Although printing was introduced into England by William Caxton in the 1470s, the emergence from that point of a specialized trade in printed maps and atlases was a slow and halting process. Map publishing required skills in making and printing blocks or plates quite separate from those involved in the printing of books by letterpress: the printing of books and the printing of maps did not automatically grow in tandem. Maps were far less familiar objects than books at this stage. The incipient trade in their manufacture and sale has received significantly less attention than other facets of early English publishing, and such established facts as there are may be told relatively simply. There is a natural emphasis on London because, with the merest handful of exceptions, early map publishing in the British Isles was wholly confined to that city. Even in London, very few maps were published before the second half of the sixteenth century. In total, there were perhaps between a thousand and fifteen hundred put out under the imprint of London publishers by 1640. It is, however, striking that the bulk of these—some 85 percent—did not appear until after 1590. The output of new maps (or maps new to the London market) reached a peak between 1602 and 1612, with almost half the overall total first appearing in that single decade.

The author acknowledges the help of Sarah Tyacke, Catherine Delano-Smith, Ashley Baynton-Williams, and Margaret Lane Ford in the preparation of this work.


2 It is doubtful whether the production of maps outside London would have developed in any case, but an abrupt end was put to the possibility by the Star Chamber decree of 1586, which outlawed printing outside London (with the exception of a single press each for Oxford and Cambridge). The printing of “chartes” was specifically mentioned in the decree. See Marjorie Plant, The English Book Trade: An Economic History of the Making and Sale of Books, 3d ed. (London: Allen and Unwin, 1974), 81. Scotland was a separate entity, beyond the scope of the decree, but map printing there was limited to only a few examples (see chapter 56 in this volume).

3 This total includes large-scale wall maps, separately published single-sheet maps, maps intended for atlases, maps for book illustration, and maps for newsbooks and broadsides. Around two-thirds of them were maps that, although often also sold individually, form part of atlas series—with the remainder mainly book illustrations, principally of travel books, as one might expect, but with also a large number of Bible maps. The survival rates of separately issued individual maps are clearly much poorer, but ninety or more survive, or are at least known to have existed. There may well have been considerably more. The overall total requires considerable qualification: some of the items included, for example title pages or portraits in which a map or globe forms a dominant feature, are of debatable status. The total is also inflated by the inclusion (for purposes of analysis) of the town plans inset on the county maps of John Speed. However, there are undoubtedly many maps that have either failed to survive or that I have failed to discover.
a trade already slow to develop appears to have gone into a marked decline. By 1640, the market (even in maps of the British Isles) had largely been ceded to the powerful Dutch publishing houses. In terms of original map production, London fell back to a position of relative insignificance. Why this should be so, in what was generally a period of increasing trade, prosperity, and confidence, requires a closer examination than it has hitherto received.

**Imports and Importers**

There were technical problems in producing maps in England—problems relating chiefly to the supply of paper and of copperplates (fig. 57.1)—but a more conspicuous factor in the initial hesitancy of the English map trade and its later weakness was undoubtedly the prevalence of imported material. With maps requiring so little in the way of translation, there was no pressing need for maps produced specifically in English. The trade in printed maps and atlases was always inherently an international one. Throughout the period, the most substantial part of the English trade was the distribution of maps and atlases printed abroad. There is ample evidence, from libraries, inventories, catalogs, inscriptions, and other sources, for the relatively early and extensive distribution of such maps. Copies of Hartmann Schedel’s *Liber chronicarum* (Nuremberg chronicle) of 1493, with its maps of the world and northern Europe as well as its famous views of cities, can be placed in England even before 1500. Robert Minucci, an Italian bibliophile residing in England, was presented with one of these by the printer Richard Pynson in 1498, the earliest certain example of a London bookseller handling imported cartographic material.4 Pynson, like so many of his contemporaries in the book trade, came originally from overseas, and it was this group of nonnative booksellers, with pre-existing links to the trade abroad, who came naturally to dominate the import trade. Foreign-born booksellers such as Reyner Wolfe, whose *Newe Testament* (1549) is one of the earliest English books illustrated with maps, are known to have been regular annual visitors to the great Frankfort book fair and formed a natural conduit for imported material into England.5

By the mid-sixteenth century it is possible to identify specific transactions relating to the import of individual maps. Surviving ledgers show the London bookseller Nicholas England being billed for a consignment of forty-three maps from Christoffel Plantijn of Antwerp in 1558.6 A little later, Plantijn was sending significant quantities of material to his own London agent, Jean Desserans. A letter survives from the London engraver Nicholas Reynolds to Abraham Ortelius, dating from the early 1560s, touching upon a transaction that sent twenty-five copies of a map of Russia to Antwerp (paid for through Reyner Wolfe) and would have brought copies of Gerardus Mer-

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8. Brian Dietz, ed., *The Port and Trade of Early Elizabethan London: Documents* (London: London Record Society, 1972), 114. The economic context can be gauged by reference to Dietz’s analysis of imports for the year 1559–60: total imports into London amounted to £643,320 of which £813 (0.13 percent) was for “bokes vnbounde” and £3304 (0.51 percent) for paper, compared, for example, with £2483 for “ches of Holland,” £1699 for tennis balls, £11,852 for pepper, and £18,237 for sugar (pp. 152–55). I owe this reference to Sarah Tyacke.


The London Map Trade to 1640

The prevalence of imports and such bald statistics as these do not of course imply that no work of substance or merit was produced in England. Nor do they fully explain the situation. There were many fine and important maps produced, particularly after the second decade of the century, that were not imported but were made in London.


duced in England, and there were many successes. It is also notable that two of the principal figures in the later ascendency of Amsterdam, Jodocus Hondius the Elder and his brother-in-law Pieter van den Keere, had both mastered their craft in London. But this is to anticipate later developments—map production in England began rather earlier.

In technical terms, map printing in England followed the familiar European model of the gradual replacement of relatively simple maps printed from woodcut blocks by more sophisticated copperplate engravings printed on the intaglio rolling-press. The record might be said to begin with Caxton himself. His translation of a medieval text published in 1481 as the *Myrour of the Worlde*, the first English-printed illustrated book, contains two simple woodcut T-O world maps. The scant lettering on the maps is not in fact printed but laboriously supplied in manuscript—according to tradition, in Caxton’s own hand. With a few honorable exceptions, the woodcut was never wholly mastered in England: neither Caxton nor his contemporaries produced anything to compare with the maps and atlases already beginning to appear elsewhere across Europe. The stretch of years from Caxton to the death of Henry VIII in 1547 are notable for no more than a few book illustrations of passing interest and some hints of printed maps now lost. The only extant printed map published in England in the early Tudor period is the map that appears in the Coveredale Bible published at Southwark in 1535. Although the book bears the English imprint of James Nicholson, it was almost certainly printed overseas.

It is not until the reign of Edward VI in the mid-sixteenth century that maps found a place in domestic book production. The earliest are three woodcut battle plans used to illustrate a book published by Richard Grafton in 1548 (fig. 57.2). Grafton, who had become Printer to the King on Edward’s accession, is known to have employed a number of foreign workmen, including some specifically referred to as “gravers”—who were presumably responsible for cutting the blocks. Grafton’s example was followed by Reyner Wolfe, who included two “cartes” in his *Neue Testament* in 1549 (fig. 57.3). Similar maps appeared in New Testaments printed for Richard Jugge in 1552 and 1553, and aside from book illustration, there is also a record from this period of a no-longer-extant world map by Sebastian Cabot—a wall map reported to have been “cut” by the Cambridge scholar Clement Adams in or about 1549.

The accession of Queen Mary in July 1553 brought an abrupt halt to this new development in book illustration. With only a single and uncertain exception, there were no maps of this type published during the five years of her reign. The printers who had prospered under the Protestantism of Edward VI now found themselves out of favor. Grafton was dismissed from his office, and his printing career never resumed, while Wolfe and Jugge between them published only a handful of books under Mary. Yet, despite the absence of maps in books, Mary’s reign is nonetheless significant for two important maps—one of the British Isles and the other of Spain, both published by the Flemish surgeon Thomas Lambrif, better known as Thomas Geminus. Geminus was a key figure in the

18. Ibid.
19. Ibid.
memorise Mary’s marriage to Philip of Spain. The map of the British Isles is simply a reworking of a two-sheet map by George Lily first published in Rome in 1546, but the map of Spain, an elaborate map in four sheets, is a rather different case: although it relates in some way to the almost identical map published by Hieronymus Cock in Antwerp in 1553, it was by far the most ambitious extant map yet produced in a London workshop.21

The death of Mary and the accession of Elizabeth I in 1558 signaled a return to Protestantism, and publishing trends dormant or discountenanced under Mary soon reappeared. Jugge was appointed Printer to the Queen and produced in the ensuing years more than twenty different editions of map-illustrated Bibles. He also published Richard Eden’s translation of Martin Cortés’s Arte of Navigation (1561), containing a little woodcut map generally regarded as the earliest English representation of the New World.22 The printer John Day, who had suffered imprisonment under Mary, published William Cuningham’s Cosmographical Glasse, Conteyning the Pleasant Principles of Cosmographie, Geographie, Hydrographie, or Navigation in 1559.23 It was the first original work in English on these subjects and included an exposition of surveying by triangulation. Among the illustrations are woodcuts of the globe and the spheres, little specimen maps, a schematic grid reference for the principal English towns, and a fine map of Cuningham’s native Norwich (fig. 57.4). A subsequent Day publication, William Lambarde’s Archaionomia (1568), contains what would appear to be the earliest surviving map of England actually cut in England (fig. 57.5).24

Further separately printed wall maps also began to appear in the early years of Elizabeth’s reign. The first, dating from about 1560 and often referred to as the “lost” Copperplate map of London, survives only in the form of three of the original copper printing plates (of a total of...
perhaps fifteen). No impression of the printed map exists, and its status remains uncertain, although recent scholarship tends increasingly to the view that the map was probably produced in the Netherlands. With the second of the early Elizabethan wall maps there is less hesitation about stating that the map was produced in London—for this is the splendid 1562 four-sheet map of Russia by Anthony Jenkinson that Nicholas Reynolds exported to Ortelius in Antwerp (fig. 57.6). In a list of prints registered at Stationers’ Hall between 1562 and 1563, Giles Godet, a religious refugee from France naturalized in 1551, included both a “Carde of London” and a “mappe of Englonde and Skotlande.” Neither has been conclusively identified. If the first is a map, it might conceivably be the “lost” map of London. Equally well it might be the map Civitas Londinum, long erroneously attributed to Ralph Agas. This is a wall map, which although surviving only

FIG. 57.3. THE IOVRNEY OF SAINCT PAULE THE APOSTLE, 1549. A woodcut map of the Eastern Mediterranean from Wolfe’s edition of the New Testament, and one of the earliest maps to be used as a book illustration in England. Wolfe comments on this innovation with an interesting early plea for the acceptance of maps: “Wherfore I consyderyng that in the perplexite, & varietee and multitude of places nothing doth helpe the memory so muche, no: yet can be so profitable, as the use & commodities of tables or cartes.” Size of the original: ca. 12 × 15.5 cm. The New Testament: Diligently Translated by Myles Coverdale and Conferred with the Translacion Willyam Tyndale, with the Necessary Concordances Truly Alleged (London: Reynolde Wolfe, 1549). Photograph courtesy of the BL (C.36.a.3, Z7v-Z8r).


27. Arber, Transcript of the Registers, 1:90–91. I owe this and a number of other references to Arber to Ashley Baynton-Williams. The maps are further noted in Taylor, Tudor Geography, 29 and 176.

in later and somewhat altered versions, is a woodcut (almost certainly a copy of the “lost” map) datable from internal evidence to exactly this period. If “Englonde and Skotlande” was also a woodcut it is not a map that is known to survive. Other woodcut maps continued to appear in increasing numbers as book illustrations, mirroring a general increase in scientific and scholarly publishing. The earliest English-printed world map appeared in harmony with its rural surroundings, but another aspect of mid-sixteenth-century life is offered by the letterpress key printed on the reverse. At a point marked by the letter C, just beyond the city, at the edge of Thorpe Wood, is, we are told, “the place where men are customablie burnt.”

Size of the original: 30 × 41 cm. William Cuningham, The Cosmographical Glasse, Conteyning the Pleasant Principles of Cosmographie, Geographie, Hydrographie or Nauigation (London: Ioan Daij, 1559), folding map bound between fols. 8–9. Photograph courtesy of the BL (G.6583).

29. The entry might possibly refer to George Lily’s map of the British Isles reissued by Geminius in 1555. Godet and Geminius were neighbors in Blackfriars. That Godet should register copyright at just the time of Geminius’s death may suggest that he had acquired some portion of his neighbor’s stock: this is evidently what happened with the two anatomical woodcuts, Interiorvm corporis humani patium viva delineatio and Perutlis anatomes interiorvm muliebris partium cognitio, usually found bound with Geminius’s Compendiosa totius anatomie delineatio (London: T. Gemini, 1559) and later entered to Godet at Stationers’ Hall in 1562–63.

Sir Humphrey Gilbert’s Discourse of a Discoverie for a New Passage to Cataia (1576), published by Richard Jones. Henry Bynneman printed both Raphael Holinshed’s The Chronicles of England, Scotlande, and Irelande (1577), with a striking town plan of Edinburgh, and George Best’s True Discourse of the Late Voyages of Discoverie, for the Finding of a Passage to Cathaya (1578), with maps of the world and the North Atlantic. Even before the death of Richard Jugge in 1577, Christopher Barker, who followed him as Printer to the Queen, had begun publishing his own long series of map-illustrated Bibles.

The woodcut map was already beginning to be replaced in book illustration by more detailed copper engravings. A fine early example from 1574 is shown in figure 57.7, but such maps were still unusual. It is against this limited background that the assembling of Christopher Saxton’s atlas of England and Wales between 1574 and 1579 can be seen as such a significant event. With its thirty-five folio copperplate maps, this was a larger and more elaborate book than any previously produced in the British Isles. Almost from nowhere, the English had stepped to the forefront of European mapping with the first national atlas. Admittedly the project enjoyed official backing and was engraved mainly by craftsmen from the Netherlands, but in terms of organization and production it completely outstripped any previously known capability. Saxton had no background in printing or publishing, but there is nothing to link the project with any existing member of the book trade, and the assumption must be that he himself oversaw both production and distribution. This would seem to tie in with the terms of the royal privilege he was granted for manufacture and sale, his subsequent production of the twenty-sheet wall map of England and Wales, Britannia Insularvm in oceano maxima a caio, completed in 1583, and with the known pattern of his further career. Comparable to Saxton, at least in terms of production, was the second English-published atlas: an edition of Lucas Jansz. Waghenaeer’s sea charts, originally published in a Dutch edition in 1584 and regarded as “perhaps the greatest single advance in the history of hydrographic publication.” Published as The Mariners Mirrour in 1588, the London edition comprised forty-five folio maps printed from new plates. Again the project owed much to official backing, and the plates were once more mainly the work of foreign engravers. And once again the atlas owed as little to mainstream publishing as that of Saxton had done.

32. Bynneman had taken over much of Reyner Wolfe’s stock of type and ornaments. He is considered the first London bookseller to essay a sustained attempt at printing academic books.
33. See Skelton, County Atlases, 7–16, for the bibliographical history.
34. A copperplate bearing what appears to be a portion of an abandoned earlier version of Britannia is known but adds little to our knowledge of the publication history: see Tony Campbell, “A False Start on Christopher Saxton’s Wall-Map of 1583?” Map Collector 8 (1979): 27–29. The existence of a separate map of Wales printed on a paper associated with the atlas also underlines how little is actually known of Saxton’s activities at this time: see D. Huw Owen, “Saxton’s Proof Map of Wales,” Map Collector 38 (1987): 24–25. For Saxton’s wider career, see Ifor M. Evans and Heather Lawrence, Christopher Saxton: Elizabethan Map-Maker (Wakefield, Eng.: Wakefield Historical Publications and Holland Press, 1979).
PLATE 57. ORONCE FINE, RECENS ET INTEGRA ORBIS DESCRIPITIO, 1534/1536. (See p. 1465.) Wood engraving with watercolor (Paris, Jérôme de Gourmont). Size of the original: 51 X 57 cm. Photograph courtesy of the BNF (Cartes et Plans, Rés. Ge DD 2987 [63]).
Plate 58. André Thevet, Engraved and Colored Frontispiece. (See p. 1472.) Intended for “Le grand insulaire et pilotage,” the original title is visible underneath the pasted-over new title, “Le monde maritime ou description générale des mers & de la navigation.”

Photograph courtesy of the BNF (Estampes, Vx 1 P. 453 [collection Lallemant de Betz]).
PLATE 59. JEAN JOLIVET, “LA CARTE GENERALLE DU PAYS DE NORMANDIE,” 1545. (See p. 1484.) Manuscript on two sheets of parchment. The cartouche remains empty, its frame decorated with scientific instruments, the motto Moyns et Paix, and four satyr figures. The map has an Italian-inspired decorative border, the names of the winds, the date, and the author’s signature. Size of the original: 92 X 137 cm. Photograph courtesy of the BNF (Cartes et Plans, Rés. Ge A 79).
This map, made by the sieur Lenin, royal engineer, shows one of the many crossings of the river Somme, with a small fortress in the middle of the causeway. It shows how the engineers of this period could design maps to cover specific military problems.

Size of the original: 33.5 X 20 cm. Photograph courtesy of the Newberry Library, Chicago (Case MS. 5004).
PLATE 61. DETAIL OF THE MAP REPRESENTING THE COURSE OF THE AA RIVER, END OF THE FIFTEENTH CENTURY. (See p. 1523.) Watercolor drawing. This is an excellent example of a detailed, artistic perspective view of the topography and structures of the city of Saint-Omer, to be used in the resolution of a legal dispute. The entire map goes from Saint-Omer to the mills of the Cistercian abbey of Blendeceques.
Size of the entire original: 31 X 325 cm; size of the detail: ca. 31 X 99.3 cm. Photograph courtesy of the Bibliothèque de l’Agglomération de Saint-Omer (MS. 1489).
Sometimes the same illustration seems to appear in more than one chart. For example, the procession that is taking place in this part of the Terra Australis recalls that which Jean Rotz depicts in the representation of Sumatra in his 1542 atlas: it includes the same houses on piles, the same warriors, and the same important personage on horseback carefully shaded with a parasol. The scene is too precisely rendered for the source to be other than an eyewitness account—perhaps the narrative of a voyage, perhaps another oral or written account, or even sketches made by one of the artists that sometimes accompanied these expeditions. Manuscript on parchment.
Size of the original: 39 X 57 cm. Photography courtesy of the Huntington Library, San Marino (MS. HM 29, fols. 5v-6).
PLATE 63. LYON CITÉ OPULENTE, SITUÉE ES CONFINES DE BOURGONGNE, DAULPHINÉ, & SAUOYE, PUBLISHED BY NICOLAS LEFEBVRE, 1555. (See p. 1572.)

One of the rare detached leaves from a workshop of imagiers on rue Montorgueil in Paris that has survived. The legend draws attention to the noteworthy elements of Lyonnais typography, such as the principal religious edifices, the bridges over the Saône and the Rhône, and the hill of Fourvière. The plan is copied from the second edition of the Epitome de la corographie de l’Europe by Guillaume Guéroult (Lyons: B. Arnoullet, 1553). With the same frame, this image appears again in Plantz, portraitz et descriptions de plusieurs villes et forteresses . . . by Antoine Du Pnet (Lyons: Ian d’Ogerolles, 1564). Woodcut illuminated with blue and vermilion.

Size of the original: 26 × 34.5 cm. Photograph courtesy of the BNF (Cartes et Plans, Rés. Ge D 25714).
Plate 65. Robert Adams, Map of Gironde, 1593. (See p. 1611.)

Size of the original: 22 x 58 cm. Photograph courtesy of the BL (Cotton MS Aug. I.ii.80).
PLATE 67. ROBERT JOHNSON, MAP OF CRICKHOWELL.

(See p. 1646.)

By permission of Llyfrgell Genedlaethol Cymru/The National Library of Wales, Aberystwyth (Badminton vol. 3, fols. 68v-69r).
PLATE 68. RALPH SHELDON, WARWICKSHIRE TAPESTRY MAP, CA. 1590. Detail around Warwick. (See p. 1659.) Photograph courtesy of the Warwickshire Museum.
PLATE 69. MARK PIERSE, MANUSCRIPT MAP OF LAXTON, 1635. (See p. 1662.)

Photograph courtesy of the Bodleian Library, University of Oxford (MS. C 17:48).
Plate 70. Detail from Richard Bartlett's Map of Southeast Ulster, ca. 1602. (See p. 1682.) Physical, political, military, and historical elements were combined in Bartlett’s mapping of Lord Mountjoy’s victorious campaign against Hugh O’Neill in the last of Queen Elizabeth’s Irish wars. Size of the entire original: 42.9 X 55.6 cm; size of the detail: ca. 26.7 X 36 cm. Photograph courtesy of The National Archives of the UK (TNA), Kew (MPF 1/36).
PLATE 71. BAPTISTA BOAZIO, *THE TRUE DESCRIPTION OR DRAFFTE OF THAT FAMOUS ILE OF WIGHTE*, 1591. (See p. 1703.) Line engraving with original hand color. The only known copy of the earliest printed map of the island, probably produced from a military defense survey, by Baptista Boazio. It is one of a number of puzzling late sixteenth-century London published maps that give no indication at all as to who may have published them, although in this case the lack of a scale bar and the partial stippling of the sea suggest that the plate is unfinished. The engraving, a handsome and confident piece of work, has sometimes been attributed to Jodocus Hondius the Elder, but another (if disputed) candidate is Mercator’s grandson, Michael (Michel) Mercator, who was in London at this time and was responsible for the engraving of a silver medal commemorating Drake’s circumnavigation. He is described in a lay subsidy of 1590 as a “servaunte to Baptista.” Size of the original: 25.5 X 34.2 cm. Photograph courtesy of the BL (Maps C.2.a.11).
Plate 72. Gabriel Tatton, Chart of the Pacific Ocean, ca. 1600. (See p. 1742.) Drawn in the Low Countries and in the style of the Dutch. Note the signature in Dutch, and also the “lady on the armadillo” motif for America, which was used by Dutch chartmakers (see figs. 58.12 and 58.13). Size of the original: 72 x 147 cm. Biblioteca Nazionale Centrale, Florence (Port. 33). By concession of the Ministero per i Beni e le Attività Culturali della Repubblica Italiana.
PLATE 73. WILLIAM DOWNE, MAP OF THE ORINOCO.

GUATEMALA. [See p. 1761.)

Private collection. Photograph courtesy of the BL.
PLATE 74. ANDERS STRENG, NAAPPILA AND RAJA-LAHTI ORIVESI PARISH, FINLAND, 1634. (See p. 1804.) A sample of the first generation of geometrical maps (geometriska kartor) produced by the Landmäterikontoret. The scale is in Swedish alnar (1:15,000), and color is also used. The Nota-rum explicatio identifies the precise features of the individual farmsteads for taxation purposes.
Size of the original: 46 X 58 cm. Photograph courtesy of the Kansallisarkisto (National Archives of Finland), Helsinki (A1, pp. 226–27).
JOHANNES HONTER’S WOODCUT BLOCKS, CA. 1541–42. (See p. 1831.) The maps of *Rudimenta cosmographica* were cut into wood by Honter in 1541–42. Some of the original wood blocks are still preserved in Brașov. The half of the map of Germania and Gallia, as well as the printer’s device of Honter’s workshop survive. Brașov, Romania. Photograph courtesy of Zsolt Török.
PLATE 76. NICOLO ANGIELINI, MAP OF HUNGARY, CA. 1570. (See p. 1837.) This remarkable general map of Hungary is attributed to Nicolo Angielini, an Italian military architect. The comparison of this "Vngaria loca precipia descripa . . ." with Sambucus's 1571 map (fig. 61.14) suggests their common source. Angielini's map served as a geographical reference in a manuscript military atlas that contained fifty-one plans and views of the castles and fortresses of the Habsburg defensive zone in Hungary. Although the name of the author is given on the map, the similar Angielini atlases in the collections of Dresden, Vienna, and Karlsruhe are probably compilations. Size of the original: ca. 55.8 × 86.4 cm. Photograph courtesy of the Hauptstaatsarchiv Dresden (Schr. 26, F. 96, Nr. 11, Bl. 1).
PLATE 77. MARTIN STIER, MANUSCRIPT MAP OF THE STYRIAN FRONTIER, 1657. (See p. 1850.) The southeastern section of the Habsburg military defensive zone is represented. In the upper left is the capital of Styria, Grätz (Graz, Austria). The river Mura flows in a southeastern direction toward Canischa (Nagykanizsa, Hungary). In the bottom left a section of the river Trah (Drava) is shown. The decorative Baroque style cartouche in the upper right shows the legend, with flags expressing the military significance of the map. Size of the original: ca. 37.1 X 50.3 cm. Photograph courtesy of the Bildarchiv, Österreichische Nationalbibliothek, Vienna (Handschriftensammlung, Cod. 8608, fol. 4).
PLATE 78. DETAIL FROM A NINETEENTH-CENTURY COPY OF A SEVENTEENTH-CENTURY MAP OF THE TOWN OF KASHIN AND ITS SURROUNDINGS. (See p. 1869.) The manuscript map follows common color conventions: blue for water, green for vegetation, yellowish-brown for roads, and red for buildings. Size of the entire original: ca. 62 X 80 cm; size of the detail: ca. 31 X 42 cm. Rossiyskaya Gosudarstvennaya Biblioteka, Moscow. Photograph courtesy of Alexey Postnikov.
PLATE 79. SEMYON ULIANOVICH REMEZOV, MAP OF THE ISET RIVER. (See p. 1888.) Above the upper frame is the title: “Chapter 21. The Iset River drawn with urochishe from the mouth and to the upper reaches, the streams and lakes and with settlements.” In the lower right is a cartouche with a list of standard abbreviations. Size of the original: 16.5 X 25.3 cm. From Remezov’s “Khorograficheskaya chertezhnaya kniga,” p. 30. By permission of Houghton Library, Harvard University.
PLATE 80. SEMYON ULIANOVICH REMEZOV, ETHNOGRAPHIC MAP OF SIBERIA. (See p. 1900.) The title of the map is “Chertëzh i skhodso nalichie zemel’ vsey Sibiri, Tobol’skogo goroda i vsekh rozných gradov i zhilich i stepi.” To compile this map Remezov used the map of 1673 as a basis, but he updated its geographic content. Among the features of the map should be noted the depiction of Kamchatka as a peninsula and not an island, as on Remezov’s other general maps. All the inscriptions characterize not so much the ethno-graphic nomenclature of Siberia, largely rather archaic, as the interest of the author in studying the “native” boundaries of the Siberian peoples and tribes.

Size of the original: 42.2 × 62.8 cm. From Remezov’s “Chertëzhnaya kniga Sibiri,” sheets 47v–48. Photograph courtesy of Rossiyskaya Gosudarstvennaya Biblioteka, Moscow (Manuscript Division, stock 256, no. 346).
The defeat of the Spanish Armada in 1588 has long been recognized as a watershed in English history—a watershed reflected in the map trade as elsewhere. It is the point at which the modest output of the regular London publishers and the great if rather different successes of the state-subsidized Saxton and Waghenaer atlases began to coalesce. It is the point from which there is evidence of continuous rather than sporadic activity. It is also the point at which local supplies of sheet copper became briefly available in London (see fig. 57.1). Individual mapmakers and engravers begin to appear for whom one can claim a substantial and connected body of work. The instrument-maker and engraver Augustine Ryther celebrated the victory over the Armada with an atlas of eleven folio maps, *Expeditionis Hispanorum in Angliam vera descriptio* (1590), illustrating the progress of the naval action up the English Channel (fig. 57.8). 36 This was the third English atl...

36. The atlas was engraved from designs by Robert Adams and has an accompanying narrative by Petruccio Ubaldini, *A Discourse Concerning the Spanish Fleece Inuadinge Englane in the Year 1588...* (1590). See D. Schrire, *Adams’ & Pine’s Maps of the Spanish Armada*...

*FIG. 57.6. ANTHONY JENKINSON, NOVA ABSOLVTAE RVSSIAE, MOSCOVIAE, & TARTARIAE, 1562.* Line engraving with contemporary hand color. The unique surviving copy of Anthony Jenkinson’s four-sheet map of Russia was prepared for publication by Clement Adams and engraved in London by Nicholas Reynolds. Although this example of the map only came to light in 1988, the existence of the map has long been known through a variety of contemporary references. That the capacity existed in London to produce such a large and impressive map at such a relatively early date raises a number of unanswered questions, not least on the activities of the somewhat shadowy figure of Nicholas Reynolds. It is clear from his letter to Ortelius that he was involved in the import and export of maps, but his only other known engraved work of any kind is the map of Hertfordshire that he engraved for Saxton in 1577. (Fig. 62.3 shows the version published by Ortelius).

Size of the original: 81.7 × 101.7 cm. Photograph courtesy of the Biblioteka Uniwersytecka, Wrocław, with thanks to Krystyna Szykula.
fig. 57.7. OPPIDVM CANTEBRIGIÆ, 1574. A map of Cambridge engraved by Richard Lyne for John Caius’s Historiæ . . . ; copper engraving with contemporary hand color. Lyne’s map was one of the earliest copper engraved English maps for book illustration and is of particular importance in that some of the costs of printing (sponsored by Archbishop Matthew Parker) have been preserved. The “copper to grave in” cost twelve shillings, and Lyne himself was paid thirty shillings “for carving it” and a further two shillings “for cullers.” The final leaf of the book bears John Day’s Horum Charitas emblem of a burning heart and a globe, elements of symbolism that may well suggest a connection with the international group known in English as the Family of Love. Size of the original: 43 × 30 cm. John Caius, Historiae Cantabrigiensis Academiae ab urbe condita (London: Inædibus Iohannis Daiij, 1574). Photograph courtesy of the BL (C.24.a.27[3]).
las, but the first to be undertaken without government backing. Ryther had earlier engraved some of Saxton's county maps and some of the Waghenaer charts. He thus worked on all three sixteenth-century English atlases and provides their sole connecting link. He is also generally credited with engraving Saxton's 1583 wall map of England and Wales. He engraved maps of Oxford (1588) and Cambridge (1592). In 1590 he engraved the curious William Bowes pack of geographical playing cards, with miniature maps derived from Saxton. He engraved planispheres (fig. 57.9) to illustrate Thomas Hood's *The Vse of...* 

the Celestial Globe in Plano in 1590 and also produced a fine chart of the North Atlantic for the same author in 1592. He appears to have acquired Saxton’s plates and reissued the county maps, which are sometimes found bound together with his Armada charts. There is no doubt represented a cheaper alternative to the celestial globe or the planispheric astrolabe. They were the first printed celestial charts produced in England and serve to emphasize not only how gifted an engraver Ryther was but also how large a contribution he made to the emerging London map trade. Size of the original: 56 × 56 cm. Photograph courtesy of the BL (Maps 184.h.1).

38. Waters notes that the chart is “a beautiful example of what must be the first printed English plane chart designed expressly for navigation and instruction . . . a delicate piece of work, and as a sailing chart much superior to Hondius’s engraving of the coasts of north-west Europe in The Mariners Mirror” (Waters, Art of Navigation, 198–99).
of Ryther’s talent and importance, but somewhere his career took a wrong turn. He perhaps ran into debt, but whether this was the case or whether it was a matter “only upon malice and not of any Just cause,” he is last heard of imprisoned in the Fleet in 1595—“this poore Gent. Mr Ryther.”

A striking contrast to Ryther’s career is offered by that of Jodocus Hondius the Elder, who, from outwardly similar beginnings, went on to become one of the most successful international publishers of his time. His network of family and trade relationships eventually led to his becoming the pivot on which the whole of the map trade in northern Europe turned—but this is to anticipate his later career in Amsterdam, and the emphasis here is on the years he spent in England. Although certainly in London as early as 1583, no work can confidently be ascribed to him earlier than the charts he engraved for the English edition of Wagenaer’s Mariniers Mirror in 1588. From this date on, a number of important and interesting maps appeared in rapid succession: the miniature world map of 1589 and the roundel maps of 1589–90, the sheet maps of the world and continents of similar date, the Typus Angliae map of 1590 (fig. 57.10), a similar map of France in 1591, a map of Ireland, Hyberniae novissima descriptio (1591), and the maps combined with genealogical tables of England and Portugal (both 1592). Also from 1592 are the celebrated Emery Molyneux globes, the first engraved in England and, as Hondius later pointed out, the largest yet produced anywhere (fig. 57.11). It was a crucial period in shaping his career, and he maintained lasting contacts in the London trade that ensured him a continuing role in English map production long after his departure.

Ryther’s Armada plates were printed by the London bookseller John Wolfe, who registered copyright in both text and plates at Stationers’ Hall in 1590. Wolfe’s turbulent career, his clashes with his old master John Day and the Stationers’ Company, his imprisonments, secret presses, and faked imprints have sometimes obscured his other achievements. He had an extensive international trade and was “the father of news publishing” in London. He was moreover the first London bookseller to produce a substantial sequence of books illustrated with maps. Some of these are well known—most notably his edition of Jan Huygen van Linschoten’s Discours in 1598 (fig. 57.12). Others are less familiar, but here was a London bookseller regularly commissioning maps in a way that had not happened before.

Other notable contributions at this time include the various separately published maps of the Italian cartographer Baptista Boazio, including The Famouse West Indian Voyadge Made by the Englishs Fleete (1589?), The True Description or Draffe of that Famous Isle of Wighte (1591) (plate 71), and Irelande . . . Diligently and Truly Collected (1599). The surveyor John Norden had intentions in the 1590s to improve upon Saxton’s county maps. Although initially given encouragement and some fitful financial support, his series of maps land-
guished, with some never reaching print.\textsuperscript{54} It is nonetheless possible to see from the maps that were published, \textit{London, Myddlesex, and Westminster} (all 1593),\textsuperscript{55} \textit{Surrey} 1594,\textsuperscript{56} \textit{Hartfordshire} 1598,\textsuperscript{57} and \textit{Sussex} 1595, why his contemporaries regarded him so highly. But Norden's was not the only project to fail of completion and the uncertainty of the developing market is suggested by the similar failure of other ventures—not least the unfinished county series prepared by the herald and topographer William Smith (fig. 57.13).\textsuperscript{58}

Given the extensive personal contacts that Ortelius had in England, it is surprising that no English editions of the

\begin{figure}
\centering
\includegraphics[width=\textwidth]{fig_57_10}
\caption{JODOCUS HONDIUS THE ELDER, \textit{TYPV\textsc{e} ANGLI\textsc{e}}, 1590. A delicately engraved map with an elaborate border featuring a portrait of Elizabeth I and representative figures of a nobleman, his wife, and London citizens. The Latin text praises an orderly and prosperous nation, and alongside the instruments of music and war there are Tudor roses and emblems of wealth and wool. It was in England that Hondius first developed this style of decorated map. One of the purposes of such maps is suggested by the fact that in the late nineteenth century a fragment of \textit{Typvs Angli\textsc{e}} was discovered in a shelter erected on Novaya Zemlya by the crew of Willem Barents. The fragment was a relic of a parcel of prints and maps taken by Barents on his voyage of 1596 and presumably intended for purposes of barter or communication with the peoples he was to meet.}
\end{figure}


\textsuperscript{54}. A manuscript volume presented to the queen in 1595 (BL, Add. MS. 31,853) contains “a pathetic letter describing his plans, labours, sacrifices and disappointments,” Lynam, Mapmaker’s Art, 70.


\textsuperscript{57}. In John Norden, \textit{Speculi Britanniæ Pars: The Description of Hart-fordshire} (1598), between 8–9.

Theatrum orbis terrarum were attempted during his lifetime. The earliest to appear were two early seventeenth-century miniature editions. One, An Epitome of Ortelius: His Theatre of the World (1601?), bears the imprint of John Norton, while the other, perhaps a better production with revised text and plates, and the maps now graduated for latitude and longitude, was published by James Shaw. Shaw is as obscure as Norton is well known. Only recorded for a handful of titles, his Abraham Ortelius: His Epitome of the Theater of the Worlde (1603), is the only one of consequence. The appearance of these rival productions just at the close of the Elizabethan period encapsulates the various contradictions inherent in the map trade at this time. They appear to look forward, for, in whichever order they appeared, “these two little books were the earliest world atlases to be published in England.”59 In fact they look backward. The Ortelius maps had largely been superseded, and, to judge from the number of surviving copies, neither publication had any significant success. In the number of maps they contain they far exceed any previous London publication, but both were “bought-in” productions, actually printed in Antwerp from plates already in existence.

The reign of James I (James VI of Scotland) opened with the appearance of brightness and promise. The early years of his reign saw more maps launched on the British market than at any other time in the period. Four-sheet wall maps of the British Isles produced by Woutneel and John Speed both appear at about the time of the accession in 1603, presumably intended to communicate in a graphic way the union of the crowns of England and Scotland.60 Norton followed his miniature edition of the Ortelius atlas with a full-sized folio edition, published in association with John Bill. The title page is dated 1606, although a reference to Speed’s Theatre of the Empire of Great Britaine (1611) as “lately set forth” casts some doubt on the real date of publication. The maps were printed from the original plates in the Netherlands, but in this case the text was added in London. It was an ambitious project—the most extensive of all the many editions of Ortelius’s atlas, with 166 engraved plates, the largest collection of intaglio plates yet to appear in England and physically the largest...
As with his earlier miniature edition it does not survive in large numbers and was never reprinted. Undoubtedly more popular, and perhaps more relevant to the context of London map production, were the map-illustrated editions of William Camden’s *Britannia* that Norton copublished with George Bishop in 1607 and 1610. Here for the first time was a full set of folio maps (fifty-seven in all) produced entirely by engravers permanently based in London.

The partnership established by John Sudbury and his nephew George Humble around the turn of the sixteenth century is well known in British cartographic history for publishing the maps of John Speed. The partners also have a wider significance in the history of publishing because they dealt in more than just maps, carrying a wide range of engraved material—prints, portraits, patterns, emblem-books, and writing masters. They were the first specialist London printsellers, and it is the breadth of their output that probably provides the clue to their viability and continuing success. It is tempting to speculate that they took over John Wolfe’s rolling press: their premises were in Pope’s Head Alley, where Wolfe had

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64. The range and flavor of their stock is well summarized in Rosenberg, *Graphic Arts*, 7–16.
once been, and early in their career they certainly used his London-based engravers. Nonetheless, when it came to the production of the Speed county atlas, they sent all or most of the work to Amsterdam to be engraved in the workshops of Hondius. The resultant atlas, published in 1611–12 under the title *The Theatre of the Empire of Great Britaine*, was the most successful British map publishing venture of the period. The ornate maps, with their inset plans of the major towns, struck an immediate and lasting chord with the public, and through this and many subsequent editions the maps remained, as far as the London trade was concerned, “the most valuable cartographic property of the 17th century” (fig. 57.14).65

The appearance of such a number of major projects clustered together in a short space of time was the high-water mark of London map production in the period under review. It is nonetheless noticeable that, these projects apart, very little else was being produced. The array of separately published wall maps that appeared in the last years of the previous reign dried up. The theoretical maps published by the mathematicians of the 1590s ceased to appear. Even the kind of map-illustrated travel books put out

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by John Wolfe were no longer being produced. The number of fresh maps put on the market after 1612 reduced to a trickle. Sudbury retired in 1618, but the enduring success of Speed’s Theatre provided a platform for Humble eventually to publish Speed’s A Prospect of the Most Famous Parts of the World (1627), the first general world atlas of British authorship. The plates were again engraved in Amsterdam. Humble also acquired from the Low Countries the plates of the miniature county maps engraved by Pieter van den Keere, which he augmented and published as a pocket edition of Speed.66 But although Humble was not without competition in the relatively new trade in prints and portraits, his rivals seem hardly to have dealt in maps at all. The printseller Thomas Jenner later became prominent, but did not deal much in maps until the Civil War (an exception is shown in fig. 57.17 below). William Web, who at some stage came into possession of

FIG. 57.14. JOHN SPEED, GLAMORGAN SHYRE: WITH THE SITUATIONS OF THE CHEIFE TOWNE CARDYFF AND ANCIENT LANDAFFE DESCRIBED, 1607. A proof state dated 1607 of the engraving by Jodocus Hondius the Elder for Speed’s Theatre of the Empire. In this unfinished state the sea has not yet been shaded, and the names of those involved, Hondius, Speed himself, and his publishers, John Sudbury and George Humble, have not yet been inserted. It is indicative of the time and expense involved in putting together a major project that the date was altered before final publication to 1610, and the finished atlas was not published until 1612, several years after the engraving of the plates had commenced, and four years after Humble had received his royal privilege for publication.

Size of the original: 38 × 50.5 cm. John Speed, The Theatre of the Empire of Great Britaine: Presenting an Exact Geography of the Kingdomes of England, Scotland, Ireland . . . (London: John Sudbury and Georg Humble, 1611), insert between 105–6. Photograph courtesy of the BL (Maps C.7.c.5[20]).

the plates for the Saxton county maps, seems not to have published them until the 1640s.67

As far as the mainstream book trade was concerned, there were by now no more than a handful of ventures involving maps. The bookseller Henry Fetherstone illustrated Samuel Purchas’s Purchas His Pilgrimes (1625) with what are listed in the preliminaries as “Maps and Peeces cut in Brasse or Wood,” some freshly engraved, but mainly comprising second-hand plates originally produced by Hondius in Amsterdam for his Atlas minor (1607). Michael Sparke published John Smith’s Generall Historie of Virginia (1624) and Luke Fox’s North-West Fox (1635), both with individual maps of significant historical interest. Sparke also brought out a more elaborate book of “eye-travell” in 1635—a reduced format Mercator atlas reusing the by-now third-hand Hondius Atlas minor plates and introducing a number of new ones, slightly larger in format and for the most part engraved in London (fig. 57.15).68 John Bill produced a pocket edition of Camden’s Britannia with miniature county maps

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67. Skelton, County Atlases, 70–72.

68. Gerardus Mercator, Historia Mundi; or Mercator’s Atlas, Containing His Cosmographical Description of the Fabricke and Figure of the World, trans. Wye Saltonstall (London: T. Cotes for Michael Sparke and Samuel Cartwright, 1635). This was the first British publication to use the word “atlas” in its title.
in 1626, evidently to rival Humble’s pocket Speed, although not enjoying the same success. Matthew Simmons published a similar pocket book, A Direction for the English Traveller, in 1635. This book ultimately fared better than the Bill atlas, and the plates were later taken over by Jenner, remaining in print for a number of years. It was nonetheless a modest enough piece of work when compared with the great atlases of the British Isles already in preparation in Amsterdam. The booksellers Thomas Archer and Nathaniel Newbery, neighbors of Humble in Pope’s Head Alley, were both publishers of corantos (newbooks) and produced a number of news-related maps, not all of which survive. But no outright specialists in map or atlas production emerged, and such publishers of engraved and pictorial material as there were, Sudbury and Humble included, dealt mainly in other things. The map trade in London had become hardly more than a peripheral activity.

**THE ENGRAVERS**

It has been customary to suppose that one of the principal constraints on the development of a fully fledged map trade was a dearth of skilled engravers. Skelton advanced this case, making the undeniable point that all the early English-language world atlases were engraved abroad and arguing that it was “for want of native engravers . . . [that] the demand for printed maps in England during this period had to be mainly satisfied by the cartographic industry of the Netherlands.” This proposition has been echoed in other studies of the period, but it is one that perhaps requires more rigorous examination. Skilled engravers were an essential requirement for map publishing, but a brief survey of the map engravers actually at work in London and the range and especially the quantity of their work may lead to a somewhat different conclusion.

From the mid-sixteenth century at least, work of excellent quality was occasionally produced in London. Geminus and Reynolds were both first-rate engravers, as was Richard Lyne (the engraver of figure 57.7 above), yet they are known for only a handful of maps between them. The instrumentmaker Humfrey Cole engraved only a single map, the beautifully worked Canaan, “said to be grav’d instrumentmaker Humfrey Cole engraved only a single are known for only a handful of maps between them. The Richard Lyne (the engraver of figure 57.7 above), yet they nus and Reynolds were both first-rate engravers, as was

69. The Abridgment of Camden's British Historia with the Maps of the Severall Shires of England and Wales ([London]: John Bill, 1626); Skelton, County Atlases, 53–55.

70. A Direction for the English Traveller . . . (London: Mathew Simons, 1635). There was perhaps also an earlier edition now lost. See Skelton, County Atlases, 20, 63–65, and 243.

71. Two surviving examples of Archer’s news maps are A Thirde and Last Mape, Both of the Sedg of Breda by Sponiola . . . (BL, Maps 150.e.13[50]) and A Compendious Card or Map of the Two Armies Lying by the Rhine . . . (Oxford, Corpus Christi College). Both are engraved maps with explanatory letterpress published in London about 1624. Richard Norwood, A Plost or Mappe of Bermudas . . . (later utilized by Speed) was entered to Newbery at Stationers’ Hall in 1621 (Arber, Transcript of the Registers, 4:25 and 39).


77. Figure 59.12; the map was separately published, but generally found bound with John Smith, A Map of Virginia, with a Description of the Country . . . (Oxford: J. Barnes, 1612). Burden, Mapping of North America, 202–5, and Coolie Verner, Smith’s Virginia and Its Derivatives: A Carto-Bibliographical Study of the Diffusion of Geographical Knowledge (London: Map Collectors’ Circle, 1968). I am indebted to both Philip Burden and Joseph Walker for these references.
miniature maps on a set of playing cards, and almost certainly the curious poetic maps for Michael Drayton's *Poly-Olbion* (1612–22). His output is matched by that of William Kip, who engraved Norden's *Hartfordshire* (1598), thirty-four maps for Norton and Bishop's 1607 edition of Camden's *Britannia*, Woutneel's wall map of the British Isles (1603), and Edward Wright's two-sheet map of the world of 1610. This list does not, however, represent a remarkable tally for someone who arrived in England from Utrecht almost certainly as early as 1585. Like other early engravers, Kip appears to have had a parallel and perhaps more regular career as a goldsmith, probably engraving decoration and coats of arms on gold and silver plate. The same is almost certainly true of William Rogers, most gifted of the early native engravers. Rogers's modest cartographic output comprised maps for John Wolfe (such as fig. 57.12), for a Bishop edition of Camden's *Britannia* (1600) and an intriguing early proof or sample of Speed's map of Cheshire dating from about 1604. Rogers's apprentice, Thomas Cockson, engraved the Boazio map of Cádiz in 1596, but (apart from some portraits with cartographic backdrops) he seems not to have been required to produce any further maps. The London-born Renold Elstracke was a specialist copper-plate engraver, known for around a hundred separate printed engravings, yet these were mainly portraits and illustrations. His modest output of maps includes three examples for Wolfe in 1598, Boazio's *Irelande* in 1599, Speed's wall map of the British Isles of about 1603, Speed's 1611 map of Canaan designed to be inserted in Bibles, William Baffin's *Description of East India* (1619; see fig. 59.9), and some maps for *Purchas His Pilgrimes* (1625).

For the latter part of the period, with much of the work now being, for whatever reason, sent abroad, the number of maps signed by engravers working in London is very small indeed. Competently engraved maps are known by Simon van de Passe, Robert Vaughan, Thomas Cecill,
and Vaughan’s apprentice Ralph Hall, but none of them was ever required to undertake any significant amount of cartographic work. Even though by 1640 one can point to a great variety of map work engraved in London—with more than one hundred separate maps engraved by English-born engravers—what is striking is how few of the engravers produced more than a handful of maps. Although it would be foolish to argue that there was a superfluity of skilled hands, it would seem that problems other than a lack of engravers may have been of more critical importance.

Regulation and Control

An impediment to the development of the map trade sometimes adduced is the degree of regulation and control exercised over publishing in England. Although not always wholly efficient—and although the apparatus of control was in large part administered by booksellers and printers themselves under the aegis of their powerful trade guild, the Worshipful Company of Stationers—that control was rigorous and far-ranging. The primary purpose was plainly censorship—to prevent the publication and distribution of material deemed seditious, subversive, irreligious, or otherwise unwelcome. A subsidiary purpose was to protect, by some form of copyright, the producers of original work from the plagiarism that might otherwise undermine the economic basis of their activities. These somewhat disparate purposes were sometimes jointly addressed by the device of granting a monopoly—allowing publication rights in a whole class of material to a single individual—a strategy that came to cause difficulties of its own. There were also some significant restrictions on trading and the way in which individuals were admitted to and allowed to function within the trade.

Censorship

Although maps have an innate political dimension and their circulation and content have often been made subject to official restriction, they were not so regulated in England during this period. The two most extensive projects of the sixteenth century, the atlases of Saxton and of Waghenaer, owed much to government support. In both cases the state was prepared not only to authorize but actively to encourage the publication of detailed maps of sovereign territories and sea coasts, even at a time when a Spanish invasion was probable and even imminent. Although occasional examples are found of the kind of strategic suppression that kept, for example, the full extent of Drake’s Pacific discoveries from appearing on published maps for some years after his return, the general policy was nonetheless a liberal one. License to publish was necessary for all printed matter, but for purely cartographic material this seems to have been a formality. Straightforward censorship of maps was not a factor, but what did affect the development of the trade was the loss or suppression of so many other publications in which maps might have appeared. Although digests of foreign news were permitted from time to time, newspapers or journals containing domestic news were prohibited until 1641. As maps are almost indispensable to news reporting, it is easy to imagine that significant numbers of maps were never produced and an obvious market for them was simply never created.

Copyright

Maps are particularly vulnerable to plagiarism, but although they were sometimes copied, outright piracy does not seem to have been a pressing problem. Physical possession of the elaborate engraved and expensively produced printing plates would generally have offered publishers as much copyright protection as they actually required. Even so, formal mechanisms for protecting copyright did exist, and mapmakers certainly availed themselves of them. The normal method was simply to register or “enter” the title of the work or “copy” at Stationers’ Hall. The Stationers themselves from that point on had ample scope to protect “right” in “copy” so entered, with legal powers to arbitrate, confiscate, and even to destroy presses used for printing piracies. Although after 1598 it became necessary to be a member of the Stationers’ Company, which traces its origins to the Middle Ages, was formally incorporated by royal charter in 1557 and given quite exceptional powers. In a perhaps cynical tradeoff, the Stationers accepted a complete monopoly of printing (except where special license under royal letters patent was obtained) in return for policing the output of the press. Further layers of licensing arrangements were also usually in force, but the Stationers maintained rights of search and seizure, powers to fine, and even to imprison without trial. The company had “so far as printing was concerned—nation-wide powers, almost as if it were an executive arm of the Government” (Cyprian Blagden, The Stationers’ Company: A History, 1403–1959 [Cambridge: Harvard University Press, 1960], 31). See also C. J. Sisson, “The Laws of Elizabethan Copyright: The Stationers’ View,” Library, 5th ser., 15 (1960): 8–20.
ers to benefit from this arrangement, map and printsellers (who were seldom members of the company) could often come to some amicable arrangement with colleagues in the wider trade who were (fig. 57.17). Many maps and map-illustrated books were registered in this fashion, but an alternative method of securing protection, one used by Saxton and others, was to seek a royal privilege or patent covering the work in question. Unlike the copyright conferred by entry in the Stationers’ register, which appears to have been regarded as perpetual, these royal privileges, although granting prestige and more broadly drawn, generally ran only for a fixed period. That granted to Saxton in 1577 expired after ten years, which may have been too short wholly to achieve its purpose. Similar privileges later granted to George Humble in 1608 for the Speed county maps and to Aaron Rathborne and Roger Burges in 1618 for an abortive series of town plans were both for twenty-one years. The failure of the latter project illustrates the weakness of the system. The patent was granted, reasonably enough, to enable Rathborne to recoup his investment of time and expense, but the terms were so widely drawn, sweeping in books and printed descriptions as well as maps, that the whole of urban topography was in effect denied to everyone else. This may have been pardonable if Rathborne had produced any of what he promised, but as he did not, the fact is that there are no printed English town plans at all from the period of his privilege. That market was simply closed.

**Monopoly**

Rathborne’s patent was not quite a monopoly. It gave him rights not over all town plans, merely over those of the principal towns named in the patent. But there were monopolies covering whole classes of publication. The earliest of these was that of 1544, by which Grafton and his then partner Edward Whitchurch were given a general patent covering all service books. This may well have made political sense in a period of acute religious controversy. The monopoly granted in 1552 covering all law books may have had similar merit, as too the grant to Bynneman in 1580 of the privilege of printing “all Dictionaries in all tongues,” a class of book necessarily costly to produce and previously not attempted in the British Isles. Many such grants, which piled up in increasing numbers and reached into every area of the economy, were originally designed to protect and encourage enterprise and ambition. All too often, however, they became a cynical exercise in favor granting or revenue raising. The accretion of patents and privileges that eventually enmeshed the book trade undoubtedly came to damage the quality of printing and to stifle innovation. As far as maps were concerned the precise consequences are more difficult to unravel. A patent generally known as the “gram-

mar patent” was granted to Reyner Wolfe in 1547 principally relating to Greek and Latin grammars—more or less a monopoly over the provision of school textbooks. The patent also conferred not fully defined rights in maps, charts, and “other things of that kind.” Through several modifications and amplifications, this patent eventually passed to John Norton in 1603, by which time it may possibly have come to confer rights over the production of “all maps and charts.” The patent was, however, by this time under legal challenge from the holders of an overlapping patent, and it is difficult to be certain what the limits of Norton’s privilege actually were. But with the exception of the maps of John Speed (which had their own royal patents), it is difficult to identify more than a handful of maps produced during the next few years other than those in which Norton was involved. Norton produced editions of the Theatrum and the Britannia, but those to whom the patent passed in rapid succession after his death in 1612 seemed to have had no interest in maps. To what extent the patent holders may have prevented others from entering the field remains unclear. This clouded position clearly did little to promote the map trade, and if this were not enough, there was worse in store. In 1618 the privilege was sought for a somewhat eccentric monopoly covering everything printed on one side of the paper only. The following year this extraordinary patent was formally granted for a period of thirty-one years. It was vigorously contested by the trade and equally vigorously defended by the patentees, Thomas Symcock and Roger Wood, both in reality assignees for the principal beneficiary, the royal favorite Marin de Boislôrè. That maps were included under this “one side only” heading is made clear by their specific mention in various documents produced as the case rumbled on until the patent was finally annulled in 1631. Both Speed and Humble were among the group of publishers that peti-

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90. See Griffiths, Print in Stuart Britain, 15.
94. Such at least is the interpretation given by Skelton in County Atlases, 242. The patent may merely have covered maps and charts printed in Latin and Greek—but even contemporaries were unclear—see Nancy A. Mace, “The History of the Grammar Patent, 1547–1620,” Papers of the Bibliographical Society of America 87 (1993): 419–36.
THOMAS JENNER, *A TRUE DESCRIPTION OF THE CITIE OF ROCHELL*, [1621]. An engraved map overprinted on a letterpress broadside. A rare example of a separately published English newsmap. Maps of this type survive in such small numbers that they have been largely ignored in accounts of the cartography of the period. Sometimes used to illustrate early newsbooks (*corantos*) and sometimes, as in the present example, separately published with surrounding descriptive letterpress, they almost certainly began to appear in the late sixteenth century. The present example bears the imprint of the London printer, William Jones, to whom copyright was entered at Stationers’ Hall on 11 June 1621, but bears the further legend “to be sold by Thomas Jenner at the white Beare in Cornhil.” Jenner was probably the actual publisher, but not belonging to the Stationers’ Company, he would have needed to have come to an arrangement with someone like Jones, within the Company, to register copyright. Size of the original: 50 × 34.4 cm. Photograph courtesy of the BL (Maps 150.e.13[51]).
tioned the Commons concerning the matter in 1621. During its period of dubious legitimacy the patentees could impound material not printed by themselves, destroy printing presses and plates, and confiscate imported material. There seems little doubt that the incipient trade in maps and charts, which might have benefited from the granting of a peremptory monopoly, was a major casualty of the system. As far as is known, no printed maps at all were produced by the holders of the various later patents. Their sole contribution would appear to have been to prevent anyone new entering the trade for a generation.

FREEDOM TO TRADE

Over and above the limitations placed on what might be printed, where, and by whom, there came into existence further regulations restricting access to the trade itself. By the late sixteenth century, limits had been placed on the number of master printers, with further restrictions on how many presses each might own, and rules limiting the number of apprentices. It is doubtful how much direct effect this had on the map trade. The Stationers, although normally jealous in the extreme of their monopoly of all printing, seem not to have been especially concerned about the production of prints, maps, and other engraved material. It has already been remarked that the specialist print-sellers were rarely even members of the Company. Why this should be so, in what was generally such a thoroughly regulated environment, is a puzzle that deserves further study.

Of more particular relevance to the map trade were the difficulties encountered by foreign craftsmen bringing their skills to London. Although a statute of 1484 had given foreign printers freedom to practice their craft in England, this freedom was “systematically attacked and undermined” by both the Stationers and the civic authorities. Foreign workmen became progressively more disadvantaged, with restrictions on how they might trade and where they might work. Popular feeling and even violence were readily aroused against the strangers, particularly in times of economic difficulty. In the troubled early months of 1593 a manifesto was pinned to the Dutch Church threatening that unless the foreigners had departed by July “apprentices will rise to the number of 2336, and all the apprentices and journeymen will down with the Flemings and Strangers.” This appears to be exactly the point at which Hondius and Van den Keere left England. For all the references in this account to booksellers and engravers from overseas who worked in London for a time, none would appear to have become sufficiently established to leave any kind of business or tradition to the next generation. The overall quality of English printing remained poor and, as Plant concluded, “the effect of this narrow policy was not, after all, to foster English industry, but rather to drive some of the best work abroad.”

FINANCE AND PATRONAGE

The production of maps and atlases was necessarily an expensive business. Such major projects as there were, in the earlier part of the period at least, are invariably linked to official subsidy. Geminus enjoyed some kind of royal pension. Saxton, too, had patronage from the state. Although the first level of this support was very often the granting of privileges and monopolies of the sort that had such unfortunate long-term consequences, in the short term, and when linked to clearly defined and specific aims, they were not without success. For an administration itself endlessly short of funds they represented a cheap, easily granted, and often well-meant form of assistance. Saxton was no doubt glad of his printing privilege and the further awards of lands and offices. There was practical help too, with official passes enabling him to draw on local assistance in his survey. There can be little doubt that the atlas would simply not have appeared without this kind of support, and the same is true of the English edition of Waghenaer’s sea charts, with the project emanating from the Privy Council itself. In the absence of similar sponsorship there were no further editions of Waghenaer’s atlas produced in London; indeed, there were no other maritime atlases at all produced in the British Isles throughout the period.

Norden and Speed received similar assistance to that received by Saxton, with printing privileges and passes, and Speed was similarly rewarded with land and official positions. Patronage also sometimes worked on a more im-

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96. Greg, *Companion to Arber*, 168.
98. Sudbury and Humble, for example, were members of the Leathersellers and Ryther and Jenner were Grocers. Although it was unlawful to trade in the City of London without belonging to a livery company, membership of any of them afforded some protection from the Stationers’ powers: the ancient custom of the City that a freeman could deal in any class of merchandizable goods had considerable legal force.
102. The plates were, however, used again for a Dutch edition published by Hondius in Amsterdam in 1605 (Koeman, *Atlantes Neerlandici*, 4:501).
mediate and personal level. John Day and others were much encouraged and supported by Archbishop Matthew Parker (see fig. 57.7). Christopher Barker enjoyed the backing of Sir Francis Walsingham, whose Tiger’s Head crest he adopted as his device, and Sir Christopher Hatton gave similar patronage to Bynneman. Beyond these measures of public and private patronage, the financial structure of the trade is difficult to penetrate. To judge from surviving evidence, booksellers were not generally a prosperous group. Bynneman provides an interesting case study because a full inventory of his stock and other property survives, listed and valued in 1583 as a consequence of his inability to repay a loan of a thousand pounds—probably taken to provide capital for the dictionary monopoly granted to him in 1580. His entire estate amounted to under eight hundred pounds, including all his stock and the leases of various premises, a total rather less than that of the loan. The cost of financing the dictionary project was clearly insuperable, and similar considerations must have haunted the producers of maps and atlases. A handful, like Norton and Humble, came to be prosperous and even wealthy men, but others, such as Ryther and Shaw, disappeared into oblivion. It was a period that had much of that kind of uncertainty: Van den Keere even adopted as his shop sign on his return to Amsterdam the legend “in the uncertain time.” Some publications were successful, but many others failed even to be completed.

**MARKETING AND DISTRIBUTION**

A particular barrier to our further understanding of the period is a lack of precise knowledge of how cartographic publications were marketed and distributed. Beyond the assumption that they were sold through existing bookshops there is little concrete evidence, although the basic options must have been to sell from retail premises, to sell retail through the annual round of fairs, to sell wholesale to other retailers, or to combine various of these activities. Publishing by subscription was all but unheard of at this time, and the system of publishing in periodical installments or parts, adopted for atlases with considerable success in the eighteenth century, was a publishing technique that lay wholly in the future.

**ADVERTISING AND CATALOGS**

The earliest specific mapsellers’ imprints, giving details on the face of the map of where similar maps might be bought, appeared just before 1600, tied in with the emergence of London shops, like that of Sudbury and Humble, specializing in the sale of engraved material. Little tangible evidence of other forms of advertising survives. Ben Jonson makes reference to booksellers advertising their wares through some form of placard held in a cleft stick, presumably paraded through the streets, as well as to the more widely documented posting of bills. The latter may well have involved using the maps themselves as posters, or else pulls of the elaborately engraved atlas title pages that seem so evidently intended for display. The sole example of this type of poster advertisement that seems to have survived is the Ephraim Pagitt advertisement of 1636: not indeed an advertisement for a map, but a map used as a broadside advertisement for a book (fig. 57.18). The earliest English newspaper advertisement for a book appeared in Thomas Archer’s *Mercurius Britannicus* in 1626, but there is no record of maps being advertised in this manner until the second half of the seventeenth century. By 1640 a sufficiently reliable network of carriers was in place to enable the ready distribution of articles across the country, but, although printed catalogs are known from elsewhere in Europe, the earliest surviving English example to feature maps, a simple broadside headed *A Catalogue of Plates and Pictures* put out by Peter Stent, was not issued until 1654.

**BUYERS AND USERS**

Implicit in any discussion of the map trade must be some consideration of the potential market for the products. In the British Isles, as elsewhere, statesmen and courtiers...
FIG. 57.18. EPHRAIM PAGITT, A DESCRIPTION OF THE MULTITUDE OF CHRISTIANS IN THE WORLD, 1636. A double folio broadside, printed by William Jones, with an engraved map of the world and surrounding letterpress. The map forms part of what is more or less an advertising poster for the second edition of Ephraim Pagitt’s *Christianographie, or the Description of the Multitude and Sundry Sorts of Christians not Subject to the Pope* (1636). Part of the text reads, “They that would see more concerning these points may read a treatise intituled, *Christianography,* Written by the Author hereof Ephraim Pagitt.” “In the coloured Map, the Red are Papists, the other colour are Christians not subject to the Pope.” No other example of a map used in this way is known to survive, nor are any advertisements for maps themselves known until the second half of the seventeenth century.

Size of the original: 44 × 65 cm. Photograph courtesy of the Bodleian Library, University of Oxford (Broxb. 95.75).
first became interested in maps as tools of government. Scholars were also among the earliest users, but it would be wrong to make too large an assumption about the extent of this kind of demand. Although surviving inventories make individual references to maps, atlases, and geographies, cartographic material nevertheless formed a very small part of the typical sixteenth-century academic library. By the 1570s it is just possible to sense printed maps moving out into a wider world beyond the confines of the court and the university. Explanatory textbooks such as Bynneman’s Certaine Brief and Necessarie Rules of Geographie, Surfing for the Understanding of Chartes and Mappes (1573) began to make an appearance. The atlases of Saxton and Speed in particular gained a currency among the landed gentry, but there is as yet little feeling of printed maps being used for what would now be regarded as major functions—as aids to travel and tools of commerce. There is some attempt to address the needs of travelers with the pocket atlases produced by Van den Keere, Bill, and Simmons, but it is difficult to be optimistic about the practical value of these tiny roadless maps. In commerce, too, it is difficult to find evidence of maps in routine use. Even at the end of the period, Lewes Roberts, a director of the East India Company, in an economic treatise that he pointedly called The Merchants Mappe of Commerce (1638), made a plaintive appeal to his fellow merchants to begin using maps more routinely. His tone makes it clear that mapmakers and mapsellers had not yet broken through to what would later become a lucrative market. Without that breakthrough there could hardly have been enough buyers to support a fully specialized map trade. Harvey has suggested that “cartographic techniques were substantially in advance of the market in Tudor England, ready to be put to use when demand arose.” The same was almost certainly true of the capacity for their reproduction and sale.

The preoccupations of such buyers as there were can readily be gauged from a brief analysis of the material that did appear. The geographical coverage offers few surprises, with maps of the British Isles, the world, and the Holy Land by far the most popular, reflecting readily understood cultural and religious preoccupations. Almost 40 percent of the total are national, regional, or town maps of the British Isles (with Ireland and especially Scotland significantly less well represented than elsewhere). The rest of Europe is also well covered, and it is particularly noticeable that the maps added to the London editions of atlases first published abroad (those of Ortelius and Mercator, for example) tend not to be maps of new and far-flung discoveries but simply better and more recent maps of parts of Europe already tolerably well known. The Netherlands are solidly represented with about 5 percent of all maps, but despite the heavy Dutch and Flemish influence on map production, there seems to be no particular bias: there are almost twice as many maps of France and its regions (more than one hundred maps in all), with Italy and German-speaking Europe not far behind. Trade relationships in northern Europe and the Baltic are also echoed, particularly in the Waghenaeer charts. Coverage of the wider world is evenly spread, with about fifty separate maps each of Africa and America and their regions, although a much higher proportion of the American maps represent original work, reflecting British ties to North America already strong even at this early period. Asia would be significantly less well represented were it not for the large number of Bible maps.

Conclusion

That the London map trade failed to become securely established in the period before 1640 is self-evident. Having achieved technical proficiency and having produced some fine individual maps and a number of full-scale atlases, enterprise then failed, for some or all of the reasons outlined here, to go on to a phase of outright specialization. The contrasting strength of the Dutch publishers can be gauged from their success in producing English-language editions of atlases aimed specifically at the

111. The one such library genuinely rich in cartographic material was that of Andrew Perne, Master of Peterhouse: his quite exceptional library of some three thousand books was perhaps three times as large as that of Cambridge University itself. At the end of his life it contained maps by Mercator and Waldseemüller, Saxton’s “great mappe of England,” “a table of the viage of Sir Francis Drake,” “an unversall mapp cut like a flower deluce” and another “cut like an eagle,” as well as atlases and “Mercators globe of the earth with a letter case.” See E. S. Leedham-Green, Books in Cambridge Inventories: Book-Lists from Vice-Chancellor’s Court Probate Inventories in the Tudor and Stuart Periods, 2 vols. (Cambridge: Cambridge University Press, 1986), 1:422 and 458, and Catherine Delano-Smith, “Map Ownership in Sixteenth-Century Cambridge: The Evidence of Probate Inventories,” Imago Mundi 47 (1995): 67–93. I am indebted to Elisabeth S. Leedham-Green for the suggestion that Perne’s library may well have been available to Edward Wright and other of the English mathematicians.

112. The book was written by “D. P.,” perhaps David Powell, Sir Henry Sidney’s domestic chaplain. Its appearance almost certainly relates to the availability of Ortelius’s Theatrum orbis terrarum from 1570.

113. Even at sea there was still surprising resistance to the use of charts and other printed aids. Luke Fox, “although supplied, according to his own account, with plenty of money to buy books for his North-west voyage, he took none, declaring that, in the first place there was no leisure at sea for reading, and in the second that in an emergency the important thing was not to rush away and consult a ‘Waggoner,’ but to act” (Taylor, Late Tudor and Early Stuart Geography, 83). In fairness, one ought to add that Fox did not lose “one Man, nor Boy, nor Soule, nor any manner of Tackling” on his legendary voyage to the Arctic; C. H. Coote, rev. Elizabeth Baigent, “Fox, Luke (1586–1635),” in Oxford Dictionary of National Biography, 60 vols. (Oxford: Oxford University Press, 2004), 20:668–69.

The 1630s alone saw no less than nine editions of Dutch-produced English-language maritime atlases and five English-language editions of Mercator's general world atlas. In a trade as tightly controlled as printing it would be surprising if there were no attempts to prohibit or control the flow of imports that in the end so overwhelmed the London-based trade. There had indeed been bans and restrictions on imports of printed matter in one form or another almost throughout the period, but, except in the case of overtly seditious material, it is difficult to see much evidence of the will, or perhaps merely the ability, to enforce them. When Sparke brought out his reduced-format Mercator atlas in 1635 he managed to invoke his copyright and get a ban on the importation of rival English-language Mercator atlases from Amsterdam. It is entirely symptomatic that his warrant to seize copies was quickly withdrawn. Yet despite these clear indications of competition in the marketplace, demand was nonetheless not as strong as might have been expected, for maps had not yet broken through to general commercial use. From the beginning, the trade in maps had been overly dependent on Dutch and Flemish assistance. Wherever the fault lay, that inability to break free meant that ultimately the emerging trade broke down. What might have been the story of the meshing together of a trade with strengths and traditions beyond those of its component parts is more honestly seen as a collection of disparate and largely fragmented individual contributions. If the position of the trade was weak in 1640, it grew worse during the Civil War. After the Restoration it had virtually to begin again.

115. I owe this calculation to Sarah Tyacke.
116. Import restrictions specifically relating to maps are included both in Saxton's 1577 privilege and the Rathborne and Burges patent of 1618. The disputed Boisloré patent of 1619 would in theory have excluded the import of all separately printed maps for thirty-one years.