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Jefferys, Thomas. Thomas Jefferys (1719–1771) was the most significant member of the British map trade of his time, as well as a figure of prime importance in the eighteenth-century mapping of North America. The chronology of Jefferys’s career has frequently been confused by the existence of two maps of London bearing his name and dated 1732 and 1735. The internal evidence of the maps makes them both certainly of later date, and it seems clear that they were originally issued by George Willdey, with the plates passing to Jefferys only after the death of George’s brother Thomas Willdey in 1748. Jefferys is now taken to be the Thomas Jeffryes (son of Henry) baptized in St. Martin’s in Birmingham (a church pictured on Jefferys’s map of Birmingham) on 10 July 1719. The family later moved to Clerkenwell in London, where his father, a cutler, died in 1731 (Worms 2004, 21).

His recorded career began with his apprenticeship to the mapmaker Emanuel Bowen on 3 December 1735. In Bowen’s workshop, Jefferys joined a well-known contemporary, Thomas Kitchin, apprenticed to Bowen in 1732. From the start, Jefferys was trained in an established mapmaking tradition and, working independently from at least 1744, he received his first royal appointment (as geographer to Frederick Lewis, Prince of Wales) in 1746. His most distinctive early output was the production of a series of plans of the manufacturing towns of the midlands—Noble and Butlin’s plan of Northampton (1747), Samuel Bradford’s Coventry (1750) and Birmingham (1751) (fig. 424), Isaac Taylor of Ross’s Wolverhampton (1751), and others—his first major contribution to the remapping of an increasingly industrial England.

In or before 1750, Jefferys moved to prominent premises at Charing Cross, where he was to remain for the rest of his career. In 1751 he married Elizabeth Raikes, daughter of the printer Robert Raikes (founder of the *Gloucester Journal*). It was from Charing Cross that Jef-

ferys issued, in the second distinctive phase of his career, some of the most important eighteenth-century maps of the Americas, including Joshua Fry and Peter Jefferson’s 1751 survey of Virginia, engraved and published in 1753; John Green’s (i.e., Braddock Mead’s) *A Chart of North and South America* 1753; William Gerard De Brahm’s map of South Carolina (1757); James Cook’s *A New Chart of the River St. Laurence* (1760); and Joseph Blanchard and Samuel Langdon’s map of New Hampshire (1761), the first published map of the state.

In 1760, Jefferys succeeded Bowen as geographer to the king and moved into the most ambitious phase of his career—the fresh mapping from original survey of large tracts of England. By 1766 he had three separate surveys in progress, but before his plans had properly begun he unexpectedly went bankrupt in November of that year. The assumption is that the expense of the surveys was the major cause, although Jefferys himself spoke only of a “train of unforeseen Accidents.” Despite the setback, he managed to continue with the help of friends “compassionate enough to re-instate me” (quoted in Harley 1966, 28), and in the last five years of his life he organized the surveys for, engraved, and published large-scale maps of six English counties: Bedfordshire (1767), Huntingdonshire (1768), Oxfordshire (1769), Buckinghamshire (1770), Westmorland (1770), and Yorkshire (1771–72). This sequence represented an extraordinary achievement but does not stand alone as Jefferys’s contribution to the remapping of England, for he also produced plans of some of the very earliest canal and harbor improvement schemes of the Industrial Revolution, based on the work of the celebrated engineers James Brindley, John Smeaton, and John Grundy II (Worms and Baynton-Williams 2011, 349; Worms 2004, 26). He died on 20 November 1771, his will leaving only twenty pounds, his debts, and his remaining effects to his widow and four surviving children. The business somehow survived and was revived under Jefferys’s teenage son, also Thomas, and William Faden, who probably became a partner in 1772. Faden, assisted by the surveyors Thomas Donald and Joseph Hodskinson, former employees of Jefferys, was eventually to take on Jefferys’s mantle as the major figure in English commercial cartography, while the Scotsman John Ainslie, apprenticed to Jefferys in 1762,

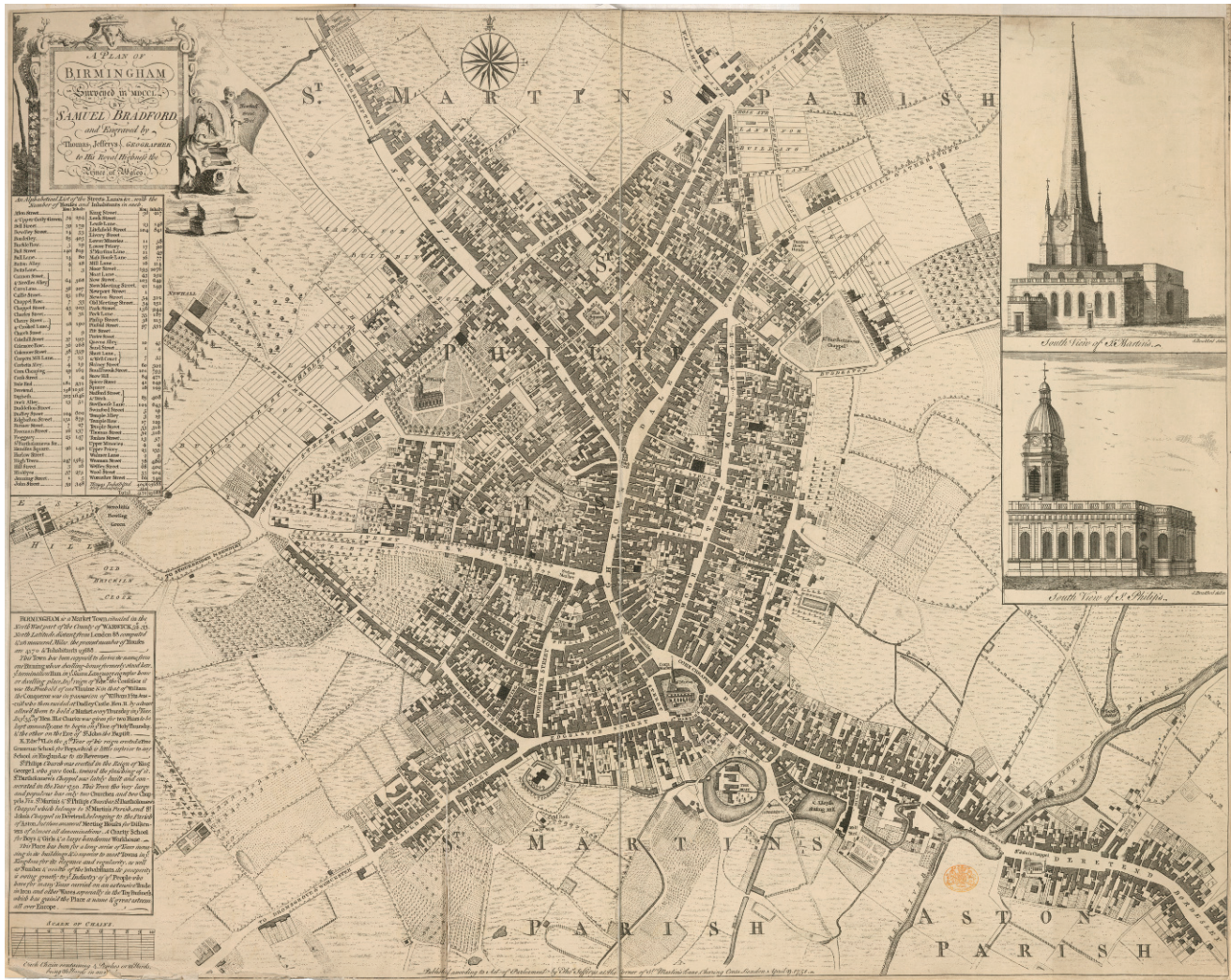


FIG. 424. SAMUEL BRADFORD, *A PLAN OF BIRMINGHAM*, 1751. Engraved and published by Thomas Jefferys. St. Martin's church, shown in the vignette at top right, was the site of Jefferys' baptism.

Size of the original: ca. 60.0 × 75.5 cm. © The British Library Board, London (Cartographic Items Maps K.Top.42.79).

became a comparable figure north of the border, establishing Edinburgh as a rival center of cartographic ambition. Perhaps the best contemporary summation of Jefferys is that given by Theodorus Swaine Drage: "I cannot pass by Mr. *Jefferys's* Care and Exactness in executing the Maps, whose Care and Fidelity to the Publick not to impose any Thing that is spurious, but what he hath an apparent and real Authority for, is perhaps not sufficiently known" (1768, xi).

LAURENCE WORMS

SEE ALSO: Geographical Mapping: Great Britain; Green, John; Map Trade: Great Britain; Topographical Surveying: Great Britain
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Jesuits. See Society of Jesus (Rome)

Josephinische Landesaufnahme (Josephine Survey; Austrian Monarchy). The Josephinische Landesaufnahme, named after the Holy Roman Emperor Joseph II under whose aegis it was carried out, was the endeavor in which the Austrian military mapped the majority of

the Habsburg monarchy from 1763 to 1787. During this period, about 570,000 square kilometers were recorded on more than 3,500 hand-drawn colored sheets at a scale of 1:28,800. Only Tyrol, Vorarlberg, and outer Austrian territories were not mapped at the time of the survey because excellent maps of those regions by Peter Anich, Blasius Hueber, and Anton Kirchebner already existed. By contrast, the survey of the Austrian Netherlands (1770–78) was not carried out by the staff of the quartermaster general, but rather by the local artillery corps under the leadership of Joseph Jean François de Ferraris.

The survey of France, supervised by Cesar-François Cassini (III) de Thury, was the model for the Josephinische Landesaufnahme. But unlike Cassini III's survey, the Josephinische Landesaufnahme lacked a triangulation network spanning the entire surveyed area. Instead, the most appropriate time-conserving methods were used to construct a geometric framework for each province, including drawing on older base maps and undertaking partial triangulations. These time-savers meant that before long it was necessary to correct or make new surveys of some areas, such as Bohemia, Moravia, and Austrian Silesia.

The main reason for the survey lay in a series of Austrian military defeats, in the Wars of the Polish Succession (1733–38), the Austro-Turkish War (1737–39), the War of the Austrian Succession (1740–48) including both Silesian Wars, and the Seven Years' War (1756–63). The poor outcome in these wars was attributed in part to Austrian generals' lack of geographical knowledge of the territories over which they fought. In a letter of 5 May 1764 to Maria Theresa, field marshal Leopold Joseph, Graf von Daun, stated that one knew one's own territory only "because of maps, plans, and descriptions acquired from the enemy" (quoted in Rill 2001, 187).

Thus, the Josephinische Landesaufnahme was meant to provide maps specifically designed with the military's requirements in mind, by making careful note of the quality of roads, the building material of houses, the location of mills, bridges, forts, and other infrastructure as well as land use. In addition, written descriptive volumes were to be prepared containing the kind of pertinent information that could not be adequately recorded on maps, such as details on the possibility of billeting; availability of foodstuffs; condition of water bodies, swamps, paths, boardwalks, and roads; and the holding capacity of churches, monasteries, and castles. The reorganized staff of the quartermaster general, although drastically reduced in personnel, was responsible for directing and carrying out the survey. Quartermaster officers were to be assisted in the mapping by officers of locally stationed regiments if necessary.

The part of Silesia that remained Austrian (Duchies of Jägerndorf [Krnov], Teschen [Cieszyn], Troppau

[Opava] south of the Opava River, and Neisse [Nyse] was surveyed in 1763 under the supervision of Dominik Tomiotti de Fabris, Graf von Cassano, in a trial mapping of 40 sheets, including descriptions (in 1780, 10 sheets of it were corrected and 30 were surveyed anew). After that, in May 1764, Maria Theresa ordered a cartographic survey of her empire under the supervision of Fabris. The survey commenced during a military conflict with Prussia in the strategically important Crown lands of Bohemia (1764–67; 1780–83, a new survey of northern Bohemia in 143 sheets after the Peace of Teschen [1779]; 273 sheets in all, 19 volumes of written description, and a booklet manual with corrections) and Moravia (1764–68, 126 sheets, 4 volumes of written description, and 3 booklets with the innovation that place-names were given in both national languages; and 1779–81, 40 survey sheets rectified, 36 of those surveyed anew). The staff of the quartermaster general was assisted by officers of local regiments in Bohemia, with the staff of the quartermaster general handling the Prussian border areas, while interior areas were handled by other officers familiar with them.

The mapping of Bohemia and Moravia was followed, beginning in 1769, by the surveys of Transylvania and the Banat of Temeswar, and the border survey of Moldavia and Walachia. The Banat was surveyed 1769–72 (208 sheets), Transylvania 1769–73 (280 sheets, 4 written volumes), and the border survey of Moldavia and Walachia 1769–73 (103 sheets, 1 volume of written descriptions). Initially, only Upper Hungary was surveyed, starting in 1770. The *comitats* (counties) of Árva, Liptó, Szepes, Sáros, Zemplén, Ung, Bereg, Trencsén, and Túrócz were surveyed by 1772 (104 sheets, 4 written volumes), as well as the Máramaros *comitat* (63 sheets), which was surveyed in 1766–68. A correction of the existing sheets and the extension of the survey to all of Hungary did not occur until 1782; it was completed in 1785 with a total of 965 sheets and 7 written volumes of descriptions (fig. 425).

The surveying of the Austrian Crown lands continued from 1769 to 1772 beginning with Upper Austria, including Neuburg on the Inn and Wernstein (64 sheets); Austria acquired the Inn District in 1779 and surveyed the region in 1780 (14 sheets, for a total of 78 sheets and 5 written volumes). Mapping of Lower Austria (122 sheets, 3 written volumes) was conducted from 1773 to 1781.

In the meantime, Austria had acquired Bukovina, which was surveyed from 1773 to 1775 in 72 sheets and recorded in the unusual (for the survey) scale of 1:57,600 that was later transcribed into the military measure of 1:28,800. The military survey of Galicia and Lodomeria, the lands that had fallen to Austria in 1772 with the First Partition of Poland-Lithuania and

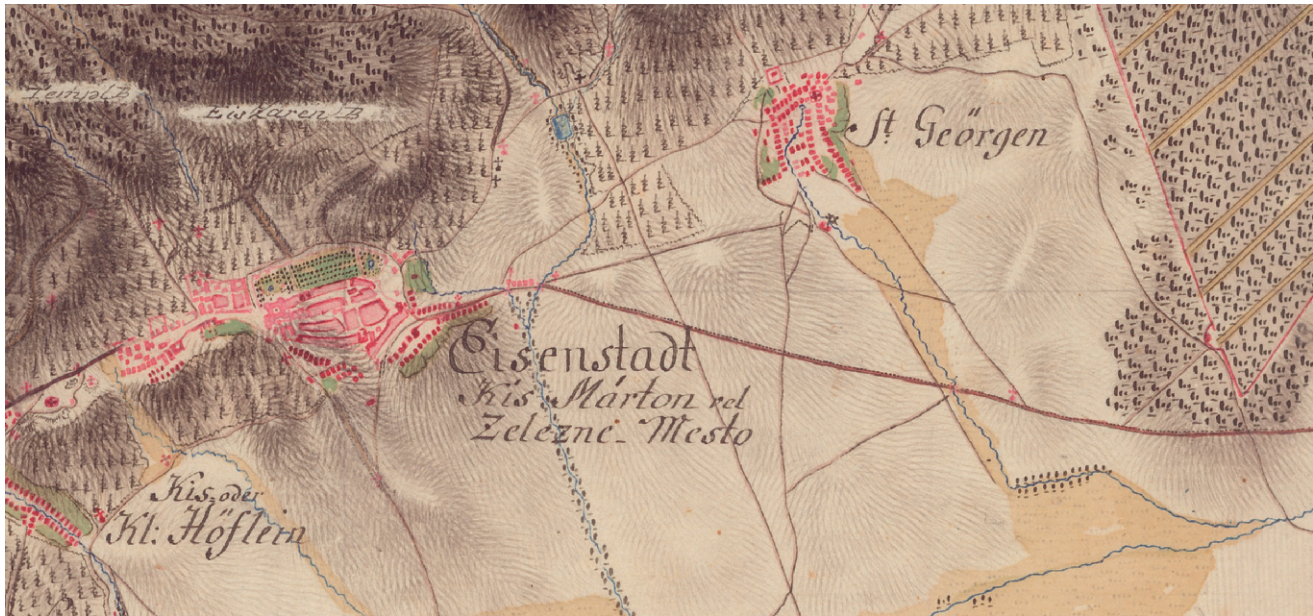


FIG. 425. DETAIL FROM A SECTION OF THE JOSEPHINISCHE LANDESAUFNAHME. The detail shows the area around Eisenstadt in lower Austria (Hungarian Kismarton) mapped in 1769–85 as part of the surveys of the Hungarian provinces. Home of the noble Esterházy family, the town of Eisenstadt is shown with buildings drawn in red, denoting their stone fabric, and the garden park of the Esterházy palace is clearly visible in green. Land quality is rendered with color

and shading, techniques also used for the relief of fells with hachuring employed for higher hills, which are labeled here; road quality is denoted by thickness of line. Place-names are given in both German and Hungarian.

Size of the entire original: 48.6 × 73.2 cm; size of detail: ca. 10 × 21 cm. Image courtesy of the Kriegsarchiv, Österreichisches Staatsarchiv, Vienna (Kartensammlung, B IX a 527 Coll: III, Section II).

had already been partially surveyed starting at the Silesian border (including Lviv, Snyatin, and Przemysł) from 1775 to 1778, was surveyed 1779–82 (413 sheets, 6 written volumes) (see fig. 849).

The mapping of the military borders (Karlovac 1775–76, 90 sheets; Varaždin 1781–82, 26 sheets, 1 volume of written descriptions; Banal border 1774–75, 25 sheets and 2 written volumes; Slavonia 1780–81, 51 sheets and 1 volume of written descriptions; Province of Slavonia 1781–83, 66 sheets and 1 volume of written descriptions; and Province of Croatia 1783–84, 71 sheets and 1 volume of written descriptions) and the survey of Inner Austria from 1784 to 1787 (Styria, Carinthia, Carniola, province of Gorizia and Gradisca, and Trieste as well as the Austrian part of Istria—altogether 250 sheets, 7 written volumes) concluded the Josephinische Landesaufnahme (see fig. 553). (For overview coverage maps of the survey, see Nischer-Falkenhof 1937, 84; Dörflinger 1989; and Rajsp 1995–2001, endpapers.)

The staff of the quartermaster general, however, conducted extensive supplemental surveys after the Josephinische Landesaufnahmen until the Franziszeischen survey (1806–69). These surveys, called the Nachläufer der Josephinischen Landesaufnahme, pertained to newly acquired territories such as western Galicia, which had

fallen to Austria with the Third Partition of Poland-Lithuania (1795), as well as Venice, which had been absorbed by the Habsburg monarchy in 1797. It also pertained to territories that were temporarily occupied by Austrian armies during the course of the wars against the Ottoman Empire (1788–90) or against the French Republic and First Empire (1792–1815), as exemplified by the surveys in northern France, upper Italy, northern Switzerland, and in the southwest of the Holy Roman Empire (*Schmitt'sche Karte von Südwestdeutschland*, 198 sheets, 1:57,600). All the surveys undertaken at the scales of 1:28,800 and 1:57,600 by the staff of the Austrian quartermaster general between 1763 and 1815 total an area of about one million square kilometers and cover sixteen states of present-day Europe in all or part (Dörflinger 2004, 79).

Unlike the *Carte de France*, which was published, the Josephinische Landesaufnahme was secret, and high-ranking military officials were allowed to consult it only with special permission from the president of the Hofkriegsrats. Consequently, this momentous undertaking was not appreciated by contemporaries (Dörflinger 2004, 78). Only the 25 sheets of the *Carte chorographique des Pays-Bas autrichiens* (1777–78) on a scale of 1:86,400, based on the larger-scale sheets of the

Ferraris Survey of the Austrian Netherlands, were an exception to this secrecy. The sheet depicting Vienna and its surroundings was adapted and published by Stephan Jakubicska in 1789 (see fig. 69). In addition, an edition of fifty engravings of the *Landständische Karte von Oberösterreich* (1787), reduced in scale and changed in perspective, was produced at the expense of the Upper Austrian landed estates. However, it remained a de facto secret, since it was only presented to select representatives of the Upper Austrian landed estates.

RENÉ TEBEL

SEE ALSO: Ferraris Survey of the Austrian Netherlands; Military Cartography: Austrian Monarchy, with Topographical Surveying

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