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978-1-107-45285-5 - Some Notable Surveyors & Map-Makers of the Sixteenth, Seventeenth, & Eighteenth Centuries and their Work: A

Study in the History of Cartography

Sir Herbert George Fordham

Excerpt

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CHAPTER I

The Elizabethan Surveyors, their Work, and its Influence on the British Cartography of the Seventeenth Century

I

CHRISTOPHER SAXTON, PHILIP LEA, AND THE QUARTERMASTER'S MAP

IN this chapter it is proposed to deal with the beginnings of the systematic construction of maps in this country, as illustrated by our English cartographers of the time of Queen Elizabeth, and distinguished by the surveys of Christopher Saxton, a Yorkshire man, and of John Norden, a native of Somerset.

We know little, and, indeed, there seems little to learn of the work and method of the Elizabethan surveyors in detail. We can, at most, only judge of them by the results they achieved.

Of the two men mentioned as pioneers in this matter, Christopher Saxton, of Dunningley, a hamlet of the parish of West Ardsley or Woodchurch, between Leeds and Wakefield, in Yorkshire, was born in either 1542 or 1544, according to two discordant statements he makes in depositions now in the Public Record Office—qualified, both of them, however, by the phrase “or thereabouts”. Having regard to the dates of the months of these depositions, the difference between them is really one of about two years and five months.

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He was alive in 1608, and, probably, two years later, but the actual date of his death remains unascertainable.

Saxton has been described as “servant to Thomas Seckford”, who was Master of the Requests to Queen Elizabeth, and was, therefore, an influential court official, and, if we are to judge from his benefactions to his native town of Woodbridge, in Suffolk, a wealthy and important personage. The survey of England and Wales is attributable to the influence and support and the financial assistance of Seckford and, no doubt, of his friends. There is graphic testimony to the interest of Seckford in Saxton’s work in the fact that his coat of arms is uniformly engraved on Saxton’s maps.

A contemporary writer, William Harrison, in his “Description of Britaine”, in the first edition of Holinshed’s *Chronicles* (1577), refers no doubt to Saxton and Seckford in the following paragraph, which, it will be observed, was printed when Saxton’s survey of England and Wales was approaching completion. (After setting out an incomplete list and particulars of the counties, the author continues):

And these I had of a friende of myne, by whose traveyle and hys maisters excessive charges I doubt not, but my country men eare long shall see all Englande set foorth in severall shyres after the maner that Ortelius hath dealt wyth other countries of the mayne, to the great benefite of our nation and everlasting fame of the aforesayde parties.

The following recital from the licence dated July 22nd, 1577, to print and publish his maps for a period of ten years, is even more explicit:

Whereas Christopher Saxton servaunte to oure trustie and welbeloved Thomas Sekeford Esquier Master of Requestes unto us hathe already (at the greate coste expenses and charges of his said master) trayeled throughe the greatest parte of

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this oure Realme of Englande and hathe to the greate pleasure and commoditie of us and our lovinge subjectes uppon the perfecte viewe of a greate nomber of the severall Counties and Sheires of oure said Realme drawen oute and sett fourthe diverse trewe and pleasaunte mappes chartes or platts of the same counties together withe the Cities Townes Villages and Ryvers therein conteyned vearie diligentlie and exactly donne and extendithe [intendith] yf God graunte hym lief further to travell therein to cause the same platts and discriptions to be well and fayre Ingraven in plates of copper and to be after Impressed and stamped out of the same as well to the commoditie of oure subjectes as to all other that shall have pleasure to see and peruse the same. . . .

It may be noted that there is no trace of any direct allocation of public funds in support of Saxton's labours. He had, however, certain grants from the Crown of manors and offices of trust, in the years 1574 (Grant of Grigston Manor, etc., in Suffolk); 1575 (Grant of the reversion to the Receivership of the Hospital of St John of Jerusalem in England); 1580 (Grant of land in the parish of St Sepulchre without Newgate, for 60 years, at a rental of 3s. 4d., with permission to build one or more houses).

Saxton was also gratified with a grant of Armorial Bearings in 1579—the year in which his atlas of County Maps appeared. The grant was not then, it seems, recorded at the College of Arms, but is known from a transcript of the warrant and a sketch of the arms in the Wood MSS. in the Bodleian Library. The then Norroy, King of Arms for the Northern Province, was, in 1927, good enough to have these arms re-drawn, certified and recorded.

This outline is all that can be usefully offered of the personal foundation of Saxton's great work, though a certain amount of collateral family history can be extracted from

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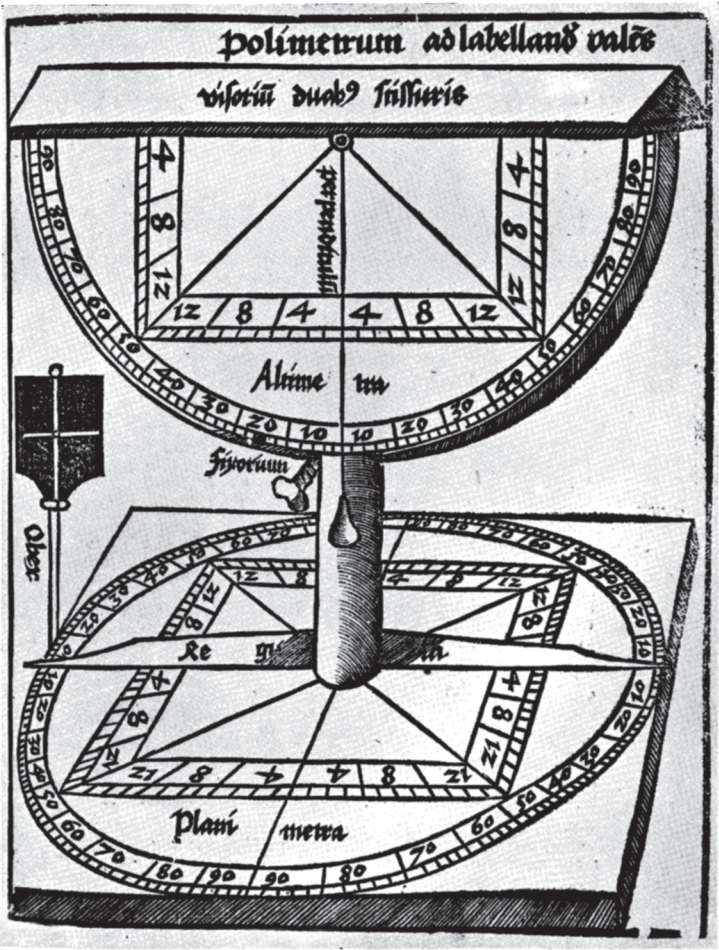
wills in the Registry at York, and an account of Saxton's family from materials accumulated here and elsewhere has been recently published in the *Miscellanea* of the Thoresby Society, where it may be consulted.

As to the method and technical basis of the survey nothing is apparently known. The system of surveying of the early cartographers merits investigation, but the materials for such a study are not abundant. Something can be gathered from sketches of surveyors, and their instruments, and even from diagrams and calculations found here and there in the fore-grounds and ornamental margins of plans and views of towns of the sixteenth and seventeenth centuries and in the margins of maps of the same period ; and it is to be noted that Leonard Digges had, as early as the middle of the sixteenth century, apparently, described and figured a *Theodolite*, and that "The Boke of Measuryng of Lande" by Sir Richarde de Benese had been printed about 1537. The recent researches of Miss E. G. R. Taylor, published in the *Geographical Journal*, have also thrown light on this subject, and the figure here reproduced of Waldseemüller's Polymetrum, from Reisch's *Margarita Philosophica Nova*, of 1512, showing a combination of the theodolite and the plane-table, as now known to us, is of very great interest in this connection.

It is obvious that, in default of instruments of precision, some sort of triangulation of an elementary and imperfect character must have been resorted to. Triangulation is, of course, an essential feature in accurate mapping.

The only indication we have in connection with Saxton's perambulations is contained in a letter issued to authorize his proceedings in the Principality of Wales in 1576, in which occur the following instructions:

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Waldseemüller's Polymetrum.
From Reisch's *Margarita Philosophica Nova*, 1512.

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To all Justices of peace mayo^{rs} and oth^{rs} etc wthin the severall Shieres of Wales that whereas the bearer hereof Christopher Saxton is appointed by her Ma^{tie} under her signe and signet to set forth and describe in cartes particularlie all the shieres in Wales that the said Justices shal be aiding and assisting unto him to see him conducted unto any towre castle highe place or hill to view that countrey and that he may be accompanied wth ij or iij honest men such as do best know the cuntrey for the better accomplishment of that service and that at his departure from any towne or place that he hath taken the view of the said towne do set forth a horseman that can speke both Welshe and Englishe to safe conduct him to the next market Towne, etc.

The success of Saxton's survey was equal to its novelty, and it at once took an important place in the world's cartography. In a period which is said to have been one of nine years (though no specific authority exists, apparently, for this limitation) Saxton surveyed and mapped the whole of England and Wales, and, by 1579, he had compiled and published his series of 34 maps of the counties, some of them individually and others grouped together, with a frontispiece general map of the whole area. Individual maps are dated in the successive years of their original appearance, the two earliest being of 1574 (Oxfordshire, Bucks and Berks in one sheet, and Norfolk).

A little later, probably about 1584, he published a large general map of England and Wales, in 20 sheets, measuring as a whole, about 5½ feet wide by 4½ feet high, on a scale which appears to be one of between 7½ and 8 miles to the inch.

It is only quite recently that this map has been recognized by cartographers. No copy of the original is known to have survived, but its existence can be deduced from copies

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printed from the original plates very much cut about and altered in all the marginal details, and with the roads added, by Philip Lea, a hundred years later, in 1687. By a piece of extraordinary good luck there have been preserved in the British Museum impressions taken from these plates by Lea, as trial prints in the course of his manipulations of the originals. These impressions show two large blanks, namely the whole of the right-hand top corner, filled originally by Saxton's decorative title, and the panels on the left side of the map. In this state the arms of Seckford appear towards the right-hand bottom corner; the particulars relating to the initial meridian adopted (the island of St Mary in the Azores) in the left-hand bottom corner are preserved, and the sea is decorated with a large number of ships of the end of the sixteenth century.

Lea engraved his own title in the place of that of Saxton, of which latter some traces remain, however, distinguishable on the plate; he replaced the Seckford arms with those of Peter Mews, Bishop of Winchester; he restored the panels on the left of the map, but he erased the Isle of Man, and re-engraved it in a new form; he similarly erased all the large Elizabethan ships, and re-engraved in their places, in most cases, ships of the period of James II, and he inserted roads throughout the map and touched up the details in other particulars. This transformation, and the attempt to work back from it to the original in every detail present for the student a cartographical puzzle of great interest.

Lea's map was, it would seem, frequently reprinted. A copy which is known bears the imprint, in place of that of Lea, of John Bowles & Son, which carries us on to the middle of the eighteenth century, and it seems to have

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been frequently advertised by the Bowles family, and, finally, by Robert Sayer as late as 1763. Thus the plates of Saxton's large map were in use for something more than a century and a half, and it does not appear certain that they were effectively displaced until the appearance of John Cary's "New Map of England and Wales with Part of Scotland" in eighty-one sheets, and on a scale of 5 miles to the inch, in 1794.

The map known as the "Quartermaster's Map" is, it appears, what may be called a "derivative" from that of Saxton. It was engraved by Hollar, for the publisher Thomas Jenner, in 1644, for the use of the armies then in the field in the contest between the Parliament and the Crown, and, upon examination, it is clear that it was closely copied from Saxton's original—the only source in fact for such a map then available. In particular it gives the original Saxton design of the Isle of Man, and has, of course, no roads. Of this map Jenner issued another edition, dated 1671, on which some of the principal roads were inserted. John Garrett took over the plates from Jenner and issued an undated impression with an amended title and large additions to the roads, in 1688, and, in the next century, the plates had come into the possession of John Rocque, who printed from them, without alteration, in 1752. There is even an impression known which was published on paper water-marked "1799", thus carrying on the design and outline of Saxton's map of England and Wales for more than two centuries. Hollar, to make the map compact, so that it might be folded into a small compass for the pocket, limited the surface engraved to that of the land, and reduced the sheets to the number of six.

An observation seems necessary here on the question

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whether Saxton's general map of England and Wales is to be regarded as an entirely original work, or whether he may not have drawn to some extent on earlier sources.

There is, in fact, only one map of any size which might have been of assistance, namely, the map of the British Isles completed at Duisburg by the celebrated Mercator in 1564, and thus twenty years earlier than the suggested date (1584) of Saxton's map of England and Wales.

Of the former map copies in the engraved state have recently been found in Italy, and the books of the famous printing establishment at Antwerp of Christopher Plantin contain records showing that copies were, in the ordinary course of business, sent over to England.

Thus, while no copy is now known in this country, Saxton most probably had the map in his possession at the time of his surveys and their publication.

Nevertheless, an inspection and comparison of the two maps do not suggest to the eye any concordance of form or outline, and we are, therefore, justified in assuming that Saxton's map was an entirely new one, and founded exclusively on his own original surveys.

To revert to the county maps of Saxton. They are not discussed individually, as copies are available for study in all the principal libraries and they are dealt with in detail in standard works. Attention should, however, be called to the re-issue of the atlas in 1645, from the original plates, by Web, which, in general, are only altered by being re-dated; to further doubtful reprints of these maps, in whole, or in part, by Peter Stent; to their use (some of them only, however, and these very much altered in their marginal details and to some extent on the map surface) by Philip