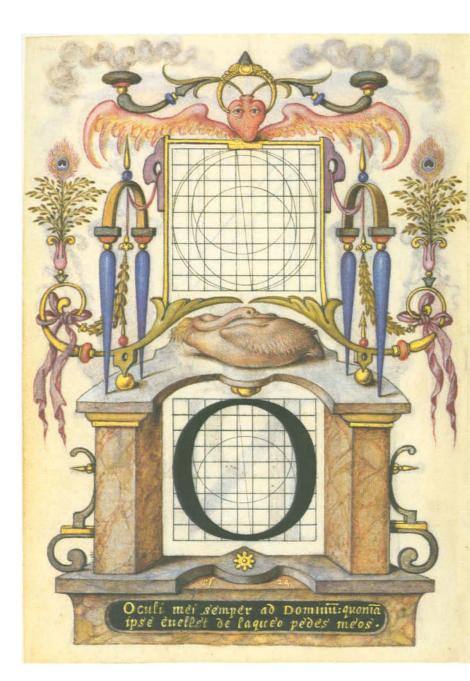
Folio 137

Praecinxisti me virtute ad bellum: et supplantasti

INSURGENTES IN ME SUBTUS ME. Ps.17

Pss 17.40: Accinxisti me fortitudine ad proelium, incurvabis resistentes mihi sub me (17.40: And thou has girded me with strength into battle; and hast subdued under me them that rose up against me).

The gratitude of the psalmist and his confidence that God would aid him in the battle against the enemies of Israel are transposed into the emperor's prayer of thanks to God for his help in securing victory over the Turks. The imperial eagle wears a cuirass, holds lightning flashes and thunderheads in its talons as signs of its power, and is flanked by two palm fronds of victory. Standards with the Ottoman crescent moon and captured weapons (arrows, maces, and shields) are depicted as trophies in both margins. Imperial troops laid siege to the Hungarian city of Hatvan, in the district of Heves, fifty kilometers east-northeast of Budapest, on August 15, 1596. The fortifications had been taken on September 3, resulting in a bloodbath among the Muslim population. The view of Hatvan refers to this siege. This was one of the few victories the emperor won over the Turks during this period.





Q

Folio 137v

Quis Deus magnus sicut Deus noster? Tu es Deus qui facis mirabilia. Ps.75

Pss 76.14-15: Quis deus magnus ut Deus? Tu es Deus faciens mirabilia (76.14-15: Who is the great God like our God? Thou art the God that dost wonders).

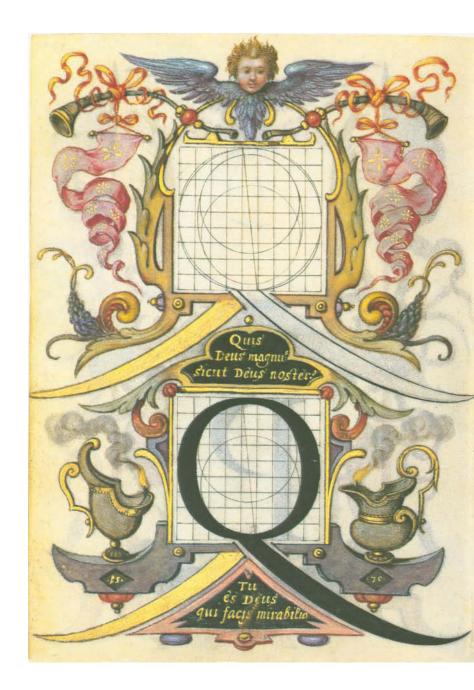
The size of the constructed and completed Q's left Hoefnagel little space for illuminations. The biblical verse that praises God's power and wondrous deeds is given figural expression at the top by a cherub's head and two trumpets sounding his praise and at the bottom by two incense burners. The composition is built around the framework provided by the tails of the Q's, primary ones extending to the right and secondary ones – apparently added for the sake of symmetry –to the left. In this illumination, the scrollwork frame and objects attached to it are subordinated to the form of the letter.

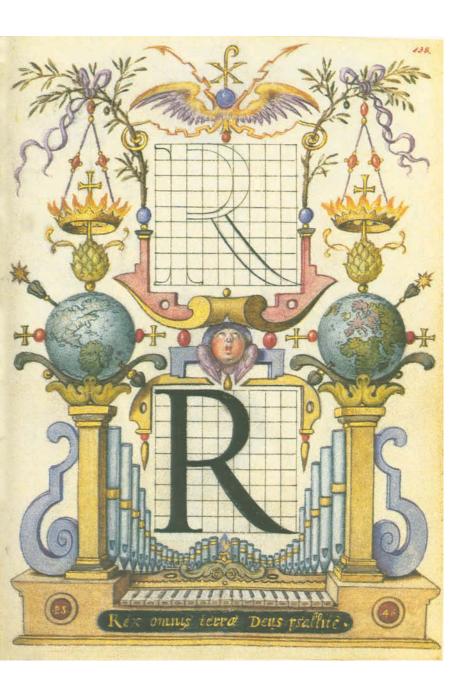
R

REX OMNIS TERRAE DEUS: PSALLITE. Ps.46

Pss 46.8: Quia Rex universae terrae Deus canite erudite (46.8: For God is the king of all the earth: sing ye wisely).

An organ with its pipes arrayed around the letter R illustrates the word psallite. Music is made in honor of God, king of the entire earth. As on folio 132 with the letter E, the earth is represented by terrestrial globes, here showing the Americas at the left and Europe, Africa, and Asia at the right. God is the ruler of the earth: the scepter drilled through the planet carries an eight-pointed star—his symbol. Two imperial orbs also flank each globe. God, the mighty king (Rex of the biblical verse, alluded to by the flaming crowns encircling crosses) is the ruler of eternity (pinecones). In his realm, peace rules (olive branches). Above, the power of Christ is symbolized by the Greek letters X and P, the wings of angels, and lightning flashes. A cherub in the middle of the page sings God's praises.





S

Folio 138v Sub umbra alarum tuarum protege me: a facie impiorum qui me afflixerunt. Ps.16

Pss 16.8-9: In umbra alarum tuarum protege me, a facie impiorum vastantium me (16.8-9: Protect me under the shadow of thy wings. From the face of the wicked who have afflicted me).

The emperor, represented by the eagle, turns with concern toward his subjects (symbolized by smaller birds), shielding them with his power (his wings). Inspired by the biblical text and iconographically reminiscent of the typology of the Virgin of Mercy who shelters believers under her cloak, the imperial eagle here represents the solace and refuge of the emperor's subjects. Entwined laurel branches glorify his fame; vertical lightning flashes proclaim his power. A medallion with the initial R under the crown in the middle of the page glorifies Emperor Rudolf II as the protector of his subjects.

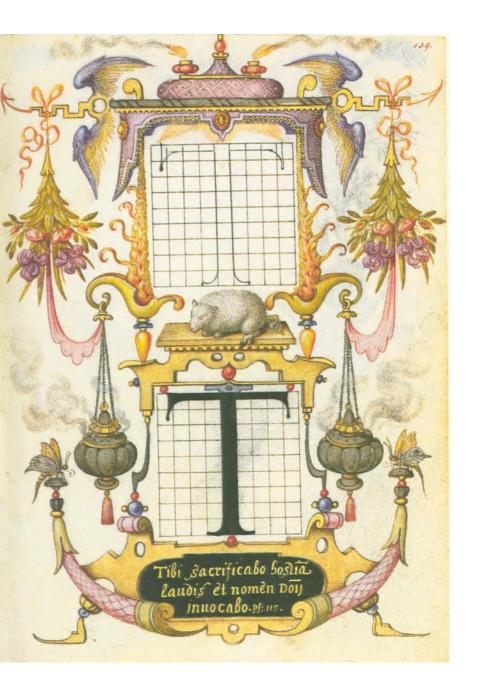
Tibi sacrificabo hostiam laudis et nomen

Domini invocabo. Ps.115

Pss 115.17: Tibi immolabo hostiam laudis et in nomine Domini invocabo (115.17: I will sacrifice to thee the sacrifice of praise, and I will call upon the name of the Lord).

On an altar in the middle of the page, the paschal lamb patiently awaits its sacrificial death. Incense rises from burners at the left and right. In the top margin, the richly decorated canopy shielding the lamb resembles the tabernacle containing the Host. Incense bowls appear at the very top. Wings (divinity<sup>52</sup>), lightning flashes (power), and hanging bouquets of roses, iris, and wheat are depicted in the side margins. The Easter lamb symbolizes the Eucharist, representing the Host through which the believer participates in humanity's salvation, realized by Christ's sacrificial death as the Lamb of God.







Folio 139v

Vox Domini confringentis cedros: et confringet

Dominus cedros Libani. Ps.28

Pss. 28.5: Vox Domini confringentis cedros et confringet Dominus cedros Libani (29.5: The voice of the Lord destroys the cedars; the Lord destroys the cedars in Lebanon).

The entire text of the psalm honors the voice of the Lord. Christ's monogram XP in the middle of the top margin forms the focus of this representation. The X is composed of two crossed horns emitting lightning flashes, a reference to the seventh verse of this psalm in which the Lord's voice spits flames; thunderbolts surround Christ's monogram. As elsewhere, they signify the power of God. According to the psalmist, the Lord's voice forces cedar branches to bend and break and their evergreen needles to drop.<sup>53</sup> The feathered turbans crowning the trees mark these cedars as symbols of the Ottoman empire. Trophies hanging on each of the tree trunks<sup>54</sup> consist of Turkish scimiters and maces. Fire-spitting snakes (i.e., enemies of the Christian empire) coil around the trees but are repelled by God's power.

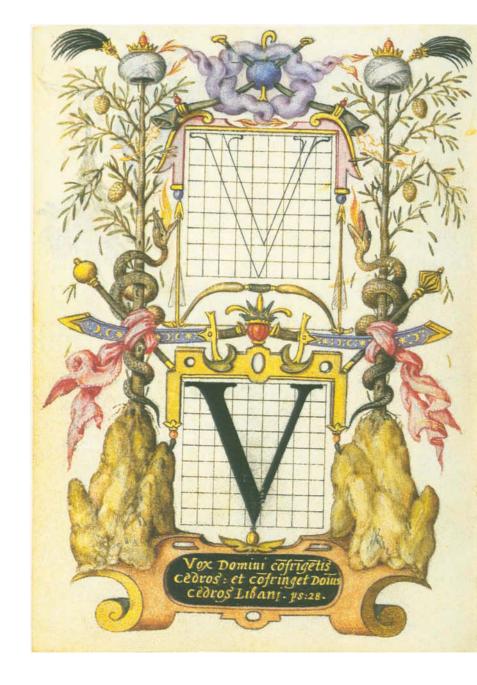


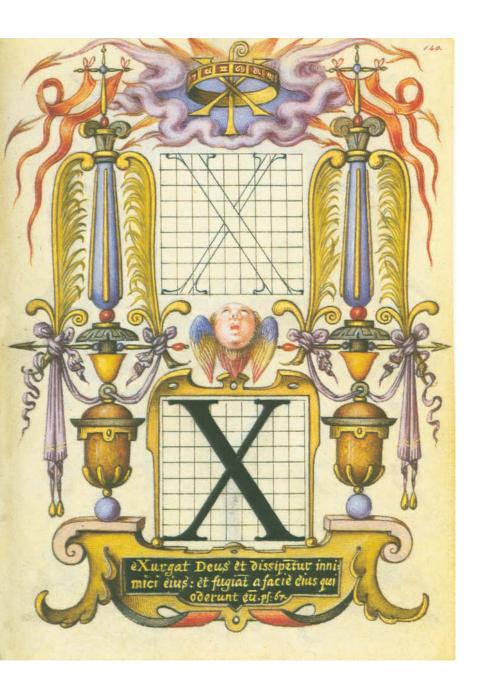
EXURGAT DEUS ET DISSIPENTUR INNIMICI EIUS:

ET FUGIANT A FACIE EIUS QUI ODERUNT EUM. Ps.67

Pss 67.2: Exsurgat Deus et diss:pentur inimici eius et fugiant qui oderunt eum a facie eius (67.2: Let God arise, and let his enemies be scattered: and let them that hate him flee from before his face).

In order to incorporate the X into his abecedarium, Hoefnagel used the second letter of a biblical verse. The letter's balanced structure led him to create a composition bound by strict symmetry, which gives the page as a whole a serene and sacred aura. The Roman letter X corresponds in form to the Greek letter X (chi). The page is thus illuminated with a symbolic representation of victory (four palms) in the name of Christ (in its form as the monogram XP), which is surrounded by lightning flashes and thunderheads and encircled by the signs of the zodiac, symbols of the universe. Here, too, victory over God's opponents is portrayed as the victory in God's name of the house of Austria (the red and white banners) over the Turks.





Y

Folio 140v cYmbalis bene sonantibus laudate eum: laudate eum in cymbalis iubilationis. Ps.150

Pss. 150.5: Laudate eum in cymbalis sonantibus, laudate eum in cymbalis tinnientibus (150.5: Praise him on high sounding cymbals: praise him on cymbals of joy).

Just as with X, the letter Y appears as the second letter of a biblical verse. The illuminations here are more playful and less symbolically weighted, however. Suspended ethereally from the grotesque ornaments are different musical instruments, such as triangles and sticks, sleigh bells, tambourines, and tiny bells suspended from tassels. Their chimes and tinkles comprise the bright tones of which the biblical verse speaks. The decorative character of the ensemble is further enhanced by the lion's head in the middle of the page, which was taken from the repertoire of grotesques by Cornelis Floris.  $^{55}$ 

Z

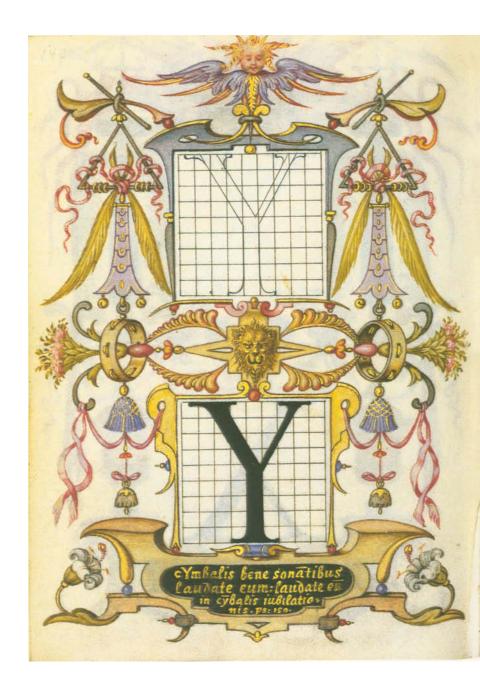
Folio 141

Zelus domus tuae comedit me: et opprobia opprobantium tibi ceciderunt super me. Ps.68

Pss. 68.10: Quia zelus domus tuae comedit me et obprobrium exprobrantium tibi cecidit super me (68.10: For the zeal of thy house hath eaten me up: and the reproaches of them that reproach thee have fallen upon me).

For the interpretation of the letter Z, Hoefnagel chose a verse from Psalms that is referred to several times in the New Testament. The psalmist's own annihilation, of which he speaks here, was thought to prefigure the sufferings of Christ. <sup>56</sup> Hoefnagel's illumination of the biblical verse conforms to this typology. The two oval medallions with the name of Jesus Christ, IHS XPS, rest atop two obelisks, symbols of imperturbability. Laurel branches, trumpets, and cherubs beneath canopies proclaim God's fame. On an altar in the middle of the page, a fire burns, ignited by love for God.

The alphabetical cycle of Roman upper-case letters ends with  $\mathcal{Z}$ . On this last page, the alpha and omega from folio 130, the first page of the constructed alphabet, occur again, at the feet of the obelisks bearing Christ's name.

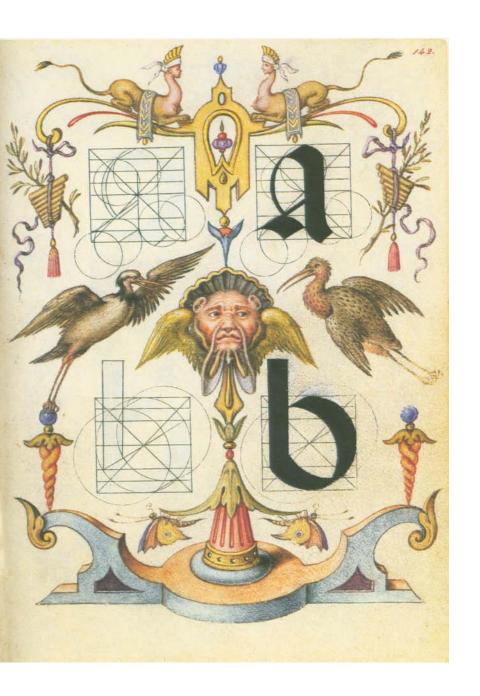




### a, b

Folio 142

Like all the folios of the Gothic lower-case alphabet, this page is not illuminated with balanced classical motifs but with dynamic, playful imagery. The distorted face in the middle of the page is based on one of the series of grotesque masks engraved by Huys after drawings by Floris.<sup>57</sup> The bizarre face was realistically rendered with great detail and plasticity. It is being attacked by two long-legged birds with slightly opened beaks, one of whom is in midflight. Butterflies cling to the ornamental foliage in the bottom margin. The top edge of the page bears symmetrical pseudoclassical motifs: at each side lies a sphinxlike figure, hanging below which is a set of panpipes bound to an olive branch.



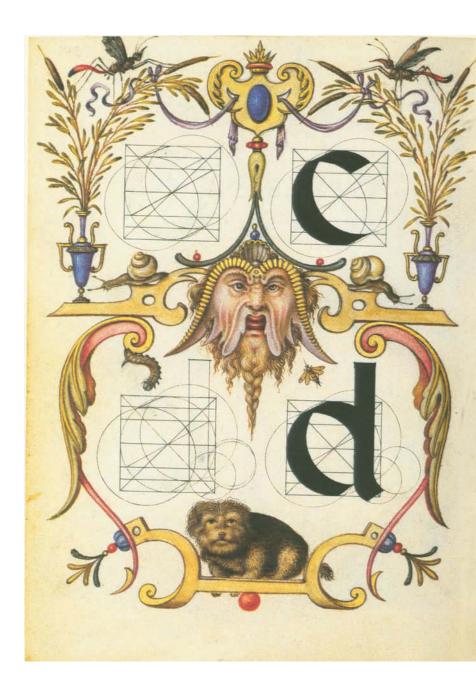
## c, d

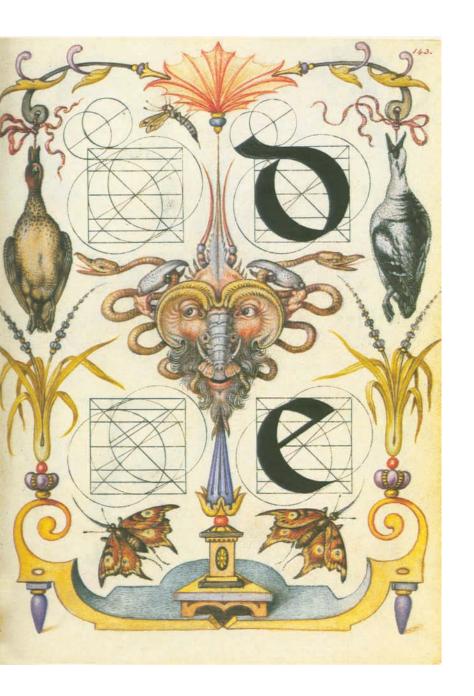
#### Folio 142v

A mask based on the Huys/Floris series appears in the middle of this page. <sup>58</sup> At the top, long-legged, winged insects land on stylized, thickly foliated cattails in small vases resting on scrollwork "shelves." Snails attempting to descend the steps of the scrollwork frame again demonstrate Hoefnagel's capacity to capture minute natural details. A realistically executed puppy, who looks out at the viewer with an expression of loyalty and devotion, crouches in the bottom border, entrapped, as it were, by scrollwork and guarded by the mask. The playful interaction between the tactile, sensuous representations of natural forms and the flattened, stylized ornaments enhances the charm and wit of the design. The insect wing at the upper left has been clipped by the top edge of the page, suggesting that it, as well as the rest of the constructed alphabet, was severely cut down during binding.

## d, e Folio 143

Perhaps the form of the Gothic letter *d*, with its closed curve and necklike ascender, inspired Hoefnagel to illuminate this folio with two dead ducks hanging by their bills. This motif, which was common in Flemish genre painting of the second half of the sixteenth century, became a subject in its own right in later still life painting. The middle of this page features a distorted face based on the Huys/Floris series.<sup>59</sup> It is made out of parts of sea creatures, including a lobster tail and claws. The monster face fends off two hissing snakes. Below, two butterflies take to the air, lending a sense of weightlessness to the page's decorative scheme.





# f, g

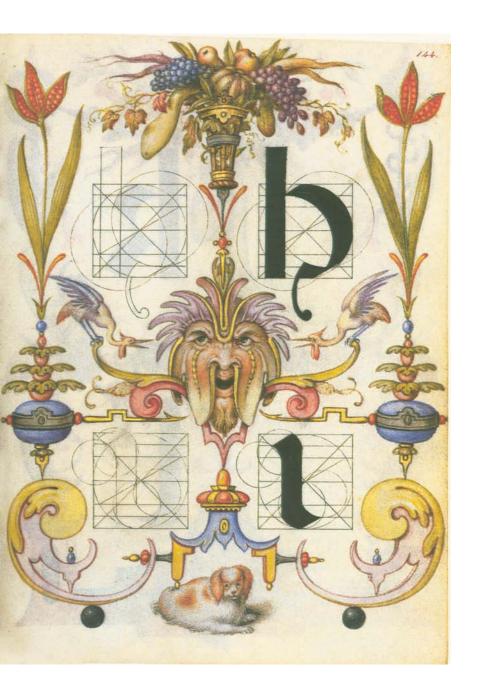
#### Folio 143v

Hoefnagel was inspired here almost exclusively by the forms of the letters. Beaked vases extend to the right and left of the letter f, echoing its form vertically and horizontally. Owls sitting on the vases gaze into a double mirror in the middle of the top border. The owl regarding its own reflection was a common symbol of self-knowledge (in Greek, gnoti scauton). Here, however, the motif has no direct connection to the rest of the illumination, unless the letter g is implicitly linked with the word gnoti. The wildman mask, again based on the Huys/Floris series, has hornlike oak branches growing out of its leafy hair and rests on an S-curved horn that follows the curved descender of the g. The naked bodies of the two caryatids at the left and right echo this movement.

## h, i Folio 144

The brimming fruit basket at the top of the page (a grotesque motif Hoefnagel often used in an augmented form, treating it as a colorful and pungent still life)<sup>62</sup> is balanced on a mask from the Huys/Floris series<sup>63</sup> that is being attacked by two birds. Counterbalancing the horrific face is a woolly-furred puppy lying at the bottom border. The canopy above him indicates that this canine might have symbolic significance like the dog on folio 43 of the Vienna writing model book (inv. 975), which embodies pure Christian faith.<sup>64</sup> Imaginary tall, seed-bearing plants fill the side borders.





### k, 1 Folio 144v

Filling the middle of the page is the head of a young Medusa above a type of collar fashionable in Hoefnagel's time; her hair consists of hissing snakes. This head is comparable to grotesque designs by Cornelis Bos. 65 In the top margin, a bunch of plump, ripe fruit and tubers is displayed. The roguish monkey in the bottom margin has plucked an apple and a pear. Monkeys eating fruit are common as symbols of the sense of taste 66 but also have a purely ornamental function in grotesque decoration.

### m, n Folio 145

The upper bodies of two birds with scaly tails are hooked to either side of a coarse, fleshy caricature that forms the focal point of this composition. Their bodies echo the curves of the letters m and n. In the top margin, curving grotesques are intertwined with two arching trellises overgrown with foliage. The grotesques resemble those in Cornelis Floris's series of engravings, Veelderley Veranderinghe (1556). <sup>67</sup> Between the trellises hangs a massive jewel. Below it sits a monkey wearing a plaid jacket similar to the one on folio 76 of the Vienna writing model book (inv. 975). Here, the monkey is about to eat a turnip. <sup>68</sup> Two monstrous moths extend their proboscises toward the animal in order to sense what it is.





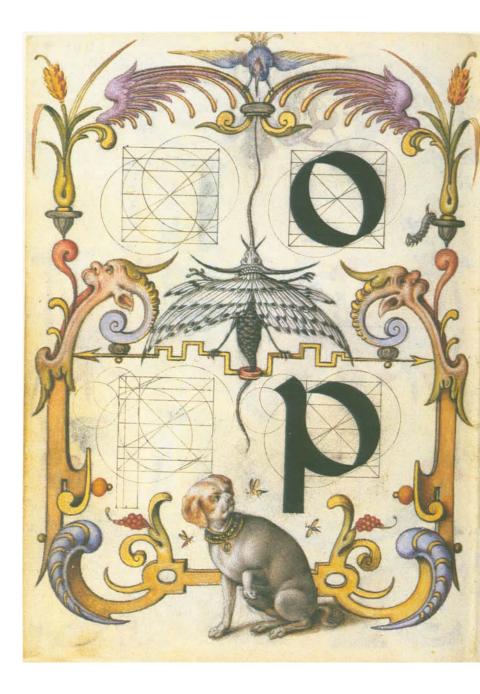
Folio 145v

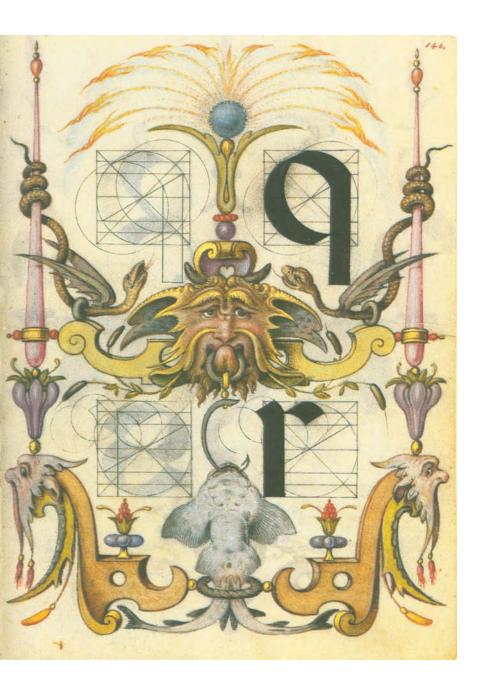
#### o, p

In place of a distorted face or mask, a fantastic insect with a scaly body and outspread, feathered wings occupies the middle of this page. Its demonic character is accentuated by the double lightning flashes on which it perches. Its tongue or stinger extends to the top margin, where a bird with spread legs waits to peck at the end of it. Plant and animal ornaments frame the letter forms, including two gargoyles with curling tongues. Below, a dog attempts to ward off swarming insects. It is distinguished from the other dogs depicted in the manuscript by its valuable collar, indicating that the animal might actually have belonged to the emperor.

#### q, r

The double-tailed fish hanging on the hook at the bottom of this folio might be intentionally reminiscent of a stylized roach, whose name begins in German (as in English) with the letter R – just as the swan, olor in Latin, was chosen to illuminate the letter O on folio 136v. Significantly, the hook from which the fish hangs is connected to a Neptune-like mask in the middle of the page reminiscent of one in the Huys/Floris series. <sup>69</sup> A ball of fire above the mask emits a fan of flames. The mask itself is besieged by two snakes with dragons' wings. Bizarre scrollwork with gargoyle terminals fills the bottom margin.





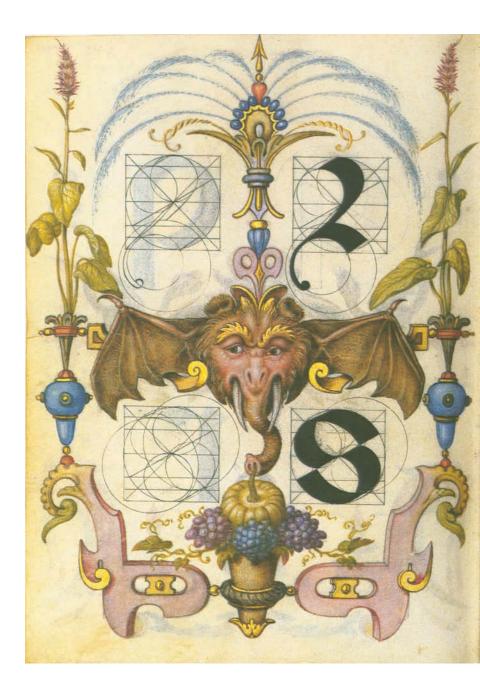
#### Folio 146v

#### r, s

A mask with the trunk and tusks of an elephant and bat's wings for ears dominates this illustration. The trunk reaches down to a basket containing a squash lying among grapes in the bottom margin. A fountain with ten streams of water cascades down on realistically depicted but imaginary plants decorating the side margins.

s, t

On both sides of a central grotesque face topped by a cockleshell (once again borrowed from Floris's series),7° exotic shellfish hang from scrollwork. At the top reigns the double-headed imperial eagle. With its heads facing left and right, it guards against the onslaught of potential enemies.





Folio 147v

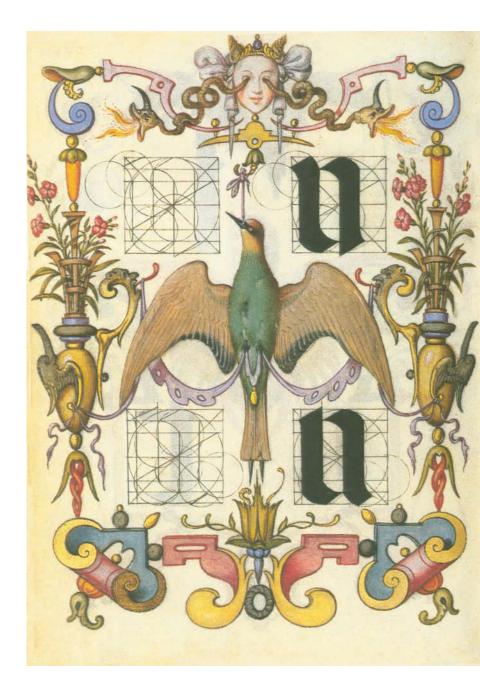
## u, v

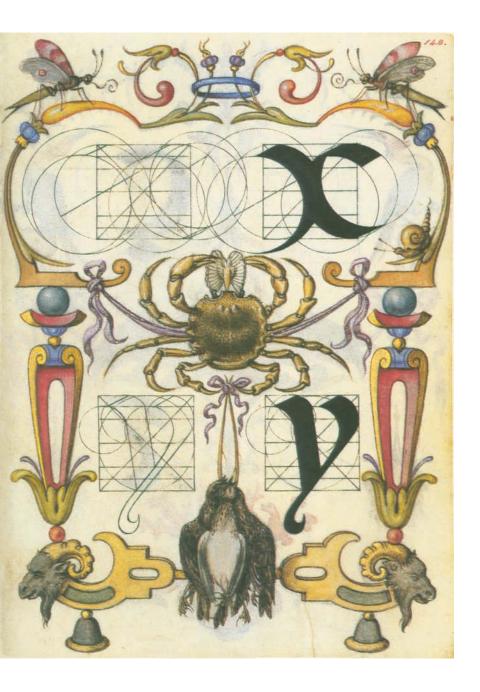
A woman's face, her hair twisted into two horns reminiscent of the fantastic Burgundian hairstyles of the fifteenth century and her eyesockets exuding fire-breathing, horned snakes, symbolizes vanity. A similar mask in the Vienna writing book (inv. 975) is inscribed with the motto "flos cinis" (the flower turns to ashes). The dead bird hanging by its beak in the middle of the page as well as the dianthus in the scrollwork vases can also be associated with mortality (vanitas). The colorful bird with its shimmering blue belly and blue-bordered wings probably is a stylized bee-eater (Merops apiaster). A dead bee-eater is depicted in the same pose in Museum of Rudolf II, two volumes of painted animal illustrations commissioned by the emperor. The drawings recall Dürer's watercolor of the wing of a blue roller (Coracias garrulus), one of the masterpieces in Rudolf's art collections. The During the emperor's lifetime, the watercolor was imitated frequently, most successfully by Hans Hoffmann.

## Folio 148

**x**, **y** 

The form of the letter x, with its four rounded arms, led the artist to depict the crab with many legs and appendages that decorates the middle of this page. A cluster of dead partridges, a motif dating back to antiquity,  $^{76}$  hangs from the crab's legs. Insects and rams' heads decorate the scrollwork in the four corners of the page, and a lone snail occupies the middle of the right margin.



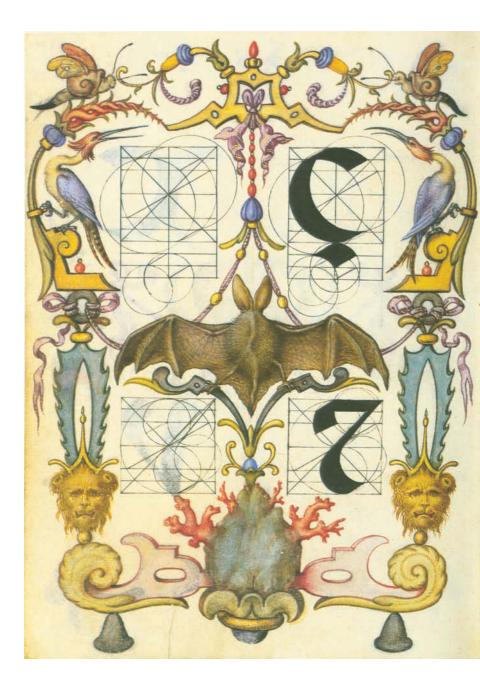


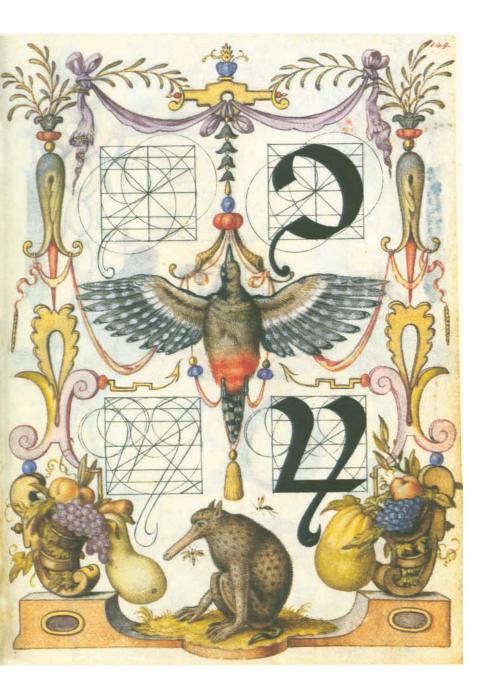
# ç, tironian et

In the middle of the page, a bat with large ears seen from the rear spreads its wings, their taut skin rendering visible its skeletal structure and circulatory system. At the bottom margin, coral grows on a cliff. Coral was one of the items supplied to the imperial court by agents who shipped it from overseas and the Mediterranean. Most of the prepared raw material was imported via Genoa and Livorno. The lions' heads in the side margins are ornamental motifs from Floris's repertoire; 77 Hoefnagel made them as vivacious as the grotesque long-beaked birds and insects sitting above them.

# tironian con, orum

A dead bird hangs frontally by its beak, displaying the blue-black, brown, and white pattern of its tail feathers and the undersides of its wings as well as the blood red of its belly. It is meant to represent either a pheasant or a woodpecker. Rudolf's art collections contained a detailed miniature of a woodpecker by Daniel Fröschl.<sup>78</sup> In the scrollwork at the bottom of the page, a stylized animal of the Orycteropodidae family sits between two baskets filled to the brim with fruit.<sup>79</sup>





Folio 149v

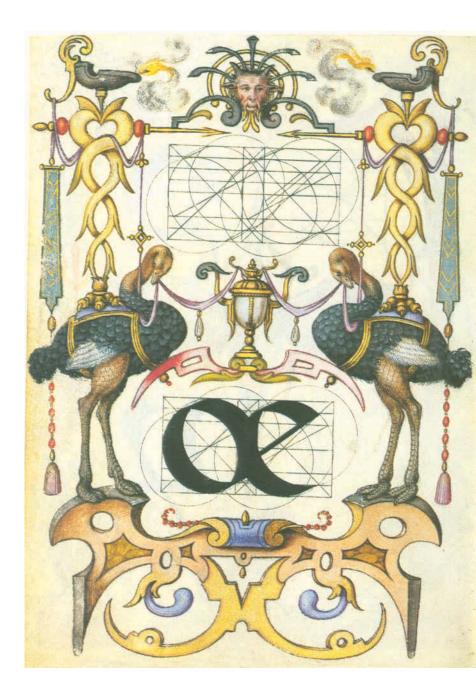
œ

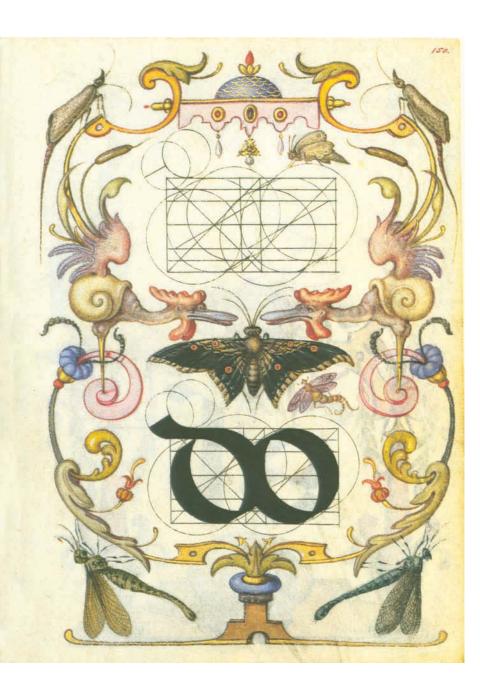
To the left and right of an urn, two ostriches stand on a scroll-work base. Their elliptical bodies echo the ovals of the letters and the scrollwork that appears above and below them. The motifs in the scrollwork at the top, the stylized tendrils, the incense burners, a satyr's mask, and the ornamental bands – all of which belong to the grotesque repertoire – have been loosely but deftly assembled. All are balanced on saddles tied to the ostriches' backs.

do

### Folio 150

This page is covered with ornamental plant and animal motifs. A large moth occupies the middle of the page. Mothlike insects and two winged cocks' heads emerging from snail shells appear in the side borders. Realistically drawn dragonflies decorate the bottom edge.





#### Folio 150v

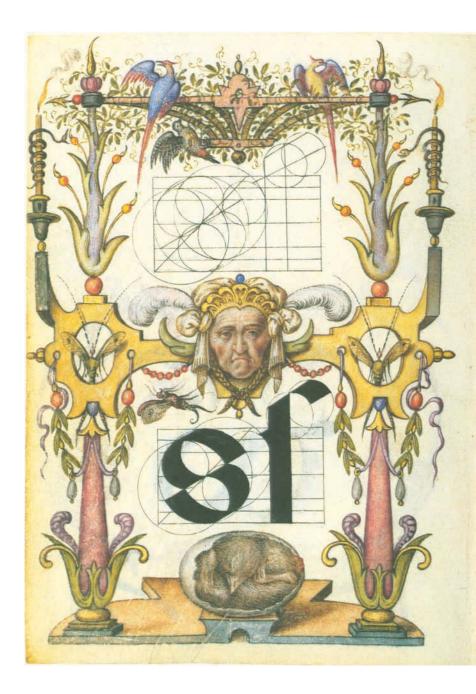
## S, S

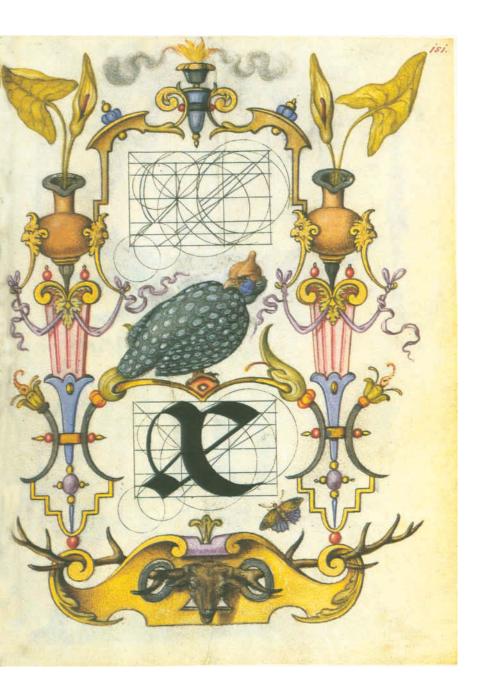
The face of a man, whose headgear recalls a Native American's feathered headdress, is represented in the middle of this page. <sup>80</sup> A bird embryo still encased in its shell echoes the form of the constructed letter s. Hoefnagel portrayed an identical bird embryo on folio 48 of the Hours of Philippe of Cleves. <sup>81</sup> By 1592, he evidently had already included the motif in a model book of his own, since his son Jacob copied it in the Archetypa studiaque patris Georgii Hoefnagelii... during that year. <sup>82</sup> The arching, fan-shaped lattice peopled by birds that terminates the grotesque in the top margin was inspired by Cornelis Floris's Veelderley Nieuwe Inventien (1557). <sup>83</sup>

Folio 151

æ

A highly stylized guinea hen decorates the middle of this page. The skull of a stag with multibranched antlers is mounted in the bottom border of the scrollwork, while in the side margins the candlelike blossoms and leaves of cuckoo pints (Arum maculatum) are realistically delineated in beaked vases. Incense is shown burning at the top of the composition.







## $ff_1$

### Folio 151v

As on the second page of the Roman majuscule alphabet, the patron of the illuminations is honored here, on the codex's final folio. This is also the only place in the manuscript where Joris Hoefnagel sheds his anonymity. The top half of the page is dedicated to Emperor Rudolf II. The double-headed eagle wears a breastplate with his initial. The two heads jointly hold a laurel wreath, a symbol of glory, in their beaks. Their talons clasp lightning flashes, signifying power. The eagle's heads are protected by a double canopy. The imperial crown is shown in the middle of the canopy above the laurel wreath. Laurel branches and palm fronds, symbols of glory and triumph, honor the emperor.

The artist used the lower half of the page as if it were a colophon. At the bottom, he painted his own emblem: a horseshoe and nail (Hoef-nagel), the nail entwined with a G (Georgius). In addition, he furnished the picture with one of his mottoes, "In defectu valor" (Value lies in imperfection). The year 1596 is given as the year the illumination was completed (Absolutum Anno 1596). A ribbon, threaded through the horseshoe, is connected at the left to various brushes, drawing pens, and a right angle; at the right are a drawing pencil and compass. Bowls and shells for mixing pigments as well as other utensils essential to the miniaturist are also represented. Emblematic of Hoefnagel's dual talents as humanist and artist are the twin depictions of owls, the bird of Minerva, wearing her helmet and holding the caduceus of Mercury in their claws. A paintbrush has been substituted for the staff of each caduceus.84 Minerva as the goddess of science and Mercury as the god of the fine arts have thus been conflated into an allegory of Hermathena. Olive branches symbolize the peace and contentment resulting from the pursuit of the arts and sciences under good government.

#### Notes

- See Vitruvius, De architectura libri X; Leon Battista Alberti, De re aedificatoria libri X (1485).
- 2. As in the letter from Johannes Lascaris to Piero de' Medici, preserved in several copies. The copy in Munich (Bayerische Staatsbibliothek, Cod. lat. 451) is quoted in G. Dehio, "Zur Geschichte der Buchstabenreform in der Renaissance" (1880), in Kunsthistorische Aufsätze (Munich, 1914), pp. 200ff. See also E. Crous, Dürer und die Schrift (Berlin, 1933), p. 11.
- 3. A. Dürer, Unterweisung der Messung (Nuremberg, 1525).
- 4. Further information will appear in the commentary volume planned to accompany this facsimile. The Gothic minuscule alphabet follows approximately that of Sigismondo de Fanti, which appears in Ugo da Carpi's Thesauro de scrittori (1535; 1st ed. 1525).
- As in almost all of the Latin alphabets of this time, the letters J, U, and W are missing.
- 6. Lexikon für Theologie und Kirche, vol. 1 (Freiburg, 1957), cols. 12, under Abecedarium; 365, under Alphabet.
- 7. See above, p. 20.
- 8. A. Nesbitt, The History and Technique of Lettering (New York, 1957), p. 35.

- 9. F. W. H. Hollstein, Dutch and Flemish Etchings, Engravings and Woodcuts Ca. 1450–1700, vol. 6 (Amsterdam, n.d.), nos. 68ff.; R. Hedicke, Cornelis Floris und die Florisdekoration: Studien zur niederländischen und deutschen Kunst im XVI. Jahrhundert (Berlin, 1913), pls. 10, 11.
- 10. See Prague um 1600 (Freren, 1988), vol. 1, pp. 95f., no. 7.
- The original language of the New Testament is Greek.
- 12. Cf. the lightning flashes and thunderheads as symbols of Jupiter's might in Vincenzo Cartari, Imagini delli dei degl' antichi, ed. W. Koschatzky (Graz, 1963), pp. 83, 88 (reprint of Venice, 1647, ed.).
- 13. Giovanni Pierio Valeriano, Hicroglyphica sive de sacris Aegyptiorum aliarumque gentium literis (Basel, 1556), bk. 50, fol. 372v.
- 14. Ibid., bk. 53, fol. 385.
- 15. L. Charbonneau-Lassay, Le bestiaire du Christ, 2d ed. (Milan, 1970), pp. 869ff.
- 16. Valeriano (note 13), bk. 50, fol. 369.
- 17. Der Physiologus, ed. Otto Seel (Zurich and Stuttgart, 1960), pp. 50f., no. 55.
- 18. Cf. Joannes Sambucus, Emblemata, cum aliquot nummis antiqui operis (Antwerp, 1564), p. 74.

- 19. Cf. D. Forstner, Die Welt der Symbole (Innsbruck, Vienna, and Munich, 1961), pp. 175ff. A detailed account can be found in C. Meier, Gemma spiritalis: Methode und Gebrauch der Edelsteinallegorese vom frühen Christentum bis ins 18. Jahrhundert, pt. 1 (Munich, 1977).
- 20. Cf. Hoefnagel's illuminations in Vienna Cod. 1784, fol. 125v, and in Vienna inv. 975, fol. 43.
- 21. As in Vienna inv. 975, fol. 106. For the dog as a symbol of faithfulness, see also Cesare Ripa, *Iconologia* (Padua, 1611), pp. 164f.
- T. A. G. Wilberg Vignau-Schuurman, Die emblematischen Elemente im Werke Joris Hoefnagels, vol. 2 (Leiden, 1969), fig. 63.
- 23. As in Paolo Giovio, Dialogo dell' imprese militari e amorose, ed. M. L. Doglio (Rome, 1978), p. 46.
- 24. On folios 15, 53, 91.
- 25. Vienna, Graphische Sammlung Albertina. See O. Benesch, Die Handzeichnungen der niederländischen Schulen des XV. und XVI. Jahrhunderts: Beschreibender Katalog der Handzeichnungen, vol. 2 (Vienna, 1928), no. 338.
- 26. Georg Braun and Frans Hogenberg, Civitates orbis terrarum, vol. 5 (Cologne, ca. 1598), no. 5. The depiction of the place itself is dated 1564; that of a Canis leporarius ex Indiis occidentalibus allatus at the bottom left is dated 1565.

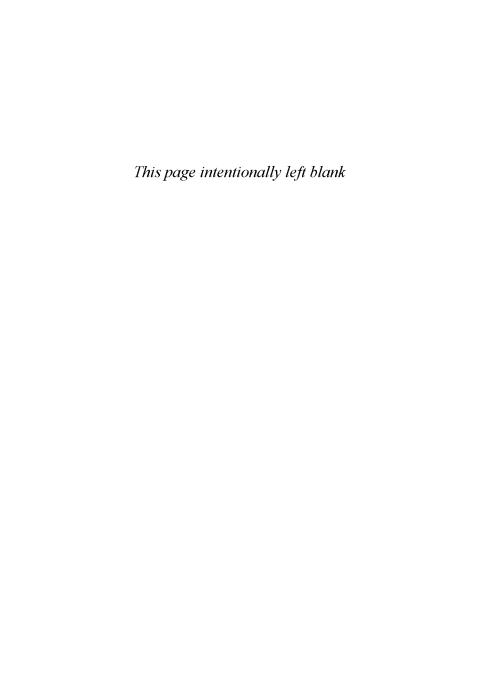
- 27. Vignau-Schuurman (note 22), fig. 22.
- 28. Ibid., fig. 5.
- 29. Forstner (note 19), pp. 357ff.; Charbonneau-Lassay (note 15), pp. 865ff.
- 30. Reallexikon zur deutschen Kunstgeschichte, ed. O. Schmitt, vol. 2 (Stuttgart, 1948), col. 546.
- 31. Ibid. The Flemish nobleman Philips Marnix van Sint Aldegonde, who was approximately Hoefnagel's age and was mayor of Antwerp at its fall in 1585, published an antipapal satirical poem, "De Bienkorf der H. Roomsche Kercke," in 1569. It was popularized through an English translation by George Gilpin and a German one by Johann Fischart, both published in 1579.
- 32. Various examples of falcons symbolizing hope are given in Vignau-Schuurman (note 22), vol. 1, p. 120, sect. 209. Cf. Vienna inv. 975, fol. 33.
- 33. As in Vienna inv. 975, fols. 76, 99. See also H. W. Janson, Apes and Ape Lore in the Middle Ages and the Renaissance (London, 1952), pp. 287ff.
- 34. On the shield of faith, see Ep. 6.16. Also cf. J. B. Knipping, Iconography of the Counter Reformation in the Netherlands, vol. 1 (Nieuwkoop and Leiden, 1974), pp. 92ff.

- 35. Valeriano (note 13), bk. 49, fols. 366ff.
- 36. Ibid., bk. 42, fols. 314vff.
- 37. See Vignau-Schuurman (note 22), pp. 90ff., sect. 139ff.
- 38. Reallexikon zur deutschen Kunstgeschichte, vol. 4, ed. O. Schmitt, E. Gall, and L. H. Heydenreich (Stuttgart, 1958), cols. 406f.
- 39. Valeriano (note 13), bk. 44, fol. 330: universi Deus.
- 40. Forstner (note 19), p. 209.
- 41. Valeriano (note 13), bk. 17, fol. 127v.
- 42. Ibid., bk. 44, fols. 326ff.: Deus opt. max.
- 43. Jacobus Typotius, Symbola divina et humana pontificum, imperatorum, regum, vol. 1 (Prague, 1601), pl. 25, no. 37.
- 44. The text reads: D. O. M. Rud. II. Caes. Aug. et exercitibus in Turcam militantibus hoc animi et virtutis monumentum fierif. 15.96.
- 45. For example, in Claude Paradin, Les devises heroiques (Antwerp, 1563), fol. 23v. See also Joachim Camerarius, Symbolorum et emblematum ex re herbaria desumtorum centuria una (Nuremberg, 1593), emblems 49, 87.
- 46. Forstner (note 19), pp. 597f.; Reallexikon zur deutschen Kunstgeschichte, vol. 1, ed. O. Schmitt (Stuttgart, 1937), cols. 705ff.
- 47. Charbonneau-Lassay (note 15), pp. 628ff., esp. 636ff.

- 48. Der Physiologus (note 17), pp. 28f., no. 32.
- 49. As in Vienna Cod. 1784, fol. 33; Vienna inv. 975, fol. 109 (see Vignau-Schuurman [note 22], vol. 1, fig. 68). Cf. Joachim Camerarius, Symbolorum et emblematum ex volatilibus et insectis desumtorum centuria tertia (Nuremberg, 1597), emblem 20.
- 50. See also Vienna Cod. 1784, fol. 221v; Vignau-Schuurman (note 22), vol. 1, p. 86, sect. 131; Charbonneau-Lassay (note 15), pp. 551f.
- 51. See N. Jorga, Geschichte des osmanischen Reiches, vol. 3 (Gotha, 1910), p. 321. A report by Nicolaus Gabelmann describing the siege of Hatvan can be found in Vienna, Staatsarchiv, Hungarica 1596.
- 52. Cf. Sambucus (note 18), p. 74.
- 53. Whereas the psalm speaks of cedars, the illumination shows pines.
- 54. To celebrate their triumphs, the Greeks used to decorate trees with weapons left behind by their enemies.
- 55. See Hedicke (note 9), pl. 7, 2ff.
- 56. Cf. John 2:17 and Rom. 15:3.
- 57. From the Pourtraicture ingenieuse de plusieurs facons de masques... See Hollstein (note 9), vol. 6, nos. 68–85. See also Hedicke (note 9), text vol., pp. 20ff.; pl. vol., pl. 10, no. 16; C.–P. Warncke, Die ornamentale Groteske in Deutschland 1500–1600, vol. 1 (Berlin, 1979), nos. 425ff.

- 58. Hedicke (note 9), pl. 11, no. 12; Warncke (note 57), no. 430.
- 59. Hedicke (note 9), pl. 11, no. 3; Warncke (note 57), no. 437.
- 60. For the owl as the bird of Minerva and the symbol of wisdom, see Cartari (note 12), p. 193. For the mirror as a symbol of truth, see Cesare Ripa, *Iconologia* (Amsterdam, 1644), p. 590.
- 61. Hedicke (note 9), pl. 10, no. 12; Warncke (note 57), no. 435.
- 62. Cf. Vienna Cod. 1784, fol. 60v; Vienna inv. 975, fols. 1v, 13 (among others).
- 63. Hedicke (note 9), pl. 11, no. 7; Warncke (note 57), no. 438.
- 64. Cf. Vignau-Schuurman (note 22), vol. 1, p. 187, sect. 360ff.
- 65. Cf. S. Schéle, Cornelis Bos: A Study of the Origins of the Netherland Grotesque (Stockholm, 1965), p. 187, no. 15; pl. 52, no. 191.
- 66. Cf. Janson (note 33), pp. 239ff.
- 67. The complete title is Veelderley Veranderinghe van Grotissen ende Compertimenten. See also Hollstein (note 9), vol. 6, nos. 14-27.
- 68. See Vignau-Schuurman (note 22), fig. 48.
- 69. Hedicke (note 9), pl. 10, no. 13; Warncke (note 57), no. 442.
- 70. Hedicke (note 9), pl. 11, no. 9; Warncke (note 57), no. 436.

- 71. Fol. 54. See Vignau-Schuurman (note 22), fig. 40.
- 72. For the dead bird as a pictorial subject, see F. Koreny, Albrecht Dürer und die Tier- und Pflanzenstudien der Renaissance (Munich, 1985), pp. 40ff.
- 73. Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, Cod. min. 130, fols. 91, 91v.
- 74. Vienna, Graphische Sammlung Albertina. See esp. Koreny (note 72), pp. 70ff., 84f., no. 22.
- 75. Koreny (note 72), pp. 86ff., nos. 23ff.
- 76. Ibid., pp. 40ff., 50f., no. 8.
- 77. Hedicke (note 9), pl. 7, 2ff.
- 78. Vienna, Österreichische Nationalbibliothek, Handschriften- und Inkunabelsammlung, Cod. min. 42, fol. 54. See Koreny (note 72), pp. 66f., no. 16.
- 79. See Brehms Tierleben, vol. 10, ed. Ludwig Heck (Leipzig, 1922), pp. 479ff.
- 80. Cf. Schéle (note 65), fig. 169.
- 81. Brussels, Bibliothèque Royale Albert Ier, Ms. IV 40.
- 82. Archetypa studiaque patris Georgii Hoefnagelii...([Frankfurt], 1592), pt. 3, fol. 9.
- 83. Hedicke (note 9), pl. 6.
- 84. Cf. Hoefnagel's Allegory for Abraham Ortelius of 1593 (Antwerp, Stedelijk Prentenkabinet). See Vignau-Schuurman (note 22), vols. 1, pp. 195ff.; 2, fig. 119.



Codicological Description of the Manuscript Ms. 20 (86.MV.527)

Prepared with the assistance of Linda Ogden and Nancy Turner

DIMENSIONS: 16.6 x 12.4 cm (6%16 x  $4^{7/8}$  in.). Height and width trimmed. (H. originally at least 17 cm [ $7^{1/4}$  in.] as indicated by the tab on fol. 46 [upper portion of Roman majuscule S]).

Support and Interleaving: 145 folios. Fols. 1–129 of fine white vellum (thickness: .06–.15 mm) written and illuminated on recto; fols. 130–51 of heavier vellum (thickness: .15–.25 mm) written and illuminated on recto and verso. Fols. 85, 86, 105, 106, 129 of paper. Interleaving with sixteenth-century fine white laid paper bearing a watermark of an eagle (close to Briquet 224). A paper singleton is tipped to the inside of a vellum bifolium, with a paper bifolium wrapped around the outside of the vellum bifolium; this followed by a vellum bifolium with a paper singleton tipped inside. Pattern repeats except in quires 68, 70, 72, where the outer wraparound is of coarse tan laid paper identical to that of the flyleaves.

RULING: Fols. 1-129, text pricked and blind ruled. On most of these folios, the image area is ruled in metalpoint along the fore, inner, and lower edges.

Collation: Folios numbered 1–151 in red ink in a modern hand (fol. 8 excised after this foliation).  $a^2$ ,  $b^4$ ,  $1-3^2$ ,  $4^2$  (+2, fol. 8, an inserted singleton, now lacking),  $5^2$  (1 tipped to 2, lacks interleaving),  $6-17^2$ ,  $18^4$ ,  $19-22^2$ ,  $23^2$  (+3, fol. 50),  $24-40^2$ ,  $41^2$  (fols. 85, 86 paper),  $42-50^2$ ,  $51^2$  (fols. 105, 106 paper),  $52-54^2$ ,  $55^2$  (+2, inserted singleton of gold beater's skin, now lacking),  $56-61^2$ ,  $62^2$  (+3, fol. 129, of paper, tipped to interleaving),  $63-73^2$ ,  $c^4$ ,  $d^2$  (+1).

Media: Fols. 1–129 written by Georg Bocskay in a variety of inks including brown, carbon black, and blue, with gold and silver leaf and painted gold; illuminated by Joris Hoefnagel in watercolor and gouache, painted gold and silver; some folios with metalpoint underdrawing. Fols. 130–51 by an unknown scribe. Letter grids in brown ink; Roman majuscules and Gothic minuscules in carbon black ink. Illuminations by Joris Hoefnagel in watercolor and gouache, carbon black ink, painted gold and silver, painted gold lettering.

BINDING: Full, straight-grain, red morocco leather over pasteboards, with gold tooling on boards and spine. Possibly eighteenth-century German. Green silk endbands. Marbled paper upper and lower pastedowns. Flyleaf sections of coarse tan laid paper (with partially visible watermark of a heart, possibly inscribed with the initial W surmounted by a cross). Gilt on all edges. Scallop design tooling of edges at endbands. Bookplate (upper pastedown): nineteenth-century engraved bookplate with castle and the name "Fritz Gans" in ligature. Inscribed with brown ink on the top verso of the fifth flyleaf, Georgii Bochkaj / Mira calligraphiae monumenta / et pictoriae patientiae / diligentissima indicia. / Ab an. 1562 ad 1596.

