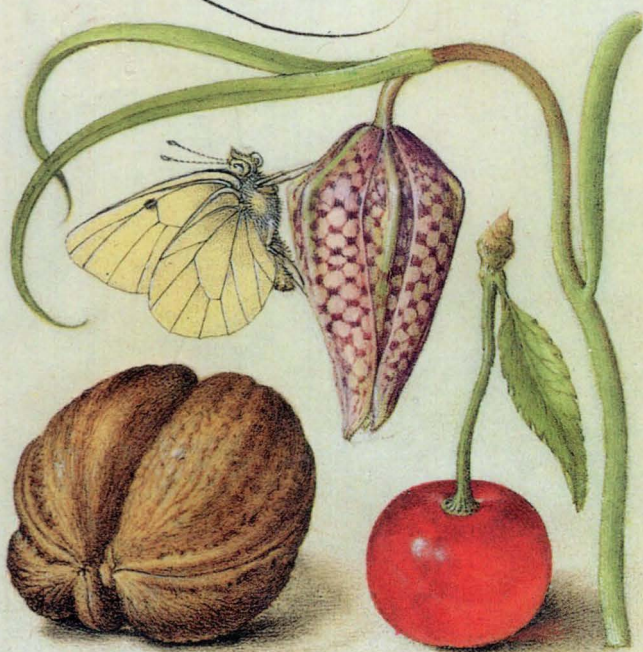


Nature Illuminated

CELI DEVS SANCTISIME
QUAM LUCIDVM CENTRVM TO-
LI CANDORE PINGIS IGNEO
AVGENS DE CORO LUMINI
QVARTO DIE QVI FLAMMA SO-
LIS ROTAM CONSTITVENS LV-
NA MINISTRANS ORDINEM
VAGOSQVE CVRSVS SYDERVM



FLORA AND FAUNA FROM THE COURT
OF THE EMPEROR RUDOLF II

THE COURT OF HOLY ROMAN EMPEROR
Rudolf II produced nothing more amazing than the *Mira calligraphiae monumenta*, a brilliant demonstration of two arts—calligraphy and miniature painting. The project began when Rudolf's predecessor commissioned the master calligrapher, Georg Bocsday, to create a model book of calligraphy. A preeminent scribe, Bocsday assembled a vast selection of contemporary and historic scripts. Many were intended not for practical use but for virtuosic display. Years later, at Rudolf's behest, court artist Joris Hoefnagel filled the spaces on each manuscript page with images of fruit, flowers, insects, and other natural minutiae. The combination of word and image is rare and, on its tiny scale, constitutes one of the marvels of the Central European Renaissance.

The manuscript is now in the manuscripts collection of the J. Paul Getty Museum. A selection of forty-one of its pages is presented here as testimony to the artistic imagination and skill of its creators. Another volume reproduces a similar number of pages from Hoefnagel's *Abecedarium*, bound in the same codex.

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Miserere mei deus secundum magnam misericordiam tuam; et secundum multitudinem miserationum tuarum dele iniquitatem meam. Amplius lava me ab iniquitate mea: Et a peccato meo munda me. Quoniam iniquitatem meam ego confesso, et peccatum meum contra me est semper. Tibi soli peccaui et malum contra te feci; ut iustificeris in sermonibus tuis, et vincas cum iudicaris. Ecce enim in iniquitatibus conceptus sum; et in peccatis concepit me mater mea. Et veritatem dilexisti; in certa et occulta sapientia tua manifestasti mihi. Asperges me domine hyssopo et mundabor: lavabis me Et super nivem dealbabor. Auditui meo dabis gaudium, et letitiam; et exultabunt ossa humiliata. Averte faciem tuam a peccatis meis, et omnes iniquitates meas dele. Cor mundum crea in me deus; et spiritum rectum innova.



Nature Illuminated

FLORA AND FAUNA
FROM THE COURT OF THE
EMPEROR RUDOLF II

Lee Hendrix and
Thea Vignau-Wilberg

THE J. PAUL GETTY MUSEUM
LOS ANGELES

The illustrations in this book have been selected from
Mira calligraphiae monumenta,
first published by the J. Paul Getty Museum
and Thames and Hudson, Ltd. in 1992.
The texts have been adapted from
the same volume.

Christopher Hudson, *Publisher*
Mark Greenberg, *Managing Editor*

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On the front cover:
Folio 40 (Imaginary butterfly, snakeshead, English walnut and sweet cherry)

On the frontispiece:
Folio 52 (Spanish chestnut, English iris and European filbert)

Printed and bound in Singapore by C.S. Graphics

Introduction

THE miniatures reproduced here are from one of the most precious books of the European Renaissance, the *Mira calligraphiae monumenta* (the *Model Book of Calligraphy*) of Rudolf II. It is the work of two people who never actually met, and its origins are curious and complex.

In 1561–62 the master calligrapher Georg Bocskay, imperial secretary to the Holy Roman Emperor Ferdinand I, created a *Model Book of Calligraphy*, consisting of 128 folios and demonstrating a vast selection of contemporary and historical scripts. It was intended as proof of his own pre-eminence among scribes and was a work of exceptional visual splendor, being written on the finest white vellum and lavishly embellished with gold and silver. Bocskay was born in Croatia, then part of Hungary. Clearly an outstandingly gifted master of his art, he was a valued, and highly paid, member of the Imperial court at Vienna, where he was described as ‘scribe,’ ‘secretary’ and ‘court historian’ and where his *Model Book of Calligraphy* was written. He also served Ferdinand’s successor Maximilian II, and died in 1575.

More than fifteen years after Bocskay’s death, Ferdinand I’s grandson, Emperor Rudolf II, commissioned Europe’s last great illuminator, Joris Hoefnagel (1542–1601), to illustrate the calligrapher’s work. Hoefnagel was a man of immense learning and devised an ingenious figural response to Bocskay’s scripts. Marshalling all the resources of pictorial illusionism, he sought to demonstrate the superior power of images over written words. His 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.

The courts of Rudolf and his father, Maximilian II, were among the principal centers of sixteenth-century botany. A number of prominent Netherlandish botanists, like Carolus Clusius and Rembert Dodoens, were at one time employed by him. Both Maximilian and Rudolf built gardens in which to cultivate botanical rarities, including those in the grounds of the imperial court in Prague. It is perhaps in this context that one should view the exquisite illuminations of plants and animals found in Rudolf's *Mira calligraphiae monumenta*.

It is clear that in his illuminations for the book Hoefnagel's project is part of the much more general attempt at court to amass and array knowledge, and particularly knowledge about the natural world. Emperor Rudolf II founded the vast and renowned collections which were 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 and Albrecht Dürer's *Madonna of the Rosary* – and the so-called *Kunstammer*, an encyclopedic assortment of natural specimens, fossils, bones, minerals, scientific instruments, sculpture, goldsmith's work, illustrated manuscripts, jewels and other objects. The *Kunstammer* was intended to represent the contents of the entire world divided according to the categories of artifice and nature. In all likelihood, Bockskay and Hoefnagel's manuscript was housed there.

In the production of an illuminated manuscript, it was quite normal for the writing and the illuminations to be carried out by different people and for the writing to precede the illustrations. 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. However, the *Mira calligraphiae monumenta* marks something of a

watershed in the traditional relation between the two elements, by constructing an explicit competition between them. Hoefnagel's decorative programme in effect transformed Bockskay's original 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. Michelangelo, for example, wrote a famous letter asserting sculpture's supremacy over painting. Among Renaissance *paragoni*, however, Hoefnagel's is unique, insofar as it is the first extensive work to explore the relation of painting to writing.

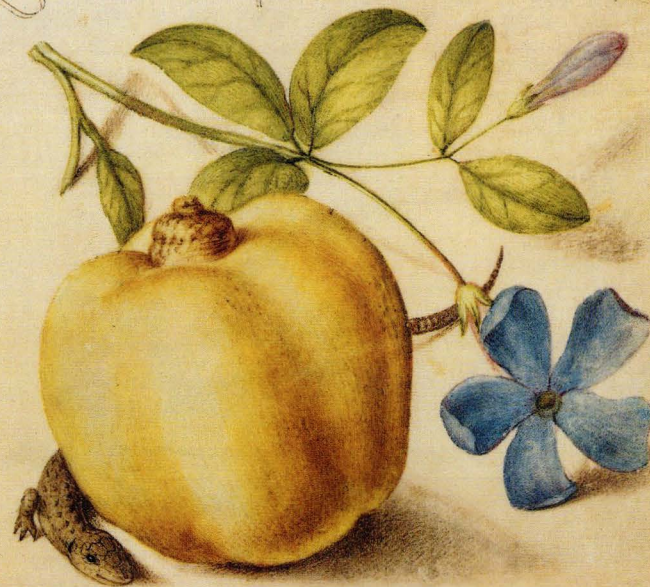
Bockskay could not have anticipated the decorative program Hoefnagel devised. The illuminator's program hinged on the pre-existence of the script and his own capacity to formulate a witty and often satirical figural response to it. His illuminations consist of a diverse assemblage of natural specimens 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, 51), anemone (fols. 13, 30), various lilies (fols. 43, 92), fritillary (fol. 47), and daffodil (fol. 12). A number of these, as well as other botanical specimens including the tomato (fol. 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), rose (fols. 10, 15), columbine (fols. 12, 28), violet (fol. 20), and pansy (fol. 18). 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. 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.

The *Model Book of Calligraphy* 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, it points directly to the emergence of floral still life painting, an essentially new artistic genre of the seventeenth century, whose early centers of production and collecting were the Netherlands and the court of Rudolf II at Prague. Bockskay'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.

Captions to the plates on p. 57 ff.


 am appropinquaret dominus
 Hierusalem: videns civitate
 fleuit super illam, et dixit: quia
 si cognovisses et tu: quia venient di-
 es in te, et circundabunt te inimici
 tui vallo: et circundabunt te: et co-
 angustabunt te undique: et ad ter-
 ram prosternent te: eo quod non co-
 gnovisti tempus visitationis tue.

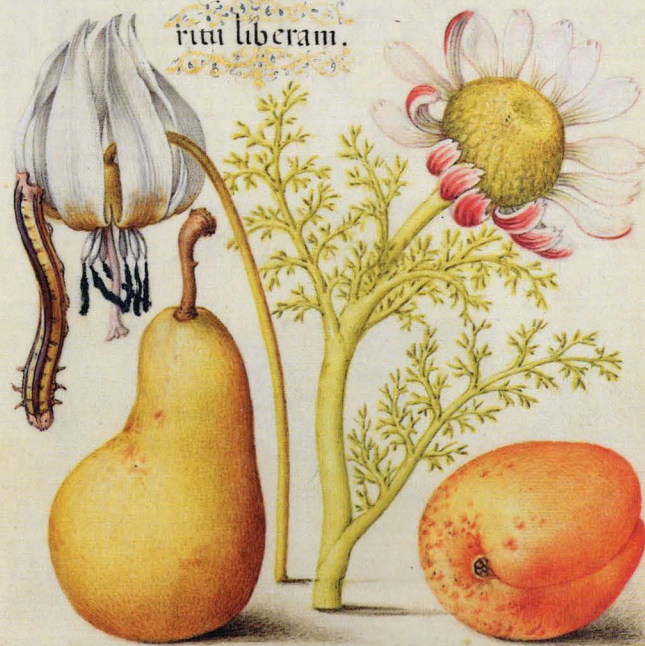


Gloria enim parentum natis pre-
clarus est magnificusque thesa-
urus. Ornatus quidam est temperantia
et a voluptatibus abstinentia. Vir sapi-
ens ornat munus suum suauitate ser-

monis. Volucres associant se sui
similibus, ita ueritas adiungit
se his, qui obediunt illi. Mul-
ti ceciderunt per aciem
gladij, sed non tam
multi quam per
virulentas lin-
guas.



Et amorem Dei amor proximi gignitur?
per amorem proximi amor Dei nutritur.
Agros et vrbes sapientia et nauem gubernat. Gau-
dio afficitur ille, qui discendo et contemplando.
ipsa intelligentia delectatur. Memini est ignoran-
dum animam hominis immortalem esse, et ab inte-
ritu liberam.



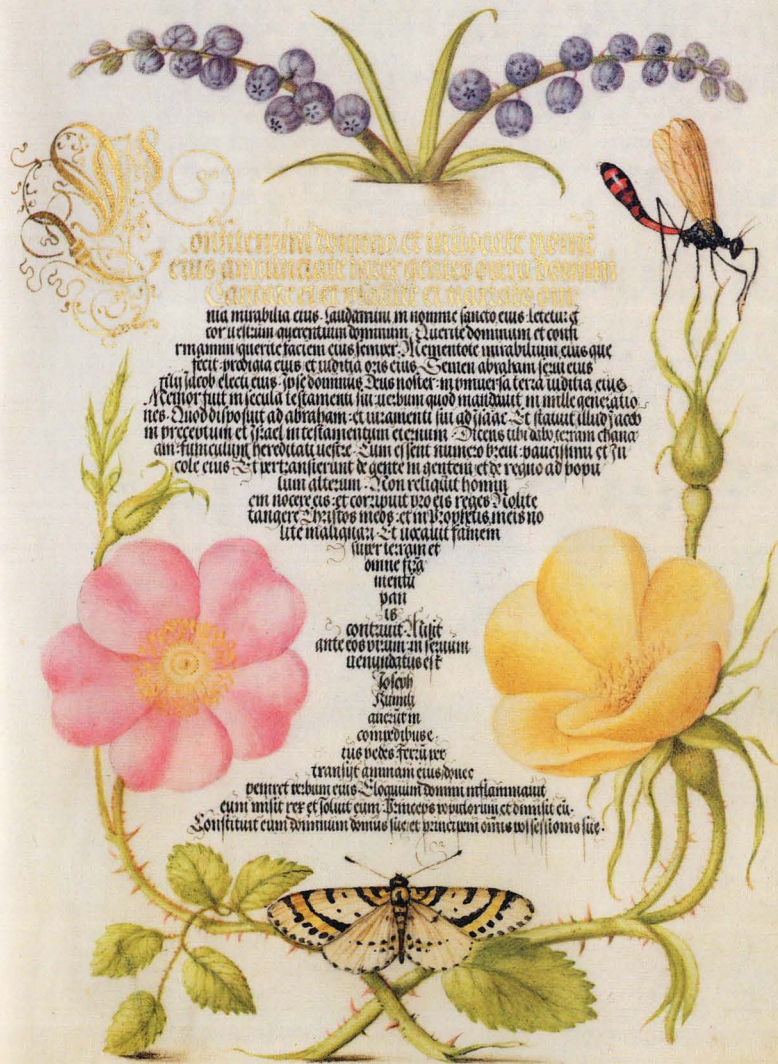
BEATI quorum remissa sunt iniquitates et quorum reuera sunt peccata. Deus vir cui non imputauit dominus peccatum nec est in spiritu eius dolus. Quoniam tacui inueterauerunt ossa mea dum clamarem tota die. Quoniam die ac nocte grauata est super me manus tua, conuersus sum in et uinna mea dum cogitatur spina. Delictum meum cognitum nobis feci, et in iniquitatem meam non abscondi. Dixi confitebor aduersum me in iustitiam meam domino, et tu remisisti impietatem peccati mei. Pro hac orabit a de te omnis sanctus, in tempore opportuno. Verumtamen in diluuiis Aquarum multarum ad eum non approximabunt. Tu es reliquium meum a tribulatione, neque circundedit me: exultatio mea, neque spe a circumdantibus me. Intellectum tibi dabo et instruam te in uia hac quia praedixi signabo super te oculos meos. Noli fieri sicut equus: ei mulus uigilans. Non est intellectus. In chamo et freno maxillas eorum confringe: qui non approximant ad te. Multa flagella peccatoris. Sperantes autem in domino misericordia circumdabit. Laxauimus in domino et exultate iusti et gloriamini omnes recti corde.



Afflictus sum, et humiliatus sum nimis, rugiebat a gemitu cordis mei. Domine ante te omne desiderium meum, et gemitus meus a te non est absconditus. Cor meum conturbatum est, dereliquit me uirtus mea, et lumen oculorum meorum, et ipsum non est mecum. Amici mei et proximi mei, aduersum me appropinquauerunt, et exteterunt, et qui inquirebant mala mihi locuti sunt uanitates.



Quoniam iniquitate mea supergressi sunt caput meum, & sicut onus
 graue grauatae sunt super me. Putruerunt & corrupte sunt
 cicatrices meae: a facie insipientiae. Neque miser factus sum & cur-
 uatus sum usque in finem tota die contristatus ingrediebar. Quo-
 niam lumbi mei impleti sunt illusionibus: & non es sanctas re-



omnipotenti domino et inuocabit nomen
 eius annuntiabit miser gentes opera domini
 Cantabit ei et nabit ei et narrabit eum

nia mirabilia eius. Laudatum in nomine sancto eius letatur
 cor uelut in ageratum domini. Quare dominum et con-
 tinuam querit faciem eius semper. Accipiente mirabilium eius que
 fecit: prodigia eius et uiderit eis eius. Scien abraham seu eius
 filii iacob electi eius. Ipsi dominus deus nobis in omnia terra uidit eius
 Accipit in secula testamentum sui uerbum quod mandauit in mille generatio-
 nes. Quod diu posuit ad abraham et testamentum sui ad iacob. Et statuit illud iacob
 in preceptum et israel in testamentum eternum. Dicens tibi abo terram chanan
 an-tumculum hereditati uelut. Sum ei sunt numero breui paucissimi et su-
 cole eius. Et transierunt de gente in gentem et de regno ad popu-
 lum alterum. Con reliquit homin-
 em nocere eis et corripuit pro eis reges. Nolite
 tangere. Nolite meos et in d'opis meis no-
 lite malignari. Et uocauit famem

super terram et
 domine terram
 menta
 pan-

concreuit. Nihil
 ante eos uerum in seum
 uenit datus est

solam
 famem
 auerit in
 comedibus

eius pedes terram

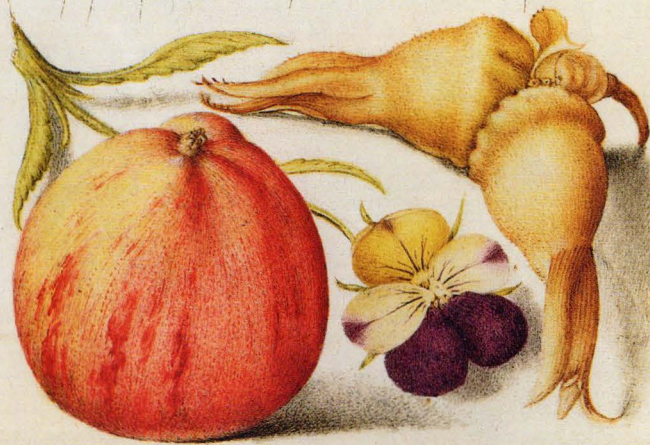
transiit animam eius donec

periret rebum eius. Loquuntur domini in flammam
 cum in lit res et solut cum. Vincere uentorum et d'omne cu-
 Constituit cum dominum domus sue et principem omni uoluntate suo.

uatendum est igitur quid ipsa lepra significet. Non enim anati:
 sed mundani dicuntur: qui ea caruerunt. Colori quippe utrum est:
 non uigilanti: aut incoritati sen suum atque membrorum.
 pro i ergo non ab urae intelliguntur: qui scientiam uere iusti non
 habent: et cetera



Domine non est exaltatum cor meum: neque elati sunt oculi mei. Neque
 ambulau in magnis, neque in mirabilibus Super me. Si non humili
 ter sentiebam, sed exaltaui Animam meam. Sicut Ablatus est super Alla
 tem suam, Ita retributio in anima mea. Speret Israel in Domino, ex hoc
 nunc. Et usque in seculum. Memento salutis Auctoris. Quod uoluit quondam
 corporis. Ex illibata Virgine. Nascendo formam sumptis. Maria ma
 ter gratia. Mater misericordia. Tu nos ab hoste protege. Et hora mortis
 suscipe. Gloria tibi domine qui natus es de uirgine. Cum patre Et san
 cto spiritu in sempiterna secula. Amen. Quia Apud Dominum misericor
 dia, Et copiosa Apud Eum Redemptio. Et ipse Redimet Israel, ex aeterno.



sanctae animae domini:

Foram purus mori in

placuit mori. Ita reperi inulatum

anale. Inq. res cum ex hoc beatam me

dicunt omnes generationes. quia feru et cet.



ue qua pro domo lumine humanitati copulatur. qua ta

minica sententiae Diffinitione Distinguitur. Si in pau

tere et Debile conferatur. Nam hospitalem esse

temperatur. affectu Quarta est postremo Qua

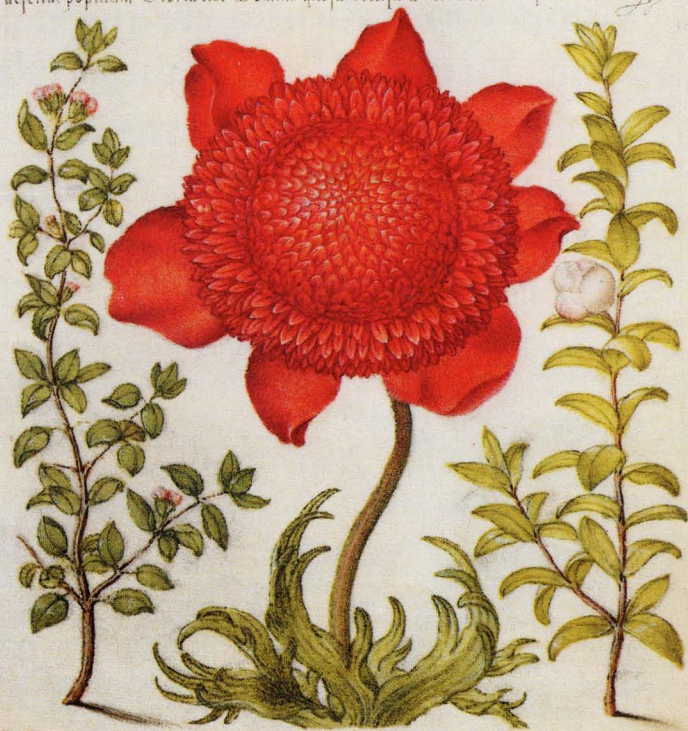
si emeritae militia. Po. continen. Darum super. Dum et



Dieses Mandes in
 der dreyerley
 der dreyerley
 der dreyerley
 der dreyerley
 der dreyerley



Ad cenam Agni prouidi et stolis albis candidi: post transitum Maris rubri Christi canamus Principi. Cuius corpus sanctissimum in Ara crucis torridum: cruce eius Reso gustando uiuimus deo. Protecti pascha uespere ac deusfante Angelo: erepti de durissimo Pharaonis Imperio. Iam Pascha nostrum Christus est qui immolatus Agnus est: sinceritatis azyma caro eius oblata est. O uere digna hostia per quam fracta sunt tartara: redempta plebs captiuata reddita uita premia. Cum surgit Christus tumultu uictor redit de barathro: tyrannum trudens uinculo et referans paradisum. Quasumus auctor Oium In hoc Paschali gaudio: ab omni mortis impetu tuum defende populum Gloria tibi Domine qui surrexisti a mortuis: cum patre et cat.



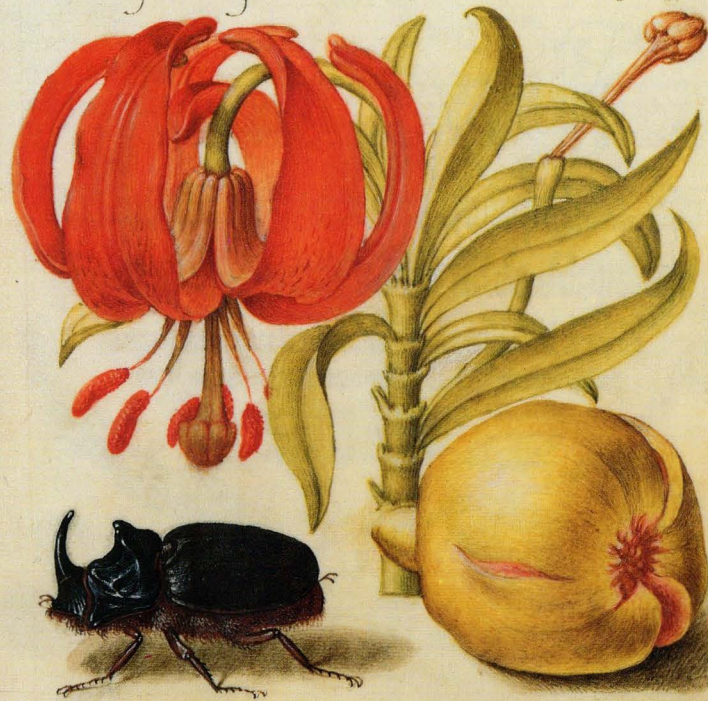
Resulcorone caustior atque
ritus sublimior: qui con-
stanti seruulo reddis
perannæ præmium. Oa suppre-
cante ætate: oblatu. huius
optimæ emissionem arminu.
rumpendo nexum uinculi.



Omnipotens et adificator Deus qui celos celozq; virtutes. Inuabili dispensatione regis et omnia iusto iudicio discernis. Qui de uiuis et electis lapidibus aeternum Lordis habitaculum tuæ maiestati Dedicasti. Te per sancte et indiuidue trinitatis nomen et Confessionem omnium fidelium Ego miserius immundis labijs exorare præsumo. Ut per intercessionem et Merita sanctorum quorum hodie festa celebramus. Vel quoz hic sacrae pausant. Reliquia mei cordis tenebras lumine tuæ indulgentiæ illustrare. et pectori mei duritiam tuo suauis iugo edomare digneris. Ne despicias in me misero creatura tua. Omnipotens Deus opus manuum tuarum. Sed in hoc templo. Cuius hodie diem dedicationis celebramus. exaudi preces mei indigni famuli tui ne per innumeras facinororum meorum Ruinas mihi misero illa et cetera.



Interrogauit Iesum unus ex phariseis legis doctor tentans eum magister, quid est mandatum magnum in lege. Magistrum uocat cuius non uult esse discipulus, simplicissimus interrogator. Et malignissimus insidiator: de magno mandato interrogat qui nec minimum obseruat. Ille enim debet et cetera.



Ceterum Domini inquit patris
 amque derelinquent. Peregre profe-
 ctus est in regionem longinquam.
 Quid est longinquus? res quam
 moribus separari aliis ducere
 tum esse non ieris: et quasi et cet.



Adesto domine
 famulis tuis et
 perpetuam bene-
 dictam laudem
 reponentibus
 ut his qui te ave-
 tor et cetera
 tor et cetera





Omne exaudi Orationem meam: et clamor meus ad te veniat. Non auer-
tas faciem tuam a me in quacunque die tribulor inclina ad me Au-
rem tuam. In quacunque die inuocauero te: uelociter exaudi me. Quia defecerunt
sicut fumus dies mei: ossa mea sicut cinis aruerunt. Percussus sum ut
fignum: et aruit cor meum quia oblitus sum comedere panem meum. Auoce
gemitus mei: adhefit os meum carni meae. Similis factus sum pellicano solitu-
dinis factus sum sicut nicticorax in domicilio. Vigilaui et factus sum sicut pas-
ser solitarius in tecto. Foras die exprobrabant mihi inimici mei et qui laudabant
me aduersum me iurabant. Quia cinerem tuncquam panem manducabam. et
potulum meum cum fletu miscebam. A facie tua indignationis tuae quia et



NIBVS DOMINE SVAE ET CAT-
SICVT OCVLVS ANGLIAE IN MA-
NIBVS DOMINORVM SVORVM
CAT OCVLVS SERVORVM IN MA-
NIBVS HABITAS IN CANTIS ECCE SI
A DE LEVAVI OCULOS MEOS



ΕΞ ΘΡΟΣΤΑΡ ΜΟΙ ΚΕΙΝΟΣ ΟΜΩΣ ΑΙΔΑΟ
 ΠΥΛΗΙΝ. ΟΣ Χ' ΕΤΕΡΟΝ ΜΕΝ ΚΕΥΘΗ
 ΕΝΙ ΦΡΕ ΙΝ, ΑΛΛΟ ΔΕ ΕΙΠΗ ΟΥΚ ΑΓΑΘ
 ΟΝ ΠΟΔΥΚΟΙΡΑΝΗ ΕΙΣ ΚΟΙΡΑΝΟΣ ΕΣΤΩ.
 ΕΥΧΕΑΡΑΙ, ΠΑΝΤΑΣ ΔΕ ΘΙΩΝ ΧΑΛΤΕΟ
 ΥΣ ΑΝΘΡΩΠΟΙ

Αλεξανδρος ο βασιλεὺς ἰδὼν Διογένην κοιμώμενον ἐν
 πύλῳ ἔφη, πῆθε φρενῶν, ὃ δὲ φιλόσοφος, ἀναστὰς ἔφη ὡ
 βασιλεὺς κέγιστε, θέλω τῶν ἡμετέρων ἡ φρενῶν πύλον.
 ἢς ἂν παρὰ σοὶ δορυχῶσιν αἱ φρενες.
 Οὗτος βαρὺ ἐπιαιτέσσης τῆς αὐτοῦ δολωπιαδός
 ἔφη, ἐν αὐτῇ τῷ εἶω τρεῖς μεταμελείας εἶναι.
 μίαν μὲν ἐπὶ τῇ γυναικὶ διζεύσαι λόγον ἀπορροῇ
 τὸν ἕτερον δὲ πλεῦσαι, ὅπως δυνάτῃ περὶ τοῦ αἵματος τὴν δὲ
 τρίτην, ὅτι τρεῖς ἡμέρας ἀδιάθετος εἴμινεν.



אשרי

קאיש אשר לא קלה בעצרת רשעים
 וקורה קפאוס לא עמד וכמושכ לזים
 לא ישב: פיו אם כהורה וקוח קפצו
 וכהורה וקפח יונם ולילה: וקח

B

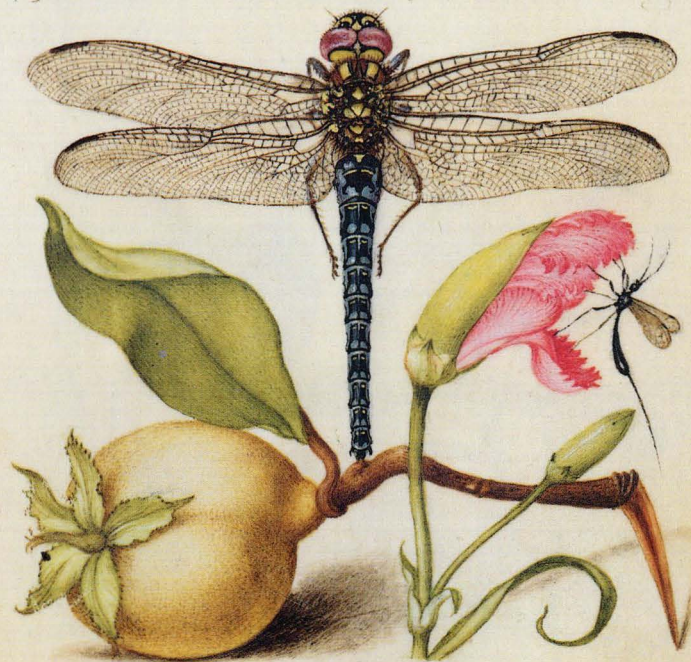
αὐτοῦ οὐκ ἔστιν ἡμετέρας τῶν ἀπορροῇ καὶ πλεῦσαι καὶ ἀδιάθετος
 εἶναι. ὁ δὲ φιλόσοφος, ἀναστὰς ἔφη ὡς βασιλεὺς κέγιστε, θέλω
 τῶν ἡμετέρων ἡ φρενῶν πύλον. ἢς ἂν παρὰ σοὶ δορυχῶσιν αἱ
 φρενες. Οὗτος βαρὺ ἐπιαιτέσσης τῆς αὐτοῦ δολωπιαδός ἔφη,
 ἐν αὐτῇ τῷ εἶω τρεῖς μεταμελείας εἶναι. μίαν μὲν ἐπὶ τῇ
 γυναικὶ διζεύσαι λόγον ἀπορροῇ τὸν ἕτερον δὲ πλεῦσαι, ὅπως
 δυνάτῃ περὶ τοῦ αἵματος τὴν δὲ τρίτην, ὅτι τρεῖς ἡμέρας
 ἀδιάθετος εἴμινεν.



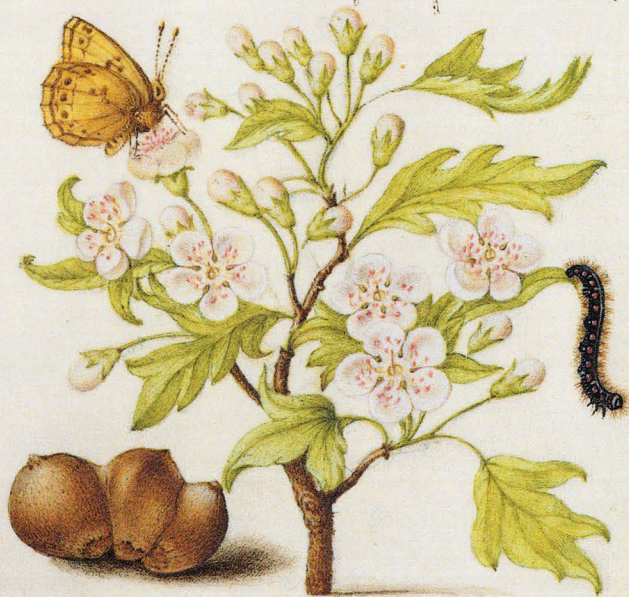
gularis fuit. Nam super christus missus qui compare parietis in utroque videtur. quem son-
 fas illa inferius et qui credens permanens omnis illa et sacra et illa omnia plena moduli in lande
 et canore nobis gratiam deum ubiqueque sua figura et prodigia. Hoc interius lumine eius exaratus
 aduenti et elementis hostie preter nota fidei legem benevolentiam et bene infunde ingreditur. Hoc prae-
 cauit et eam a quereit. Quod in pueris suis iaculis peruenit peratibus patreque. In regnum
 plurima eius curat. calum laudum in manu nuncius exactionis videtur. primum in ista regna
 fortissimus moris contra et viribus. nec concutens tectura sunt a pena misera. Illi qui iaculis ande-
 cyffidant in illis. Seruamus domus nobis iustis. Iurgit de manere. Sed ita et pueris a miseri-
 cordibus. Quia iure et domus et pueris clamet angustis. et



inveniamus pro nobis quatuor domine Jesu Christe Apud tuam Clementiam glo
rificationem, tu genitrix virgo semper Maria mater tua. Cuius sacratissimam, mi
sericordiam in dona sapientiae et innotis tui doloris, sedulo portamus, et, domi
ne Jesu Christe pater dulcissime Rogo te ob Amorem Illius sandy quod dilecta Mater
tua habuit quando te vidit Et et apparuisti in illa Sanctissima nocte Lucis, et por
gaudium quod habuit quando te vidit glorificatum divinitatis claritate deprecor te quatenus
me illumines septem donis spiritus sancti, ut tua voluntatem, adimplere valeam omnibus
libus, vita mea. O domine Jesu Christe, adoro te in Cruce pendentem et cocoonem In
nem in capite portantem, deprecor te ut tua cruce liberet me ab angelo percu
tiente, O domine Jesu Christe, adoro te in evase nulneratum, felle et aceto potatum
deprecor te ut tua vulnera sicut remedium animae meae, O domine Jesu Christe etc.

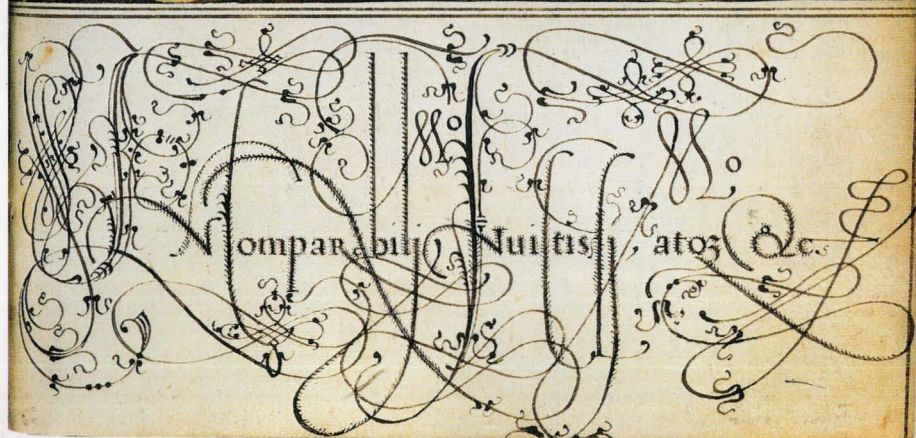


Sanctum et desiderabilem gloriosum ac singularem solennitatem hoc est natiuitatem Domini saluatoris fratres dilectissimi de uotione fidelissima suscepuri totis uiribus nos uelenuis cum ipso ad iuuentum preparare et omnes latebras anime nostre diligenter aspicere ne forte sit in nobis aliquid peccatum et

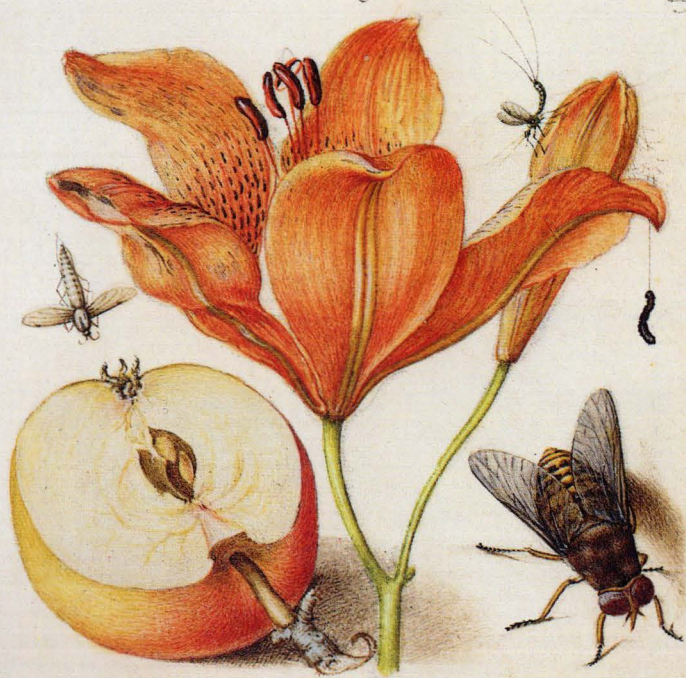


omnipotens sempiterna Deus qui gloriae uirginis
 Mariae corpus et animam ut dignum filii tui habitaculum
 preparasti: da ut cuius commemoratione laetamur eius
 pia intercessione ab instantibus et a morte perpetua li-
 beremur: per Dominum nostrum Iesum Christum qui et





Sacris solemnibus iuncta sint gaudia. Et ex precordiis
sonent præconia: recedant Vetera noua sint omnia:
corda noceat Et opera. Nollet recolitur cana nouissima. quæ
Christus creditur: Agnum et alyma: dedisse Fratribus:
iuxta legitima: priuicis indulta patribus. Post agnum
Typicum: expletis epulis: corpus Dominicum datum di-
scipulis: uic totum omnibus: quod totum singulis eius fate-
mur manibus: dedit Fragilibus: corporis ferculum: dedit et.

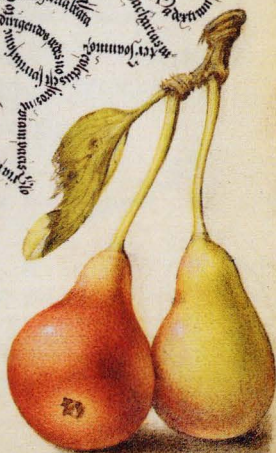


Doctrina Spiritus non curiositatem acuit, Sed chari-
tatem accendit. Ipse est christianus qui in do-
mo sua peregrinum se cognoscit. Nouit Deus mutare
sententiam: Si tu noueris emendare delictum. Vehemen-
ter Ecclesiam Dei destruit meliores laicos esse quam
clericos. Quocunque tempore non cogitaueris Deum
putate tempus illud amisisse. Pudicitia est virtus
non solum impetum libidinis coercens, sed et signa co-
hibens. Patria nostra sursum est ibi hospites non
erimus. Sicut ligat Diabolus, qui peccata concedit:
ita soluit christus qui delicta remittit. Nil ma-
gnum in rebus humanis, nisi animus magna despi-
ciens. &





Domine in testamentum tuum, et
animas pauperum tuorum ne in
tremendi linguas. Domine, et libera
causam tuam: et ne obliviscaris oratio-
nem pauperum tuorum. Domine, et
libera domum tuam.



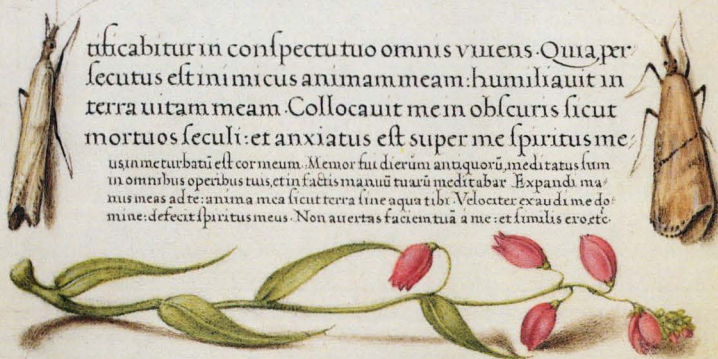
Domine in testamentum tuum, et
animas pauperum tuorum ne in
tremendi linguas. Domine, et libera
causam tuam: et ne obliviscaris oratio-
nem pauperum tuorum. Domine, et
libera domum tuam.



IN DIEBUS ILLIS
Per manus autem Apphellenorum subacti sunt populi. Et predicta mul-
ta in plebe. Et erat uicinis inter eos in periculis. Ceterum
ante uultu audebat se conuocare illis sed magnificabat eos populos. Magis autem
augustior credentibus in domo multitudine uenerit. Et multi ex illis in plateis egredienti-
bus. Et poterant uoluntate. Et probabant ut uenerit. Et in plateis ambra illis egredienti co-
ramquequam. et liberaretur ab infirmitatibus suis. Conuenerat autem in multis de vicinorum
Custatium in Hierusalem. offerentes agros. et uocatis a fratribus inuicem qui curabant omnes. 1502

Domine exaudi orationem meam, au-
ribus percipe obsecrationem meam.
in ueritate tua exaudi me in tua
iustitia. Et non intres in iudici-
um cum seruo tuo, quia non ius-

tificabitur in conspectu tuo omnis uiuens. Quia per-
secutus est inimicus animam meam: humiliavit in
terra uitam meam. Collocauit me in obscuris sicut
mortuos seculi: et anxius est super me spiritus me-
us in me turbatus est cor meum. Memor fui dierum antiquorum, meditatus sum
in omnibus operibus tuis, et in factis manuum tuarum meditabar. Expandi ma-
nus meas ad te: anima mea sicut terra sine aqua tibi. Velociter exaudi me do-
mine: defecit spiritus meus. Non auertas facientiam a me: et similis ero ete-



The Model Book of Calligraphy

THE WRITING

In order to understand Boscay's *Model Book of Calligraphy* 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.

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. 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 came to be valued as an essential humanistic accomplishment. 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. 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. 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.

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. Notable early contributions came from Tagliente, Arrighi and Palatino.

Georg Bocsday, in *Mira calligraphiae monumenta*, set out to assemble an enormous collection of scripts and to display unparalleled technical wizardry. Pedagogy plays no role in Bocsday's *Model Book*, which is intended solely as a display piece. The script forms are disposed 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, 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. Satirizing the stress on linear continuity are the "cut letters" (*lettere tagliate*), in which the upper and lower halves of a line of script seem to be cut loose from one another (fol. 43). Backwards slant, a transgression in italic as it is normally written, becomes a source of amusement (fol. 65).

Second in number to italic in Bocsday's *Model Book* are the various forms of *rotunda* (Italian Gothic) and *antiqua* (a classicizing humanist script based on Carolingian minuscule) (fols. 5, 6). 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 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, Bocsday'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.

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 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. Another accomplished demonstration of Germanic Gothic scripts is folio 112, a salutation from Charles V, which features magnificent swashed capitals composed of multiple strokes ending in extended flourishes.

Bocsday 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, Bocsday included samples of Greek and Hebrew (fols. 69, 70). Many of the scripts appear to be hybrids, such as that on folio 21, whose thick, black serifs and flourishes appear to have been inspired by mercantile hands.

Exhibition hands other than those already mentioned include mirror writing (fol. 66); 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.

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, 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 folios preponderantly given over to calligraphy such as fol. 5, casts further doubt on the likelihood that Bocskay's *Model Book* was originally planned to contain extensive figural embellishment.

Although flowers appear in Hoefnagel's earlier works, they became a major feature of his *œuvre* during the 1590s. 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.

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. 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. 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.

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. 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.

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. His manuscript would have supplemented this extensive, if haphazard, collection just as the other compendia of hand-painted natural history illustrations kept in the *Kunstkammer* would have. 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. Hoefnagel rediscovered the latent strangeness of quotidian objects such as a walnut (fol. 74), which displays its contents as if revealing occult secrets. Pears and other familiar fruits shown from odd angles (fols. 43, 51) take on an aura of the exceptional. Such commonplaces made to seem extraordinary appear alongside true aberrations and exotica such as a rhinoceros beetle (fol. 43). To peruse Hoefnagel's imagery is to embark on an optical voyage into uncharted terrain.

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. 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.

Until Hoefnagel, that is – for in the *Model Book of Calligraphy* his illuminations challenge the supremacy of the words. The most fundamental reversal of the traditional relation between text and image 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 Bockskay'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. 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 Bockskay's extroverted display of calligraphic virtuosity. Hoefnagel's answer to this self-assured (in its creator's eyes, no doubt consummate) performance 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 non-referential 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.

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 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.

PLATES

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 roman type, while genus and species names appear in italics.

Frontispiece. *Folio 52* Italic script

Castanea sativa Mill.: Spanish chestnut

Iris latifolia Mill.: English iris

Corylus avellana L.: European filbert

Folio 1 Rotunda script in "traced letters"

Vinca minor L.: Common periwinkle

Malus domestica Borkh.: Common apple

Lacerta (?): Lizard

Folio 5 Antiqua script

Matthiola incana (L.) R. Br.: Gillyflower

Ephemeroptera: Mayfly

Diptera Cyclorrhapha Heleomyzidae (?): Fly

Pulmonata Helicidae *Cepaea* sp.: Garden snail

Folio 6 Rotunda script

Lepidoptera Noctuidae (?): Caterpillar of owlet moth

Erythronium dens-canis L. "Candidum": White dog-tooth violet

Anacyclus pyrethrum (L.) Link

Pyrus communis L.: Common pear, gourd type

Prunus armeniaca L.: Apricot

Folio 10 "Sloped" Roman script
Odonata Zygoptera: Damselfly
Rosa gallica L.: French rose, pink, semidouble
Castanea sativa Mill.: Spanish chestnut
Arachnida Araneae: Spider

Folio 12 Italic script
Hymenopteran insect (?)
Narcissus pseudonarcissus L.: Daffodil
Aquilegia vulgaris L.: European columbine
Quercus robur L.: English oak

Folio 13 Italic script, widely spaced with flourishes
Mespilus germanica L.: Medlar
Anemone coronaria L.: Poppy anemone
Pyrus communis L.: Common pear, gourd type

Folio 15 Calligram: condensed Gothic script
in the form of a chalice
Muscari botryoides (L.) Mill.: Common grape hyacinth
(growth habit unusual)
Imaginary wasplike insect
Rosa rubiginosa L.: Eglantine
Rosa foetida J. Herm.: Austrian brier
Lepidoptera Geometridae *Abraxas grossulariata* (L.): Magpie moth

Folio 16 Humanist Roman script with flourishes and
interlinear ornament
Lepidoptera Satyridae *Pararge aegeria* (L.): Speckled wood
Borago officinalis L.: Common borage or talewort
Pisum sativum L.: Garden pea
Physalis alkekengi L.: Lantern plant

Folio 18 Italic script
Malus domestica Borkh.: Common apple

Viola tricolor L.: European wild pansy
Corylus maxima Mill.: Giant filbert

Folio 20 Florid Gothic script
Viola odorata L.: Sweet violet
Spartium junceum L.: Spanish broom

Folio 21 Florid script apparently inspired by a mercantile hand
Dianthus sp. (petals fringed on all sides, not just at tip, as is usual)
Prunus dulcis (Mill.) D.A. Webb: Almond

Folio 23 Florid capital Gothic script
Tulipa gesneriana L.: Tulip, pink
Hymenoptera Ichneumonidae: Ichneumonfly (inaccurate;
Ephialtes sp. apparently served as model)
Tulipa gesneriana L.: Tulip, striped yellow, blue and pink
Phaseolus vulgaris L.: Kidney bean
Phaseolus coccineus L.: Scarlet runner bean
or *lunatus* L.: Sieva bean

Folio 28 Gothic script of bastard type
Aquilegia vulgaris L.: European columbine
Aquilegia vulgaris L. "Multiplex": Double European columbine
Prunus avium (L.) L.: Sweet cherry

Folio 30 Hybrid minuscule script
Satureja acinos (L.) Scheele: Basil thyme
Anemone coronaria L. "Plena": Double poppy anemone
Myrtus communis L.: Myrtle

Folio 32 Italian Gothic majuscule script
Mirabilis jalapa L.: Four-o'clock, pink and yellow
Lepidoptera Lycaenidae *Thecla betulae* (L.): Brown hairstreak
Geranium robertianum L.: Herb robert
Cantherellus cibarius Fr.: Chanterelle

Folio 39 Hybrid minuscule script
Anemone coronaria L.: Poppy anemone, two flowers
Lepidoptera: Unidentifiable caterpillar
Ficus carica L.: Common fig
Cydonia oblonga Mill.: Common quince

Folio 43 Chancery script with "cut letters" (*lettere tagliate*)
Lilium chalcedonicum L.: Scarlet Turk's cap
Coleoptera Scarabaeidae *Oryctes nasicornis* (L.): Common rhinoceros beetle
Punica granatum L.: Pomegranate

Folio 46 Gothic script in "traced letters"
Arachnida Araneae: Spider
Prunus avium (L.) L.: Sweet cherry
Quercus robur L. with galls of Hymenoptera Cynipidae *Cynips quercusfolii* L. and *Neuroterus quercusbaccarum* (L.): English oak, leaf with cherry-galls (three big galls) and spangle-galls (two small galls)

Folio 47 Roman "traced" capitals
Lepidoptera Nymphalidae *Issoria lathonia* (L.): Queen of Spain fritillary
Malus domestica Borkh.: Common apple
Mouse
Omphalodes verna Moench: Creeping forget-me-not

Folio 51 Antiqua script
Lepidoptera: Unidentifiable caterpillar
Pyrus communis L.: Common pear
Tulipa gesneriana L.: Tulip, pink, bordered white
Prosobranchia Muricidae *Murex brandaris* (L.): Purple snail

Folio 53 Reversed Roman capitals
Consolida ambigua (L.) P.W. Ball & Heyw.: Rocket larkspur

Tulipa gesneriana L.: Tulip, yellow
Consolida ambigua (L.) P.W. Ball & Heyw.: Rocket larkspur
Arachnida Scorpiones: Scorpion
Diploda: Millipede
Corylus avellana L.: European filbert

Folio 65 Backwards slanting italic script
Odonata Zygoptera Lestidae (?): *Lestes*-like damselfly
Iris xiphium L.: Spanish iris
Odonata Zygoptera Coenagrionidae (?): *Coenagrion*-like damselfly
Ornithogalum umbellatum L.: Star-of-Bethlehem

Folio 66 Italic mirror writing
Pulmonata Helicidae *Arianta arbustorum* (L.) (?): Terrestrial mollusk
Anemone coronaria L.: Poppy anemone
Diptera Tipulidae: Crane fly (?)

Folio 69 Greek capitals and lower-case
Papaver somniferum L.: Opium poppy
Silene vulgaris (Moench) Garcke: Bladder campion
Vicia faba L.: Broad bean

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

Folio 74 Italic script
Odonata Zygoptera: Imaginary damselfly
Dianthus caryophyllus L.: Carnation
Imaginary insect
Lepidoptera: Unidentifiable caterpillar
Coleoptera Coccinellidae *Adalia bipunctata* (L.): Two-spot ladybird/two-spotted lady beetle

Juglans regia L.: English walnut
Prosobranchia Naticidae *Naticarius millepunctatus* (Lamarck):
Marine mollusk

Folio 76 Italic script

Odonata Anisoptera Aeshnidae *Aeshna* sp.: Dragonfly

Pyrus communis L.: Common pear

Dianthus caryophyllus L.: Carnation

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

Folio 81 Bastard script in "traced letters" filled with colored dots

Imaginary insect (elements of butterfly, moth)

Crataegus monogyna Jacq.: English hawthorn

Lepidoptera: Unidentifiable caterpillar

Corylus avellana L.: European filbert, fruits grown together

Folio 83 *Antiqua* script with florid interlinear ornament

Punica granatum L.: Pomegranate

Worm

Prunus persica (L.) Batsch: Peach

Folio 85 *Fraktur* script (top) and humanist minuscule with
flourishes (bottom)

LEFT ARRANGEMENT

Lilium candidum L.: Madonna lily

Aquilegia vulgaris L.: European columbine

Tulipa gesneriana L.: Tulip, white and pink

Rosa centifolia L.: Cabbage rose

Lepidoptera: Unidentifiable butterfly

CENTRE

Peacock

Unidentifiable dragonfly-type insect

RIGHT ARRANGEMENT

Lilium bulbiferum L.: Orange lily

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

Folio 86 *Fraktur* script

The Burning of Troy

Folio 92 Italic script with ligatures

Unidentifiable insect

Lilium bulbiferum L.: Orange lily

Imaginary mayfly-type insect

Lepidoptera: Unidentifiable caterpillar

Malus domestica Borkh.: Common apple

Diptera Tabanidae: Horse fly

Folio 94 Italic script

Hyacinthus orientalis L. (?): Hyacinth, white bud

Morus nigra L.: Black mulberry

Lepidoptera: Unidentifiable caterpillar

Folio 102 Gothic script with ornamented initial

Lilium martagon L.: Martagon lily

Lycopersicon esculentum Mill.: Tomato

Folio 106 Diminishing writing

A Sloth (?)

Folio 112 *Fraktur* script with ornamented initials

Lepidoptera Pieridae: Imaginary butterfly (based on

Pieris or related species [white])

Prunus avium (L.) L.: Sweet cherry

Pulmonata Helicidae: Two imaginary land snails (derived from

Cepaea sp. [?])

Folio 113 Italic script

Odonata Zygoptera: Damselfly

Imaginary insect (based on hymenopteran; vespidlike abdominal color; ichneumonidlike ovipositor; nonhymenopteran wings)

Prosobranchia Columbelloidea *Columbella rustica* (L.): Marine mollusk

Prosobranchia Cassidae *Galeodea echinophora* (L.): Marine mollusk

Folio 118 Ornamental knot in Gothic script borrowed from a manual by Wolfgang Fugger (Nuremberg, 1553) and micrography in italic script

Lepidoptera: Imaginary butterfly (shows characteristics of Lycaenidae [copper] and Satyridae [brown])

Prosobranchia Cassidae *Phalium saburon* (Bruguère): Marine mollusk

Pyrus communis L.: Common pear

Folio 125 Gothic script (top) and italic script (bottom)

Erythronium dens-canis L.: Dog-tooth violet

Lepidoptera: Two imaginary butterflies

Folio 128 *Antiqua* script

Lepidoptera Pyralidae Crambinae: Two species of grass moths

Polygala vulgaris L.: Common milkwort