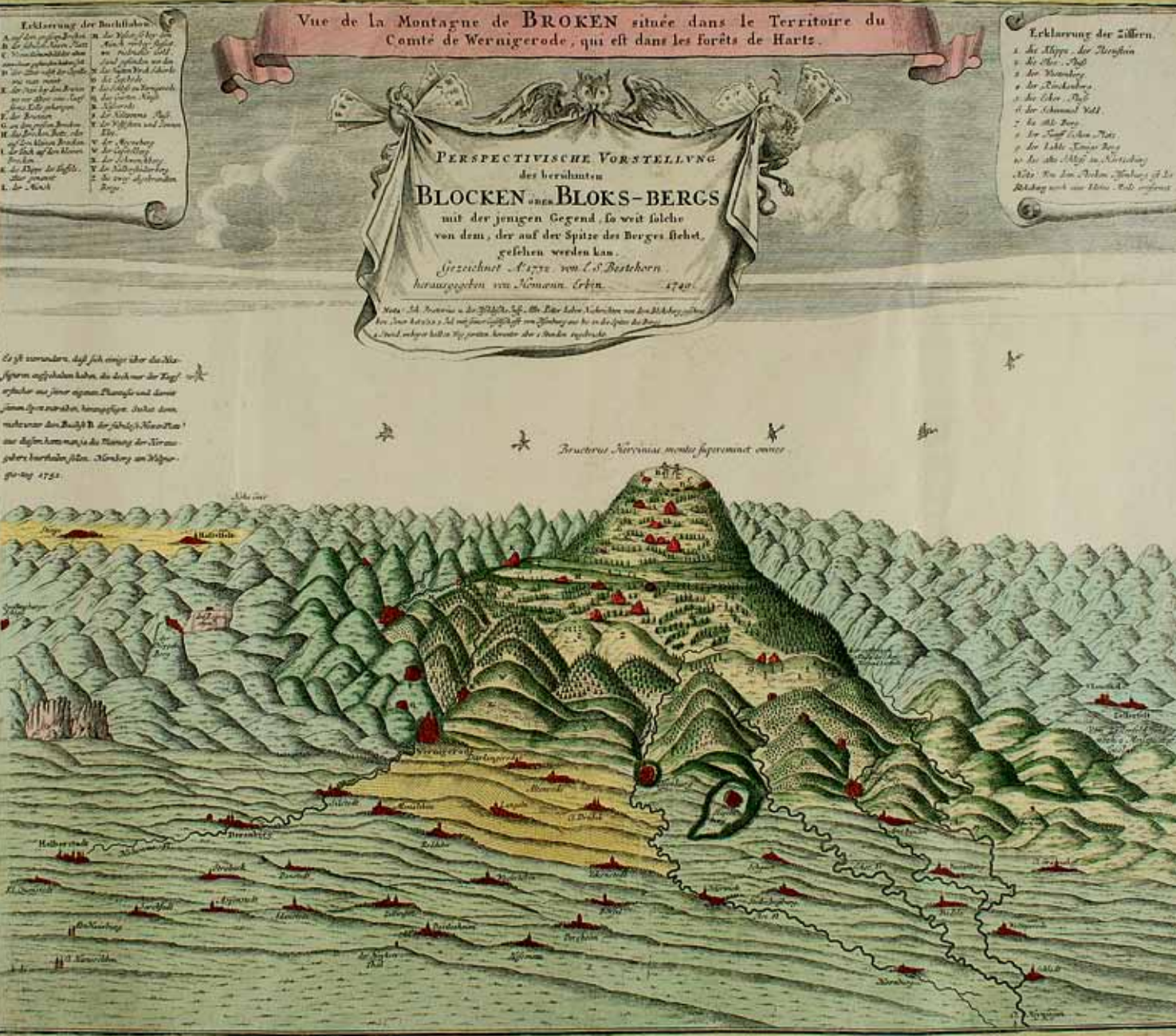


IMCS

JOURNAL

WINTER 2017 No.151



JOURNAL OF THE INTERNATIONAL MAP COLLECTORS' SOCIETY

WINTER 2017 No.151 ISSN 0956-5728

ARTICLES

- Hamburg times three: The intellectual principles of the *Civitates
Orbis Terrarum* 13
Regine Gerhardt

- Mapping Saxony: Surveying and drawing of the dominion during the 23
reign of Elector August (1516–1586) and August the Strong (1670–1733)
Wolfram Dolz

- The Harz Mountains: Their depiction on maps, 1500–1900 35
Hans-Martin Arnoldt

- The Rolled World: German school wall maps and their publishers in 45
the nineteenth and twentieth centuries
Norman Hennings

REGULAR ITEMS

- A Letter from the Chairman 3

- Guest Editorial by Petra Svatek 5

- New Members 5

- IMCoS Matters 7

- Dates for your diary 7

- Report from the 35th Symposium in Hamburg 7

- Worth a Look 54

- Loraine Rutt: Cartographic ceramicist

- Mapping Matters 56

- Book Reviews 59

- Mapping the Philippine Seas • Sea charts of British Isles: A voyage of
discovery around Britain & Ireland's coastline • Scotland: Mapping the islands •
Treasures from the Map Room: A Journey through the Bodleian Collections*

- You Write to Us 66



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** Catherine French
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.

Front cover L. S. Bestehorn,
'Perspectivische Vorstellung des
berühmten Blocken oder Bloks-Berges
mit derjenigen Gegend, so weit solche
von dem, der auf der Spitze des Berges
stehet, gesehen werden kann', 1732.
Published by [den] Homaenn[ischen]
Erben 1749. Courtesy of
Niedersächsisches Landesarchiv.

MAPPING SAXONY

*Surveying and drawing of the dominion during the reign of
Elector August (1516–1586) and August the Strong (1670–1733)*

Wolfram Dolz

Like many historic German territories, Saxony has had a very turbulent history. Territorial insecurities and the need for effective administration led to the development of a new type of map which ruling princes could use to proclaim their power and ownership over a dominion. In 1547, at the Battle of Mühlberg, Catholic Emperor Charles V (1500–1558) defeated the Protestant Elector Johann Friedrich of Saxony (1503–1554). Since the Duke Moritz of Saxony (1521–1553) had fought alongside the Emperor, the electoral dignity was bestowed on him, meaning that the position of Elector was transferred from the Ernestine to the Albertine line of the Saxon House of Wettin. After Moritz's death, his brother, Elector August (1526–1586), acceded to power. Under his rule, the Electorate of Saxony developed into one

of the leading German territories, both politically and economically. Its prosperity continued, lasting throughout the reign of Elector Friedrich August (1690–1733), until the outbreak of the Seven Years' War in 1756. The territorial policies of these rulers are reflected in the history of cartography in Saxony.

Two of the earliest maps of Saxony are the small woodcut 'Misnia', produced in 1560, and the large painted wall map entitled 'Duringische und Meisnische Landtaffel' [General map of Thuringia and Saxony] dating from 1566. Both these maps were produced in Meissen by the humanist Hiob Magdeburg (1518–1595). On the small woodcut map, the Elbe can be seen as a large river, fed by numerous tributaries, running diagonally across the sheet (Fig. 1). The towns are shown with small dots and labelled in Latin.



Fig. 1 'Misnia' by
Hiob Magdeburg,
Meissen, 1560.
12.2 x 13.4 cm.
Courtesy
Ratsschulbibliothek
Zwickau.

The Ore Mountains and the Thuringian Forest are represented in the form of 'molehills'. The cartouche at the top right includes the initials 'HMA', which stand for Hiob Magdeburg Annaburgensis, and the year 1560. Below that is a sundial with a compass. Owing to the small scale of approximately 1:2,000,000 the map can only give a rough overview of the Electorate. Nevertheless, it came to the attention of Elector August of Saxony, because shortly afterwards Hiob Magdeburg was commissioned to map the entire territory of Saxony.

'Duringische und Meisnische Landtaffel' shows the dominions of the Electorate of Saxony at a scale of approximately 1:250,000. The geographical area represented extends north as far as Magdeburg, east as far as Zittau, south as far as the Eger (Ohře) and west as far as Treffurt. In the bottom left-hand corner

of the map there is small, circular map providing an overview of the territory as a whole. This wall map is exceptional in that it shows a very large number of settlements, more than five hundred are marked. Hiob Magdeburg distinguishes between large, medium-sized and small towns, as well as between market towns and villages with, and without, a church. The symbols for these are explained in a legend, as on modern maps. Settlements and rivers are shown in the form of a ground plan, whereas the mountain ranges, such as the Harz and the Ore are depicted with a three-dimensional effect, from a bird's-eye view. The economically important mills and forests were also marked on the map. The position of the settlements in relation to one another is astonishingly accurate. The map is surrounded by forty-six portraits representing the ancestors of Elector August (Fig. 2).



Fig. 2 Detail of 'Duringische und Meisnische Landtaffel' by Hiob Magdeburg, Meissen, 1566. Paint on paper. 119 x 151 cm. Courtesy Sächsische Landesbibliothek – Staats – und Universitätsbibliothek Dresden (SLUB). The full image can be seen at www.deutschefotothek.de/documents/obj/90007626



Fig. 3 Detail of 'Landtaffel der Marggraffthümer Meissen und Lausitz' by Bartholomäus Scultetus, Görlitz showing the bridges over the Elbe at Dresden, Meissen, Torgau and Wittenberg, 1568. 26 x 35 cm. Courtesy Kupferstich-Kabinett, Staatliche Kunstsammlungen Dresden.

Hiob Magdeburg evidently conducted the surveying on which the map was based, because in the bottom right-hand corner we can see surveyors measuring angles with a compass in their hands and determining distances with a measuring rod and a large set of dividers. Above the group is a geodetic astrolabe, also known as a graphometer, which was one of the most important angle measuring instruments of the period.¹

Since the large 'Landtaffel' map was intended only for the Elector, no information about it was passed on to the general public. Hence the mathematician Bartholomäus Scultetus (1540–1614) from Görlitz created a woodcut map of Saxony at the same time as the 'Landtaffel' was being drawn. Scultetus' map bears the title 'Landtaffel der Marggraffthümer Meissen und Lausitz' [Map of principalities of Meissen and Lausitz] and is dedicated to Elector August (Fig. 3). At the end of 1568 Scultetus sent a few trial impressions to the Elector, for which he received a gift of 20 gulden. Initially, for military reasons, August wished to prohibit its printing,² however, on studying the map and the woodblock in detail, he realised that the scale of approximately 1:850,000 only allowed for a small number of settlements to be shown, and that it was

not sufficiently accurate for military operations. The printing of the map was therefore eventually permitted. The map is designed as a bird's-eye view and emphasises large towns such as Erfurt and Freiberg by means of iconographic tower symbols. Another detail worth mentioning is the representation of bridges over the Elbe at Dresden, Meissen, Torgau and Wittenberg. These are the oldest large bridges in Saxony.³

The systematic surveying of the territory of Saxony began with the mapping of the forests belonging to the Elector by the Leipzig professor of mathematics Johannes Humelius (1518–1562). From 1555 until his death in 1562, Humelius created nine coloured maps of the Elector's forests on the basis of his own surveys.⁴ They include a map of the wooded area known as the 'Dresdner Heide' (Dresden Heath) drawn up in 1560. Besides Humelius, the mining surveyors of the Öder family were also commissioned to produce maps of the forests. Thus, as early as 1551, the map of the administrative region of Schwarzenberg was produced by Georg Öder the Younger (c.1511–1581). His son Matthias (active 1575–1614) created the large painted wall map on parchment of the forests around Schwarzenberg which was published in 1582.

Elector August's great interest in the mapping of his territory is reflected in the surveys he conducted himself and the maps he drew. In the year of his death in 1586, he produced his cartographical masterpiece entitled 'Sechzehn Stück kleine Land-Täfflein der Churfürstl. Sächs. und angrentzenden Länder von Churfürst Augusto aufgetragen' (Sixteen Small Maps of the Electorate of Saxony and Adjacent Territories Created by Elector August). The fact that the Elector drew these maps is confirmed by an entry in the 1587 inventory of the Dresden Kunstkammer: *1 Rot in Leder vorguldt Buch oder futtral, dorinnen ezliche kleine Mappen, welche herzogk Augustus Churfurst zu Sachßen etc. seliger selbstem gemacht*⁵ (1 red leather gilt book or box containing several small maps which were made by Duke August, Elector of Saxony etc. himself). According to information noted in 1744, the box was decorated with the Saxon and Danish coats of arms (the marital coat of arms of the electoral couple) along with the year 1584.⁶ Today, the maps are assembled in a single book and thus form a small atlas.⁷ The majority of the maps have a uniform scale of 1:620,000. Only the sheet entitled 'Hessenn und Thuringenn' (Hesse and Thuringia) has a much smaller scale of 1: 3,000,000. They have a quite modern appearance because they are oriented north, with 'midnight', i.e. north, at the top. According to the linear scale, the length of a mile is 8.1 km. The fifteen equal-scale maps are titled after the city located in the middle of the sheet, for example: 'from Dresden' (Fig. 4).



Fig. 4 'Von Dresden aus' from *Sechzehn kleine Land Täfflein* (Sixteen small country maps) by Elector August, Dresden? 1586. 18.5 x 18 cm. Courtesy SLUB, Mscr.Dresd.K339.

The maps cover an area extending from Braunschweig in the north-west and Schmalkalden in the south-west, to Bautzen and Tetschen (Děčín) in the east, and St Joachimsthal (Jáchymov) in the south. The maps are like coloured landscape depictions, with blue mountains and green forests and are viewed in perspective. The network of rivers is generally represented more accurately than in the maps of Hiob Magdeburg and Scultetus. The degree of inaccuracy of the distances is about 10 per cent, and so the maps are not based on uniform surveying methods.⁸

Elector August of Saxony stands out among sixteenth-century princes by the fact that he carried out his own surveys using mechanical odometers or waywisers. These functioned in the same way as modern mileage indicators on bicycles. The waywiser was mounted on a carriage. The distance travelled is the circumference of the wheel multiplied by the number of revolutions. In simple designs, it was sufficient to have a pin fixed in a spoke of the wheel which activated a lever with a spring. The lever and the measuring instrument were connected by a ripcord. For measuring angles, the Elector used a marine compass. The Cardan suspension of the compass made it possible to take bearings in the landscape quickly from the carriage, even if it was not standing evenly. The highlight among the Elector's innovative ideas is the masterfully crafted and highly reliable waywiser manufactured by Christoph Trechsler the Elder (b. c.1546, d. between 1624 and 1627) in 1584 (Fig. 5). The instrument consists of a stand, a counting device and a mapping board. The hollow cylinder of the stand, which is decorated with the coat of arms of the Electors of Saxony, could easily be mounted on a wooden peg in a carriage belonging to the Elector. Trechsler selected the transmission ratios in such a way that the distances covered could be read off directly from the dial in the units of length called *Rute* (rod) and *Meile* (mile). Two thousand rods (*Straßenruten*) constituted one 'mile' (1 mile being equivalent to 9 kilometres). Using this mechanical waywiser, Elector August perfected the art of measuring distances while travelling. During his travels he noted the angle and distance from one place to another in surveying lists. At the end of the journey, so-called route scrolls were created on the basis of the measurements recorded. Six such scrolls have been preserved in the Saxon State and University Library (SLUB) in Dresden. The most beautiful one was made during the journey from Mühlberg on the Elbe to Regensburg on the Danube, where the Imperial Diet was held in 1575 and Rudolf