



# *Sheetlines*

The journal of  
THE CHARLES CLOSE SOCIETY  
for the Study of Ordnance Survey Maps

“New editions, sweeps, and did the broom  
do its job?”

*John Cole*

*Sheetlines*, 85 (August 2009), pp.24-26

Stable URL: <http://www.charlesclosesociety.org/files/Issue85page24.pdf>

*This article is provided for personal, non-commercial use only.  
Please contact the Society regarding any other use of this work.*

Published by  
THE CHARLES CLOSE SOCIETY  
for the Study of Ordnance Survey Maps  
[www.CharlesCloseSociety.org](http://www.CharlesCloseSociety.org)

The Charles Close Society was founded in 1980 to bring together all those with an interest in the maps and history of the Ordnance Survey of Great Britain and its counterparts in the island of Ireland. The Society takes its name from Colonel Sir Charles Arden-Close, OS Director General from 1911 to 1922, and initiator of many of the maps now sought after by collectors.

The Society publishes a wide range of books and booklets on historic OS map series and its journal, *Sheetlines*, is recognised internationally for its specialist articles on Ordnance Survey-related topics.

## *New editions, sweeps, and did the broom do its job?*

*John Cole*

For some forty years after the Second World War, Ordnance Survey large scale mapping effort was devoted to the survey and maintenance of the 1:1250 map and revision (one way or another) of the 1:2500 scale mapping of pre-war years. This article takes a look at the roughly ten-year period when new editions gave way to *Superplan* and ‘sweep’ was established.<sup>1</sup>

A new edition of a large scale map was triggered when the amount of new detail, usually in the form of roads and buildings and measured as equivalent ‘house units’, rendered the previous edition obsolete. If the system was functioning well, as it normally did, the bulk of the work would already have been surveyed; the ideal being that normally not more than three man days work was allowed to accumulate. Thus all that remained was a perambulation of the map to add scattered change which the intelligence system was unaware of – the odd house here, the odd demolition there – *and* the very vexatious change in the form of ‘back garden detail’: extensions to houses, sheds, greenhouses and garages (if meeting a size criterion).

As one who had participated in such exercises many times, I would not dare to claim that I had accounted for all such change – so much valuable time could be wasted simply to prove that no change had taken place, 80% perhaps? In some built-up areas it would be better than others and the availability of air photography could make a huge difference.

It was becoming clear in the late 1970s that a large percentage of the rural mapping could be anything up to thirty years out of date and that 1:2500 sweep, or periodic revision, was the answer: to quote Richard Oliver,<sup>2</sup> in effect almost a reversion to the system used for the County Series 1:2500 in the 1920s and 30s.

In his article on National Grid 1:2500 mapping in *Sheetlines* 29, Richard gives 1982 as a starting point for sweep.<sup>3</sup> An ‘orthophoto’ experiment was tried by OS for an area at Kingsbridge in Devon, originally revised in the early 1950s. But the three ‘contracted out’ blocks he mentions, Honiton (Devon), Halstead (Essex) and Gunnislake (Cornwall), are thought to have been tackled mostly by ground methods. It was forecast in many quarters that the use of private contractors would be a disaster from the outset, which indeed it proved to be, ‘primarily because of the difficulty of specifying without ambiguity the standards to be maintained when the accuracy of existing mapping cannot always be quoted with certainty’.<sup>4</sup> Whilst the main problem was the linear accuracy of the work, I can never recall seeing a set of rules dealing solely with sweep. One is left to assume that the contractors were furnished with the existing instructions to surveyors and the relevant working documents.

The revision of back garden detail for the whole of 47 towns, and parts of six others, was resolved during 1985-90 on upgrading from 1:2500 to 1:1250, whilst a major staff reorganisation in 1988 presented an opportunity to tackle 1:1250 mapping as a whole. It was considered feasible to utilise unrectified photographic enlargements for the task, and I

<sup>1</sup> The second part of the title is an allusion to Richard Oliver, *Ordnance Survey maps, a concise guide for historians*, second edition, London: Charles Close Society, 2005, 45 fn. 54.

<sup>2</sup> *Concise guide*, 25.

<sup>3</sup> Richard Oliver, ‘The Ordnance Survey 1:2500 National Grid plans’, *Sheetlines* 29, 19.

<sup>4</sup> *Sheetlines* 29, 19 quoting *Ordnance Survey, annual report 1984-5*, 4. One contractor allegedly claimed that because sub-standard work (accuracy-wise) was published circa 1950, it was the accepted standard!

pointed out in *Sheetlines 52* that certain other benefits soon became apparent, e.g. the detection of original errors and a check on, or revision of, pecked line detail. However, the provision of such photography put something of a strain on the departments involved and, apart from such annoyances as poor flight lines, there were instances of no photography being available and ground work having to be undertaken. Fortunately, this did not happen in Cornwall, though there was a threat of it at St Austell where I was due to ‘project manage’.

Another problem surfaced when the revision had been undertaken. I have an office record map for a mainly nineteenth century terraced house area of Camborne with all the back garden change recorded. One quarter of a house unit was allowed per change and in this case, with over two hundred and fifty additions, sixty more units were added towards the new edition criterion. I do not know how many maps were in fact tipped over the edge nationwide causing other problems but completion of these sweeps may have conveniently coincided with the cessation of new editions in 1991-2. Nor am I aware just how much of the badly out of date 1:1250 mapping was in fact tackled, when one considers that about five thousand of London’s maps dated back to, and before, the mid-1960s.<sup>5</sup>

I indicated in my report<sup>6</sup> on a modern rural 1:2500 map revised in 2003 that the sweep was in fact one hundred per cent by air photography, with all the drawbacks that can arise. When our local office commenced such a sweep in the early 1990s,<sup>7</sup> we rather innocently proceeded as we had always done and demanded high standards of the two junior surveyors who undertook most of the work. At a later date, when questions were indeed asked, we cited the validation effort needed, plus poor photographic flight lines and lack of cover in some places. This was accepted, but I had rather mixed feelings when the second block (where I was to be project manager) was aborted on the grounds that the group covering Cornwall and much of west Devon had spent its allotted time and money on sweep for the year.

On the one hand I was worried about costs, because whilst the first area had been the immediate rural area surrounding the office, the second was a good twenty-five miles distant. On the other I had already ordered and received the photography and now agonised over it being wasted when so many of the 75 maps involved were nearly thirty years out of date and known to be much altered. Helped by the fact that there was a SUSI<sup>8</sup> commitment in the area, surveys for Land Registry and certain other needs, I was able to reduce the number of maps needing attention by about half. I thus decided to do an unofficial sweep in my own time which turned out to be more than justified as the County Council (as well as others) purchased a SUSI copy of every map we advertised as revised.

A few other unofficial sweeps should be mentioned. Sweep having gone away, photography was obtained to pick up ‘primary units’ (i.e. housing and various large buildings) in one 1:2500 area. As usual it revealed substantial change, not least demolitions, and I made what effort I could to revise as a whole whilst now subscribing to the view that the ground should not be visited.

Of more significance are the revisions, noted in *Sheetlines 57*, which contributed to the up-to-dateness of parts of *Explorers 102*, *106* and *107* in 1997. These were covered in my *Sheetlines 82* article on air survey but some further aspects of updating the china clay area

<sup>5</sup> And I cannot be sure that SX9392NE (Exeter), illustrated in the *Concise guide*, 118-119, was looking a little more realistic after 1988. Probably not, if the OS ‘thumbnail sketch’ of 2008 and satellite photography are anything to go by.

<sup>6</sup> ‘Testing the enhancement - II’, *Sheetlines 74*, 34.

<sup>7</sup> As mentioned before, I can recall no precise instructions having been seen.

<sup>8</sup> ‘Supply of unpublished survey information’: local authorities were major customers.

are pertinent. At the time, cumulated surveyed change on the constituent twenty five (1 km × 1 km) 1:2500 maps would eventually lead OS HQ to call in these sheets, in order that a new edition of the relevant 1:10,000 map might be produced. This was the situation in 1992 regarding SW95NE and SX05NW, covering the bulk of the china clay quarrying landscape. The local concern was that the majority of the change recorded was from an air photo survey of 1980, the bulk of which, apart from the surrounding villages, had never been checked on the ground. With the help of the County Council, who loaned contact print photography of 1988, which they had commissioned, and the china clay company survey departments, I was able to conduct a very rapid update, assisted by the fact that much of the change was demolition and much of the addition indefinite pit or tip edge or semi-permanent sand roads. This allowed a lower standard of accuracy to be countenanced. The 2003 revision indicated that a percentage of this had gone or been altered for other than accuracy reasons.

This certainly was not a sweep in the sense that back garden detail in the villages was revised, although air survey HQ had done much work in this respect from the 1980 photography. But this was of no account on the 1:10,000 map, even less so on the eventual 1:25,000. Quite how the changes compare are revealed when the *Pathfinders* of 1980 and 1983, the A edition *Explorers* of 1997<sup>9</sup> and the B editions of 2003 are side by side!

What were (or maybe still are) the casualties in a sweep survey? In ‘Checking the enhancements’ (*Sheetlines* 72 and 74) tidal rivers appeared to have had little treatment: a very slight change on one map and none on the other. Ground visits on suitable days revealed change on both. And certainly a minimum of tidal revision took place on the other sweeps described.<sup>10</sup> Mereings of administrative boundaries and existence of bench marks would never have been specifically attended to, nor would names have been gone into with the thoroughness of the 1940-80 survey or revision.

And finally, I doubt that much in the way of back garden detail has been added to *Superplan* 1:1250 or urban 1:2500 over the last fifteen years. A residence increasing in size by a third is an exception I understand: not always easy to detect at the rear of a property, although I have done some interesting ‘checking’ using satellite photography enlarged to 1:1250. I also believe that there was one final (?) 1:2500 to 1:1250 upgrade, Bicester in 2000, where all the back garden detail will be a mere nine years out of date!

---

<sup>9</sup> In Cornwall.

<sup>10</sup> Richard Oliver’s views regarding tide lines on the east coast in *Sheetlines* 45 are of interest.