ARTICLES

The Welbeck Atlas: William Senior’s maps of the estates of William Cavendish, first earl of Newcastle upon Tyne
Stephanos Mastoris

Cartography in the European Enlightenment: A map collector’s view
Matthew H. Edney and Mary Sponberg Pedley

REGULAR ITEMS

A Letter from the Chairman
3

Editorial
5

New Members
5

IMCoS Matters
Dates for your Diary
London Weekend, June 2019
2019 IMCoS/Helen Wallis award

The Malcolm Young Lecture: The Martini-Blau Novus Atlas Sinensis
Mario Cams

What to Collect? Civil aviation maps
Hans Kok

Cartography Calendar
53

Book Reviews
57

Brabantia Ducatus: Geschiedenis en Cartobibliografie van het Hertogdom Brabant tot 1795 by Mario Dongo & Mathieu Franssen • Talking Maps by Jerry Brotton and Nick Millea, with a contribution by Benjamin Hennig • A Cartographic History of the Channel Islands, A perfect description of the islands…Sands and Shoals in these Coasts ed. by Martin Morgan

Copy and other material for future issues should be submitted to:
Editor Ljiljana Ortolja-Baird, Email Ljiljana.editor@gmail.com 14 Hallfield, Quendon, Essex CB11 3XY United Kingdom
Consultant Editor Valerie Newby
Designer Bobby Birchall
Advertising Manager Jenny Harvey, 27 Landford Road, Putney, London SW15 1AQ United Kingdom, Tel +44 (0)20 8789 7358, Email jeh@harvey27.demon.co.uk

Please note that acceptance of an article for publication gives IMCoS the right to place it on our website and social media. Articles must not be reproduced without the written consent of the author and the publisher. Instructions for submission can be found on the IMCoS website www.imcos.org/imcos-journal. Whilst every care is taken in compiling this Journal, the Society cannot accept any responsibility for the accuracy of the information herein.
The Welbeck Atlas is the later of two magnificent volumes of manuscript estate maps created by the surveyor William Senior (?1565/68–post 1641) for each of the main branches of the Cavendish family in the north Midlands of England. It was drawn up in the latter half of the 1630s as part of an extensive survey of the estates of William Cavendish (1593–1676, created the first earl of Newcastle upon Tyne in 1628). The earlier volume, the Chatsworth Atlas, was compiled between 1609 and 1628 for Newcastle's uncle, also called William Cavendish (1552–1627, created the first earl of Devonshire in 1618). Both atlases are still held in their respective family archives. In 2017 the Thoroton Society of Nottinghamshire published an edition of the Welbeck Atlas in its Record Series. This comprises a digital copy of the whole volume on a USB flashcard and an accompanying book containing a detailed catalogue of the maps, commentary and indices. The research for this publication into the origins, production and use of this Atlas is summarised here.1

Newcastle was a grandson of the famous Elizabeth Cavendish (née Hardwick, popularly known as ‘Bess of Hardwick’, c.1527–1608) and by the late 1620s he had amassed a property portfolio of nearly 110,000 acres spread across seven counties in England (Fig. 1). This had been largely inherited from Bess (via his father, Sir Charles Cavendish, 1553–1617) and his mother (Catherine Ogle, c.1570–1629), and acquired in 1618 through marriage to his first wife (Elizabeth Bassett, 1599–1643). To manage and improve this widespread group of properties Newcastle commissioned William Senior to survey all of them and produce a volume of maps of the largest and most significant estates. This programme ran from 1629 to 1641 but was then interrupted by the start of the Civil War, in which Newcastle was an ardent supporter of King Charles I and played a leading military role during the first few years of the conflict. Following his defeat at the battle of Marston Moor Newcastle went into exile in 1644 and did not return until the restoration of the monarchy in 1660. Deemed a traitor by the Commonwealth, most of Newcastle’s property was confiscated and sold in the early 1650s, but during the 1660s, he relentlessly re-assembled his property portfolio and even added to it by acquiring Nottingham Castle and its estate in 1663.2

The structure and contents of the Atlas
The Welbeck Atlas is a large folio volume of 67 leaves, each measuring on average 686 x 401 mm (27 x 15.75 in), with its original binding largely intact. It lacks both title page and colophon but has an incomplete table of contents on the first vellum leaf. The Atlas contains 81 maps depicting about 130 individual settlements, together with annotations giving the acreages of an additional 38 properties that were surveyed but not ‘platted’ (i.e. mapped). Seventy-one of these maps are described in their title cartouches as surveyed by William Senior and a further seven are presumed to be by him. The remaining three were surveyed in 1632 by Huntingdon Smithson (grandson of Robert Smythson, the celebrated Elizabethan architect), who probably acted as Senior’s assistant. The maps depict or reference over 106,000 acres of land in seven English counties: Derbyshire, Gloucestershire, Lincolnshire, Northumberland, Nottinghamshire, Somerset and Staffordshire. As was standard practice this Atlas was originally accompanied by at least one written ‘Book of Surveys’ that listed the tenant and size of every plot of land within each estate, with information on land use and value. This volume is lost, but a late seventeenth-century copy of a selection of the Nottinghamshire surveys survives amongst the Newcastle papers.3

Of the 81 estate maps 21 are drawn on single pages (Fig. 2), 37 on two pages, three occupy three pages and twenty are within composite maps on single or double-page spreads. In nine instances the shape of the estate

Fig. 1 England: showing the location of the estates of William Cavendish, earl of Newcastle in c.1641. Stephanos Mastoris & Andrew Nicholson.
surveyed required an extension of the map beyond the edge of the page, and shaped paper flaps were used for this. Most of these seem to have been applied after the main map was completed as a result of the acquisition of additional land. A further eleven maps that were created by a number of other surveyors between 1608 and c.1750 are known to have been pasted or bound into the Atlas either during or after its creation. Six remain and a note on the inside front cover lists the other five that had been removed in 1774.

Most pages of the Atlas are numbered with Arabic numerals near the top outer corner, but there is evidence that the volume had been paginated at least once (and possibly twice) before. The ‘Table’ of the surveys that begins the volume is arranged in two columns. The main entries for Nottinghamshire and Northumberland are written in the same hand,
while a second hand has written those for Derbyshire and Staffordshire and a third for Gloucestershire and Somerset. The lists for Nottinghamshire and Derbyshire have a number of additions written by at least three other hands and many of these refer to new and amended surveys carried out in the later 1630s. This suggests that the table was probably begun in the mid 1630s but not completed until after 1640 when the page numbers were added.

The maps are grouped by county in the following sequence: Nottinghamshire (19 maps), Derbyshire (27), Staffordshire (9), Northumberland (20), Gloucestershire (3) and Somerset (3). Within each county group the surveys begin with Newcastle’s principal residence there. Thus Welbeck heads the Nottinghamshire section (Fig. 3), while Bolsover (Newcastle’s second seat) comes first in Derbyshire. The Staffordshire section begins with Blore, the former seat of the Bassetts, the family of Newcastle’s first wife. Likewise, in Northumberland Bothal comes first as this was the seat of his mother’s family, the Ogles, and the small Somerset section begins with Knighton Sutton, which had been the residence of Newcastle’s grandmother’s third husband, Sir William St Loe. The rest of the properties in each county seem to have been arranged by the *charge* (a group of estates administered by a single bailiff) in which they were located.

In addition to illustrating the buildings and grounds of these principal residences (Fig. 4), the rest of the estate maps in the Atlas depict a wide range of environments. Three towns are mapped in detail – Chesterfield (Fig. 5), Buxton and Bolsover – together with around one hundred villages and hamlets which are surrounded by a variety of landscapes, ranging from open moorland and medieval hunting parks to fully enclosed arable and pasture land. Several long-distance roads and pack-horse routes are delineated in some of the Nottinghamshire maps, while a few for...