7th
EDITION

Rob Carter
Sandra Maxa
Mark Sanders
Philip B. Meggs
Ben Day

typographic design:

FORM AND COMMUNICATION

WILEY

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Saint Barbara.
Polychromed walnut sculpture, fifteenth-century German or French. The Virginia Museum of Fine Arts.

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"The whole duty of typography, as with calligraphy, is to communicate to the imagination, without loss by the way, the thought or image intended to be communicated by the Author."

Thomas James Cobden-Sanderson

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Foreword

While most books about typography enjoy a lifespan of only one or two editions, a few classics live well into old age and are published in many editions. *Typographic Design: Form and Communication* is one such volume. This ubiquitous text stands proudly on a shelf reserved only for other time-tested books on the magical language of typography.

How do trade publications find themselves in such respectable company, decade after decade?

First, the original edition of any book must be built upon a solid foundation of clearly stated, not-so-scary theory that supports transparent analysis of how theory and practice form an inseparable relationship. This is crucial to engaging a wide-ranging audience – from the fledgling college sophomore just diving into the dark and mysterious sea of typography to the seasoned practitioner in need of a gentle reminder, guiding light, or inspiration.

Second, each edition – one after the other – must not only build upon those that came before but also engage, in form and content, a new generation and resonate with the social, political, and technical vibrations of a new era.

Third, coauthors and editors of each new update must share common goals and convictions, for a project consisting of thousands of moving parts – as in architecture – can take many years to complete. Open dialogue is essential to the success of such a project.

My friend and co-author Philip Meggs once shared the following quote by Bishop John Fell of Oxford (1625–1686), words of warning to those considering a lifetime of making books. (As a reminder, I have personally kept these words within view while in the thick of it): "My son, be admonished: of making many books, there is no end; and much study is a weariness of the flesh." (By the same token, I would admit that the making of books, and sometimes the making of many books, is a hard habit to break.)

Typographic Design: Form and Communication, now over thirty years in existence, began as an idea ignited by three passionate typographic designers: Philip B. Meggs, Ben Day, and Rob Carter. Together, these teachers and explorers forged the first edition, which immediately enjoyed wide acclaim. Phil and Rob joined forces for edition two, and Phil, Rob, and Sandra Wheeler carved out edition three. With the passing of Phil in 2002, Sandy and Rob collaborated on editions four and five.

Editions six and seven are made possible by the dedicated and perceptive work of Sandra Maxa and Mark Sanders. These astute scholars and coauthors have infused the seventh edition with remarkable vigor, form, and content. Highlights include:

– Significant updates to typographic technology that reflect the profound evolution of media and software, including digital typeface file formats and generative typography

– A new emphasis on the relationships and interconnectedness between print and digital applications

– New images and information that reveal changes in media, architecture, and sociopolitical developments

With these updates and many, many more, *Typographic Design: Form and Communication*, Seventh Edition, once again exhibits the brilliance of a book worthy of the company of the world's most notable and beautiful typography books.

Rob Carter

Introduction

Typography is a constantly evolving discipline, and this book aims to provide a concise yet comprehensive overview of the information, vocabulary, tools, and methods used in effective typographic-design practice. Included in the following chapters are the history and anatomy of typography; principles of visual organization and legibility; a study of the intersection of form, meaning, and media; projects that explore a variety of contexts; and case studies devoted to traditional and nontraditional typographic design processes.

This book's seventh edition expands the view of typography that transcends specific technologies or media. A knowledge of typographic fundamentals is key to communicating in all environments—static, dynamic, or kinetic—and the first few chapters address the basics of form, syntax, how type communicates, and its potential for expression in both analog and digital applications. This information has been expanded to include sizing, selection, and use specific to type on screen. Current typographic design practice is better understood by exploring the evolution of earlier typesetting processes. In Chapter 7, that background is provided for new designers, and has been updated to include generative typography and hybrid typographic practices. Kinetic typography is discussed in Chapter 8 to provide the designer with an expanded awareness of legibility factors and enable compelling new ways to communicate. New case studies in type in motion, information visualization, and visual branding systems are meant to inspire and show readers how to use their newfound knowledge to communicate visually. Theoretical and structural problem-solving approaches, evolved by design educators, reinforce the underlying concepts in this book. An understanding of typographic classification and subtlety of form is gained from the study of type specimens.

Through the 12 chapters of this book, the authors share a compilation of information and examples with practitioners and students. It yields both insights and inspiration, bringing order to the complex and diversified subject of typographic design.

For Flashcards, Chapter Quizzes, and Website Resources for Typographic Design*, go to* **www.wiley.com/go/typographicdesign7e.**

CHAPTER 1

The Evolution of Typography

Typography is an evolution of the written word, and as such it participates in a history of visual communication extending thousands of years. That evolution is presented here in the form of a timeline that traces a development from hand, to mechanical, to digital practice, in the context of world-historical and art-historical events.

The history treated in the first section of the timeline predates typography. It begins with the invention of writing over five thousand years ago and ends with the invention of movable type in Europe during the middle of the fifteenth century. The second section covers the long era of the handpress and hand-set metal types. This period, from Gutenberg's invention of movable type to the end of the eighteenth century, lasted about 350 years. In the third section, the Industrial Revolution and nineteenth century are revealed as an era of technological innovation and an outpouring of new typographic forms. The fourth section begins with the year 1900 and covers the twentieth century, a time when type was shaped by the aesthetic concerns of modernism, the need for functional communication, technological progress, and the digital revolution in typography. The final section showcases typographic design in the twenty-first century, as it expands to mobile devices and embraces the many possibilities afforded by digital production.

From the origins of writing to Gutenberg's invention of movable type: 3150 BCE–1450 CE

c. 3150 BCE

1-1

1-4

1-6

1-8

1-4 c. 2400 BCE: False-door stele inscribed with hieroglyphic writing, from Old Kingdom Egypt.

1-6 c. 1800–1400 BCE: Stonehenge, a megalithic monument of 30-foot-tall stones set into circular patterns.

1-1 c. 3150 BCE: The earliest written documents, impressed clay tablets from Sumer. The impressions represent clay tokens, which were used for record keeping before the invention of writing.

1-2 c. 3000 BCE: Cuneiform, a very early writing system utilizing wedge-shaped marks on clay tablets, was invented by the Sumerians.

c. 2500 BCE: Egyptians begin to make papyrus, a new writing material derived from the stems of the papyrus plant.

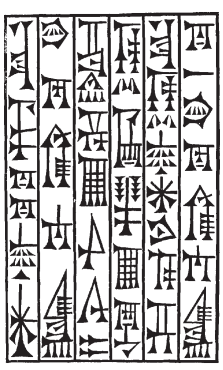
1-3 c. 2600 BCE: Completion of the pyramids at Giza, Egypt.

1-5 c. 2100 BCE: Cuneiform tablet listing expenditures of grain and animals.

1-7 c. 1570–1349 BCE: Polychromed wood sculpture from New Kingdom Egypt, with hieroglyphic inscriptions.

1-8 c. 1450 BCE: Detail, The Book of the Dead of Tuthmosis III, hieroglyphic writing on papyrus.

1-2



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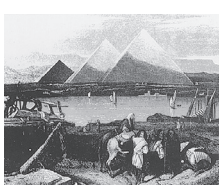

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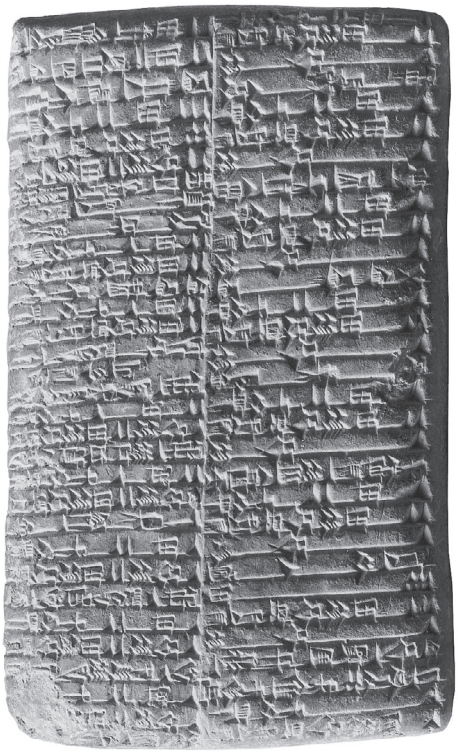
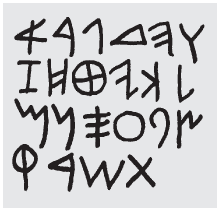


1-7

c. 1500 BCE

1-9



1-9 **c. 1500 BCE:** The twenty-two characters of the Phoenician alphabet.

1-10

1-10

1-11

1-11 **Fourth century BCE:** Greek manuscript writing.

1-12

1-12 **448–432 BCE:** The Parthenon, temple of the goddess Athena, on the Acropolis in Athens, Greece.

c. 800 BCE: Homer writes the *Iliad* and the *Odyssey.*

540 BCE: The first public library is established in Athens, Greece.

1-10 389 BCE: Inscription in the Phoenician alphabet on a fragment of a marble bowl.

1-13

1-13 **414–413 BCE:** Fragment of a Greek record of sale, carved on stone.

c. 160 BCE: Parchment, a new writing material made from animal skins, is developed in the Greek state of Pergamum.

44 BCE: Julius Caesar is murdered.

1-14

1-14 **c. 50 BCE–500 CE:** Roman square capitals (*capitalis quadrata*) were carefully written with a flat pen.

c. 33 CE: Crucifixion of Christ.

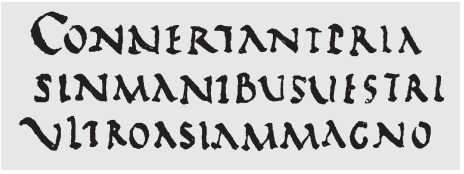
1-15

1-15 **c. 79 CE:** Brush writing from a wall at Pompeii, preserved by the volcanic eruption of Vesuvius.

105 CE: Ts'ai Lun invents paper in China.

150 CE: The Roman codex, with folded pages, begins to be used alongside the rolled scroll.

1-16



1-16 **c. 100–600:** Roman rustic writing (*capitalis rustica*) conserved space by using condensed letters written with a flat pen held in an almost vertical position.

118 CE

1-17

1-17 **118–25:** The Pantheon, Rome.

1-19

1-19 **312–15:** Arch of Constantine, Rome. Carved into marble, monumental Roman capitals survived the thousand-year Dark Ages.

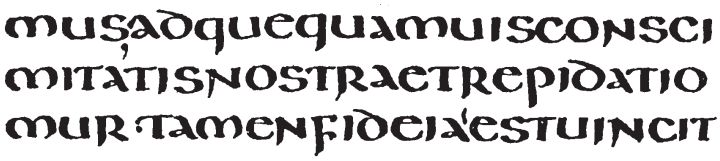
325: Emperor Constantine adopts Christianity as the state religion of the Roman Empire.

452: Attila the Hun invades and ravages northern Italy.

476: Emperor Romulus Augustulus, last ruler of the western Roman Empire, is deposed by the Ostrogoths.

1-20

1-21

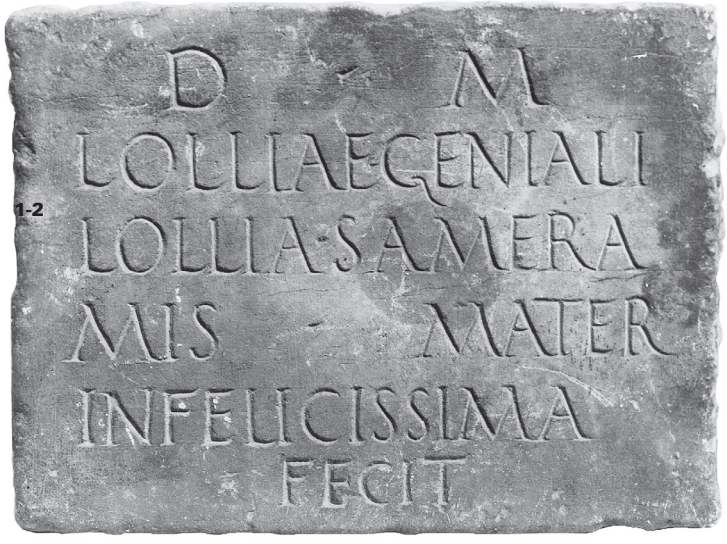


1-20 **533–49:** Church of Sant'Apollinare in Classe, Ravenna, Italy.

1-21 **Third–sixth centuries:** Uncials are rounded, freely drawn majuscule letters.

1-18 **Undated:** The fluid gestural quality, harmonious proportions, and beautiful forms of Roman writing are effectively translated into the permanent stone carving of monumental capitals (*capitalis monumentalis*).

c. 400–1400: During the thousand-year medieval era, knowledge and learning are kept alive in Christian monasteries, where manuscript books are lettered in scriptoria.



1-18

1-22 **Third–ninth centuries:** Half-uncials, a lettering style of the Christian Church, introduce pronounced ascenders and descenders.

1-23 **Sixth–ninth centuries:** Insular majuscules, a formal style with exaggerated serifs, are developed by Irish monks from the half-uncials.

1-22

1-23

732 CE

732: The Battle of Tours ends the Muslim advance into Europe.

800: Charlemagne is crowned emperor of the Holy Roman Empire by Pope Leo III.

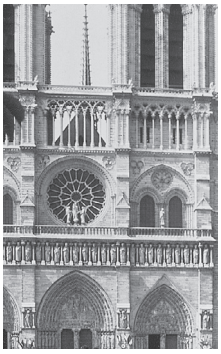
1-25

868: The earliest extant printed text, of the Diamond Sutra, is printed in China.

1-25 Tenth century: High Cross at Kells, Meath County, Ireland.

eſt quiaurem ſuperp

1-27



1-28

1-27 Eighth–twelfth centuries: Caroline minuscules become the standard throughout Europe after Charlemagne issues his reform decree of 796, calling for a uniform writing style.

1-30

1-30 Twelfth century: Bronze and copper crucifix from northern Italy.

1215: The Magna Carta grants constitutional liberties in England.

1-31 Thirteenth–fifteenth centuries: Gothic Textura Quadrata, or Textura, the late-Gothic style with rigorous verticality and compressed forms.

1347–51: First wave of the Black Death, a plague that decimates the European population.

1-32

1-32 Thirteenth century: Byzantine school, *Madonna and Child on a Curved Throne.*

1-24 c. 800: Portrait of Christ from the Book of Kells, a Celtic manuscript.

1-24

1-26 c. Eleventh century: Round tower on the Rock of Cashel, county Tipperary, Ireland, a lookout and refuge against Viking invaders.

1-26

1034: Bi Sheng (Pi Sheng) invents movable type in China.

1096–99: The First Crusade.

1-28 1163–1250: Construction of Notre Dame Cathedral, Paris.

1-29 Eleventh–twelfth centuries: Early Gothic lettering, a transitional style between Caroline minuscules and Textura, has an increased vertical emphasis.

early gothic

1-29

nostro qui sedet super thronum et
agno. Et omnes angli stabant i
circuitu throni et ceciderunt et adora
verunt deum dicentes. amen. Be
dictio et claritas et sapiencia et gra
rum actio. honor et virtus et fortitu
do deo nro in scla sclorum. amen

1-31

1-33

Rotunda

c. 1200

1-35

1-33 Thirteenth–fifteenth centuries: Rotunda, a more rounded Gothic letter, flourishes in southern Europe.

1-35 1420–36: Filippo Brunelleschi, dome of Florence Cathedral.

1431: Joan of Arc is burned at the stake.

1-38

Genesi

Incipit liber breseth quē nos genesim
A principio creauit deus celū dicimus.
et terram. Terra autem erat inanis et
vacua: et tenebre erāt sup faciē abissi
et spus dni ferebat sup aquas. Dixitq;
deus. Fiat lux. Et facta ē lux. Et vidit
deus lucem q̄ esset bona: et diuisit lucē
a tenebris appellauitq; lucem diem et
tenebras noctem. Factūq; est vespe et
mane dies vnus. Dixit q̄ deus. Fiat
firmamentū in medio aquarū: et diui-
dat aquas ab aquis. Et fecit deus fir-
mamentū: diuisitq; aquas que erāt
sub firmamento ab hijs q̄ erant sup
firmamentū. et factū ē ita. Vocauitq;
deus firmamentū celū: et factū ē vespe
et mane dies secūdus. Dixit vero deus.
Congregentur aque que sub celo sūt in
locū vnū et appareat arida. Et factū ē
ita. Et vocauit deus aridam terram:
congregacionesq; aquarū appellauit
maria. Et vidit deus q̄ esset bonū. et
ait. Germinet terra herbā virentem et
facientē semen: et lignū pomiferū faciēs
fructū iuxta genus suū. cuius semen in
semetipso sit sup terrā. Et factū ē ita. Et
protulit terra herbā virentē et facientē
semē iuxta genus suū: lignūq; faciēs
fructū et habēs vnūquodq; semen secūdum
speciē suā. Et vidit deus q̄ esset bonū:
et factū est vespe et mane dies tercius.
Dixitq; autē deus. Fiant luminaria
in firmamēto celi: et diuidāt diem ac
noctem: et sint in signa et tpa et dies et
annos. ut luceāt in firmamēto celi et
illuminēt terrā. Et factū ē ita. Fecitq;
deus duo luminaria magna: luminare
maius ut p̄esset diei et luminare minus
ut p̄esset nocti et stellas. et posuit eas in
firmamēto celi ut lucerent sup terrā: et
p̄essent diei ac nocti. et diuiderent lucē
ac tenebras. Et vidit deus q̄ esset bonū:
et factū ē vespe et mane dies quartus.
Dixit etiā deus. Producāt aque reptile
anime viuentis et volatile super terrā
sub firmamēto celi. Creauitq; deus cete
grandia. et omnē aīam viuentē atq;
motabilē quā pduxerāt aque in species
suas. et omne volatile secūdum genus suū.
Et vidit deus q̄ esset bonū. benedixitq;
eis dicens. Crescite et multiplicamini. et
replete aquas maris. auesq; multipli-
centur sup terrā. Et factū ē vespe et mane
dies quintus. Dixit quoq; deus. Pro-
ducat terra aīam viuentē in genere suo.
iumenta et reptilia. et bestias terre secūdum
species suas. Factūq; ē ita. Et fecit deus
bestias terre iuxta species suas. iumen-
ta et omne reptile terre in genere suo. Et
vidit deus q̄ esset bonū. et ait. Facia-
mus hoīem ad ymaginē et similitudinē
nostrā. et presit piscibus maris. et vola-
tilibus celi et bestijs vniuersq; terre. omniq;
reptili qd mouetur in terra. Et creauit
deus hoīem ad ymaginē et similitudinē
suā. ad ymaginē dei creauit illū. ma-
sculū et feminā creauit eos. Benedixit-
q; illis deus. et ait. Crescite et multiplica-
mini et replete terrā. et subicite eā. et dña-
mini piscibus maris. et volatilibus celi.
et vniuersis animātibus que mouentur
sup terrā. Dixitq; deus. Ecce dedi vobis
omnē herbā afferentē semen sup terrā.
et vniuersa ligna que hūt in semetipsis
semen genus sui. ut sint vobis in escā
et cunctis aīantibus terre. omniq; volucri
celi et vniuersis q̄ mouentur in terra. et in
quibus est anima viuens. ut habeāt ad
vescendū. Et factū est ita. Viditq; deus
cuncta que fecerat. et erāt valde bona.

1-34 Fourteenth century: Lippo Memmi, *Saint John the Baptist.*

1-34

1-36 Fifteenth century: First page of a block book, the biblical book of Apocalypse (Revelation). Woodblock printing probably appeared in Europe before 1400.

1-36

1-37 Fra Filippo Lippi, *Madonna and Child.*

c. 1450: Johann Gutenberg invents movable type in Mainz, Germany.

1-37

1-38 c. 1450–55: Page from Gutenberg's forty-two-line Bible, the first European typographic book.

1-39 Woodblock print of the hand printing press, with compositors setting type from a typecase in the background.

1-40 The cathedral in the medieval city of Mainz, Germany.

1-39

1-40

Typography from Gutenberg to the nineteenth century: 1450–1800

The humanist philosophy that flowered during the Renaissance embraced the study of classical literature, a belief in human dignity and worth, a spirit of individualism, and a shift from religious to secular concerns.

1465

bat ille ihesus: q quom ꝑmū auses uocareꝫ moises figurā ꝓsentiens iussit eū ihesum uocari: ut dux militię delectus esset aduersus amalech qui oppug-nabant filios israhel: et aduersariū debellaret ꝓ noīs figuram: et populū m

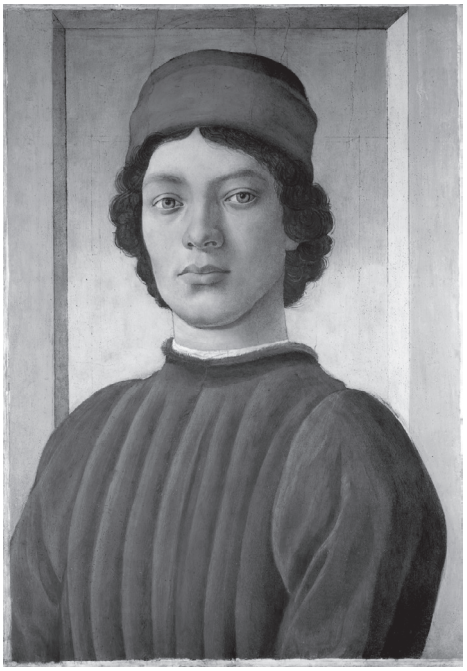
1-41

esse sensum semitas queritur. tanq̄ illi ad cogitandum rheda & quadrigis opus eēt. Democritus quasi in puteo quodam sic alto ut fundus sit nullus: ueritatem iacere demersam nimirum stulte

1-42

ab omnipotenti deo missus deus uerbum quasi lucis ifi cunctis annūciat. Non hinc aut alrunde: sed undiq; cun ad deum uerum: græcos simul et barbaros omnem sexū

1-43



1-45

1-47

1-41 **1465:** Germans Konrad Sweynheym and Arnold Pannartz design the first type in Italy. It had some Roman features.

1-42 **1467:** Konrad Sweynheym and Arnold Pannartz, the first truly Roman-style type, influenced by Roman inscriptional capitals and manuscripts written in Caroline minuscules.

1-43 **1470:** Nicolas Jenson, early Venetian roman typeface.

1-44 **1475:** William Caxton, typography from the first book printed in the English language

1-45 **c. 1485:** Filippino Lippi, *Portrait of a Youth.*

1-46 **1486:** Erhard Ratdolt, the earliest known specimen sheet of printing types.

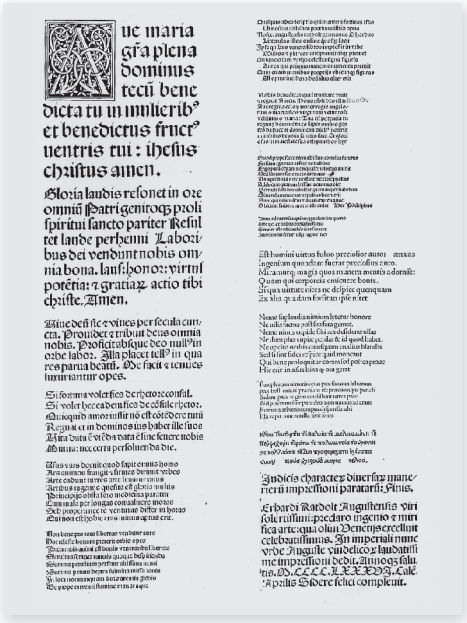
1492: Christopher Columbus lands in America.

1-47 **c. 1494:** Scholar and printer Aldus Manutius established the Aldine Press in Venice to publish works by the great Greek and Roman thinkers.

1-48 **1495:** Francesco Griffo (punch cutter for Aldus Manutius), roman type first used in *De aetna* by Pietro Bembo.

In the tyme of ꝑ troublous worldy/ and of the sions beyng and weyngyng as well in the rop englondy and fraunce as in all other places vn

1-44


Aue maria gra plena dominus tecū bene dicta tu in mulierib⁹ et benedictus fruct⁹ uentris tui: ihesus christus amen.

Gloria laudis resonet in ore omniū ꝑatri genitoq; proli spiritui sancto pariter resilut tet laude perhenni Laborib⁹ dei venduntur nobis omnia bona. laus: honor: virtus potestas: q gratiaq; actio tibi christe. Amen.

Aute desit fletus pes per secula cuncta. Prouidet et tribuit deus omnia nobis. Possessa quisq; deo nullo in orbe labor. Illa placet tell⁹ in qua res parua beati. Ode facit cuncta luminantur opes.

Si forma volatilis de hac re conscia sit. Si velet hec ea dem fuisse refer. Quisquis amor mihi sit et eadem cura futi Regnet et in dominos una sit ira duos. Hinc pura cū sit da pura ē hinc fenere nobis Hinc una: hec certa per solutē da die.

Judicia characteꝛ diuerſaq; manuſcripta artium impreſſionis paratiſſima. Finis.

Erhardi Ratdolt Augustensis viri solertissimi opera diligentia & mirifica arte: qua olim Venetijs percelluit celeberrimus. In imperiali nunc vrbe Augusta: vindelicoꝝ laudatissime impressioni debita. Anno quo salutis. M.CCCC.LXXXXV. Calendis Octobris Sidera felici complexam.

1-46

lud admirari, quod uulgus solet: magnu esse scilicet tantas flammas, tam immen sos ignes post hominum memoriam sem

1-48

1501

1-49

P·O.N·IN PRIMVM GEORGICORVM,
ARGVMENTVM·

Quid faciat lætas segetes, quæ sydera seruet
Agricola, ut facilem terram proscindat aratris,
Semina quo iaciendа modo, cultusq; locorum
Edocuit, messes magno olim fœnore reddi.

P.V·M·GEORGICORVM LIBER PRI
MVS AD MOECENATEM·

Vid faciat lætas segetes, quo sydere terram,
Vertere Mœcenas, ulmisq; adiungere uites,
Conueniat, quæ cura boum, quis cultus habendo
Sit pecori, atq; apibus quanta experientia parcis,
Hinc canere incipiam. Vos o clarissima mundi
Lumina, labentem cœlo quæ ducitis annum
Liber, et almā Ceres, uestro si munere tellus
Chaoniam pingui glandem mutauit arista,
Poculaq; inuenta Acheloia miscuit uuis,
Et uos agrestum præsentia numina Fauni,
Ferte simul, Faunique pedem, Dryadesq; puellæ,
Munera uestra cano, tuq; ò cui prima frementem
Fudit equum magno tellus percussa tridenti
Neptune, et cultor nemorum, cui pinguia Cæa
Teruentum niuei tondent dumeta iuuenci,
Ipse nemus liquens patrum, saltusq; Licæi
c

1-49 **1501:** Francesco Griffo, the first italic typeface, based on chancery script handwriting.

1-55

1-55 **1519–47:** Pierre Nepveu, château of Chambord, France.

1-50 Home of Albrecht Dürer, Nuremberg, Germany.

1-51 Woodblock initial by Geoffroy Tory, who returned to France from study in Italy in 1505, inspired by Roman letterforms and Renaissance design ideals.

1517: Martin Luther posts his ninety-five theses on the door of Wittenberg Castle Church, launching the Reformation.

1-52 **1523:** Lodovico Arrighi, an Italian writing master, introduces his formal chancery italic type.

1-53 **1525:** Albrecht Dürer, construction of the letter *B*.

1-54 **1529:** Geoffroy Tory, construction of the letter *B*.

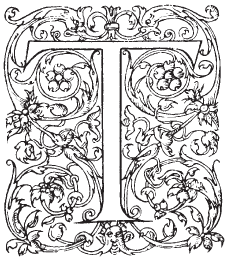
1-56 **c. 1480–1561:** Claude Garamond, outstanding designer of Old Style typefaces during the French Renaissance.

Dele uarie sorti de littere poi, che in questo Tratta-
tello trouerai, se io ti uolessi ad una per una descriuere

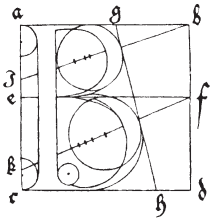
1-52

1-50

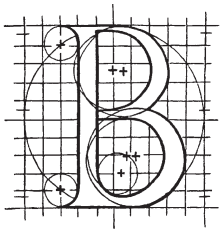
1-51

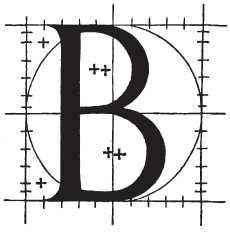


1-53



1-54





1-56

c. 1540

1-57

1-57 c. 1540: Titian, portrait, *Cardinal Pietro Bembo.*

1543: Nicolaus Copernicus publishes his theory of the heliocentric solar system.

1-59

LIVRE PREMIER DE

Poliphile racompte comme il luy fut aduis en songe qu'il dormoit, & en dormant se trouuoit en une vallee fermee d'une grand closture en forme de pyramide, sur laquelle estoit assis un obelisque de merueilleuse hauteur, qu'il regarda songneusement, & par grande admiration.

A foreſt eſpouentable aiant eſté par moy paſſée, & apres auoir delaiſſé ceſte premiere region par le doulx ſommeil qui m'auoit lors eſpris, ie me trouuay tout de nouueau en vn lieu beaucoup plus delectable que le premier, car il eſtoit bordé & enuironné de plaiſans coteaulx verdoians, & peuplez de diuerſes manieres d'arbres, comme chefnes, faux, planes, ormes, fraiſnes, charmes, tilleulz, & autres, plantez ſelon l'aſpect du lieu. & abas atrauers la plaine, y auoit de petitz buyſſons d'arbriſſeaux ſauluaiges, cõme geneſtz, geneuriers, bruyeres, & tamarins, chargez de fleurs, parmy les prez croiſſoient les herbes medicinales, a ſcauoir les trois conſolides, enule, cheurefeuil, branque vrſine, liueſche, perſil de macedoine, piuoyne, guymauues, plantain, betoyne, & autres ſimples de toutes ſortes & eſpeces, pluſieurs deſquelles m'eſtoient incõgneues. Vn peu plus auant que le my lieu de ceſte plaine, y auoit vne ſablonniere meſlée de petites mottes verdes, & pleine d'herbe menuette, & vn petit boys de palmiers, eſquelz les Egyptiẽs cueillent pain, vin, huille, veſtement, & meſrain pour baſtir. leurs fueilles ſembloient lames d'eſpees, & eſtoiẽt chargées de fruict. il y en auoit de grandes, moiennes, & petites, & leur ont les anciens donné ce

1-60

1-60 After 1577: El Greco, *Saint Martin and the Beggar.*

1582: Pope Gregory Xlll initiates the Gregorian calendar, which is still in use.

1584: Sir Walter Raleigh sends explorers to the North American coast.

1-62

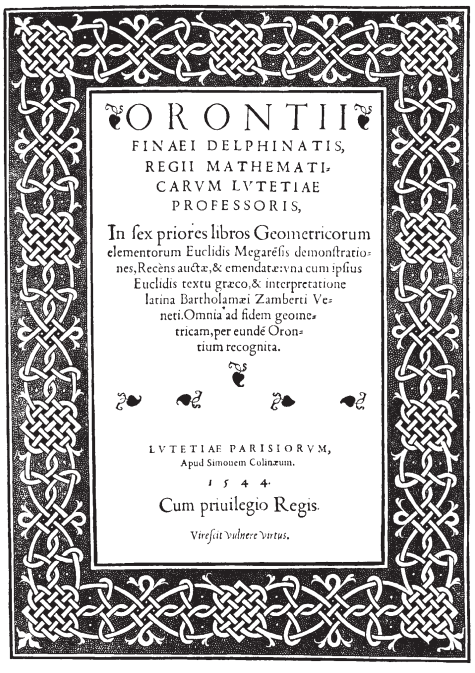
1-62 1607: Carlo Maderna, façade of St. Peter's, the Vatican.

1609: Regular weekly newspapers appear in Strasbourg, Germany.

1-58 1544: Simone de Colines, title page with woodcut border.

1-59 1546: Jacques Kerver, typography, illustration, and decorative initials, which were combined with rare elegance during the French Renaissance.

1-58



ORONTII
FINAEI DELPHINATIS,
REGII MATHEMATI-
CARVM LVTETIAE
PROFESSORIS,

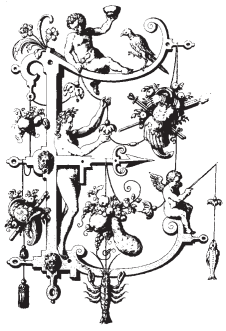
In ſex priores libros Geometricorum elementorum Euclidis Megarẽſis demonſtrationes, Recẽs auctæ, & emendatæ: vna cum ipſius Euclidis textu græco, & interpretatione latina Bartholamæi Zamberti Veneti. Omnia ad fidem geometricam, per eundẽ Orontium recognita.

LVTETIAE PARISIORVM,
Apud Simonem Colinæum.
1544
Cum priuilegio Regis.

Vireſcit Vulnere Virtus.

1-61 1595: Johann Theodor de Bry, illustrative initial *E.*

1603: William Shakespeare writes *Hamlet.*



1-61

1-63 1621: Jean Jannon, typefaces upon which twentieth-century Garamonds are based.

1-64 1628: The Vatican Press, specimen of roman capitals.

La crainte de l'Eternel eſt le chef de ſcience: mais les fols meſpriſent ſapiẽce &

1-63

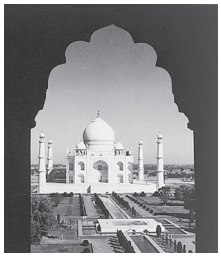
FRANCISCVS

1-64

During the eighteenth century, type design went through a gradual transition from Old Style to Modern Style fonts designed late in the century.

1632

1-65



1-65 1632–43: The Taj Mahal, India.

1639: The first printing press in the British Colonies is established in Massachusetts.

1657: First fountain pen is manufactured, in Paris.

1-68

Ad me profectam eſſe aiebant. D. quid
Quæſo, igitur commorabare, ubi id

1667: Milton publishes *Paradise Lost*.

1-68 c. 1670: Christoffel van Dyck, Dutch Old Style type.

1700: The emergence of the Rococo style.

1-71

1-71 1709: Matthaus Poppelmann, Zwinger Palace, Dresden, Germany.

1709: England adopts the first copyright law.

1-72 1720: William Caslon, Caslon Old Style types, which from this date were used throughout the British Empire.

1-66 c. 1630: Sir Anthony van Dyck, portrait, *Henri ll de Lorraine*.

1-67 c. 1664: Jan Vermeer, *Woman Holding a Balance*.

1666: The Great Fire of London.

1686: Sir Isaac Newton sets forth his law of gravity.

1-69 1675–1710: Sir Christopher Wren, St. Paul's Cathedral, London.

1-70 1702: Philippe Grandjean (punch cutter), Romain du Roi, the first transitional face.

1-66

1-69

ABCDEFGHIKLMN
OPQRSTUVWXYZJ
Quouſque tandem abutere,
Catilina, patientia noſtra? qu
Quouſque tandem abutere, Ca-
tilina, patientia noſtra? quam-

This new Foundery was begun in the Year 1720, and finiſh'd 1763; and will (with God's leave) be carried on, improved, and inlarged, by William Caslon and Son, Letter-Founders in LONDON.

1-72

1-67

sa doctrine et de ses lois. Après, il nous fait voir tous
les hommes renfermés en un seul homme, et sa femme
même tirée de lui ; la concorde des mariages et la

1-70

1-75

1722

1-76

1-77

1-82

LA

DIVINA

COMMEDIA

DI

DANTE ALIGHIERI

CON

ILLUSTRAZIONI

TOMO I.

PISA

DALLA TIPOGRAFIA

DELLA SOCIETÀ LETTERARIA

MDCCCIV.

1-73

1-73 **1722:** Castletown House, near Dublin, Ireland.

1738: First spinning machines are patented in England.

1-75 **1750:** François Boucher, *The Love Letter.*

1-74 **1744:** Benjamin Franklin, title page using Caslon type.

1-76 **1750s:** John Baskerville creates extraordinary transitional typefaces.

1-77 **1765:** Thomas Cottrell introduces display types two inches tall (shown actual size).

1-78 **1768:** Pierre Simon Fournier le Jeune, ornamented types.

1-79 **1773:** Johann David Steingruber, letter *A* from *Architektonisches Alphabet.*

1-80 **1774:** John Holt, broadside of the American revolutionary era, using Caslon type.

1775: James Watt constructs the first efficient steam engine.

1776: American Declaration of Independence is signed.

1-81 **1784:** François Ambroise Didot, the first true Modern Style typeface.

1789: The fall of the Bastille launches the French Revolution.

1-82 **1791:** Giambattista Bodoni, Modern Style typefaces of geometric construction, with hairline serifs.

1791: American Bill of Rights guarantees freedoms of religion, speech, and the press.

1793: French King Louis XVI and Marie Antoinette are sent to the guillotine.

1796: Aloys Senefelder invents lithography.

1799: Nicolas-Louis Robert invents the papermaking machine.

1-74

M. T. CICERO's

CATO MAJOR,

OR HIS

DISCOURSE

OF

OLD-AGE:

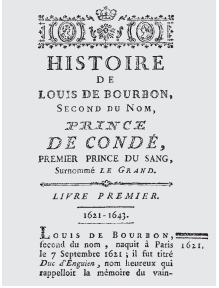
With Explanatory NOTES.

PHILADELPHIA:

Printed and Sold by B. FRANKLIN,

MDCCXLIV.

1-78



HISTOIRE

DE

LOUIS DE BOURBON,

SECOND DU NOM,

PRINCE

DE CONDÉ,

PREMIER PRINCE DU SANG,

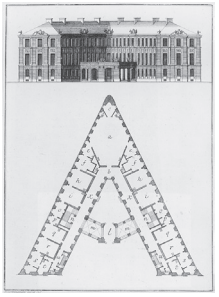
Surnommé *LE GRAND.*

LIVRE PREMIER.

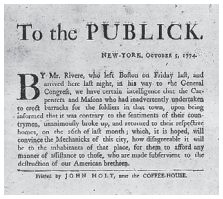
1621-1643.

LOUIS DE BOURBON, second du nom, naquit à Paris le 7 Septembre 1621; il fut tiré *Duc d'Enguien*, nom heureux qui rappelloit la mémoire du vain-

1-79



1-80



To the PUBLICK.

NEW-YORK, October 5, 1774.

1-81

lumes in-4° sur papier-vélin de la fabrique de messieurs Matthieu Johannot pere et fils, d'Annonai, premiers fabricants de cette sorte de papiers en

The nineteenth century and the Industrial Revolution: 1800–1899

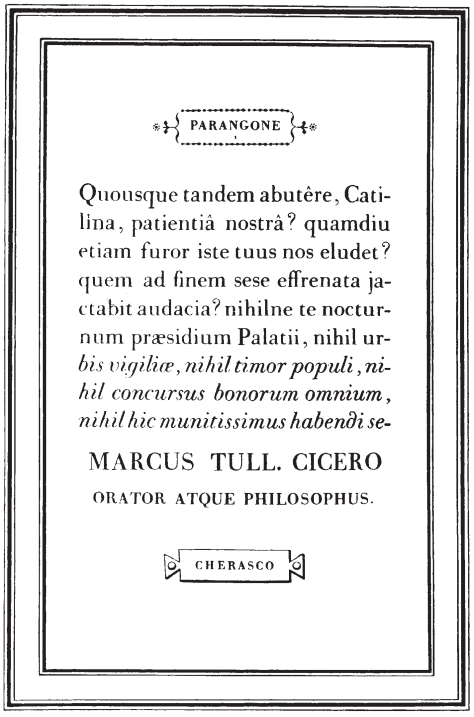
The Industrial Revolution had a dramatic impact upon typography and the graphic arts. New technology radically altered printing, and designers responded with an outpouring of new forms and images.

1803

1-84 **1812:** Jacques-Louis David, *Napoleon in His Study* (detail).

1814: Friedrich Koenig invents the steam-powered printing press.

1-88



1-89

Manchester

1-83

R. THORNE

1-83 **c. 1803:** Robert Thorne designs the first fat face.

1804: Napoleon Bonaparte crowned emperor of France.

1808: Ludwig van Beethoven composes his Fifth Symphony.

1-85 **1815:** Vincent Figgins shows the first Egyptian (slab-serif) typefaces.

1-86 **1815:** Vincent Figgins shows the earliest shaded type.

1-87 **1816:** William Caslon IV introduces the first sans serif type.

1-88 **1818:** Page from *Manuale tipografico*, which presented the lifework of Giambattista Bodoni.

1-89 **1821:** Robert Thorne, Tuscan style with splayed serifs.

1-85

ABCDEFGHIJK

1-86

ABCDEFGHIKM

1-87

LETTERFOUNDER

1822

1-90 1822: Thomas Jefferson, rotunda of the University of Virginia in the neoclassical style based on Greek and Roman architecture.

1822: Joseph-Nicéphore Niépce produces the first photographic printing plate.

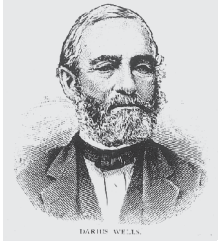
1-91

1-91 c. 1826: Bower, Bacon and Bower, early reversed type entitled White.

1826: Joseph-Nicéphore Niépce takes the first photograph from nature.

1-92 1827: Darius Wells invents the mechanical router, making the manufacture of large display wood types possible.

1-92



1-93 1833: Vincent Figgins introduces outline types.

1-93

HOUSEHOLD FURNITURE,
PLATE, CHINA-WARE, JEWELS,
WATCHES

1-94

THEATRE-ROYAL, NORWICH.

FOR THE BENEFIT OF

R. Battley,

FRUITERER.

On THURSDAY, 12th May, 1836,

Will be performed the POPULAR PLAY, of The

CASTLE SPECTRE.

Earl Osmond....Mr. MADDOCKS
Reginald ....Mr. HAMERTON | Kenric....Mr. G. SMITH
Earl Percy....Mr. NICHOLS | Sulk.....Mr. HARRISON
Father Philip...Mr. GRAY | Muley....Mr. BRYAN
Motley .....Mr. GILL | Hassan....Mr. NANTZ.

Angela....Mrs. G. SMITH
Alicia.....Mrs. WATKINSON | Evelina....Miss HONEY.

END OF THE PLAY,

A COMIC SONG

BY MR. MARTIN.

To conclude with the NAUTICAL DRAMA, of The

PILOT,

OR, A

STORM AT SEA!

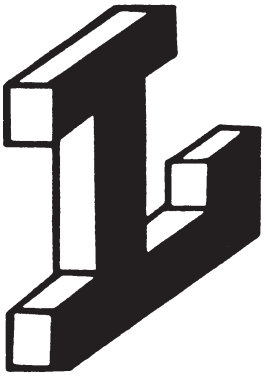
The Pilot, Mr. MADDOCKS
Barnstable, Mr. G. SMITH—Captain Borogheliffe, (a regular Yankee), Mr. GILL
Long Tom Coffin, Mr. NANTZ
Captain of the Alacrity, Mr. HAMERTON—Colonel Howard Mr. GRAY
Lieutenant Griffith, Mr. TAYLOR—Serjeant Drill, Mr. NICHOLS.
Sailors, Soldiers, &c.
Kate Plowden, Mrs. PLUMER—Cecilia, Miss HONEY
Irish Woman, Mrs. WATKINSON.

DAVY & BERRY, PRINTERS, ALBION OFFICE.

1-94 1836: Davy and Berry, poster printed with wood type.

1830s–80s: Wood-type posters and broadsides flourish in America and Europe.

1-95



1-95 1836: Vincent Figgins, perspective type.

1-96 1837: Handbill set in fat face.

1837: Victoria crowned queen of England.

1-96

Working Men, Attention!!

Globe Office
Saturday, November
20. 1837

It is your imperious duty to drop your *Hammers and Sledges*! one and all, to your post repair, *THIS AFTERNOON*, at *FIVE* o'clock P. M. and attend the

GREAT MEETING

called by the papers of this morning, to be held at the CITY HALL, then and there to co-operate with such as have the GREAT GOOD OF ALL THEIR *FELLOW CITIZENS at Heart*. Your liberty! yea, your *LABOUR!!* is the subject of the call: who that values the services of HEROES of the *Revolution* whose blood achieved our Independence as a Nation, will for a moment doubt he owes a few hours this afternoon to his wife and children?

HANCOCK.

1840s: Ornamented type becomes increasingly important.

1840

1-97 c. 1840–52: Sir Charles Barry and A. W. N. Pugin, Houses of Parliament, London, inspiration for the Gothic Revival.

PRES'T. MADISON'S LIBRARY,

AT AUCTION.

AT Orange Court House, Virginia, on Tuesday the 27th day of June, prox., being the day after the County Court of Orange in that month; I shall sell at public auction, to the highest bidder, that part of the Library of the late James Madison, which, in a recent division of his books with the University of Virginia, fell to the share of my testator; and at the same time I will sell other books, the property of my said testator. In all there are some

SEVEN OR EIGHT HUNDRED VOLUMES,

among which are many very rare and desirable works, some in Greek, some in Latin, numerous others in French, and yet more in English, in almost all the departments of Literature; not a few of them being in this manner exposed to sale only because the University possessed already copies of the same editions. The sale beginning on the day above mentioned, will be continued from day to day till all the books shall have been sold, on the following terms:

Cash will be required of each purchaser whose aggregate purchases shall amount to no more than Five dollars; those whose purchases shall exceed that amount, will have the privilege either to pay the cash or to give bond with approved security, bearing interest from the date, and payable six months thereafter.

ELHANON ROW, Administrator,
with the will annexed of John P. Todd, dec'd.

May 30, 1854.

1-101

1-98 c. 1841: Wood and Sharwoods, ornamental type.

1-99 1845: Robert Besley, the first Clarendon style.

1848: The California Gold Rush begins.

1851: Joseph Paxton designs the Crystal Palace.

1-100 1853: Handbill combining Egyptian, outline, and decorative types.

1-101 1854: Broadside using elongated fat face fonts.

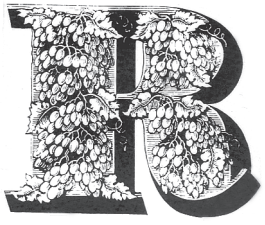
1854: The United States makes its first treaty with Japan.

1856: Sir Henry Bessemer develops process for converting iron to steel.

1-102 1859: William H. Page and Company, Ornamented Clarendons.

1859: Charles Darwin publishes *Origin of Species by Means of Natural Selection.*

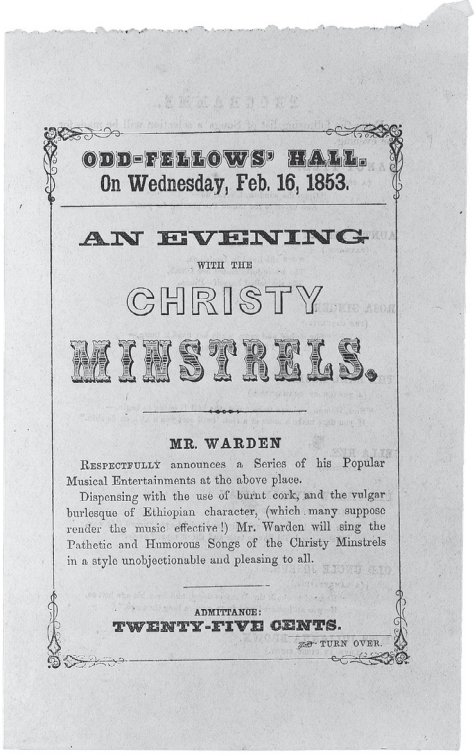
1-98



audacia tua? nihilne te noc
dium palatii, nihil urbis vigi

1-99

1-100



ODD-FELLOWS' HALL.
On Wednesday, Feb. 16, 1853.

AN EVENING
WITH THE
CHRISTY
MINSTRELS.

MR. WARDEN

Respectfully announces a Series of his Popular Musical Entertainments at the above place.

Dispensing with the use of burnt cork, and the vulgar burlesque of Ethiopian character, (which many suppose render the music effective!) Mr. Warden will sing the Pathetic and Humorous Songs of the Christy Minstrels in a style unobjectionable and pleasing to all.

ADMITTANCE:
TWENTY-FIVE CENTS.

☞ TURN OVER.

1-102

HON
HEN
HUE
HEN
HEN

1860

1-103 **1860:** *Charleston Mercury*, broadsheet announcing the dissolution of the Union.

1-104

1-104 **c. 1865:** Honoré Daumier, *The Third-Class Carriage*.

1861–65: American Civil War.

1863: Abraham Lincoln signs the Emancipation Proclamation.

1866: The first successful transatlantic cable is laid.

1867: Alfred Nobel invents dynamite.

1867: Christopher Sholes constructs the first practical typewriter.

1-105

1-105 **1868:** Currier & Ives, *American Homestead Winter*.

1-107 **1883:** The Brooklyn Bridge is opened to traffic.

1883: William Jenney designs the first skyscraper, a ten-story metal-frame building in Chicago.

1-109

1-109 **c. 1880s:** Lettering printed by chromolithography.

1-106 **c. 1875:** J. Ottmann, chromolithographic card for Mrs. Winslow's Soothing Syrup.

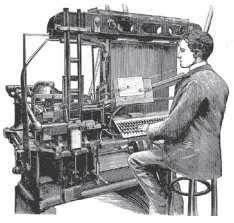
1876: Alexander Graham Bell invents the telephone.

1877: Thomas Edison invents the phonograph.

1879: Thomas Edison invents the electric lightbulb.

1-108 **c. 1885:** Maverick & Wissinger, engraved business card.

1-110 **1886:** Ottmar Mergenthaler invents the Linotype, the first keyboard typesetting machine.



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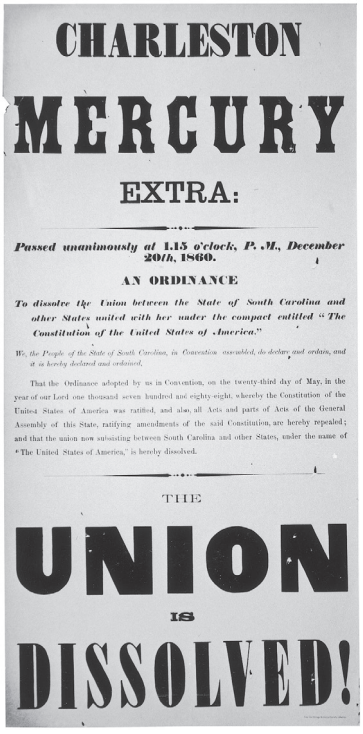

CHARLESTON
MERCURY
EXTRA:

Passed unanimously at 1.15 o'clock, P. M., December 20th, 1860.

AN ORDINANCE

To dissolve the Union between the State of South Carolina and other States united with her under the compact entitled "The Constitution of the United States of America."

We, the People of the State of South Carolina, in Convention assembled, do declare and ordain, and it is hereby declared and ordained,

That the Ordinance adopted by us in Convention, on the twenty-third day of May, in the year of our Lord one thousand seven hundred and eighty-eight, whereby the Constitution of the United States of America was ratified, and also all Acts and parts of Acts of the General Assembly of this State, ratifying amendments of the said Constitution, are hereby repealed; and that the union now subsisting between South Carolina and other States, under the name of "The United States of America," is hereby dissolved.

THE
UNION
IS
DISSOLVED!

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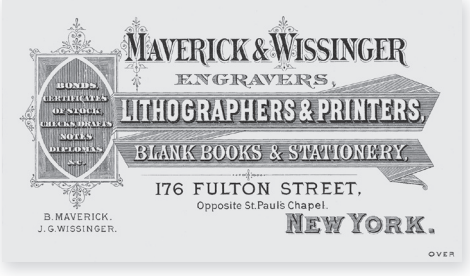


1-108

1887

1-112

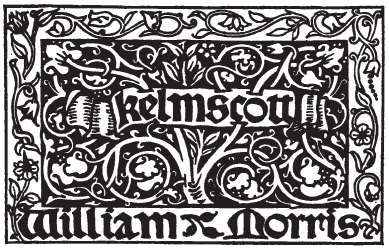
1-112 **1889:** Alexandre Gustave Eiffel, the Eiffel Tower.

1-114

1-114 **1892:** Paul Gauguin, *By the Sea*.

1-115

This is the Golden type.
This is the Troy type.
This is the Chaucer type.



1-116

1-111 **1887:** Advertisement for Estey Organ.

1887: Tolbert Lanston invents the Monotype machine.

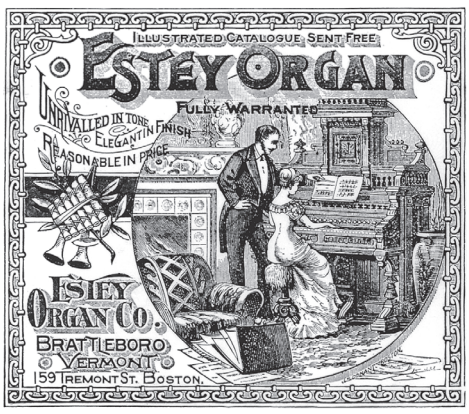
1-113 **c. 1890s:** Coca-Cola syrup jug.

1-115 William Morris' typeface designs: **1890**, Golden; **1892**, Troy; **1893**, Chaucer.

1-116 **1891–98:** William Morris' Kelmscott Press launches a revival of printing and typography.

1-117 **1892:** William Morris, page from *News from Nowhere*.

1-111



1-117

Afloat again

CHAPTER XXIV. UP THE THAMES. THE SECOND DAY.

THEY were not slow to take my hint; & indeed, as to the mere time of day, it was best for us to be off, as it was past seven o'clock, & the day promised to be very hot. So we got up and went down to our boat; Ellen thoughtful and abstracted; the old man very kind and courteous, as if to make up for his crabbedness of opinion. Clara was cheerful & natural, but a little subdued, I thought; and she at least was not sorry to be gone, and often looked shyly and timidly at Ellen and her strange wild beauty. So we got into the boat, Dick saying as he took his place, "Well, it is a fine day!" and the old man answering "What! you like that, do you?" once more; and presently Dick was sending the bows swiftly through the slow weed-checked stream. I turned round as we got into mid-stream, and waving my hand to our hosts, saw Ellen leaning on the old man's shoulder, and caressing his healthy apple-red cheek, and quite a keen pang smote me as I thought how I should never see the beautiful girl again. Presently I insisted on taking the sculls, and I rowed a good deal that day; which no doubt accounts for the fact that we got very late

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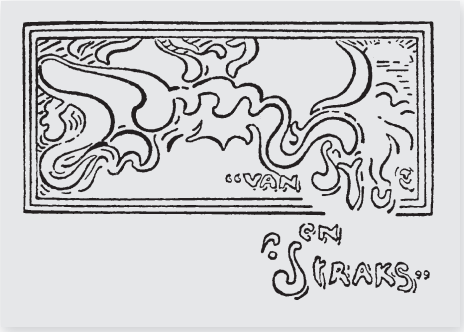
1893



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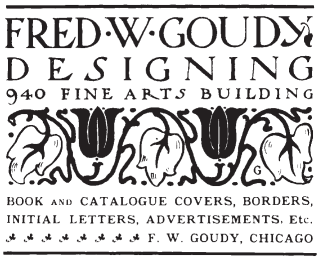

1-120

1-123

1-123 1898–1902: Hector Guimard, entrance to a Paris Métro station.

1-118 1893: Henri van de Velde, title page for *Van Nu en Straks*.

1895: The Lumière brothers give the first motion-picture presentation.

1-119 1897: Edmond Deman, title page in the curvilinear art nouveau style.

1-120 1890s–1940s: Inspired by Kelmscott, Americans Frederick Goudy and Bruce Rogers bring renewed excellence to book and typeface design.

1-121 1897: Will Bradley, title page in his "chap book" style, reviving Caslon type and colonial woodcut techniques.

1899: Construction begins on the first zeppelin airship.

1-122 1899: Josef Hoffmann, catalog cover for a Vienna Secession exhibition.

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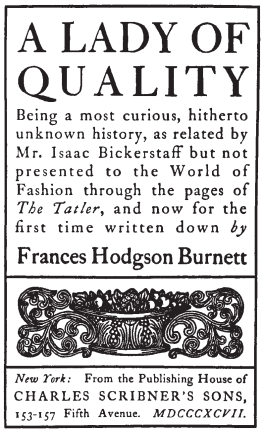

1-122

Typography in the twentieth century: 1900–2000

The twentieth century was a period of incredible ferment and change. Unprecedented advances in science and technology, and revolutionary developments in art and design left their marks on typography.

1900

1900: Peter Behrens, dedication page from *Feste des Lebens und der Künst.*

1903: The Wright brothers achieve the first powered flight.

1905: Albert Einstein proposes his theory of relativity.

1909: Filippo Marinetti founds Futurism, experiments with typographic form and syntax.

c. 1910: German sans serif "block style."

1913: Wassily Kandinsky, *Improvisation 31 (Sea Battle).*

1914–18: World War I.

c. 1915: Kasimir Malevich, painting shown at the 0.10 group exhibition launching Suprematism.

c. 1916: Bert Thomas, British war bonds poster.

1917–22: The Dada movement protests the war and conventional art.

1917: John Heartfield, Dadaist advertisement.

1917: Vilmos Huszar, *De Stijl* magazine cover.

1918: Czar Nicholas II and his family are executed.

1919: Raoul Hausmann, Dada poem.

1920: Women's suffrage is granted in the United States.

1920: Bolsheviks triumph in the Russian Revolution.

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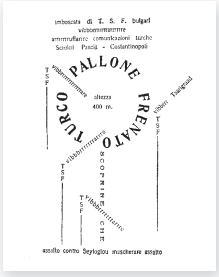

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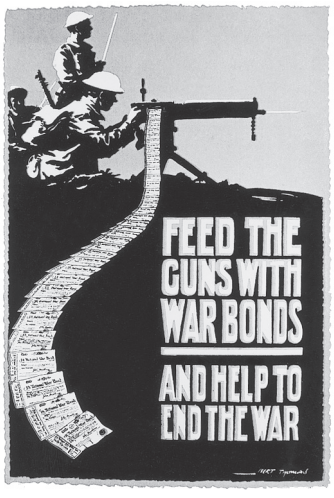

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