

## Catalogue B: Interactive Books, 1474-ca 1750

### Perspective, Geometry and Architecture

1. Dürer, Albrecht. *Unterweissung der Messung*. Perspective Flap. 1525, 1538. Also *Institutionum geometricarum*. (Latin of Unterweissung) Latetiae: Christianum Wechelum, 1535. Beinecke Rare Book and Manuscript Library, Yale University.
2. Vitruvius, Pollio. *De Architectura*. Daniele da Barbaro, ed. Francesco Marcolini: Venice, 1556. Several flaps-architectural completions, volvelle and before and after (6 extensions, 3 volvelles and 2 cancels). Beinecke.
3. Euclides. *Elements of Geometrie*. English translation by H. Billingsley. Preface by M. I. Dee. London: J. Daye, 1570, flaps constructing geometric forms. Beinecke.
4. Stevin, Simon. *Beghinsel der Weeghconst*. Leiden: Christoffel Plantijn, 1586. Herzog August Bibliothek, Wolfenbüttel (HAB).
5. Caus, Salomon de. *La perspective, avec la raison des ombres et miroirs*, par Salomon de Caus. Londres: Chez Jan Norton imprimeur du Roy de la Grande Bretagne. 1612. Flap for perspective, Perspective peephole. 1612. Beinecke.
6. Stevin, Simon. *Les Oeuvre mathematiques*. Revue, corrige, et augente par Albert Girard. Leyden: Elsevier, 1634, flap. Beinecke.
7. Stevin, Simon. *Wisconstige Gedachtnissen*. 4 vols in 2. Leyden: Bouwensz, 1605-1608, flap. Bibliotheca Palatina, Vatican Library.
8. Viète, François. *Francisci Vietae Opera mathematica*. 1646, parts for 3 movable diagrams, Beinecke.
9. Megalinus, Joannes. *Novum memoriale mathematicum nobliorum problematum*. English manuscript ca mid 17<sup>th</sup> century, volvelle. Cushing/Whitney Medical Historical Library, Yale University (Yale MHL).
10. Bosse, Abraham. *Traité des pratiques geometrales et perspectives*. Paris: Chez l'Auteur, 1665, flap, plate 50. Beinecke.
11. Moxon, Joseph. *Practical perspective, or, Perspective made easie: teaching, by the opticks, how to delineate all bodies, buildings, or landskips, &c*. London: printed by Joseph Moxon, and sold at his shop in Russel Street. Includes mica-pane, 7, and plate LVII have movable slips. 1670. British Art Center; Huntington.

### Medical and Natural Science

12. Chrysogonus, Federicus. *De modo collegiati: pronosticandi & curandi febres*, Venice, 1528, "figura supra-dictorum w/movable parts." Yale MHL.

13. Vesalius, Andreas. *De humani corporis fabrica librorum epitome*. Basileae [ex officina I. Oporini, 1543], sheets with flaps can be cut out. Copies (possibly) at the British Library and University of Liège (destroyed) were constructed.
14. *Epitome*. Latin and German versions, both 1543, Basel. Stockholm Royal Library and New York Academy of Medicine, Malloch Rare Book Room (NYAM), hold constructed Latin copies; Huntington has a constructed German copy.
15. Cardano, Girolamo. *De Rerum Varietate libri XVII*. Basle, Heinrich Petri, 1557, folio, with woodcut portrait of author on title, volvelle plate for leaf O1. HAB.
16. Thurneisser von Thurn, Leonhard \**Confirmatio concertationis: oder ein Bestettigung desz jenigen so strittig, haderig, oder zenckisch ist . . .* titled sometimes “Bebaiosis agonismou.” On urine. Three anatomy flap prints, with two tipped in as whole separate sheets, others a permanent component (check page numbers); also flap of distillation furnace and a volvelle cogwheel? 1576. Yale MHL.
17. Bartsch, Georg. *Ophthalmouleia; das ist, Augendienst*. Dresden: 1583, 2 flap diagrams of head and eyes. (Also Frankfurt, 1584.) NYAM.
18. Schenk, Johann Georg. *Monstrorum Historia Memorabilis*. Frankfurt am. Main: Theodor de Bry (and sons), 1609, with flap covering head of monstrosity, 2. NYAM.
19. Quattrocchi, Alberto. *Disputatio Alberti Quattrocchi medici Veneti, de officinae pharmaceuticae veris*, Venetiis: Apud Antonium Pinellum, 1617, volvelle, 14. National Library of Medicine, Bethesda MD, National Institute of Health (NIH).
20. Descartes, René. *De Hominé, Figuris, et Latinitate donatus a Florentino*. Leiden: Hacxkiana, 1664, anatomical flaps (over viscera). Beinecke (deficient); Yale MHL has two complete copies.
21. Hooke, Robert. *Philosophical Collections*. [London: 1679-1682.], “Rundle” with instructions to cut it out. Yale MHL.
22. Minniti, Francesco. *Armonia astro-medico-anotomica; o'sia, Colleganza degl'astri con il microscosmo, e di questo con I vegetabili, con un'appendice della nautica, ed in calce un raccolto di arcani sperimentati*. Venice, 1690, anatomical flaps. Yale MHL.  
Identical with Riccio, Daniel. *Ristretto anotomico; o sia, Aleanza de gl'astri, con l'huomo, e vegetabili*. Yale MHL. See Cat. A 117-120 for single-sheet flap anatomy print from 1663 published by Antonio Moneta that this work copies, one in Yale MHL.
23. Gunter, Edmund. *Vvorks* 1653, one volvelle. Yale MHL.
24. Medical and astrological manuscripts: British Library: Egerton MS 848, (thirteenth-century volvelle on final folio); Egerton MS 2572, Barber's guild register with fifteenth-century medical volvelle; Egerton 2724, probably fifteenth-century folding calendar.  
English manuscript; Manuscript 26, ca 1553, written in red and black ink on vellum, includes a movable astrolabe attached to leaf 36r. Yale MHL.

## Memory, Rhetoric and the Great Art

25. Earliest Memory and Fate manuscripts with original volvelles:  
1250s Matthew Paris CCCC, MS 26, fol. 4, Corpus Christi College, Cambridge.  
1300s copy of Paris' ca 1250 *Book of Fate*, Oxford (Digby ms 46), with volvelle in front cover.  
1306 Raymondus Lull manuscript of his *Ars Generalis* has been described as being in the British Library, Walker, 3, citing Blumenthal. The work could not be located in London.
26. Lull. Raymond. *Ars Brevis*. Lugduni: per magistrum Stephanus 1514, volvelle. Beinecke.
27. *Illuminati sacre pagine p[ro]fessoris amplissimi magistri Raymundi Lull. Ars magna generalis et vltima*. Lyons, 1517, volvelle. Beinecke.
28. *Ars brevis and Artivli fidei sacrosanctae ac alvtiferae legis Christianae*, 1578, volvelle. Beinecke.
29. *Opusculum Raymundinum de auditu kabbalístico sive ad omnes scientias introductorium*. Paris: Gilles Gourbin 1578. Beinecke.
30. *Opera ea quae ad inventam ab ipso artem universalem*. Strasburg, for heirs of Lazarus Zetzner, 1651. (3 folding tables, 1 folding table with 6 volvelles, uncut (Martyalan).
31. *Clavis Artis Lullianae, et Verae Logices*, ed by Alstead, hohann henricus. w/uncut volvelles. Also Zetzner 1652. Beinecke.
32. Publicius, Jacopo. *Artes orandi, epistolandi, memorandi*. Erhard Ratdolt, Venice, 1485. Snake-shaped volvelle pointer present in Library of Congress (LoC), and Oxford examples. 1485. Beinecke's three copies are all deficient. Oxford, Huntington have complete copy of 1490; Huntington also has a 1482 edition with the volvelle.
33. [Ars memorativa] Imprint [Cologne, Johann Guldenschaff, 1483?] Movable alphabet version of Publicius with woodcut copies after his illustrations many of which are sewn in as volvelles. NYPL, Rare Books copy has half of dials; A British Library copy fills in those missing.
34. Kircher, Athanasius. *Ars magna sciendi: in XII libros digesta, qua nova & universali methodo per artificiosum combinationum contextum . . .* Amstelodami: Apud Joannem Janssonium a Waesbefe & Viduam Elizei Aeyerstraet, 1669, with a double volvelle on 13.
35. *Mundus subterraneus*. 1665, volvelle. Beinecke.

## Cryptography and Spelling

36. Trithemius, Johannes. *Polygraphie et vniverselle esriture cabalistique de m. I. Tritheme*

*abbé*. Paris: I. Keruer, 1561. Multiple multi-layer cryptographic volvelles. Beinecke.

37. *De fyrtivis literarvm notis vulgo, De ziferis libri IIII*. Neapoli. Apud Ioa. Mariam Scotum, 1563. Three cryptographic volvelles, uncut in original sheet; also in Naples in 1602. LoC (1563); NYPL, Rare Books (1602).

38. Della Porta, Giambattista. *De occultis literarvm notis*. Montbéliard. 1593. Beinecke. Three cryptographic volvelles; also at Zetzner in Strasbourg: 1603 and 1606. Both HAB.

39. Della Porta, *De fyrtivis literarvm notis vulgo*. London: John Wolfe pub, 1591 (as 1563); and an edition correctly dated 1591. Beinecke copy remains erroneously catalogued as Naples 1563.

40. Harsdörffer, Georg Philipp. *Deliciae physico-mathematicae*. Nürnberg: Jeremia Du''mlein, 1651. 3 vol in 1, Vol 2 and 3, also by Daniel Schwenter. [Also 1677 ed. Pub in Nürnberg by Wolfgang Moritz Endter and Johann Andrae Endter.], volvelle calendar of religious and other history. Beinecke.

41. *Poetischer Trichter . . .* 3 vols in 1 (Nürnberg: Wolfgang Endter, 1648-53), volvelle for constructing German words. Beinecke.

#### **Astronomy, Calendars and Timetelling: Books with Built-in Volvelles and Instruments**

42. Regiomontanus, ie Johannes Müller. *Calendarium* and afterwards, *Kalendar*. Nürnberg: Johannes Müller, 1474, lunar volvelle and three instruments. Beinecke. Earliest printed volvelle according to Margaret Stillwell.

43. *Calendarium*. Venice, Erhard Ratdolt, 1476, lunar volvelle and three instruments. Beinecke.

44. *Calendarium*. Venice, Erhard Ratdolt, 1483-5 (Latin, German, Italian), lunar volvelle and three instruments. Beinecke; NYPL, Rare Books.

45. Pseudo-Phalaris. *Francisci Arretini in Phalaridis tyranni A*, 1493. Ms volvelle/calendar tipped in. 1493. Beinecke.

46. Regiomontanus. *Kalendarius cum vero motu solis [et] duplici modo inueniendi verum motum lune, vulgari*. Zwolle: P. van Os, 1502, volvelle, 21. LoC.

47. *Kalendarius Tëutsch*. [Augsburg: 1512.] Also unlocated 1514 edition. Yale MHL.

48. Stoeffler, Johann. *Elucidatio Fabricae Vsvsque Astrolabii . . .* Oppenheym: Jacob Köbel, 1513, fold-out flap. Beinecke (two copies).

49. Stoeffler, Johann. *Calendarivm Romanvm magnvm*. [Oppenheym: J. Köbel, 1518], movable part. Yale MHL.

50. Schöner, Johann. *Aequatorium Astronomicum* 1521, volvelles. Bamberg UB; Ludwig-

Maximilian UB, Munich; Robert Gordon collection.

51. Münster, Sebastian. *Organica Planetarvm*. Basel: Henricvs Petrvs, 1536, volvelles. Bibliotheca Palatina.
52. Münster, Sebastian. *Organum Uranicum*. Basel: H. Petrvm, 1536, volvelle. LoC.
53. Apianus, Petrus *Ein kunstlich Instrument oder sonnen vr*. Landshut: Johann Wyssenburger, 1524, volvelle 4, 6, 24. Beinecke.
54. Apianus, Petrus. *Astronomicum Caesareum*. Ingoldstadt: Author's Private Press, 1540, numerous volvelles. Beinecke; Yale MHL. See Gingerich (Röttel) for 111 more surviving copies.
55. Stoeffler, Johann. *Cosmographicae Aliquot Descriptiones*. Marburg: Eucharius Cervicornus, 1537, with a cut-out/volvelle. Beinecke.
56. Focard, Jaques. *Paraphrase de l'astrolabe contenant: les principes de géométrie, la sphère, l'astrolabe, ou, declaration des choses celestes, le miroir du monde, ou, exposition des parties de la terre*. Lyon, par Jean de Tournes, 1546, moving part, fig. 17. Yale MHL.
57. Koebel, Jacob. *Astrolabii declaratio, eivsdemqv usus mire iucundus, non modo astrologis, medicis . . .* Parisiis, apud Gulielmum Cauellat, 1550, plate contains volvelles meant to be cut out. Beinecke; Robert Gordon collection.
58. Bassantin, Jacques. *Astronomique Discours*. Lyon, 1557; reprint in 1613. Smithsonian.
59. Münster, Sebastian. *Rvdimenta Mathematica*. Basileae: [1551], cut-outs/volvelle. Beinecke.
60. Peucer, Kaspar. *Elementa doctrinae de circulis coelestibus*. Volvelles. 1551, volvelles, F6r, I2r and two others; reprint from 1563. Beinecke.
61. Peurbach, Georg von. *Theoricae nouae planetarum Georgij Purbach*. Wittenberg, Ioannes Luft 1553. Beinecke.
62. Theodoricus, Sebastianus. *Novae Quaestiones Sphaerae*. Vitebergae: [Iohannes Crato], 1567. (Also Vitebergae: 1564, 1570, 1578, 1583 and 1591), volvelle. Beinecke.
63. Thurneisser zum Thurn, Leonhard. *Archidoxa*. Muenster: Johan Ossenberg, 1569, eight folding engraved volvelles. Beinecke.
64. *Archidoxa* text reissued with woodcut *Planeten Tafeln: Archidoxa. Dorin der recht war Motus, Lauff und Gang / auch heimlichkeit / Wirkung und Krafft/ der Planeten / Stirns / und ganzen Firmamets Mutie*. Printed in Berlin im Grawen Closter Anno 1575. HAB; Berlin Staatsbibliothek (Berlin); Bayerisches Staatsbibliothek, Munich (BSB); Harvard, Houghton; Österreichische Nationalbibliothek (ONB); Getty; Robert Gordon Collection; Bibliotheca Palatina.

See Cat. A 281 for text to the bookbinder.

65. Nale, Nicolo. Dialogo sopra la sfera del mondo. Venetia, Appresso Francesco Ziletti, 1579, page 136 includes at the foot a woodcut half circle with attached pointer, accompanied by directions for mounting it as a volvelle on the figure of the earth. Getty.
66. Carrarino, Antonio. *Opera astrologica perpetua ridotta secondo la 'nuova riforma dell'anno*. [Rome], 1581, volvelles. Beinecke.
67. Zamorano, Rodrigo. *Compendio de la arte de navegar*. Seville, 1582, plate w/ movable parts. Beinecke.
68. Besson, Jacques, *Theatrum instrumentorum et machinarum*. Ludgduni: Barth. Vincent, 1582, volvelle. Beinecke.
69. Dariot, Claude. *Dariotus redivivus: or a briefe introduction conducing to the iudgement of the stars*. London, Andrew Kemp, 1653, volvelles on leaves F3r, G1r, L1r, V1v, and Z3r; also London: Thomas Purfoot, 1583 and 1598, (volvelles on F3r, G1r). Beinecke.
70. Gallucci, Giovanni Paolo, *Theatrum Mundi, et Temporis . . .* Venice: Ioannem Baptistam Somasum, 1588. (Also 1589.), volvelle. Beinecke.
71. Myriti, Giovanni, *Opusculum Geographicum Rarum Totius eius negotii rationem*, (Ingolstadt,: Wolfgang Eber, 1590), five volvelles (some after Apian's Cosmography), LoC.
72. Gallucci, Giovanni Paolo. *Della Fabrica et Vso di Diversi Stromenti de Astronomica, et Cosmografia . . .* (Venice: Ruberto Meietti, 1598), volvelle, cut-out, Beinecke.
73. *Della fabrica, & vso del nouo horologio vniuersale ad ogni latitudine : nouo trattato diuiso in due parti*. Venice, 1590, five volvelles, supplied on two sheets. Beinecke; Yale MHL; NYPL, Rare Books.
74. *Coelestrivm Corporvm et Rervm*. Venice: Damaiano Zenaro, 1593, volvelle. Beinecke.
75. *Speculum Uranicum*. Venice: Damiano Zenaro, 1593, volvelles on rectos of 7, 8, 10, 11, 12, 13, 14, 15, 16, 17, 18 (verso), 19 (verso) opposite 20 [misnumbered 19] (recto). Distinctive printed "boss" slips cover the knot on most versos. Beinecke, Göttingen.
75. Blundeville, Thomas. *M. Blundeuile His exercises, containing. . .* London, J Windet, 1594; 1597 (index string on 147; volvelle on 151); 1606; also London: W. Stansby, 1613; 1622. Beinecke.
76. Habermann, Johann. *Christliches Gebät-Buchlein*, Strassburg 1613, calendar volvelle. (first ed 1572; second 1591). Beinecke.
77. Pisani Ottavio. *Octavii Pisani Astrologia sev Motvs . . .* (1613), multiple large volvelles, Beinecke. Among his masters were Domenico Pizzimenti, classicist and alchemist, Donato Antonio Altomare and Giovanni Antonio Pisano, philosophers and doctors active

in Naples during Della Porta's youth. The last of these, who was also public lecturer in applied medicine from 1557 to 1585 and attracted capacity crowds, is praised by Della Porta in the dedication of *De refractione* (1593) to Pisano's son, Ottavio.

78. Ridley, Mark. *A short treatise of magneticall bodies and motions*. London: Printed by Nicholas Okes, 1613, volvelle, 137. Beinecke.
79. Biancini, Giuseppe, *Sphaera mundi, seu cosmographia*. Bononiae: Typis Sebastiani Bonomij, 1620. volvelle, 227, Getty.
80. Yves de Paris. *Astrologiae nova methodvs*, 1658. Retains some of the volvelles from earlier censored version. Beinecke.
81. Manenti da Este, Francesco, *De Liberatione Astronomice Perpetve* (Mantua: Aurelio Osanna, 1643), engraved volvelles with cut-outs. Collection of Robert Gordon.
82. Hevelius, Johannes. *Selenographia: sive, Lunae descriptio . . .* Gedani: Typis Hünefeldianis, 164, volvelle on plate 21. Beinecke; Huntington.
83. Wing, Vincent, *Urania practica: or, Practical astronomie*. (London: R Leybourn, 1649), volvelle on 125. Huntington.  
1652 edition at Huntington has a volvelle on S3r in facsimile; also a 1649 edition.
84. Wood, Robert. *The times mended: or, A rectified account of time, by a new luni-solar year; the true way to number our days*. London, Unnumbered plate with volvelle attached, 1681. Huntington.
85. Cantone, Girolamo. *Modo di fare horologi portatili sole, luna, e stelle sopra colonelle, croci, medaglie, e scatolini : da servirsene senza l'Ago Calamitato per diverse elevationi di polo / opera del padre Girolamo Cantone*. 1682, volvelle with three parts. Houghton.
86. Gougeon, Louis. *Cosmographie, ou, Traité de la sphere du mond universel: Contenant une exacte description de la région Etherée & Elémentaire, avec un Traité de l'Horlogeographie*. 1693, volvelle, 14. Adler Planetarium.

#### **Pamphlets with Anatomies and Instruments on Separate Sheets**

There was never a guarantee that these printed instruments would be bound with the rest of the book; many were used before that stage.

87. Waldseemüller, Martin. *Cosmographiae Introdv- / ctio/ Cvm Qvibvs / dam Geome / triae / Ac / Astrono / miae Principiis Ad / Eam Rem Necessariis. / Insuper quatuor Americi Ve- / spucij nauigationes*, St. Dié, 1507.
- 88-90. Schöner, Johann. *Lucentissimus and Solidi ac Sphaerici*. Nürnberg: Johann Stuchs, 1515/17-8.  
*De Nuper Repertis*. 1523.  
*Globi Stelliferi, Sivi Sphaerare Stellarum and Opusculu geographicum ex diversorum libris ac cartis*, and *Opvsculvm Geographicvm*. Nürnberg: 1533.

91. Münster, Sebastian. *Erklärung des newen Instrument der Sonnen*. Oppenheim, 1528, some copies may have five volvelles. It accompanied an interactive map (Cat. A 261). BSB.
92. *Erklärung des newen Instruments durch Seb. Mönster, über den Mon.* Worms, 1529, accompanied sheet at LMU, Munich, (Cat. A 262). BSB.
93. *Canones super novum instrumentum luminarium: docentes quo pacto per illud inveniuntur Solis et lunae medii et veri motus, lunationes, coniunctiones, oppositiones.* Basel, 1534. Reprinted in 1554. The pamphlet, accompanied the large woodcut sheet at Basel and British Museum. (Cat. A 263) BSB.
94. Vogtherr, Heinrich. *Auslegung unnd beschreibung der Anathomi*. Strasbourg, 1539, accompanied Vogtherr's anatomy flap prints. (Cat. D, Section One) Yale MHL; BSB.
95. Guldenmundt, Hans. *Auslegung unnd beschreibung der Anathomi*. Nürnberg, MDXXXIX, BSB; and again ca 1540, 1541 (BSB), 1547. Copy of Vogtherr; issued with anatomy flap prints of Guldenmundt's devising.
96. Frölich, Jacob. *Auslegung unnd beschreibung der Anathomi*. Strasbourg, 1544. Index Aurelianus. Issued from Vogtherr's original blocks, with reprints of his original anatomy flap woodcuts.
97. Weygel, Hans. (Brieffmaler) 1556. HAB; also 1570. HAB. Direct copy after Vogtherr and Guldenmundt, issued with copies of Vogtherr's anatomy figures.
98. Hartmann *Directorum Medicorum* 1554, accompanied his medico-astronomical dials of the same year. No copy located; cited in Franz Ritter, *De Usu Astrolabium*.
99. Apianus, Petrus. *Quadrans Apiani astronomicus et iam recens inuentus et nunc primum editus : huic adiuncta sunt & alia intrumenta obseruatoria perinde noua*. Ingolstadt: In officina Apiani, VI. Iulii 1532. NYPL, Rare Books (copy is missing the buildable elements); Yale MHL.
100. *Horoscopion*. Ingolstadt, 1533, with constructible instruments. Yale MHL.
101. *Folium Populi*. Ingolstadt, 1533, with constructible instruments. Yale MHL.
102. *Instrumentbuch*. Ingolstadt, 1533, with constructible instruments. Yale MHL.
103. Geminus, English translation of Vesalius. 1559, third edition (dedicated to Queen Elizabeth) was supplied with a woodcut by monogrammist (cut by?) RS, still in most copies. NYAM; Cambridge. Also at British Museum Prints Department as a separate sheet.
104. Vimercato, Giovanni-Battista, *Della Descrittione Teorica et Pratica de Gi Horologi Solari*, (Ferrara: Valente Panizza, 1565), fold-out horizontal sundial sheet woodcut, collection of Robert Gordon.
105. Melanchthon, Philipp. Posthumous *De Anima* commentary accompanying *Anatomical Fugitive Sheets*, Wittenberg, 1573. Presumed to exist.



106. Krabbe, Johann, Paper Astrolabe published at Munden, 1583. (See Zinner, *Instrumente*, 418.) *Newes Astrolabium* pamphlet may have been published with the device in 1583 and it was certainly reprinted in 1608 (Wolfenbüttel, I A v Soehne), 1609 (Frankfurt, M. Becker), 1625 and 1630 (Wolfenbüttel, El. Hohwein). Constructed example of 1583 astrolabe in Oxford. (Cat. A 285)
107. Chauvet, Jacques. *Instrvction Et Vsage Dv Cosmometre. Ov Instrvment Vniversel pour les dimen[s]ions, tant Geometriques que Optiques, A[s]tronomiques & Geographiques: De l'inuention de Iacques Chauuet*. Imprint A Paris, Les exemplaires [s]e vendent au mont S. Hilaire, à l'en[s]eigne du Chaudron, 1585. Although the NYPL, Rare Books copy does not have any cut-out instrument his book presumably was sold with the prints. The Florence Bargello has a made-up copy with metal components added on top of the prints. (Cat. A 286)
108. Blagrove, John. *The mathematical iewel, shewing the making, and most excellent vse of a singular instrument so called*. London, 1585. Beinecke copy has the two plates and the double table bound between the prelim. l. and the text. Cut-out astrolabe.
109. Ritter, Franz. Quadrant pamphlet. *Instructio instrumentalis quadrantis novi, d. i. Beschreibung und Unterricht eines newen Quadranten, mit welchem man allerley Gebäude, desgleichen in den Graden der Gestirnhöch die Minuten finden kann*. 6-8 pages and a folding plate, published in 1597 (Nürnberg), 1599 and 1609 (Nürnberg, Chr. Lochner); constructed example at Frankfurt am Main. HAB. (Cat. A 287)
110. *Speculum Solis, (Mirror of the Sun)*, Nürnberg: Paulus Fürst, 1609 (part I), 1611 (part II); also 1660 edition supported by Harsdörffer. Beinecke.
111. Remmelin, Johann. *Catoptrum microcosmici*. Ulm: 1613. (Also Augustae, 1519, Ulm, 1639, Frankfurt, 1660, flaps. Yale MHL.  
*Kleiner Welt Spiegel*. Augsburg: J.U. Schönigt for J. Remmelin, 1632. (Augsburg: J.L. Remmelin, 1661, Ulm: J.C. Pürlein, 1720, and Ulm: J.C. Bäurlein, 1720), flaps. Yale MHL.  
*A Survey of the Microcosme; or, the Anatomy of the Bodies of Man and Woman*. Corrected by Clopton Havers. 3<sup>rd</sup> ed. London: Printed for D. Midwinter, 1738, flaps. Yale MHL.
112. Ritter, Franz. *Astrolabium, d.i. gründliche Beschreibung und unterricht, wie solches herrliche . . . astronom. Instrument auff allerley Polus höch . . . verfertigt werden soll*. Nürnberg, Chr. Lochner, Verlag B. Caymox, 1613, with 21 engravings. Possibly issued with separate engraving, GNM HB 2135, Kapsel 1206. HAB.
113. *De Usu astrolabii, posterior pars*. 28 pages, Nurnberg, C. Lochner 1613, B. Caymox— with 15 folding engravings by B. Caymox. BSB copy lacks the engravings.
114. *De Usu Astrolabii* (Nürnberg: Paulus Fürst/ Christoff Gerhard, 1613) different edition, with (the same) 21 engraved, numbered plates. Contains both parts of the book issued by Caymox. (Cat. A 288). NYPL, Science, Industry and Business Library (SIBL).

115. Bartsch, Jacob. *Vsvs astronomicvs planisphaerii stellat*. Strasbourg, Jacob van der Heyden printer, 1615. Instruction pamphlet with constructible astrolabe/instrument. NYPL, SIBL.
116. Palmer, John. *The catholique planisphaer which Mr. Blagrave calleth the mathematical jewel : briefly and plainly discribed in five books : the first shewing the making of the instrument, the rest shewing the manifold vse of it*. London, 1658, printed instrument. Beinecke.
117. Moreau, Jean. *L'usage de l'astrolabe*. Paris, 1625. Accompanied reissue of Pierre Danfrie's 1584 engraved astrolabe. Also includes pertinent section on the use of paper instruments.  
Literature: Turner.
118. Joseph Moxon, catalogue describing plates for instruments also sold at his shop. Not located.  
Literature: Bryden.

### Navigation and Cosmography

119. Apianus, Petrus. *Cosmographia, per Gemmam Frisium . . .* Antwerp: Gregorio Bontio, 1545. (Bein) 1550. (Bein)) Antwerp, 1539 (Beinecke); Parijs 1553; 1540 (Beinecke); 1564 (Beinecke), and 1574 (Beinecke), all with volvelles.
120. *Cosmographia, sive descriptio universi orbis . . . G. Frisio*. Antwerp: Arnoldi Coninx, 1584, (Bein Pequot Ap3), 1584, Antuerpiæ : Apud Ioan. Bellerum, ad insigne Aquilæ Aureæ. [Typis Joan. Withagii], Anno 1584, movable part. Beinecke.
121. *Cosmographia Petri Apiani, / per Gemmam Frisium apud Louanienses medicum & mathematicum isigne<m>*. Parisiis: Viuantium Gautherot. 1553. Beinecke (volvelles defective); Redwood Newport (1574, with volvelles intact).
122. *Cosmographicus liber . . .* Landshut, 1524, volvelle, Beinecke.
123. *Libro del Cosmographia*. Basil: Gregorio Bontio, 1548. (1<sup>st</sup> ed. In Spanish.), volvelle. Beinecke.
124. Sá, Diogo de. *De navigatione libri tres ...* Parisiis 1549, one leaf to be cut out bound at end. Beinecke.
125. Sacro Bosco, Joannes de. *Libellus de Sphaera*. Viteberg: V. Creuzes, 1549, volvelle. Beinecke.
126. *Sphaera Ioannis de Sacro Bosco, emendata*. 1558, 1561. 1546 (imperfect), 1558, 1568 of *Johannis de sacro Bvsto Libellvs de sphaera*, volvelle to be cut out. Beinecke.
127. Sarzosa, Francisco. *In aequatore planetarum, libro duo*, 1526, volvelle. Possibly

missing in Beinecke copy.

128. Schöner, Johann. *Opera mathematica*. Imprensa Norinbergae, in officina Ioannis Montani & Vlrici Neuberi, anno Domini 1551, multiple pages of uninserted volvelle parts. Beinecke.

129. Cortes, Martin. *Arte of Navigation . . . exemplified by manye Demonstrations*. Translated from the Spanish by Richard Eden. London: Richard Iugge, 1561, volvelle. Beinecke (also 1572, 1579, 1589, 1596 and 1615, for John Tapp.)

130. *Breve compendio de la sphera y de la arte de navegar*. Seville: Anton Alvarez, 1551, volvelle. Beinecke.

131. Schöner, Andreas, Gnomice, 1562, has a similar volvelle to his father's 1551 work, with the dial and a 25-sided sundial supplied as separate sheets. (Bamberg; Cambridge; NYPL, Rare Books).

NYPL doesn't have the three tipped-in sheets, Bamberg and Cambridge do. Also Houghton; Oxford; Adler Planetarium; Victoria and Albert Museum; Edinburgh University Library.

132. Cesario, Agostino. *L'Arte del Navigare con il Regimento della Tramontanae*. Italy, 1568. (Hand-colored manuscript on navigation), volvelle. Beinecke?

133. Coignet, Michel. *Instruction nouvelles des points . . . naviguer*. Anvers, 1581, movable parts 30, 34, 64, 89. Beinecke.

134. Waghenaer, Lucas Janszoon, *Teerste dell ande Spieghel der zeevaretdt, vande navigatie der Westersche*. Christoff Plantin, 1584, diagram on 21 with moving parts. Beinecke.

135. Teerste [-het tweede] deel vande Spieghel der zeevaerd . . . Plantin, 1585, movable parts, 17. Beinecke

136. Pars Prima [-het tweede . . vanden] Espeio de la mar sobre la nauigacion. Cornelis laesz, Schrijfboeck 1589 movable diagram on p 17.

137. *Pars prima [-deuxieme] dv Miroir de la Navigation*. Anvers, Iean Bellere, 1590, diagram, 17. Beinecke.

138. *Mariner's mirrov*r, London, J. Charleswood, 1588, diagram on B3r. Beinecke.

139. *Mariner's mirror*, Jodocus Hondius Amsterdam, 1605. diagram, 17. Beinecke.

140. *Pars Prima [-Alter] Speculum nauticum super nauigatione maris Occidentalis confectum*. Lvgdvni Batavorvm, Excudebat typis Plantinianis Franciscus Raphaelengius, pro Luca Ioannis Aurigario, 1586 (volvelle part II, 17). Beinecke.

141. Crescentio Romano, Bartolomeo. *Proteo militare di Bartolomeo Romano*. 1595, folding image. Beinecke.

142. Severt, Jacques. *De orbis catoptrici seu mapparum mundi principis, descriptionae ac usu*. Paris A. Drouart, 1598. [Also Paris: Baltasar Morel, 1590] Beinecke (two copies) volvelle.
143. Crescentio Romano, Bartolomeo. *Nautica mediterranea di Bartolomeo Crescentio Romano ... Nella quale si mostra la fabrica delle galee.* Rome: B. Bonfadino, 1602; 1607, volvelles, 414. Houghton; Oxford; Beinecke.
144. Nautonies, Guillamede. *Mecometrie de l'Eymant*. Venice: Chez l'Auteur. 1603-4, cut-out, volvelles. Beinecke.
145. Medina, Pedro. *Art de navigver de M. Pierre de Medine . . . Contenant toutes les reigles .. necessaires a la bonne navigation*. Nicolas de Nicolai. Rouen, 1607. volvelle. Beinecke.
146. Blaeu, Willem Janszoon. *Het licht der zee-vaert: daerinne claerli*. Amsterdam: Willem Janszoon 1608, 1620, volvelles. Beinecke; also 1623-25 and in English, 1622.
147. *The light of navigation*. Amsterdam, 1612; 1622 Yale University, Sterling Memorial Library Map Room.
148. *Flambeau de la navigation, monstrant la description & delineation de toutes les costes & havres* . . . 1620, title is a cancel slip over Dutch title page from 1620; volvelle. Beinecke.
149. *Zeespiegel*, Amsterdam, 1639, volvelle. Beinecke.
150. *Sea mirror*, Amsterdam, 1640, volvelle. Beinecke.
151. *Nouveau phalot de la Mer*, Amsterdam, 1635, volvelle. Beinecke.
152. *Institutio astronomica de usu globorum & spærarum cælestium ac terrestrium*. Oxoniæ: W. Hall, 1665; also Amsterdam, 1640 and 1655.
153. Hues, Robert. *Tractatus de globis, coelesti et terrestri eorumque usu*. Amsterdam: Hendrik Hondius, 1624, volvelle on 83. Yale MHL.
154. Norwood, Richard. *The sea-mans practice: contayning a fundamentall probleme in navigation, experimentally verified, namely touching the compasse of the earth and sea*. London: Printed for George Hurlock, 1637, volvelles. Beinecke (four copies).
155. Dudley, Sir Robert. *Arcano del Mara*. Florence: Giuseppi Cocchini, 1661. 2 vols, vol 1, over 64 volvelles. [Florence 1646-1647] Beinecke.
156. Colon (m), Jacob Aertsy. *Neuv fierie sea colomne*. Amsterdam, 1649. Beinecke.
157. Colon, Jacob Aertsy. *Ardente ou flamboyante*. Amsterdam, 1633. Beinecke.
158. Tapp, John. *The sea-man's kalender, or, An ephemerides*. London, 1663, 1664, 1674, made-up and unconstructed volvelles. Beinecke (four copies).

159. Denys, Guillaume. *L'art de naviguer perfectioné*, 1666. Beinecke. (1681 version has 3 volvelles).
160. Sturmy, Samuel. *The mariner's magazine, or Sturmy's mathematical and practical arts: containing the description and use of the scale of scales*. London: E. Cotes for G. Hurlock, 1669, cut-out instrument. Beinecke.
161. Seller, John. *A pocket book: containing severall choice collections in arithmetick, astronmy, geometry, surveying, dialling, navigation, astrology, geography, measuring, gageing*. London, 1680. Beinecke (four copies).
162. *A New System of Geography*. London, 1685. Beinecke (Four copies)
163. *Epitome of the art of navigation*, London, 1681, revolving disc, 15. Beinecke.
164. Blackborrow, Peter. *The longitude not found*. London, 1678, diagram with a volvelle. Beinecke.
165. Jacobsz, Theunis, called Loots Man. *The lightning colunne or Sea mirror . . .* Amsterdam, 1680, volvelle. Beinecke.
166. *Niew en groote Lotos mans zeespiegel. . .* Amsterdam: J.&C. Loots-Man, 1687, volvelle. Yale University, Sterling Memorial Library Map Collection; NYPL, Rare Books.
167. Coronelli, Vincenzo. *Atlante veneto, nel quale si contiene la d.* 1690. Perspective book with a volvelle and gores. Beinecke (two copies).
168. Vooght, Clae Janszoon. *De Zeemans wegh-wysen*. 1694. Moving part on diagram. Beinecke.

## Non-Scientific

### Book/Games and Lotteries

169. Flach, Martin. *Tierlosbuch*. Basel, 1485, with a sea-monster-shaped volvelle. Berlin, unique.
170. Anonymous. *Kartenlosbuch* (d 1506-20 by Zollinger). 1890 facsimile. ONB (85.364-B); London Warburg Inst. (FMH 3160 09/546).
171. Vogtherr, Heinrich *Christliches Loßbuch . . .* Aug 6 1539. BL, BSB, HAB, Strasbourg.  
Wickram, Jörg. *Kurzweil or Lossbuch*. (At least twenty-three editions.)
172. 1539 Straßburg, no publisher, *Schöne unnd fast schimpfliche kurtzweil*, Beinecke (Zg16 W63+539) is the only copy complete with Unicorn dial (but no verso dial);  
Basel; Copenhagen Kongelige Bibliothek (18.166 Fol); Oslo UB (LIB.rar.q/281)  
[Berlin, Wernigerode copies Kriegsverlust]; folio.
173. 1543 Straßburg, Cammerlander, *Kurtzweil*, ONB (5-827 B), with the unicorn and verso

- dial present; HAB (P4° 469), dial damaged; quarto.
174. 1545 Straßburg, Cammerlander, *Kurtzweil*, [Bolte lists Bremen copy, as *Kriegsverlust*], quarto.
175. 1550 Straßburg, Wendel Rihel, *Kurtzweil*, BSB (4° P.o. Germ. 18M/1), dial page mostly missing); quarto.
176. 1559 Straßburg, Josiam Rihel, *Kurtzweil*, [Bolte lists BSB and Berlin copies, *Kriegsverlust*]; octavo.
177. 1560 Mülhausen, Peter Schmidt, *Das Weltlich Loszbüch*, HAB, (Lo. 7963.2), missing front matter, [Bolte described a defective copy in Berlin, *Kriegsverlust*]; quarto.
178. 1564 Mülhausen, Peter Schmidt, *Das Weltlich Loszbüch*, Göttingen (Poet Germ. II, 2869) Aij and Aij missing; quarto.
179. 1560-86 Straßburg Thiebolt Berger (active dates) *Das Glückradt oder Weltlich Laszbuoch* [Berlin, *Kriegsverlust*; had dials to cut out]; octavo.
180. 1586 Frankfurt, Nicolaß Bassee, *Das Weltlich Loßbuch*, [Bolte found it mentioned in Frankfurt Meßkatalog 1586 (Catalogus novus nundianarum vernalium, f. F. 4 v; also in the Fall 1587 fair catalog by N.Bassee: Mitt.d.v.f.gesch. in Frankfurt a.M. 6, 106, 1881.] no known copies.
181. 1589 Frankfurt, *Das Glücksrath oder Weltlich Loßbuch* (copy after Berger?); in Weller's Annalen 2,378. No copies known.
182. 1592 Frankfurt, Nicolaum Bassaeum, [no titlepage], (Copy after Bassaeus 1586?), ONB (BE.11V44\*), Fool recto, Unicorn verso dial.
183. 1593, Straßburg, Anton Bertram, *Glückradt oder weltlich Loßbuch*, (Bolte saw one from Clessius, Elenchus 1602, 2, 276), no copy known; octavo.
184. 1594 Straßburg, Anton Bertram, *Das Glücksrad oder Weltlich Loßbuch*, (Bolte wrongly suggests HAB); no copy known; octavo.
185. 1595 Frankfort, Nicol Bass, *Weltlich Loßbuch*, (Bolte—*Meßekatalog* 1595 (Catalogus nundinarum vernalium, fol. D4v; not listed with an author), no copy known.
186. 1611 Magdeburg, Johann Franck, *Das Weltlich Loßbuch*, (Bolte: Weller, Annalen, 2,378) no copy known.
187. 1618 Straßburg, Marx von der Heyden, *Das Glücksradt oder Weltlich Laßbuch*, Jena UB in good condition (8 Bud. Var.20 (2)); octavo.
188. 1626 printer, location and title unknown, (Bolte's reference to Leipzig 1626 also

- unclear), no copy known; octavo.
189. 1671 no printer/location, *Ein Kurtzweiliges Loß oder Drehbuechlein*, Berlin (Na 4258 R); octavo.  
 [Notes from inspection: In the middle of the text, (after “du bift ein Narr”), comes a large break. In this copy, a slip of paper is pasted on with a very poor quality woodcut print of a unicorn dial and a circle with a coat of arms for the back. This could be the way copies left the printer’s. this is probably the edition (or close) to the one in the British Library, as it has a black circle at the bottom of the series of concentric ones, no frame around it, and no background behind the winds.]
190. 1676 no printer/location, *Ein Kurtzweiliges Loß oder Drehbuechlein*, Kunstbibliothek Berlin (Gris.538 kl.); Straßburg BNU (R 100 399); octavo
191. 1702 no printer/location, <Das weltliche Loßbuch>, Basel UB (Wack. 1674), very defective, has sheet to cut out showing the Unicorn and the *Drehknopf*; Unicorn is printed reverse (to the left)); octavo.
192. 1st half 18th c no printer/location, *Ein kurtzweiliges Los- oder Drehbuechlein*, Berlin (Na 4262); octavo.  
 [unclear if this is the same book as Na 4262 (numbered Na 4262 R) just has a hole where the unicorn should have been, with nothing tipped in at the end. It also has a great deal of contemporary notes in the opening four pages, which aren’t entirely legible, but are numbered 1- 15. No annotations in the text itself, or on the wheel. Writing ends on a strange note with a sentence ending with seven exclamation marks!]
193. 1st half 18th no printer/year, *Kurtzweiliges Loos- oder Dreh- Buechlei*, Berlin (Na 4265); octavo.  
 [Unicorn and square with angels present, but worm-eaten (almost the entire interior of the wheel is gone). Some light pencil marks under numbers, but mostly clean.]  
 Gert-Roloff incorrectly states that this work is *Kriegsverlust*.
194. 1<sup>st</sup> half 18<sup>th</sup> century, *Kurtzweiliges Loos- oder Dreh- Buechlein*, Berlin (Na 4266 R); octavo.
195. Kartenlossbuch. *Karte’’nlossbuch: Darinnen auss H. Schrifft vil Laster gestrafft, vnd heylsamer Leeren angezeygt werden . . .* Zu Strassburg, Bein M. Jacob Kammerlander, 1543. Fourth plate has double-sided unicorn volvelle reprinted from Wickram 1543. Beinecke; HAB; ONB.  
 Literature: Muller, Zollinger, Bolte.
196. Pambst, Paul. *Lossbuch*. Göttingen, HAB (two copies), Munich, Yale, Nürnberg GNM, Paris Arsenal, Schweinfurt Bibliothek Otto Schäfer, LoC (Rosenwald), Stuttgart, Rastatt, Kungl. Biblioteket Sweden. Strasbourg, Yale and Göttingen’s dials are reversed; Strasbourg’s is missing; while the LoC Rosenwald, BSB, BL, and both copies at HAB are correctly constructed. The GNM, Stuttgart, Schweinfurt, Paris, Rastatt and Swedish copies could not be consulted. There was also a copy in the C. Fairfax Murray collection. See 1913 auction cat, nr 320 (volvelle inserted incorrectly.) (VD P 174)

197. David, Johannes. *Veridicus Christianus*. Antwerp, 1606. Fortune-telling engraved volvelle with cut-out windows. Beinecke; Getty (1601 edition).
198. Wither, George. *A Collection of Emblemes*. London: By AM for Robert Allot, 1635, two woodcut volvelle lottery dials. Beinecke; Lewis Walpole.
199. B. R. (Crouch, Nathaniel) *Delights for the Ingenious: in above fifty select and choice emblems, divine and moral, ancient and modern*. London: 1684. (A "Lottery Wheel.") Wheel, pointer lacking on 207. Beinecke.

### **Cut-Out Books**

200. Murner, Thomas. *Chartiludium Institute Summarie doctore Thoma Murner memorante et ludente*. Johannes Knobloch, 1518 reprint of 1502 book, which was possibly meant to be cut out and used as a deck of cards. GNM.
201. Murner, Thomas. *Logica memoratiua. Chartiludium logice, siue totius dialectice memoria; & nouus Petri Hyspani textus emendatus: cum iucundo pictasmatis exercitio*. Strasbourg: Johann Grüninger, 1508, possibly meant to be cut out and used as a deck of cards. GNM.
202. Ringmann, Matthias. *Grammatica / Figvrata. / Octo Partes Orationis/ Secvn- / dum Donati editionem & regulam Remigij / ita imaginibus expre[ss]æ vt pueri iucu- / do Chartarum ludo facilliora Grāma- / ticæ præludia di[s]cere & exer- / cere queant. / Tetra[s]tichon*. [Saint Dié: Gymnase vosgien, 1509]. Possibly meant to be cut out and used as a deck of cards. NYPL, Rare Books.
203. Amman, Jost. *Kartenbuch. Charta lusoria*. Gedruckt zu Nürnberg: durch Leonhardt Heussler, anno 1588. The cards may also be meant to be cut out. Beinecke.

### **Costume, Emblem and Stammbücher, Festival Books**

204. Zarlino, Gioseffo. *Clodiensis sereniss. reip. venetiarym in aede d. Marci mvsicorvm magistri, de vera anni forma, siue de recta eius emendatione*. Venetijs Officina Varisciana, 1580. Movable diagrams. Beinecke.
205. Bertelli, Pietro. *Diversarum nationum habitus*. Venice, 1589. Editions of three volume set published in 1589 (first volume only), 1591 (first and second), 1592-4 (first and second) and 1596 (third volume). The first volume contains three flapped images: plate 7: Cortegiana Veneta; plate 31 Nobilis Neapolitana; plate 80 Sponsa Turca Constantinopolitana. The second volume contains two more: plate 16, Ritus Hetruwig; plate 63, Novizze in Gondola.  
Beinecke (1589); Trinity College and Oberlin (1592-4; 1596); American Academy in Rome (1594); BSB (1591); Glasgow (1589-1596); British Library (1594, 1596); ONB (15891, 594-1596); Royal Library, Sweden (1596).
- 206-7. Bry, Theodor de. *Nobilitatae Emblemata*. Frankfurt am Main, 1592 (octavo); 1593 (quarto, with borders.) Both have a barrel erotica flap (of the lid) showing a countryside scene, with soldiers parting the presumably adulterous pair. 1592 edition with flap: Folger Shakespeare



Library; LoC; Ursus Books; As *Stammbücher*: HAAB Weimar, and HAB.  
1593 without the flap, Göttingen; HAB.

208. Fabri, Alexandre. *Diversarvm Nationvm Ornatvs*. Three Volumes from 1593 and after 1596, copied from Bertelli, and including the five flaps. Copies at NYPL, Spencer Collection; Amsterdam Rijksprentenkabinett, Cicognara; Biblioteca Marciana, Venice; Buffalo NY, Grosvenor Rare Book Room.

209. Bolton, Edmund. *The elements of armories*. At London: Printed by George Eld, 1610, volvelle demonstrating the proper way to design a coat of arms. Beinecke; LoC; NYPL, Rare Books (missing movable parts).

210. Bry, Johann Theodor de. *Emblemata Saecularoa*. Possibly Frankfurt am Main, 1611. Barrel-lid flap shows a soldier and his lover being discovered in a wine barrel by the woman's husband. Copy after Cat. A 2, Theodor de Bry, ca 1598. BSB; Veste Coburg (copies with and without flap).

211. Fra Lino Moroni. *Descrizione del sacro monte della Vernia*. Florence: 1612. Multiple overlays of landscape and architecture, including a rood screen. NYPL, Spencer Collection.  
Literature: Bury, 50, cat. 41; Reed, entries on Raffaello Schiaminossi.

212. Praetorius, Michael. *Syntagma musicum*. [No publisher or location], ca 1614-20, flap on plate 2 of 1620 supplement, which shows the rear-choir mechanism. Beinecke, British Library, Selch collection, NYC (missing flap).

213. Hulslen, Esaias. *Aigentliche wahrhaffle Delineati . . .* Württemberg. 1618, festival book; plates 5-10 with movable engravings showing performers and nobles under parade floats. Beinecke; NYPL, Performing Arts; HAB (online: <http://diglib.hab.de/drucke/36-17-4-geom-2f-1/start.htm>).

214. Bry, Johann Theodor de. *Proscenium vitae humanae, siue EMBLEMATVM SECVLARIVM*, (Frankfurt am Main, 1627), new edition of *Emblemata Saecularia*, including wine-cellar scene. No copies found with flap or residue. NYPL, Rare Books; Cicognara.

215. Hexham, Henry. *The first [third] part of the principles of the art military, practiced in the warres of the United Netherland, vnder the commaund of His Highnesse the Prince of Orange our captaine general . . .* Second ed. (first 1637) part three printed by James Moxon, 1642-3. Revolving full-page illustrations of military formations, 46-7. Beinecke.

216. Harsdörffer, Georg Philipp. *Frauenzimmer Gesprächspiels*. Vol 4, XI, Nurnberg: Wolfgang Endtern, 1644. Flapped portrait of the author beneath a curtain. Beinecke.

217. Certani, Giacomo. *Maria Vergine Coronata Descrizione . . .* Reggio: Prospero Vedratti, 1675. One or two lift-the-flap plates in festival procession. British Library; Getty; Beinecke.