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Recent issues of *Sheetlines* have featured major pieces of original research by authors such as David L Walker, Paul Bishop and others. In this edition we continue that fine tradition with a tour-de-force (or maybe that should be tower-de-force) by Ifan Shepherd and Steve Chilton on the depiction (or otherwise) of Martello towers on early OS mapping. Members will recall Ifan and Steve presenting their research into the metadata derived from the marginalia of First Edition six-inch maps at the 2011 AGM at Kingston.

At the recent 2015 AGM at Lincoln, star speaker was Richard Oliver (right), introducing his latest book *The first Ordnance Survey map*.

The 2016 AGM will be on 21 May at the Llangollen Pavilion, the site of the international eisteddfod. Full details will be included with April *Sheetlines*.

Meanwhile, the **visits programme** is in full swing; recent meetings at Essex record office, St Albans, BGS Keyworth and the National Railway Museum and Network Rail archives in York all proved popular, as can be seen from the photographs on pages 3-6.

Future meetings include a visit to Belfast on **25/26 September** to see Land & Property Services (successors to Ordnance Survey Northern Ireland), the Public Records Office and – weather and other factors permitting – an excursion to explore Colby’s Lough Foyle baseline at Limavady.

A meeting is planned for Kingston-on-Thames for **17 October**, and, for **spring 2016**, a walk along the Hounslow Heath baseline, a meeting in St Albans and a return visit to Imray nautical charts in St Ives (Cambs). Details of these will appear in December *Sheetlines*. For more information, or to book your place on any of the above, or if you would like to organise a local meeting, please get in touch with Bernard Anderson (contact information opposite).

The recent addition of four Northern Irish and Scottish sheets to the CCS digital archive\(^1\) brings the number of historical map images available online to 207.

We are delighted that the new Chief Executive Officer of Ordnance Survey, Nigel Clifford FRGS, has accepted our Chairman Gerry Zierler’s invitation to become an Honorary Member of CCS.

\([photo above by Bridget Oliver, photos on pages 3-6 by John Davies, Rob Jaynes, Gerry Zierler]\)

\(^1\) [http://www.charlesclosesociety.org/digital](http://www.charlesclosesociety.org/digital)
In March 2015 Ordnance Survey announced a new logo, and a republication of most of its remaining paper maps. This entails the renumbering of a number of the 1:25,000 Explorers as ‘OL’ maps, so as to produce a complete series of 62 ‘Outdoor Leisure’ maps. These 62 ‘OL’ maps were issued on 10 June: reissues of the remaining Explorer and 1:50,000 Landranger maps will follow later. A number of these maps are noted inside as ‘reprinted with new cover’ – nothing else.

From the point of view of a paper map user, the whole exercise seems completely unnecessary, particularly as it is understood that it will entail extensive destruction of existing stocks of otherwise perfectly saleable maps. This seems most objectionable on environmental grounds, and to go against the spirit of the otherwise highly commendable state-of-the-environmental-art Ordnance Survey buildings at Adanac Park. And it seems quite absurd not merely to perpetuate, but to worsen the semantic divide between the ‘OL’ and ‘non-OL’ Explorers: this could have been the opportunity to renumber the whole series in an orderly, consecutive, north-to-south manner. Or is Southampton holding off this, in case developments in Scotland lead to the confining of the Explorers to England and Wales? (This is not a problem in divided Ireland!)

The real explanation seems to lie in the blue panel on the new covers: ‘Now includes mobile download’. Inside is a scratch-off label over a code, which enables the purchaser to download a digital version of the map for use on smartphones and tablets. Would it not be easier simply to purchase online? The digital version of the map amounts to a sophisticated photocopy: the really radical step will be the availability of digital mapping, either to be used electronically or to be printed on paper, where the customer has some control over extent, colour and content. But when?

Bibliographers will note that edition codes have been abolished, and that in future, editions will have to be identified by the month and year of reprint.

The new map covers feature photographs submitted by the public in response to OS Photofit competiton. The successful entries, which can be viewed online,¹ include five photographs by CCS member Ed Fielden. If other CCS members have also been successful, please let us know.

¹ https://www.flickr.com/photos/osmapping/sets/72157649182501294/
The Map Collections at Essex Record Office
Allyson Lewis, Archivist
The bench marks of St Albans. Talk and walking tour led by Frank Iddiols.
Visit to British Geological Survey, Keyworth, Notts,
Visit to National Rail Museum archives and Network Rail archives, York
Where have all the (Martello) towers gone?  
New sources for investigating OS map redaction  
Ifan DH Shepherd and Steve Chilton

One of the many uses of the first editions of the Ordnance Survey’s national map series published in the nineteenth century is to help identify the origin of historic features still visible in the landscape today. One particularly distinctive landmark, which was built in considerable numbers along the south-east coast of England some two hundred years ago, is the Martello tower, several dozen of which still stand today (figure 1).3

In recent years, Martellos have become something of a regional tourist attraction, and are prominently marked on many present day maps, including the Ordnance Survey’s 1:25,000 Explorer series (figure 2). Martello towers have also become a focus of ‘collecting’ behaviour among many outdoors enthusiasts, and are even being ‘bagged’, in much the same way as Munros4 and pillar trig stations have been in the recent past.

In this article, we will discuss why some published Ordnance Survey (OS) maps from the nineteenth century may not be as useful as we had originally thought in tracking down these historically significant landscape features. We will then report on our use of some relatively unexplored manuscript OS maps which

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1 With apologies to Pete Seeger.  
2 Middlesex University, London.  
3 Except where otherwise stated, all illustrations are courtesy of the British Library.  
4 Munros are mountains in Scotland that are over 3000 feet high.
reveal the locations of Martellos in the later nineteenth century, and which throw additional light on map redaction during the Victorian period.

Our interest in Martello towers was piqued while undertaking the research for a forthcoming book on the first edition Ordnance Survey six-inch series. In particular, we wanted to illustrate the usefulness of these maps in providing historical background for relict features in the contemporary landscape, and Martello towers seemed to be an obvious case study. As many readers of this article will already know, Martello towers were erected in the early years of the nineteenth century to provide a line of defence against possible naval attack by Napoleonic France. Between 1805 and 1812, 74 of these towers were built along the southeast coast in Kent and Sussex, and a further 29 were added along the east coast, in Essex and Suffolk. Each tower was armed with a large bore howitzer, housed a garrison of 25 men, and stood some 500-600 metres from adjacent towers, thus providing a continuity of defence similar to that provided by the regularly spaced watchtowers and garrisons along Hadrian’s Wall in northern England.

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There have been a number of books\(^\text{7}\) published that contain a considerable amount of military, architectural and social information about these striking landscape features. Moreover, as a result of work undertaken by Martello tower enthusiasts,\(^\text{8}\) we know the locations and current state of the remaining Martello towers (figures 3 and 4). With this information in mind, we will address two questions in this article. First, what kind of additional information can the Old Series one-inch Ordnance Survey map and first edition six-inch map contribute to our existing knowledge of these features, such as their precise locations and layout? Secondly, how many towers survived into the later decades of the nineteenth century? For reasons that will be explained shortly, our original focus soon broadened to include first edition 1:2500 plans, and we added a third question: why are Martello towers not always included on some nineteenth-century OS maps?

A reasonable amount of information about the location and status of the Martello towers is available from other cartographic sources from the earlier years of the nineteenth century. For example, many of the towers are shown on the Old Series one-inch map published by the Ordnance Survey for the four coastal counties of south-east England in the early decades of the nineteenth century.

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In chronological order, sheet V was published in 1813, and shows 44 towers along the coast between Rye and Seaford in Sussex; sheet IV was published in 1816, and shows 21 towers along the coast between Folkestone and Dymchurch in Kent; and sheet XLIX.SW was published in 1837, and shows a single tower on the Suffolk coast at Aldborough (modern day Aldeburgh). Figures 5, 6 and 7 illustrate the locations of towers in these three areas. There are no Martello towers shown for Essex on sheets II and XLVIII, which were both published in 1805, just before the first Martellos were built.

The symbol used to signify the presence of a Martello tower on the Old Series maps is a small circle filled with diagonal ruled lines. Because the one-inch sheets did not include a key, the meaning of this point-located symbol would probably have been a mystery to many map purchasers. Indeed, some of them may have been mistaken for windmills, which are shown using a similar symbol on six-inch sheets from the 1840s onwards, but by more appropriate symbols on the one-inch sheets. Map readers’ ignorance would not have been helped by the fact that on the original Old Series sheets, none of the towers had a text label. However, tower number labels appear on the later version of sheet V, published around 1849-51, and also to the later issue of sheet XLVIII.NE (resurveyed in 1835-36) which covers part of Suffolk north of the River Stour, and sheet XLIX.SW (surveyed in 1835) which covers the rest of Suffolk to the north. The latter sheet includes the northern-most Martello tower in Suffolk, along with its label (see figure 5).

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9 We hope that readers will understand the variable quality of the map illustrations accompanying this article, which were captured using a handheld camera in less than ideal lighting conditions.

The most obvious drawbacks of the one-inch map is that the scale is too small to provide any significant indication of local details, such as the presence of a moat or drawbridge, the altitude of a tower above sea level, or its relationship to smaller landscape features. As we will show below, the last two pieces of information are significant given the coastal location of the towers, and their exposure to storms in the North Sea and the Channel.

As for the role of the towers, it is reasonably well understood that none of them was ever used for their original defensive purpose. Indeed, by the mid-nineteenth century, many of them had been transferred to the emerging national Coastguard Service, originally for the detection and prevention of smuggling along the southeast coast of England. Information recorded in the enumeration schedules for the 1851 population census in Sussex provides hard evidence for this change of function, in the form of personal details of over 200 coastguard staff occupying 21 Martello towers, three other related towers, and a cottage associated with Martello tower 42.

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Evidence from larger-scale maps and plans

For the four English counties in which Martello towers were originally erected, the relevant sheets of the first edition six-inch map were published during the 1860s, 1870s and 1880s. It is therefore not unreasonable to assume that the majority of the towers, except for those deliberately demolished or swept away by the sea during their early years, would show up on the relevant sheets.

However, after an exhaustive search of all coastal six-inch sheets in the four counties, we were unable to find a single Martello tower. Indeed, except for the rather indirect evidence of a Tower Street and a Tower Place in Eastbourne (Sussex sheet LXXX) and both a Martello Road and Martello Hotel in Folkestone (Kent sheet LXXV), there was no other indication that these towers had ever been built along the south-east English coast during the Napoleonic Wars. Something was seriously amiss here.

At first, we thought the Ordnance Survey’s field surveyors might have considered these features to be too minor to be worthy of special attention. However, given their considerable size – typically 13.5 metres across by 12 metres high – this seemed extremely doubtful, particularly since they had already been included on the Old Series one-inch sheets. Indeed, far smaller structures along the coast, including marshland sheepfolds and cliff-top flagstaffs, were all faithfully recorded on six-inch sheets during this period. The same goes for the hundreds of tower windmills which graced the English landscape throughout the nineteenth century. While most of these buildings were significantly taller and slimmer than the Martello towers, large numbers of them were shown and often named on the six-inch map, along with an indication of the produce they handled.
The curious absence of Martello towers led us to surmise that although the Ordnance Survey might have surveyed them, they may not have regarded them as visually distinctive enough in relation to other brick buildings to merit being separately identified. Again, this seemed rather unlikely, given that numerous individual detached residential villas were named on six-inch sheets, whether in fast-growing coastal resorts or in more genteel suburbs of larger inland towns. So we returned to the six-inch sheets, and looked this time for signs of large, unnamed circular buildings along the south-east coast. Again, apart from the occasional (and rather obvious) windmill, nothing seemed to fit the bill. There simply are no Martello towers shown on first edition six-inch sheets.

It soon dawned on us that there was another possible explanation for this absence. The Martello towers may well have been surveyed for the 1:2500 plans, which were used from the mid-1850s to derive the smaller-scale six-inch sheets, and these were typically sold in the form of zincographs made from fair drawings. However, when these plans were photo-reduced for engraving onto copper plates at the six-inch scale, the towers may have been omitted for reasons best known to the Survey. We therefore examined the published 1:2500 plans along the coast of each county to see whether any towers had been recorded at this

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14 Ever since the mid-1850s, when it was first decided to derive six-inch sheets from the newly introduced 1:2500 plans, photo-reduction followed by engraving became the standard way of producing the derived-scale map.
scale. Again, we drew a blank. Just about everything that was recorded on the 1:2500 plans during this period (the 1870s and 1880s) was faithfully transferred onto the six-inch sheets, albeit with some necessary building generalisation, some repositioning of place names, and some pruning of over-numerous elements (e.g., vegetation symbols, place names, and levels). However, Martello towers appear not to have been among the features that were originally captured on the 1:2500 plans. It seems that, despite their commanding local presence, Martello towers had mysteriously fallen through the net of the Ordnance Survey’s comprehensive national cartographic survey.

Readers familiar with the tensions that persisted between Britain and France for much of the nineteenth century\textsuperscript{15} will be well aware of the Ordnance Survey’s suppression of detail relating to military installations in maps and plans of coastal areas where major naval defences were located. For example, if you turn to the six-inch sheets for places such as Sheerness, Chatham, Dartford, Dover, Folkestone, Portsmouth, Plymouth, and Milford Haven, you will find empty spaces where naval installations existed at the time when the relevant sheets were being surveyed. So, we wondered whether the typically standalone Martello towers were treated in the same way as the major batteries, naval dockyards and army camps around the south-east coast at this time, in that their depiction was suppressed from both the six-inch map and 1:2500 plans for national security reasons? If so, we hypothesised that the Ordnance Survey might have adopted one of three possible approaches. First, they might not have surveyed these sensitive features at all, which might explain why the details do not appear on the published 1:2500 plans, and therefore why they were subsequently not transferred to six-inch sheets. Secondly, the Ordnance Survey might have surveyed these installations, but for security reasons withheld them from the standard 1:2500 plans, compiling them instead on separate plans restricted to military use. And thirdly, the Ordnance Survey might have surveyed the towers, included them on their standard 1:2500 plans, but then withheld them when transferring detail to the six-inch sheets.

It would have been ideal if we could have tested the first of these possible hypotheses by examining the list of instructions issued periodically to field surveyors by the Ordnance Survey. Unfortunately, no surveyors’ instructions are known to have survived from this period.\textsuperscript{16} As for the third of these approaches, this has already been discounted, because Martello towers are absent from both 1:2500 plans and the six-inch map. This leaves us with the second hypothesis as being the only one that is directly testable: that a clandestine set of military plans was created that included the Martello towers, but these never entered the public


domain. This, it turns out, is pretty close to the truth. To tell this story, we will now describe what we have been able to find from two sets of manuscript OS maps held at the British Library that have not previously been used for cartographic research.

**OS hill sketches**
The first of our manuscript map sources at the British Library consists of an extensive collection of Ordnance Survey hill sketches. These sketches, which consist of horizontal hachures hand drawn onto printed six-inch sheets, were produced by draughtsmen (mainly civil assistants) in divisional offices, and were meant to provide a reasonably objective basis for the hachuring on the New Series one-inch maps. For the purposes of this article, we are less interested in the hill sketching itself than in the six-inch base maps on which they were drawn. The reason why they are of interest is that, in many cases, the hill-sketchers were supplied with proofs of incompletely engraved six-inch sheets. Where these proofs were taken just before the sheets were redacted for publication, they retain details of Martello towers. Martello towers are shown on three hill-sketched sheets in Kent and five more in Sussex, before they were redacted in readiness for publication. On the Kent sheets we have been able to identify 24 towers, and on the Sussex sheets a further 19 towers. (A complete list is provided in the appendix at the end of this paper). Unfortunately, because much of the hill sketching was undertaken on published six-inch sheets, from which the towers had already been removed prior to publication, the pre-redacted sheets provide only a subset of the towers that can be assumed to have survived into the 1860s and 1870s.

So, do these six-inch sheets provide a significant increase in information about Martello towers, especially in comparison with the earlier Old Series one-inch maps? One of the useful features of the small-scale representation of Martello towers on the Old Series one-inch sheets is that they provide an at-a-glance appreciation of the close spacing between adjacent towers, especially along those open beach foreshores where a seaborne invasion would have been most likely to have occurred. (Figure 6 provides a good example of this). However, some

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17 These are available at the Maps OSHS shelfmark, and are described by the authors in a forthcoming article provisionally entitled: The Green Box Hoard: An unexplored collection of Ordnance Survey manuscript maps at the British Library (in preparation).
19 When copper-plate engraving was replaced by photo-zincography during the early 1880s, such proofs gradually disappeared, and with them the evidence that some provide for Martello towers.
20 A detailed study is currently being undertaken of the evidence that these pre-publication proofs provide for the engraving sequence adopted by draughtsmen working on the first edition OS six-inch map.
21 By examining the complete sequence of Martello towers along the Kent and Sussex coasts, it can be seen that most were located on the more exposed sandy beaches, and very few were
tower sequences can also be seen on single hill-sketched six-inch sheets. Towers 13 to 18 to the south-west of Hythe in Kent, for example, all appear on pre-reduced six-inch sheet LXXIV (figure 8).

Further details about the Martello towers are also shown at this scale, as illustrated in figure 9. These include: the tower numbers; their location on what appears to be a beach berm just above the tide line; the altitude of some of the towers; and their association with other coastal defences, which in this example included Fort Sutherland at the foreshore and multiple rifle ranges located just inland. (Figure 8 also shows the Royal Military Canal to the north.) A noteworthy feature of this arrangement is that the regular spacing between towers 14 and 15 has not been changed to accommodate Fort Sutherland.

![Figure 8](image)

**Figure 8**

Martello towers to the southwest of Hythe as they appear on a pre-reduced six-inch sheet (Kent, LXXIV)

Taken at face value, this seems to suggest that the fort was built after the towers rather than before them, thus representing an ‘insertion’ of a later defence installation (maybe a ‘Palmerston folly’?) into the evenly spaced earlier Martellos. However, a visit to the web reveals that this assumption is unfounded, because Fort Sutherland was constructed in 1798, during the Napoleonic Wars, a decade or so before the adjacent Martellos were built. Readers better versed in the history of the Martello towers might wish to suggest why the towers maintained their spacing regardless of the presence of earlier major defences.

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located on cliffs. The latter were evidently deemed to be naturally defensive landscape features compared with the former.

Since many of these coastal towers, and others along low-lying stretches of coasts in Sussex, Kent and Essex have been lost to the sea since they were built, their existence on dateable hill-sketched six-inch sheets provides useful survival evidence that can help to establish their earliest possible destruction dates. Despite this additional information, however, only a small proportion of the pre-redacted six-inch sheets show additional plan detail for individual towers. For this kind of information, we need access to larger-scale plans.

**OS contour photographs**

We now turn our attention to a second manuscript map source at the British Library: an extensive collection of Ordnance Survey contour photographs. From 1856, the Ordnance Survey began producing photographic prints of individual 1:2500 plans, reduced to the six-inch scale for use by the contouring teams. On these photos the contourers manually added contour lines, drawn in ink, which were constructed from field survey data recorded in levelling books. Many thousands of these contour photographs survive for post-1854 counties of England and Wales. Where these photos were taken from pre-redacted 1:2500 plans (as with the hill sketches drawn on pre-redacted six-inch impressions), it is possible to see on those for Essex, Kent and Sussex many of the Martello towers.

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23 These items are variously referred to as contour plots (Richard Oliver, *The Ordnance Survey in the Nineteenth Century: Maps, money and the growth of government*, The Charles Close Society, 2014, caption to Plate 6), contour field prints (British Library catalogue) or simply ‘photographs’ or ‘prints’ (Henry James, *Account of the Methods and Processes Adopted for the Production of the Maps of the Ordnance Survey of the United Kingdom*, Her Majesty’s Stationery Office, 1875, pp.97-98). We have adopted the phrase ‘contour photographs’ to refer to those used for the four counties being investigated here, which is the phrase that commonly appears on the envelopes in which these items were kept at the OS. However, during the 1880s, the OS contourers began using printed copies of the without-contours edition of the six-inch sheets rather than photo-reduced photos of 1:2500 plans. These quarter-size sheets were cut up into four overlapping cards, which was a convenient size for insertion in sketch cases that could be carried around in the field. These are usually referred to on the OS’s storage envelopes as ‘contour prints’ or ‘contour field prints’.

24 Field surveying for 1:2500 plans had begun in 1853 in Durham, Ayrshire and Dumfriesshire, before the ‘battle of the scales’ put a temporary stop to the work. See: Richard Oliver, *The Ordnance Survey in the Nineteenth Century: Maps, money and the growth of government*, The Charles Close Society, 2014. The first contour photographs for Durham are dated 1856.

25 The contour photographs are available at the Maps OSCP shelfmark at the British Library, and are described in a paper by the authors provisionally entitled: ‘The Green Box Hoard: An unexplored collection of Ordnance Survey manuscript maps at the British Library’ (in preparation). We are also currently preparing a separate article on the finer details of the six-inch contouring process as revealed by the contour photographs. Very few of the original field levelling books completed as part of the contouring process are known to survive.

26 Contours on Lancashire and Yorkshire six-inch sheets were produced before the introduction of the 1:2500 plans, so no contour photographs are available for those counties. In Scotland, except for the earliest six counties and the Isle of Lewis, six-inch contouring was also based on 1:2500 plans. However, while contour photographs must have been used in producing these contours, none appear to have survived.
which were absent from the subsequently published 1:2500 and six-inch sheets.\(^{27}\) (No contour photographs survive for the relevant coastal areas of Suffolk). Figure 10 provides an example of a cluster of these towers to the west of Folkestone in Kent, on the coastal fringes of Shorncliffe military camp.\(^{28}\)

Martello towers appear on three contour photographs in Essex (six towers), six photos in Kent (18 towers) and 17 photos in Sussex (31 towers). Although 18 towers were built in Suffolk, none of them are recorded on the contour prints that survive for that quarter-sheet county. Despite this blind spot, the set of 55 towers is a reasonably large sample (53.4\%) of the 103 towers that were originally built along the south and east coast of England. It is an even larger sample of the 44 towers that Sutcliffe notes as having survived into the late twentieth century. Among the lost towers are 48 of those in Kent and Sussex which were demolished or destroyed by marine erosion,\(^{29}\) and a further nine of those in Essex.

\(^{27}\) Interestingly, these prints also reveal other military installations (eg batteries, barracks, dockyards, rifle ranges, etc.) many – but not all -- of which were also removed from the published 1:2500 and six-inch sheets. This is a story for another day.

\(^{28}\) It somewhat curious that while the Martello towers were redacted from the published 1:2500 plan and the derived six-inch sheet, the major military camp was left intact on both. The reasons for this will be explored in a separate article we are currently preparing.

\(^{29}\) Contemporary local newspapers reported the demise of towers 41 and 42 in the 1840s. See also: Anon, ‘Migration patterns of MH Coastguards in to Sussex from the 1851 Census Enumerators Returns’, 2004, www.rootschat.com/history/bastings/content/view/75/26/ (accessed 8 May 2014).
and Suffolk.\textsuperscript{30} The identifying number of the Martello towers that have been found on contour photographs are provided in an appendix to this article, along with the matching photograph number.

One of the first uses for these contour photographs is that they enable us to check whether more recent claims about the survival and destruction of specific Martello towers are valid. For example, tower G in the Holland Marshes of Essex is recorded as having been demolished in 1819.\textsuperscript{31} This appears to be confirmed by contour photograph XXXIX.7&8 in that county, which shows the sequence of Martello towers to the southwest of Clacton on Sea (D, E and F), with photo XLVIII.10 showing tower C further down the coast. There is, however, no indication of tower G at or near Clacton. As with pre-redacted six-inch sheets, pre-redacted 1:2500 plans in the form of contour photographs provide survival evidence that can help to establish the earliest possible destruction dates of selected Martello towers. Beyond this, however, the photographs provide considerably more local detail than the pre-redacted six-inch sheets.

Figure 11 shows Martello tower B at St Osyth in Essex, which is now a listed building.\textsuperscript{32} The contour photograph indicates the raised mound on which the

\begin{figure}[h]
  \centering
  \includegraphics[width=\textwidth]{figure10.png}
  \caption{Martello towers 6, 7 and 8 in Sandgate, just west of Folkestone in Kent, as shown on contour photograph LXXV.9}
\end{figure}

\textsuperscript{30} Anon, ‘Martello Towers’, 2009, \url{www.geograph.org.uk/article/Martello-Towers} (accessed 16 April 2014). Only a few of the destructive events are dated.


tOWER was erected, with its freshly levelled contour, bench mark and triangulation station. It also indicates the drawbridge on the east side of the tower and, like several other towers along the Essex coast, a dismantled battery on its seaward flank. (A similar set of features is also shown on contour photograph XLVIII.7 for Martello tower F just south of Clacton on Sea, further along the Essex coast.) The content of this photo-reduction from a pre-redacted 1:2500 plan, contrasts with the published six-inch sheet of this part of the Essex coast (figure 12), in which all of the sensitive military detail has been removed from within the rectangular enclosure. This redaction process can also be seen a little further along the Essex coast from Beacon Hill, on six-inch sheet XLVIII, on which four other Martello towers (C, D, E and F) also sat within square-shaped boundaries and. As with Beacon Hill, the towers have been removed from these areas on the published six-inch sheet, leaving the geometrical boundary shapes entirely empty.

![Figure 11 Martello tower B at St Osyth in Essex, as shown on contour photo derived from 1:2500 plan XLVII.4](image)

Although the tower on Beacon Hill was located safely above high tide level, many other Martello towers were built directly on foreshore sand and shingle, and were lost to the sea during the course of the nineteenth century. For example, towers 31 to 34 along the low-lying sand coast at Pett Level just south of Rye in Sussex have all been destroyed by coastal storms since they were built. Several Martello towers originally built on offshore sandbanks along the Suffolk coast (eg towers S and V) were also reportedly destroyed due to shifting water channels and storms. Whether the Essex towers had been washed away earlier in the nineteenth century, as might be inferred from their absence from the one-inch maps of the area, is unclear.
Even towers located above the high water mark of ordinary tides have not always fared well. About half of Martello tower 44, for example, had already been claimed by the sea through cliff erosion by the time it was surveyed for Sussex sheet LXX in 1873 (figure 13). It is interesting that the partly destroyed condition of this tower apparently excused the OS draughtsmen from completely redacting it from the six-inch sheet published in 1878, as shown on figure 14. A further two towers (numbers 68 and 69) are also shown on Sussex contour photo LXXX.7, with the words “Remains of” printed below the tower number. (This part of the coastline was surveyed in 1875-76.) The fact that these towers more or less straddle the high water mark of ordinary tides provides sufficient explanation for their recent erosion and impending disappearance. Unlike tower 44, however, their remains do not appear on the published six-inch sheet.

Despite the widespread evidence of coastal loss, other contour photographs provide evidence for some exceptions to this tale of coastal loss. The westernmost Martello tower on the south coast of England, tower 74 at Seaford in Sussex, was built on the foreshore just south of the town. Between its construction, sometime between 1806 and 1810, and the date it was surveyed by the Ordnance Survey in 1873, the area around the tower was repeatedly inundated by the sea. The tower appears on contour photograph LXXVIII.12 (figure 15) which was printed around 1878, but it was redacted from the first edition six-inch sheet published in 1879 (figure 16), and had not been reinstated when the second edition six-inch sheet appeared in 1899. However, it finally reappeared on the 1911 edition, which was revised in 1908. This sheet gives the tower number, and also indicates a Martello Road nearby, which must have been recently built.

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33 [www.seafordmuseum.co.uk/the-tower.htm](http://www.seafordmuseum.co.uk/the-tower.htm) (accessed 28 April 2014).
34 There is a vivid contemporary print of the floodwaters having entered the main streets of the town in Seaford Museum, which is currently located in the renovated Martello tower.
Figure 13
Remains of Martello tower 44 on the south coast, as shown on Sussex contour photograph LXX.8

Figure 14
Remains of Martello tower 44 on the south coast, as shown on published Sussex six-inch sheet LXX
Figure 15 Martello tower 74 on the Sussex coast at Seaford, as shown on contour photograph LXXVIII.12

Figure 16
Site of redacted Martello tower 74 on the Sussex coast at Seaford, on six-inch published sheet LXXVIII – contrast with Figures 7 and 15
**Map redaction and Martello towers**

In addition to providing evidence for the existence and nature of Martello towers in the later nineteenth century, the hill sketches and the contour photographs provide an additional source of information for understanding the strategy adopted by the Ordnance Survey in suppressing sensitive information from its first edition maps and plans. While the Ordnance Survey was preparing its first edition 1:2500 plans and six-inch sheets for publication, it appears that it received a directive that sensitive military detail had to be removed from both the 1:2500 zincographs and the six-inch copper plates. It is clear that this redaction was applied to all 1:2500 plans and six-inch sheets because, as previously discussed, no towers appear on any sheets issued at either scale for the four counties of south-east England. The cartographic impact of redaction can be illustrated at a local level by considering Martello tower 5, located at Sandgate, just to the west of Folkestone in Kent. This appears on both a contour photograph taken from an early 1:2500 zincograph (Kent sheet LXXV.9, figure 17) and also on a hill sketch included on a pre-publication six-inch sheet (Kent sheet LXXV, figure 18). From this evidence, it can be inferred that the redaction directive must have been received rather late in the day, some time after the Martello tower had already been included on the 1:2500 plan, and therefore on the pre-publication six-inch proof.

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35 We are currently preparing a separate article that provides a fuller account of OS map redaction activities in southern England and Wales.

36 We have been unable to identify any record of this directive.

37 Rob Wheeler (2015, pers. comm., 14 April) has pointed out that the redaction process for the second edition 1:2500 sheets may be complicated by the fact that the Ordnance Survey maintained separate classified and releasable versions of 1:2500 drawings.
By comparing these pre-redacted sheets with the eventually published sheets, it can also be inferred that map redaction was undertaken separately for the first edition 1:2500 plan and the derived six-inch sheet. When tower 5 was removed from the published 1:2500 plan (Kent sheet LXXV.9), an arc was inserted to join the existing field boundaries either side of the removed tower (figure 19). However, when the same tower was removed from the published six-inch sheet, part of the boundary line it had shared with the adjoining property was left unclosed (figure 20). This suggests that the six-inch redaction may have been something of a ‘rushed job’ on the six-inch sheet, because the boundary detail for features adjacent to several Folkestone towers was similarly not restored when the towers themselves were removed.

If evidence is needed to indicate why the War Office might have had qualms about the presence of Martello towers on the First Edition six-inch maps, figure 21 provides a salutary reminder that almost all of the details present on the 1:500 War Office plans of Martello towers and other defensive installations along the coast were also shown on the six-inch sheets (see figure 17 for comparison). This was particularly likely where six-inch sheets were photo-reduced directly from 1:2500 plans, which in turn contained detail that had been reduced from 1:500 plans, as was often the case in urban areas.

Figure 18
Martello tower 5 in Folkestone as it appears on pre-redacted six-inch sheet (Kent LXXV)

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As a footnote to this story, this and several other Folkestone Martello towers were still absent from sheet LXXV.SW of the second edition of 1899 (revised in 1897). However, they reappeared in full detail on the subsequent Third Edition of 1908 (revised in 1906, as shown in figure 22), and were still present on the Revision of 1931. On the basis of this evidence, government policy towards the redaction of sensitive military installations on OS maps seems to have changed between 1899 and 1908\textsuperscript{39}, and this was reflected in the Ordnance Survey’s restoration of Martello towers to the six-inch maps of the south and east coast of England.

\textsuperscript{39} This change in policy can be dated to 1907. See: R Oliver, Ordnance Survey Maps. A concise guide for historians, Third edition, The Charles Close Society, 2013, p.305.
Conclusions

By combining the Martello towers found on the hill sketches and contour photographs at the British Library, our overall sample has grown substantially, though it still does not provide complete coverage of all towers in south-east England. The geographical locations of the two new sources of evidence is summarised in figure 23. This clearly shows those coastal areas for which Martello towers are shown on both scales of map and those where they are shown on only one scale of map. As the appendix reveals, out of the total of 61 towers we have located on pre-redacted maps and plans, 37 appear on both map sources, while the other 24 are present on only a single map source, with six of these being on hill sketches and 18 on contour photographs.

In most cases where Martello towers were redacted from OS maps and plans, it is difficult to tell from the published sheets alone that these imposing structures once graced the coasts of south-east England. It is also difficult to tell from the published 1:2500 plans and six-inch maps that the towers were deliberately removed from the published maps, unless you know in advance what you are looking for. The hill-sketched maps and contour photographs at the British Library therefore provide a fleeting glimpse of a striking landscape feature during the later years of the nineteenth century which, for military reasons, was denied to the map-buying public of the time.

Figure 21
Extract from War Office 1:500 plan showing Martello tower 5 in Folkestone. Surveyed in 1861, this plan was zincographed and printed in 1864. (British Library shelfmark: Maps 150.d.3)
Acknowledgements
We are extremely grateful to staff at the British Library for providing access to the manuscript map materials described in this article. Thanks are also due to Richard Oliver and Rob Wheeler for providing expert critical comments on our original draft.

Figure 22
Published six-inch Kent sheet LXXV.SW (Third Edition) showing restored Martello tower 5 in Folkestone

Figure 23
Distribution of contour plots (small green rectangles) and hill sketches (large red rectangles) which show Martello towers in Essex, Kent and Sussex
### Appendix
OS contour photographs and hill-sketched sheets which show Martello towers.

<table>
<thead>
<tr>
<th>Tower ID</th>
<th>Contour photograph 1:2500 number</th>
<th>Hill-sketched six-inch sheet number</th>
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<tr>
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* indicates towers mentioned in Chapter 13, Appendix C.
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| Tower 20 | LXXXII.2 & 6 | LXXXII |
| Tower 21 | LXXXII.2 & 6 | LXXXII |
| Tower 22 | LXXXII.5 | LXXXII |
| Tower 23 | LXXXII.5 | LXXXII |
| Tower 24 | LXXXII.9 | LXXXII |
| Tower 25 | LXXXII.9 | LXXXII |
| Tower 66 | LXXX.7 | LXXX |
| Tower 67 | LXXX.7 | LXXX |
| Tower 68 | LXXX.2 | LXXX |
| Tower 69 | LXXX.7 | LXXX |
| Tower 70 | LXXX.7 | LXXX |
| Tower 73 | LXXX.14 | LXXX |
| Tower 74 | LXXVIII.12 | LXXVIII |

Notes:
There are no contour photographs or hill sketches for Suffolk, and no hill sketches for Essex. Empty cells indicate absence of contour photograph or hill-sketched sheet. An asterisk indicates the presence of a bench mark at or near the tower. A cross indicates that the tower is not shown on the contour photograph.

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**Martello Towers**

Between 1803 and 1806 a large number of Martello Towers were built along the coast of Essex and Suffolk in response to Napoleon’s invasion threat. Large-scale construction projects were undertaken to provide defence for vulnerable coastal areas.

104 Martello Towers were built in England, eleven of these were built along the Tendering coastline from Point Clear to Walton, six still survive.

The Martello Towers were entirely functional. Each Tower had its own supplies of food, water, gunpowder and cannon balls, and could withstand a siege for some considerable time.

The Towers were designed for 30 men and an officer. However, in practice the garrison was only three men and a sargent. They did not live in the Towers as the outerland was considered to be very unhealthy. Instead the troops were based in barracks at filming, and marched to the Towers daily for look-out duty.

The Towers were armed with three cannons: a heavy 24 pdr, a 12 pdr and two 6 lb brass howitzers.

Find out more fun facts and information by following the trail...

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This attractive leaflet, produced by the EU-funded Walls and Gardens Project and available from Essex Records Office provides a trail route and brief guide to the six Martello Towers in Tendering, Essex, three of which are open to the public.
**Merely a question of boundaries**

David EM Andrews

Mereing: The act of surveying, ascertaining and agreeing on the ground the true boundary line at a basic scale, and describing the boundary in relation to the existing physical features, by measurement where necessary.”

This article is the result of two quite specific incidents in my career. The first occurred shortly after I was posted to Leicester as Ordnance Survey Chief Surveyor, and the second was at the beginning of 2015. I had previously been one of a small number of OS employees trained by Bond Solon Training to represent OS in the civil and criminal courts as expert witnesses in cases where knowledge of OS specifications and practices were necessary to decide the case.

The first incident was a court action in which a dispute had arisen over the ownership of a ditch. The ditch ran parallel to a hedge. The hedge had a parish boundary mered to it as “1.22m RH”. This mereing indicated that the parish boundary ran parallel to the hedge 1.22 metres from the rootline. Investigation revealed that the parish boundary and the hedge were both shown on the first edition of the OS 1:2500 scale map published in the 1870s on which the mereing was shown as 4ft RH; (boundary mereings were converted to metric measure when the OS maps were metricated from 1969 onwards).

The second incident occurred when I was asked by a client for whom I had been an expert witness in the past to verify the legal boundaries of a property he had just purchased and was renovating prior to moving in. One boundary of his new property was shown on the title deeds and the Land Registry title plan as being a hedge, along which a boundary was mered “0.91m RH”. On the earliest OS 1:2500 scale maps the mereing was “3ft RH”.

I can recall being a young OS surveyor in East Yorkshire in the early 1970s and being tasked with the mereing of a new public (administrative), boundary. [Throughout this article I am accepting that the term ‘public’ boundary is synonymous with ‘administrative’ boundary]. The instruction at the time was to enquire with the landowners on both sides of the new boundary and ensure that the position of the public boundary coincided with the limits of ownership of the parcels of land on both sides of the boundary. Enquiries were made with both land owners, and if they agreed on the ownership of the hedge, fence, ditch etc then the public boundary was mered to follow the agreed property boundary line. These enquiries sometimes resulted in me asking the question:

“I know you own the fields on both sides of this hedge, but if you were ever to sell one or both of them, which field would end up owning the hedge, and how much land on the other side of the hedge?”

Sometimes the resulting comments were decidedly rustic!

So much for my own recollection of what I thought I knew. That was sufficient in the first case because the parties settled before the matter got to court.

---

1 Cartographic Survey & Mapping Consultant.
and I was never required to substantiate my knowledge with hard documentary evidence, (as fans of ITV’s Judge Rinder will know, judges love paper!).

However, with the second case possibly ending up in litigation I decided that I needed to find something more concrete than a forty-year old memory of what I thought I remembered about the merging of new boundaries. No good asking OS, or looking at the current rules, as the procedure changed in the 1980s by which time rates and taxes on property were calculated on the value of the land and not on the areas of the parcels. Public boundaries were now mered to the centres of hedges, fences etc. although parcels on OS 1:2500 scale maps were still measured, as previously, to the public boundary where one existed parallel to the physical boundary of the parcel. Why no good asking OS you ask? Because when I asked them to confirm my knowledge at the time of the first case they had no one who could do so, or had even heard of the old system, and the OS rule book for surveyors that covered the procedure had been made obsolete by a new set of “Modules” in which the rules on the perambulation of new public boundaries no longer took account of private property rights.

It seemed that I had to track down a copy of the Red Book,3 the surveyors’ instructions for detail survey and revision published in 1952 (hereafter RB52). No good looking for the 1963 replacement edition, as that would have been subject to regular updates and amendments up to the time it was replaced by the Modules in the 1990s, and any copy found would almost certainly have been amended to reflect the change of the merging process to ignore private property rights.

A search on the National Archives at Kew revealed that Cambridge University Library held three copies of RB52, (in all probability in different states of updating). Anne Taylor helpfully found a copy with the paragraphs regarding boundary merging intact and kindly supplied me with copies of the relevant pages.

I had also been seeking advice from Richard Oliver, who copied for me the pages of Administrative Boundaries in Great Britain 1951 (ABGB51)4, as updated in 1956, covering the perambulation of new boundaries.

I already had copies of Public Boundaries and Ordnance Survey 1840-1980 (Booth)5, An Illustrated Guide to Boundary Making (IGBM)6, A History of the Ordnance Survey (Seymour)7, Ordnance Survey Maps – a descriptive manual (Harley)8, Instructions to Field Examiners (IFE05)9 and Instructions to Draftsmen & Plan Examiners (IDPE06)10.

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3 Instructions for Detail Survey, Revision and Examination of Large Scale Plans (The Red Book), Ordnance Survey, 1952.
4 Administrative Boundaries in Great Britain, Ordnance Survey, 1951.
9 Colonel Duncan A Johnston, Instructions to Field Examiners, Ordnance Survey, 1905.
10 Colonel RC Hellard, Instructions to Draftsmen & Plan Examiners, Ordnance Survey, 1906.
So what do we learn from RB52?

Section E, paragraphs 91 to 94 deal with the perambulation and mereing of boundaries, these paragraphs are reproduced here:

Section E.

91. 1/1.250 Procedure

All Boundary, Old and New, will be perambulated and inserted on the Field Document in one operation at snowballing Stage. The B.P. Card is provided to furnish the data for perambulation and will be annotated and completed as a Record.

Property Right

92. The O.S. does not concern itself with property right further than is necessary to obtain the mereing for a public boundary. It frequently happens that an administrative boundary follows a feature which defines the boundary between privately owned properties. Where this is the case, it is necessary to ascertain the "property rights" in order to position the public boundary.

MR SMITH

4 FT. ROOT OF HEDGE.

MR. BROWN  MR. JONES

FACE OF WALL

MR. BAKER

FIGURE 1.

93. Figure 1 gives a simple example of what is meant by "property right". Messrs. Smith, Brown, Jones and Baker own properties of which the visible boundaries are a hedge, fence and wall. The property right is shown by dots. Mr. Baker owns and maintains the wall, and the boundary of the property is said to be the face of the wall as shown. Mr. Brown owns and repairs the fence, and the division of the property between him and Mr. Jones is said to be the face of fence on Mr. Jones' side. Mr. Smith owns the hedge and has a property right extending 4 feet beyond it.

94. These property rights are usually quite easily ascertained by the perambulator from enquiries made to the owners on both sides of the property division in question. Such an enquiry is only necessary when a public boundary is aligned to this type of detail. When the boundary follows for example the centre of a road or railway, then of course no property right is involved, and the boundary will be shown as the centre of the feature as it was at the operative date.

RB52 Section E, paragraphs 101 to 104 also deal with the mereing of new boundaries. To précis the relevant content;

"The perambulator's job is to walk along the line of the boundary as shown on the BP Card, with the aid of a Textual Description if any, and to ascertain the mereings."

"Where the detail is a feature such as a wall, hedge, fence, bank, etc. he will ascertain the property right. Where no property right can be ascertained the boundary will be mered to the "Centre of" the feature."

"A boundary will be mered “Def” when the detail to which it is related has disappeared. A boundary will be mered “Und” when it is not and never has
been related to any detail along that portion of its length. Care however is necessary in perambulating New boundary where the detail is found to have disappeared. Enquiries must then be made as to the date on which the detail was removed. If this date was after the operative date for the New boundary the latter will be mered Def; if before the operative dated, the mering will be “Und”.

ABGB51 seems to reinforce RB52. Part III “Notes for the guidance of surveyors employed on boundary duties” contains the following; Chapter 19 “Boundary Perambulation” section (iv) “New Boundaries (Perambulation Ground Work)”. The relevant text is;

“Where a new boundary has been laid down to follow definite features which still exist at the date of perambulation, the Boundary surveyor will ascertain to which parcel the feature belongs and whether any property right is claimed beyond the feature. This must be verified on both sides of the line when the ownership is different. The existence of property right may be inferred in agricultural land by the presence of a ditch, etc., but in urban areas this may not be easy to determine; for instance at one time the position of fence posts and wall buttresses was a good guide to ownership as they were almost invariably placed in ground belonging to the owner of the feature, but where modern large housing estates are concerned the allocation of the fences in the title deeds may be quite at variance with appearances on the ground so enquiry is necessary in all cases. Where boundaries follow fences through a council estate either “F.F.” or “C.F.” merings may be adopted as the local authority wishes.

When these facts have been established, the boundary symbols will be inserted so as to include the whole of the property or parcel in the one local government area.

When the parcel to which the feature belongs cannot be established and neither of the adjoining owners claim exclusive rights, the boundary may be mered “Centre of” the feature.

When the feature is found to be entirely obliterated at the date of perambulation enquiry should be made as to the date of removal; and if this took place before the date of the Order establishing the boundary, it should be mered “Und” along the site, but if on the other hand, the feature was still in existence at the date of the Order, the merings should be “Def”. If the date of removal is difficult to obtain, the boundary should be mered “Def”. “Und” or “Def” should not be used where a definite track can be observed. In such a case the mering should be “track of” with due regard for property right where such, on local enquiry is found to exist.”

ABGB51, Chapter 20 “Property Right” contains the following text;

“As a general rule O.S. does not concern itself with private property boundaries nor with the property rights which may be associated with them, except when, as is often the case, a public boundary is laid down to follow a private boundary.
The O.S. surveys the physical features visible on the ground such as field fences, roads, rivers, etc., and does not enquire into the relationship between these features and private boundaries; but when a public boundary is being perambulated this information is ascertained with a view to ensuring that properties are not placed unnecessarily in two local government areas and in order to record the mereings as an aid to maintaining accuracy during subsequent revisions. The following notes (which are not exhaustive) are intended to indicate the nature of the enquiries to be made. When the property on each side of the boundary is in different ownership the information must be verified by both parties.

**Hedge, Bank, Fence or Wall (not associated with a ditch)**

The feature may be jointly owned and repaired, in which case there is no property right and the boundary will be mered “Centre of” ……………The feature may mark the boundary and belong to one owner who claims property right beyond it;……

**Hedge, Bank, etc. (associated with a ditch)***

These form a common type of boundary and the principles relating to them are widely recognised as they have figured in many court actions. Most fields which are (or can be) used for arable purposes are ditched around the margins for drainage purposes. The custom of ditching is as follows. A farmer digging a ditch must dig it in his own property. He normally starts the ditch at the extremity of his land and throws up the earth as a bank, also on his own property, The bank may remain as a bank or a hedge may be planted upon it………..The width of the ditch may be governed by local customs or may be laid down in an inclosure award, etc. The local custom was ascertained from the parish meresmen at the original survey and the distance used for the mereings of existing boundaries is a guide to mereing new ones…………………….When the land on each side of the boundary is in different ownership both parties must agree to the mereing…………………….Whilst the recognition of property right in mereings is generally accepted by both property owners and local authorities there are exceptions to this rule. For instance by a Court of Appeal ruling in 1939 it was decided that where land is sold by reference to O.S. parcel numbers and acreages and there is no reference in the conveyance to the ownership of the hedges or ditches, then the boundary will run along the centres of the hedges in the same manner as O.S. acreages are calculated. This ruling applies only to the interior fences of an estate which is being sold in lots. If the conveyance makes reference to the maintenance of hedges but ignores the ditches, each hedge will be included in its appropriate parcel and the boundary mered “R.H.” on the outside. If the maintenance of ditches is provided for, then mereing will take the normal course. When both parties are in agreement as to the mereing there is no need to enquire as to the terms of a conveyance. This is only necessary when a ditch is claimed by both the adjoining owners. Occasionally local authorities object to the insertion of
property rights to new boundaries fixed by reference to deposited maps (e.g. the boundary alterations under the London Government Act 1899, which were prepared on O.S. 1:1056 impressions and concerning which the Local Government Board ruled that the edge of the colouring defined the boundary) and such cases are reported through Region Office to Boundary Section for decision as to the course to be adopted.

**Freeboards**
These are described in the earlier editions of this text-book as follows:- “Freeboards (or Freebords) are usually open spaces by the side of boundary fences, varying in width from about 5 to 24 feet and were provided by ancient forest laws for the recovery of game and repair of fences”; and in reference to ditched boundaries “freeboards are sometimes ditched on the contrary side of the fence”.

*The correct application of property right is important, for example it may help to decide the ownership of hedgerow timber or assist in determining a case of disputed maintenance; as although Ordnance maps are not regarded as conclusive evidence they are generally accepted as good evidence.”*

Booth page 219 copies the diagram in RB52 Section E paragraph 92 with additional content showing how property rights affected the mereing of the boundaries. This page also contains the text “Property right as such is no concern of Ordnance Survey but, where a boundary is defined as the curtilage of a property, the limit of such property is the alignment of the public boundary”. The diagram on this page, with its accompanying text, clearly shows that the public boundaries have been mered to coincide with the limits of the properties as described in the text, (as does the diagram and text in RB52 Section E paragraphs 91 to 94).
Interestingly, on page 409 of Booth is the text;

“Public boundaries shown on OS maps are not evidence of the position of private property limits. The Ordnance Survey Act 1841 Section 12 clearly indicates that the Act is “not to affect any boundary or rights of property whatsoever”.

I have reproduced Section 12 of the Act here:

12. Act not to affect any boundaries or rights of property
This present Act, or any clause, matter, or thing herein contained, shall not extend, or be deemed or be construed to extend, to ascertain, define, alter, enlarge, increase or decrease, nor in any way to affect, any boundary or boundaries of any county, city, borough, town, parish, burghs royal, parliamentary burghs, burghs of regality and barony, extra-parochial and other places, districts, and divisions, by whatsoever denomination the same shall be respectively known or called, nor the boundary or boundaries of any land or property, with relation to any owner or owners, or claimant or claimants of any such land respectively, nor to affect the title of any such owner or owners, or claimant or claimants respectively, in or to or with respect to any such lands or property, but all right and title of any owner or claimant of any land or property whatever within any hundred, parish, or other division or place whatever, shall remain to all intents and purposes in like state and condition as if this Act had not been passed; any description of any such land, with reference to any such hundred, parish, or other division or place whatever, or otherwise, or anything in this Act contained, or any law, custom, or usage, to the contrary in anywise notwithstanding.

At some time in the past I have found and saved a copy of the Act with the following Notes printed below Section 12.

NOTES. The words omitted were repealed by the S.L.R. (No.2) Act 1888.

Ordnance survey maps as evidence. Ordnance survey maps are not evidence as to the boundaries of parishes or vils (Bidder v. Bridges (1885), 54 L.T. 529), nor as between private owners (Coleman v. Kirkaldy, [1882] W.N. 103), but may be used to show the position of a bridge or fence at the time the survey was taken (A.-G. and Croydon Rural District Council v. Moorsom-Roberts (1908), 72 J.P. 123; Caton v. Hamilton (1889).53 J.P. 504), or of some visible track (A.-G. v. Antrobus, [1905] 2 Ch. 188), or to prove the position of the medium filum of a river (Great Torrington Commons Conservators v. Moore Stevens, [1904] 1 Ch. 347). Maps are to be taken into consideration in determining the dedication of a highway; see the Highways Act 1959. s. 35, Vol. 15, title Highways.

It should be noted that the acreage stated on ordnance survey maps is measured from the stem of the hedge without regard to the ownership of the hedge or any ditch.

County. For meaning, see s. 15. post.
I think that Booth on page 409 has misinterpreted what the Act says. The Act is actually saying that the process of mereing a new boundary will not change any pre-existing private property boundaries. When the instructions in RB52 and ABGB51 are considered it is clear that, before the 1990s, new public boundaries must have been mereed to coincide with property boundaries. The public boundary therefore actually is evidence of the position of the original private property boundary, and unless there is clear evidence that the limits of ownership have changed since the original mereing of the public boundary it must be presumed that the private property boundary still coincides with the public boundary.

The notes below Section 12 of the Act state, “Ordinance survey maps are not evidence as to the boundaries ………between private owners (Coleman v. Kirkaldy, [1882] W.N. 103)”

I have been unable to trace any record of Coleman v. Kirkaldy, but this judgement is surely a contradiction of the evidence of the rigorous way in which the Ordnance Survey surveyors were instructed to mere the boundaries to coincide with property boundaries.

I would welcome the input of any readers of this article with the relevant legal knowledge and experience on this point, especially if they can track down the record of the proceedings in Coleman v. Kirkaldy.

IGBM contains the following at paragraph 2.2.8:
“In no case should roads, etc carried on viaducts or running through tunnels be used for boundaries as they may divide property ownership”

Harley, at page 39 states;
“One result of Ordnance Survey’s legal commitment to show public boundaries is that proper care has to be exercised in their survey and delineation. Boundaries of private property are not surveyed or recorded as such. Public boundaries, however, are often defined by private property limits including the centres of streams………………..Because boundaries are invisible and cannot be surveyed by direct methods, their precise location in relation to visible ground features is recorded by perambulating the boundary line and ‘mereing’ it to those features. This is done as part of the normal survey task for the resurvey or revision of a basic scale map. The term mereing has also been extended to apply to the written statement indicating the precise relationship of a boundary to the adjacent detail (for example, 4 ft RH = 4 ft from root of hedge)…………Since 1969, boundary mereing distances have been metricated and, on all new maps, are published to the nearest centimetre, i.e. a conversion of existing mereings to two decimal places of a metre.”

Concise guide (Oliver) Chapter 4, pages 78-80, unsurprisingly, explains the mereing process in essentially the same terms as RB52 and ABGB51, though the

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legal necessity for Ordnance Survey to be responsible for mapping public boundaries under the terms of The Ordnance Survey Act 1841 is questioned. I can find nothing in NCSS, IDPE06, IFE05 and Owen that sheds any more light on the central issue of this article, which is:

*Can the line of a public boundary on a modern Ordnance Survey large scale map be presented as evidence of the position of the boundaries of the private properties on both sides of the boundary?*

My own opinion is that when a public boundary is mered to a physical feature it is because the Ordnance Survey surveyor who conducted the original merering process:

- must have made extensive enquiries with all landowners affected by the position of the boundary
- must have reached agreement with the landowners about the private property boundary between their properties
- and must have mered the public boundary to agree with the property boundary

Unless there is clear evidence that the position of the private property boundary has been changed since it was used to mer the public boundary, the position of the public boundary, as indicated by the merings on the map, must still indicate the correct position of the private property boundary, despite the ruling in *Coleman v. Kirkaldy*.

This article is intended to provoke a discussion, and expressions of opinion are invited, especially from those with knowledge of the relevant laws, if more light can be shed on the topic.

I am indebted to Anne Taylor at Cambridge University Library for copying relevant parts of RB52 for me, Richard Oliver, formerly of Exeter University, for his advice on research sources, for copying the relevant parts of ABGB51 for me, and for proof reading and correcting this article before submission to Sheetlines and to Ordnance Survey for providing a copy of RB52 Section E paragraphs 91 to 94. Any errors remaining in this article are entirely my responsibility.

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Ley-lines from paper maps

Eric J Sargeant

Twice recently I’ve come upon articles denigrating Alfred Watkins’ two works on ley-lines, *Early British Trackways*² and *The Old Straight Track*,³ whereas in June we ley-hunters commemorate him with the erection of a new standing stone at the Blackwardine crossroads which were the site of his revelation.⁴

According to Dr. Ronald Hutton:⁵ “There are lots of reasons why orthodox scholarship is hostile to the concept of ‘leys’”. Ley-lines are: “one major aspect of the methodology of ‘alternative’ archaeology which is quite unacceptable to orthodox scholarship”. Nor does he accept that Roman roads are pre-Roman. Although dowsing, remarkably, *is* approved of by Dr. Hutton, saying: “But a book by two eminent academics and a dowser, argues sensibly from case studies for the efficacy of dowsing in church archaeology”. My copy cost me £4.50, knocked down from £18.99!

The second denigrator is Ken Hollamby in *Sheetlines*.⁶ The greater part of his article consists of quotations from Watkins’ two works. A footnote queries their punctuation and syntax. Maybe Mr. Hollamby is a pedantic academic as well. He reiterates, “in archaeological circles at least, the theory is not taken seriously”. Upon the extracts he makes a couple of cynical comments, saying that he was almost convinced, but now knows where he was going wrong.

Hutton’s “lots of reasons” seem to reduce to two.

1. That non-academic authors, such as the poet Robert Graves, have misled the uneducated public. Dr. Hutton is a double academic; Oxford *and* Cambridge.
2. That sites along an alignment may not be of similar dates. Maybe a bronze-age mound aligned with a Norman keep and a fifteenth-century church. However the inspirational influences at those locations are constant and timeless.

Likewise, twice recently I’ve found leys from paper maps. Firstly, Jeff Poole, a colleague at the East Midlands Dowsing group,⁷ had asked me to take a look at the village of Orton-on-the-Hill, Leicestershire. *Explorer* sheet 232 is dominated by four sections of straight roads marked ROMAN ROAD and labelled Watling Street, so that’s historically alright. The village has 2km of straight road at 124° to the grid. The first part named ‘The Green’, aligns the village church, dedicated to St Edith of Polesworth (SK 304039) and the crossroads at Main Street and Pipe Lane.

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¹ The author is a member of the Society of Ley Hunters and a CCS member.
⁶ Ken Hollamby, ‘Ley Hunting with Watkins’, *Sheetlines* 95,43.
⁷ East Midlands Dowsing group, www.eastmidsdousers.co.uk.
St. Edith’s church, Orton-on-the-Hill, Leicestershire. Three alignments go through the church, as shown on this extract from Explorer sheet 232
Moated mound at Stydd Hall Farm, Yeaveley, Derbyshire, and alignments at 95° & 147° as shown on this extract from Explorer sheet 259
It continues as Orton Lane and Sheepy Lane. Extended in the same direction the line connects the isolated cemetery at SK 330022, by the Twycross Road, and Earthworks, SK 351008 at Sibson. Going in the other direction there is 1.35km of trackway starting at SK 297045, obviously in-line on the map. The line passes through Newton Regis Garden Centre and the windmill symbol at Seckington. Then there is another 500m of trackway crossing Clifton Lane at SK 238038.

Perpendicular to that line, at 214°, another alignment through the church starts with the pond and church at Snarestone, SK 341095. This passes through Norton Juxta-Twycross, Twycross zoo and the crossroads on Norton Lane. It continues to the crossroads of Watling Street and Spon Lane at Grendon, SP 274995. Then onward through Speedwell Farm, White’s Farm, Pump House Farm, near a moat, Hurley Hall Farm’s moat, SP 251959, and East House Farm to Gnomon Wood, SP 237938.

A third alignment through the church, at 274°, starts with Market Bosworth church, SK 407033, going through a lake island at Friezeland Farm, SK 386034, then Hoo Hills, SK 376035, Temple Farm, SK 360036, and Cliff House, SK 344037. It continues through another lake island in River Anker, SK 257042, onto the remains of a Benedictine Priory, SK 252043.

My second example arose during a metal detecting dig with Derby Artefacts Recovery club. It was at Stydd Hall Farm, near Yeaveley, Derbyshire. In one of the fields we found a moated mound, overgrown with trees and fenced off from the animals. I noted its location as SK 182394. Tracing an alignment through that position across Landrangers 128 and 119 gives a line which justifies the dates argument – for modern geographers have again chosen two of the sighting sites as triangulation points. The line, at 147°, runs through Alkmonton church, SK 187385, Dairy House Farm, the long side of Barton Hall, to Hoon Mount tumulus to the trig point at SK 230318. In the other direction we have Snelston church, SK 155433, followed by Dun Low and Cart Low surrounded by numerous tumuli, before Soles Hill tumulus, the second trig point, SK 098525, and then on to Grindon church, SK 085545.

There are sections of ROMAN ROAD and dotted lines marked ‘Course of’ on sheet 128 looking like a E-W Equinox alignment. But, as with Watling Street sections don’t quite align one to the next. One section on the left hand side, above Wootons, SK 063390 to SK 086387 is at 95°. When extended right across the map it connects a short section at SK 147382, a tumulus at SK 182379 and two large plus ‘+’ markers for lost medieval villages, Alkmonton and Osleston. The map’s symbol chart says these mark ‘Position of antiquity which cannot be drawn to scale’. It continues clean through the centre of Derby and on to a road junction ‘a crossroads’ to the east of the city, meeting there with the A6005 ROMAN ROAD connecting Derventio camp, Sawley camp on River Trent, and Vernemetum camp on The Fosse Way.

[Photos by the author]

8 Derby Artefacts Recovery Club, www.derbymetaldetecting.co.uk.
Local authority revision of OS large-scale plans – a personal reminiscence

Peter Dryburgh

In the mid to late 1960s and early 1970s I was a Junior Planning Officer, firstly with Lincoln County Borough Council and subsequently Lindsey County Council. We relied heavily in our work on Ordnance Survey (OS) maps using mainly those at 1:1250 and 1:2500 scales to record planning data and to identify sites. However, in many cases these were not up-to-date. Particularly in the rural areas, updates had not been carried out by OS for many years; even within the City Council, the receipt of updates as haphazard as budget constraints often dictated how many SUSI updates we could purchase (nothing changes much in terms of local authority finance!)

It was our practice to update the OS maps (known as plotting sheets to us) through copying details from application plans once a development was complete. Occasionally, we might undertake an on-site survey for smaller sites. Out materials were Indian ink, a pen stylus, scale rules, tee square and set squares. The old-style stylus was difficult to use as it involved squirting a small amount of ink between two blades and then refining the gap between the blades to produce a fine line. A certain amount of trial and error went on using scrap paper before you would apply the stylus to the plotting sheet. It was certainly a blessing when Rotring started producing their drawing pens which allowed one to use varying thicknesses of line through proper nibs.

The master copy of several plans could be on film or tracing paper: it was essential in those cases to ensure that the film was clean and that grease did not get onto the area were working on otherwise blots could occur or the film would not take the ink. Mistakes or blots were rectified by the use of a single-sided razor blade when the offending error was ‘scraped’ from the film.

In some cases, such as the Conservation Area around the Castle and Cathedral areas we would trace from 1:500 OS maps, update them and make the buildings stand out from property boundaries by the use of broader lines around them and hatching different roof slopes. In many cases the resultant master copy would then be reproduced and further detail added through the use of colour or hatching to show building materials, road and footway surfacing, building types, ages etc. No computer graphics in those days!

Note from Rob Wheeler: Quite a few plans with revision by Kesteven County Council have passed to Lincolnshire Archives (LAO), but are not yet catalogued. One 1:2500 sheet within the City has recently come to light and will be deposited in LAO. I am not aware of any Lindsey sheets. Usually, on these revisions, the line-work follows OS practice; only by careful examination of the lettering can one see that this is not OS work.

1 The author retired in 2004 as Head of Planning and Building Control at North Kesteven DC.
2 SUSI: Supply of Unpublished Survey Information.
What went wrong on sheet 16?

John Cole

I cannot believe that Colonel Colby would find much fault with the present day 1:50,000 scale maps of Ireland. To me there are a host of pros and precious few cons to find on the Discovery series of the Republic and the Discoverer of the Northern counties. But, as is usual with the legendary quality of Ordnance Survey (or Suirbhéireacht Ordánais Éireann) mapping, it is the few disasters along the way which fascinates the enthusiast – this one anyway!

Richard Kirwan’s If maps could speak mentions the withdrawal of the 1991 publication of preliminary sheet 16 (then Benbulbin now Donegal, Fermanagh, Leitrim, Sligo) after a perusal revealed a number of causes for alarm. Thanks to Richard’s kindness I was able to see a section of this sheet containing some of the accidents and similar for the immediate corrections made. How bad was the rest I wondered? Well recently I was able to compare the whole 1991 sheet with the 2005 publication, with the following outcome.

Assuming that I have not missed anything obvious, there was nothing wrong with the contours or detail away from the coast, the latter being the problem as it stretches from Strandhill to just north of Bundoran. Perceived problems were:

- a ‘0’ value contour which inevitably fell on flat sandy beaches (strands in Ireland) or worse, in the sea
- high water mark missing altogether on strands
- areas of mud and/or shingle or rock, not fitting or overlapping low water mark

Apart from the missing low tide causeway to Coney Island (6238 to 6436) the only detail error spotted was a gap in the road at 6444. The village name Strandhill was also missing, as indeed was Coney Island.

However the major problem affecting the whole map was the type size for names. By way of example, Rosses Point (6340) and Rathcormack (6941) although in lower case lettering, were the same size as Sligo. Moreover, Rathcormack was clumsily written across detail, as was Ballyshannon (8842).

Much was improved when the second version of the preliminary map emerged – Coney Island and Strandhill had been ‘rescued’ (though the print size of the former was still smaller than the townland name), whilst the print sizes of Rosses Point and Rathcormack were much reduced, with Sligo enlarged (perhaps a little too dramatically?)! And the detail problems on the coast were resolved.

On the 2005 version all name problems appear to have gone away. The major settlements Sligo, Ballyshannon, Bundoran and Manorhamilton all appear in block-letters with Irish equivalents in sloping lower case beneath. Irish equivalents are added in many other instances especially loughs and mountains eg Benbulbin itself: Binn Ghulbain. There has been a considerable revision of townland names – some lost, some gained. These appear in the next to smallest

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type size. Antiquity annotations have increased whilst navigational annotations have decreased, though, amusingly, a lone navigation post survived at 6539 in Sligo Harbour. Beacons are retained, but whilst the lighthouse on Black Rock (5940) is shown by symbol, those described on the preliminary at Bonmore Point (6240) and Coney Island (6139) have both been removed from the map. Atlantic Ocean (6260) has become Donegal Bay (Ba Dhunna nGall). And amongst other items of detail appearing, such as electricity transmission lines, are dismantled railways, shown as pecked lines – the Sligo, Leitrim & Northern Counties (Slow, late and never coming as it was known to enthusiasts and long suffering customers); the Great Northern Railway of Ireland Bundoran branch and the Donegal Railways Ballyshannon extension. The small portion of County Fermanagh is uniformly shown with the Republic’s symbolisation. (Not always the case e.g. the preliminary of sheet 3 Donegal, Derry; 1993, where buildings of all description were shown with orange infill on the small portion of Derry.)

On the subject of names, mention might be made of the embarrassment described on page 150 of Richard Kirwan’s book, regarding the Irish equivalent (or lack of) on the preliminary version of sheet 70 Dingle, 1992 – like 16 then known as the Rambler series. I also have the 1994 First Edition of 70 (now Kerry) which has the Irish equivalents and in many instances the Irish only. Rather unfortunately (in my personal view) this spread to antiquities which were English in the majority of cases on the preliminary are now Irish only. In fact the preliminary of 70 seems a very good-looking map in my eyes – nothing wrong on the coast; white for land and green for woodland; not that the present green for land is disliked, woodland being reasonably clear with more generous use of tree symbols. The only unfortunate modern feature (again in my eyes) are the ‘heavy’ red pecks for the various ways, or even red dots for the lesser routes. Though the reason for these in a very important tourist area is fairly obvious.

Perhaps I should end with a local note on equivalent place names. As a Plymouthian domiciled in Cornwall for nearly fifty years I note that virtually every new or replaced road nameplate has a Cornish language equivalent beneath the English. And I’m well aware that vociferous exponents of Cornish would dearly love to see Cornish equivalents on the OSGB 1:50,000 and maybe even the 1:25,000 map.
The National Grid Provisional six-inch in Cambridgeshire

Rob Wheeler

The Provisional Edition of the six-inch map on National Grid sheet-lines gets a bad press. As Richard Oliver observes,¹ the great bulk of the series – those sheets published after 1954 – are similar to the final (Provisional with National Grid) edition of the County Series, except that they incorporate revision undertaken for the one-inch Seventh Series. Thus only those features which were shown at the one-inch scale have been updated. The sheets are emphatically not ‘snapshots’ of the landscape.

Looking at some sheets in Cambridgeshire, it would appear that the sheets tell us more about the post-War landscape than the above description might lead one to suppose. What I have done is to compare the National Grid provisional sheets against the final state of the County Series six-inch along the line of the A10 from Royston to the outskirts of Cambridge. The choice was influenced in part by the extent of development along this swathe in the 1940s and 1950s, in part by a certain familiarity with the road as it is today, but I have only drawn to a minimal extent on collateral sources for what happened when in this period. All the National Grid sheets in question were published in 1960 and bear the note ‘The whole sheet was revised for major changes only in 1952’. That date corresponds to the revision date for one-inch Seventh Series sheet 148.

My initial assumption was that the final County Series sheets were amended (and, of course, recast on National Grid sheet-lines) to produce the NG Provisionals. I have attempted to check this assumption: one can find examples of damaged lettering or ornament on the latest County Series sheets which appear in the same damaged form on the NG Provisionals. However, this does not prove that in some cases the draughtsmen did not start again from the 1939 security enamels.

I will start by drawing attention to changes which are editorial in nature and do not add to the information supplied by the maps.²

1. BMs were not to be shown, except in six-inch basic areas.
2. Remaining pumps were to be deleted; also railway company names, Poor Law unions and similar obsolete detail.
3. Buildings where part was hatched and part (being derived other than from large-scale plans) unhatched were to be redrawn so that the whole was treated in the manner of the larger part.
4. This change reflects an elaboration of the specification: whereas unhatched buildings had been introduced in 1938 to speed the drawing of the Special Emergency Edition, they now became an indicator of accuracy of survey: anything from large-scale plans made to proper standards was to be hatched, anything from air photographs or small-scale revision was to be unhatched.

² These are from Six inch Provisional series Drawing Instructions (Issued March 1955). I am grateful to Richard Oliver for this information, and for much useful discussion.
Limited redrawing of names was anticipated.

‘5.1 Names already shown which are still correct will not be replaced unless they are illegible, or very difficult to read due to faulty quality.

5.2 Names which are replaced due to bad quality … will be shown in the monotype style and size nearest approximately to the original type…”

Comparison of the Cambridgeshire sheets suggests that redrawing of names, especially names of villages, was extensive.

In what follows, these changes will be taken as given: it is changes in the topographical detail that interest me.

Let us start in Melbourn, between Cambridge and Royston, is a side-street called Water Lane. Figure 1 shows a house on the corner of Back Street – by 2015, renamed Orchard Road. The area has been redeveloped in recent years but in 1952, so far as I am aware, the house had not changed since it was surveyed in 1903. Running from the house to the road is a narrow building about 2m wide. It might be cart sheds, except that these would normally be open-fronted. Almost certainly, its visual impact is small.

Turning to the NG six-inch (figure 2), we find a complete travesty: the house is shown with an attached wing 6m wide, projecting towards the road. This misrepresentation actually dates back to 1903: there appears to have been a rule that buildings on the six-inch must not be less than about 0.7mm wide, in order to give sufficient space for shading and diagonal hatching. (For the first edition, with solid black buildings produced by direct photographic reduction from the 1:2500, this would not have been a problem.) This problem was avoided for buildings of squarish proportions by omitting anything below a certain area, but long thin buildings could be of sufficient area to qualify to be shown and the smaller dimension would have to be enlarged to the minimum. Here, the expansion in the width of the building has turned a detached outbuilding into an attached wing.

Continuing north out of Melbourn on the A10, we turn right into a new cul-de-sac of council houses, called Portway - though the street name does not appear on either the County Series or the National Grid Provisional.

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3 Fortuitously, the paragraph numbering in the original document fits that required here!

4 There is no point in visiting the site: everything has been swept away and replaced by modern houses.

5 This is only my interpretation, but I have noted other examples, such as a wing of the Judges’ Lodgings just outside the east gate of Lincoln Castle.
A quick comparison of the two sheets (figures 3 and 4) indicates that three blocks of houses have been added at the end of the cul-de-sac. A more careful inspection reveals that all the blocks have been redrawn – the change in proportions stands out more than anything else. This type of redrawing turns out to be very common. An inspection of 23 County Series ‘additions’ between Melbourn and Harston revealed seven instances where major redrawing had taken place, four instances of simple redrawing (defined as a building remaining the same shape but being moved slightly or having its dimensions changed), and one instance where the main structure had not been changed but outbuildings had been added; in eleven instances no change was discernible. It is difficult to avoid the conclusion that all ‘additions’ have been inspected on the ground and where necessary their position has been corrected.

Note also that Portway – the new road itself – has been redrawn, and now has canted corners where it meets the main road. This too can be seen in other places where ‘additions’ had been made: it is not only the buildings that have been subject to graphical revision but also the edges (ie fences) of roads.

At Portway, we can see that a fence has been added separating the older from the newer development. In the sample of 23 ‘additions’ mentioned earlier, there were six instances where fences had been added. These were normally fences defining a land-use boundary: residential on one side, agricultural or horticultural on the other. The new fence at Portway is unusual in that it is internal to the development, merely separating two phases. I will return to this point.

Some sheets present peculiar problems. At Royston, for example, there was large-scale revision of 1937-40,6 which had been generalised for incorporation in the post-War County Series. This reduction and generalisation seems to have been done afresh for the NG Provisional sheet: figures 5 and 6 compare the treatment of Royston’s eastern cross-roads.

Fig 3 (top): Extract from Cambs 58NE (Revision of 1901 with additions 1946-47)
Fig 4: Extract from TL 34NE
Fig 5: Extract from Cambs 58SW (with additions 1946-48)
Fig 6: Extract from TL 34SE

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immediately south-east of the cross-roads was an Art Deco cinema: note the
difference in shape between the two editions. In figure 5, there is a certain
vagueness about the projections on the eastern and western walls: are they
rectangular? are they intended to be opposite one another? Perhaps it was poor
draughtsmanship on the County Series that caused so much redrawing to be
done. That said, the drawing of the NG Provisional leaves a lot to be desired. For
example, the building east of the cinema was a swimming pool, being labelled as
such on the County Series. It seems to have been an open-air swimming pool: the
rectangular shape in the middle is shaded on its west and north sides, indicating a
hole in the ground. (Query: does this mean it was empty of water when
surveyed?) The NG Provisional leaves the central rectangle unshaded, but there
are also many unshaded buildings. The draughtsman simply appears to have
never got round to doing the shading. Note the redrawing of the road boundaries
at the crossroads. This may be associated with the change in the course of the
A10 through the town, but I have failed to ascertain exactly when that happened,
let alone whether the road junction was remodelled at exactly the same time.

Another oddity is associated with TL45SW, or rather with County Series Cambs
47SW. This latter sheet came out as a Provisional c1945, based, presumably, on a
Special Emergency Edition. Most such sheets appear also in a later edition making
use of RAF Air Photographs; this sheet did not. Thus in the County Series, the
houses SW and SE of the cemetery in figure 7 are shown crudely as two
elongated blocks. In contrast, figure 7 shows them neatly drawn and with all, or
most of, their dividing fences shown. Such care to delineate individual gardens is
not uncommon on County Series ‘additions’ from air photos, but it is not normally
encountered on work done for the NG Provisionals. So why do we find it here? I
would suggest that the final version of Cambs 47SW was indeed drawn but because the RAF
air photographs of urban areas were retrospectively classified, this sheet too was
classified and was never put on public sale (or released to the copyright libraries). By the
time that the NG Provisional was being drawn, the matter had been considered more carefully, it
had been agreed that the depiction of suburban houses on a main road was not
going to imperil national security, and in consequence the classified and otherwise
unrecorded 1950(?) edition of Cambs 47SW was used as a drawing base for the NG
Provisional.

The housing estate laid out around the Recreation Ground on figure 7 can usefully be
compared against a modern Googlemaps satellite image. The OS map looks sloppy, and
it is.
a. The block at 1 ought to be aligned with the other houses alongside it.
b. The pair of semis at 2 should have the same dimensions as the three pairs to its north.
c. The change in set-back of the blocks at 3 is far less than is shown.
d. At 4 the Eastings of the western end of the blocks facing N and SW should be the same.

The sloppiness here is not unique: Queens Close, Harston, (TL432513) is even more hastily drawn. In fact much of the housing that appears for the first time on the NG Provisionals is drawn to standards reminiscent of the Special Emergency Edition.

Thus the ‘white’ buildings on TL45SW fall into three categories:
1. Those drawn from air photographs as part of the County Series additions of c1950.
2. Redrawing of these additions, based (presumably) on graphical revision on the ground.
3. Additions based on the 1952 revision undertaken for the one-inch, and drawn to something like Special Emergency Edition standards.

For most sheets, we can distinguish (1) from (2) by looking at the latest County Series edition; here the only indication that allows us to separate the phases is the inclusion of details that were being ignored in phase (2). In contrast, phase (3) work stands out – at least, some of it stands out – by the poor draughtsmanship.

If both (2) and (3) were drawn in 1952, why is there such divergence in styles of drawing? I can only suggest that they were not actually contemporary. They cannot have been greatly separated in time: (2) must have been done between 1950 and 1952; but it is conceivable that the sheer volume of revision material that arose from the one-inch revision overwhelmed the available drawing effort.

One piece of evidence that tends to support the idea of a separation in time between (2) and (3) has already been mentioned: the internal fence at Portway. I suggest that this fence was drawn in phase (2), whereas the houses beyond it were drawn in phase (3). Thus, when the fence was drawn it would have separated a built-up area from farm land, in line with the other phase (2) fences.

What conclusion can we draw from this? The assertion that the NG Provisional sheets are not a snapshot can indeed be endorsed. What has emerged is that the sheets do provide topographical information that adds to what can be learned from the latest County Series and the earliest one-inch Seventh Series, particularly in respect of buildings erected after the last full revision of the County Series but before the visit of the surveyors responsible for the Seventh Series. Unfortunately, the interpretation of that information can be exceedingly difficult. For example, where late County Series ‘additions’ are redrawn on the NG Provisionals, is the new map correcting poor photo-interpretation, or is it recording a change in the buildings that took place subsequent to the date of the photographs? To get the most out of the NG Provisionals, one ideally needs other sources, documentary, archaeological or photographic.

*The map extracts are taken with thanks from National Library of Scotland website.*

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7 I use the term to include the examination of standing buildings.
**Washed out**

An interesting area of OS mapping that I have commented on before has bubbled up again and then sunk. This is the definitive footpath across Newdale pool in Telford (SJ 6771 0940).

An out-of-date definitive map and an update to the layout of this area on OS mapping resulted in a footpath still being correctly mapped as going across a new pool that had been constructed on development land (figure 1). On contacting the OS they confirmed that they did show the definitive routes that they were aware of, regardless of how impractical it might be on the ground. I had used this example in many talks that I given on rights-of-way and access, so it was with some surprise that on looking at the latest mapping (figure 2) the route through the pool had disappeared!

There had been no Definitive Map Modification Order (DMMO) processed as far as I was aware, so there must be another explanation. Maybe the blue, (water layer), is now displayed above other detail, which would obliterate the definitive line of the footpath?

We are all aware that OS maps are not legal indicators of definitive rights-of-way, but they are frequently used as one form of evidence in public inquiries. It will be interesting to see if this ‘hiding’ of routes is being done elsewhere in the UK as it could impact negatively on any claims made on routes in the future. For now I will continue to exercise my right to swim across!

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1 ‘Changing the map – a brief introduction to Definitive map modification orders’, *Sheetlines* 97, 20

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**Figure 1:** 2014 map, footpath across a small lake  
**Figure 2:** 2015 map, footpath disappears into the lake

*Anthony Francis-Jones*
Tunnel vision?

Here are two proposed railway tunnels, shown on pre-war Bartholomew maps, which never materialised. Were these ever shown on OS maps? Can readers provide other examples of proposed civil engineering enterprises shown on OS or Barts maps which didn’t happen?

Left: Isle of Wight tunnel on Barts half-inch sheet 33 of 1927.
Below: Channel tunnel on Barts quarter-inch sheet 12 of 1913.
Internal divisions in buildings
Rob Wheeler

‘Divisions between contiguous houses ... and between parts of a building of different character; for instance between a dwelling house and an outbuilding with a separate outside door ... ’ have long been marked on large-scale plans.1 The instructions do not actually state that where there is internal communication, no division is to be marked; nevertheless the presence of internal communication could create ambiguities as to where the dividing line should be shown. The underlying rule seems to have been in practice that dividing lines delineated those parts of a building that were accessed of necessity by different entrances, or rather the limits at ground floor level of the respective domains.

There were exclusions: divisions between contiguous small outhouses were ‘not to be shown’. Lines of privies and wash-houses behind cottages seem to have been what the drafter of this instruction had in mind, but in Lincolnshire these divisions are nevertheless usually shown. A new instruction in 1937 excluded outhouses of less than about 16 square metres attached to houses; I have not looked at enough sheets of this vintage to make any comment on this.

The underlying rule is very useful when using OS plans to interpret the history of a house, so useful in fact, that one would like to know how rigidly it was followed. The account given here is intended as a warning against too strong a reliance on it.

The building at issue is shown in figure 1. It is an early-eighteenth century farmhouse on the site of the manor house belonging to one of the parts of the manor of Bassingham, Lincolnshire. It is built of brick, laid in Flemish bond. Nearest to the camera is a single-storey attachment with a complicated building history: the brickwork up to eaves level is of eighteenth century dimensions, laid in a form of garden-wall bond (the occasional courses of headers are at variable spacings) and with blocked openings. The gable is in larger, nineteenth century brickwork; faded paint declares it to be the premises of a painter and decorator. It is entered by a plank door and has a single window of a type often found in workshops of this date.

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Figure 2 shows the house on 1:2500 Lincs 85.4, revised 1905. The depiction is a little complicated because there is also an attached outbuilding at the back of the one just described. This is still extant and is thought to have been a wash-house; it is built of brick, of nineteenth century dimensions. The map also shows a detached rectangular outbuilding (no longer extant). In the course of printing, its SE wall has fused with the NW wall of the house but there must have been a gap between them, otherwise that SE wall would not have been shaded. Further outbuildings straddle the edge of the map extract; these are extant but irrelevant to the discussion. The key point about figure 2 is that there is no internal division between the house and the presumed workshop.

The deduction one would normally make from this is that there must have been internal communication between house and workshop. However, it is possible to inspect the full length of the internal wall from inside the workshop. That wall may be presumed to have been originally the SW external wall of the house. Towards the house it is covered by plaster but towards the workshop the bricks can be seen under a layer of paint. Those bricks are of eighteenth c. dimensions, laid in Flemish bond; there is no evidence of a blocked doorway, nor of any other opening. It is clear that nothing has been done to the wall for some decades.

Of course, it is possible to rebuild a wall re-using old bricks, such that evidence of a former opening is completely lost. The extra trouble and expense might be thought worthwhile for a building of some status where the wall is visible externally. But here, the brickwork was only visible internally from a room that has never been other than a workshop or shop. It therefore seems highly unlikely that there was ever any internal communication. Any deduction to the contrary made from the map seems to be mistaken.

By way of additional information, figure 3 shows an extract from the First Edition of the six-inch County Series, surveyed 1887. At this date the presumed wash-house had not been built, and there seems to have been a front porch. No internal divisions are shown. So the error on the map (and it is difficult to see how it can be other than a breach of the instructions to surveyors) goes back to 1887. One presumes that the reviser in 1905 noted the addition of the wash-house and may even have confirmed that there was no communication with the rest of the house, but saw no need to investigate anew the status of the workshop.
“Have you got any swaps?”, a question most of us have not been asked since childhood. But for those who collect Ordnance Survey maps, it should be forever in the air. For various reasons, most collectors have maps they do not particularly wish to keep, and so often they sit in a box, of no use to the owner and separated from someone who would like them. I am sure that in the past, the map market at the AGM has been advertised as being for those who wish to buy, sell and swap maps. But very little swapping takes place. Maybe we should add a note to the details of other meetings: Bring your swaps with you. But we don’t.

As early as the second issue of Sheetlines, Campbell Kennedy tried to encourage us by mentioning a few surplus maps and what he was looking for. Over the years, others have tried the same thing, but it has never become established as a regular fixture at the back of the magazine.

Maps become swaps for two reasons, the first being that they are unwanted. They might be duplicates, where a map already held has been bought in error, or a better copy acquired, or where variants of a map or cover have been collected and are no longer of interest. They might be purchases that could not be passed by, even if unwanted for the collection. Unsolicited gifts and collection weedings can also end up as swaps. The second reason maps become swaps is because the owner desires other maps more than those held, and the second collector will not sell, only exchange. A little reluctantly, a deal is done. Surely this is all part of collecting: I want, how do I get it? In the nicest possible way, of course.

When we were young and collected cards of various sorts, my memory is that we knew some cards came up frequently, and others less often, but the basis of exchange was always one for one. We never demanded extra for a card which Brook Bond printed in limited numbers in order that more packets of tea were purchased in the search for them.

In such an area of collecting, with no ‘structure’, swapping is easy and painless, as one does not have to worry about parting with mega rare items; it might cross our minds, but we do not worry because nobody knows what they are. I might have mentioned that at one time, I had a contact in America who collected both oil company maps and credit cards. So did I, and we swapped these one for one. It did not matter if he sent me exceedingly common 1960’s American VISA cards, I did not know, whilst the maps I sent him were of equal value in my mind; even today, I only know one British collector of oil company maps who can reel off a list of the scarce and rare items. I most certainly cannot, but they do exist, or are rumoured to.

Again, when telephone cards first appeared, they were of interest as I am fascinated by the variety of designs one can get on such a small area. I amassed hundreds of standard British Telecom green cards and when we went on holiday to France, took a bundle. As over here, one can find collectors’ shops, and I was able to swap my cards for some French telephone cards, with minimal French spoken. All a bit primitive, and rightly so. Ah, bring back the barter economy,
two dozen eggs for a pound of butter, or fives Pops for fifteen Seventh Series 
depending on which sheets). Surely we should indulge in more swapping of 
maps as it is both useful and enjoyable. If you swap, you get rid of stuff which 
has been annoying you and cluttering the place for far too long. You do not want 
it, and have taken leave of it as part of your collection. So it would be wonderful 
if someone were to take it off your hands, and if in return they gave you 
something you want, things are looking up, especially as you have not spent a 
penny, given that we never remember what we paid for clutter. A few sought 
after maps replace clutter, with wallet intact.

So, off-we-go-a-swapping, mindful that any swap must be fair to both sides. 
Once two parties desire something the other owns, negotiations can commence. 
As when children, the easiest path to follow is one for one, which is quite 
possible with maps from large series such as the 1:50,000, where vast swathes of 
sheets are fairly common and one can freely swap one for one in the same 
condition. Similarly for the Seventh Series in England and Wales, where there are 
not that many less common sheets to be careful of. Exchange, expand the 
collection and enjoy it. The same goes for anything about which little is known 
by collectors in general, with no common or scarce items being common 
knowledge. Unlike most series, I have never kept records of the frequency with 
which pre-1923 Irish one-inch maps appear, and do not know the less common 
sheets, so could happily swap one for one. They all look the same to me.

Once we venture into the realm of less common, scarce and rare maps, things 
become trickier and both sides need to be alert, as things can get complicated. 
Although knowing market prices can help, they are often poor indicators of 
elusiveness. Someone might have been after a less common, medium price map 
for years and never found one, so might be willing to offer a scarce map selling 
at a higher price. In my experience, a lot of less common maps fetch very high 
prices as they have, in addition an attractive cover, whilst many exceptionally rare 
maps will only find a buyer if cheap, because they are rather dull maps in 
standard covers. When we pull away from the more easily found maps in any 
series, we drop the one for one exchanges. In the Popular Edition, Sheet 34 
*Mouth of the Humber* would only merit parity with a few other scarce sheets, and 
one would usually have to offer several less common examples from the same 
series to win it.

But at the top end, for those maps which are both truly rare, and sought-after, 
I suggest that parity would again reign. Maps which the lucky few will only ever 
have a single chance of obtaining must be swapped with the same. I repeat, a 
scarce and sought-after map should always be swapped, not sold. The sort of 
price they fetch is usually known, but try going out with a bundle of £50 notes to 
buy one. Impossible. This is why long established, white haired collectors have a 
wants list; some maps just do not appear. If someone badly wants your rare map, 
they will try to find something of equal interest to swap, which can only be 
beneficial to you. Sell your really rare map and you lose a bargaining tool for 
something you are desperate for. Suggesting a swap will often succeed where an 
exceedingly favourable financial offer would fail.
Forget the very rare maps, most of us do not have any, let alone several. Nor do some members have many maps to swap, so should they consider ‘buy to swap’ as a tactic? Yes, I would answer, you need to get swaps from somewhere. If, when you are out and about, you come across a very desirable map and the price is reasonable, my advice is to buy it, whether you want it or not, finances permitting. Should you not want it for any reason, it will give you a good swap, or could be a useful ‘thank you’, where money would be rejected. This holds for bright clean maps in any series, but does mean that you need to keep an eye on prices, and better still, get a feel for the scarce maps in any series or group.

Wherever the maps come from, the risk is that you will seldom find anyone who both has what you want and is willing to swap. So the extra maps mount up and you take one of two paths, either you have a stall at the AGM and start selling rather than swapping, or you take the swaps into your collection. I knew someone who collected early Giles annuals, some of which fetch a high price. He would buy second copies to swap if he came across them cheaply, and eventually realised that he had so many that he might as well try to put a second set together, without having completed the first. I have a vague memory of the same thing having happened with OS map covers, where a set of the Third Edition in any cover was being built, with swaps also purchased. After a few years, it was realised that the collector was well on the way to having both a set in white covers and another in decorative covers. The decision was taken to collect both, and the swaps held diminished.

Collecting is either in you or isn’t, and it is in me. And if one is not careful, it will lead to the pursuit of minutiae. Bring home a second copy of something as a swap, compare it to that held, spot a small difference and you are hooked. At one time I had about eight copies of the pre-war Oban cover, all slightly different.

As a mapseller, I like to swap if at all possible. It gets away from the sordidness of having to consider prices, and luckily, most customers who bring maps to swap say they expect, nay want, to go away with fewer items, although arriving with a handful of choice tourist maps can mean leaving with armfuls of more modern items. A lot of people are uneasy with the commercial process; they dislike selling, having to consider an offer in order to sell. They much prefer to swap. When most collectors swap to fill gaps, they seek a single copy of each sheet, whereas with a business, one holds multiple copies, and must take numbers held into consideration when swapping. I am far more likely to swap a scarce map for standard series sheets if I have several of the former in stock. Scarce, but locally abundant in Kerry.

I have seldom refused to swap, and generally, useful stock has been acquired, which saves having to find it, whilst the reduction of handling, cataloguing and packing means one can be generous when swapping with visitors who offload unwanted material and go home with additions to their collections. Sometimes one is offered something, OS maps, non-OS maps, an atlas, or whatever, and one does not really think it will sell, but would like to have it around for a while. In this case, a swap often works well, especially if as often happens, the owner wishes to take maps from a standard series, of which we have duplicates. A
situation where the customer is happy, and I can own and study the item whilst not missing the maps that have gone.

Readers muse back:
In Kerry musings (Sheetlines 102), David Archer challenges the use of the title Ordnance Survey to describe the organisation that produced Ordnance maps, as it existed before 1855. True enough, Portlock’s Memoir describes this organisation as ‘the survey’, and published references before 1855 usually refer to ‘the trigonometrical survey’. It is also interesting that, in 1858, whereas Col Henry James is described as Superintendent of the Ordnance Survey, he refers to General Colby as a previous Superintendent of the Survey.

However, insiders often truncate the names of their own organisation whereas outsiders need to make clearer distinctions. As early as 1820, the Times, on the death of William Mudge, refers to him as the Director of the Ordnance Survey of Great Britain. The minutes of the Hydrographical Office refer in March 1828 to ‘arrangements for the co-operation of the Naval and Ordnance Surveys’ ie the two organisations. Colby throughout the 1830s wrote to the Admiralty Hydrographer simply from the ‘Ordnance Survey Office’.

Nevertheless, as references to the organisation and its task are sometimes ambiguous, I found it harder than I expected to find other examples to dispute the Kerry musings. So it seems that they deserve our attention.

The Scottish puzzle proved easier. The Edinburgh Postal Directory from 1851-52 shows the Ordnance Survey Office (sic) at 13 Royal Circus, in the fashionable West End, and quite distinct from the addresses of the Ordnance, at the Castle and at Leith Fort. In 1853-54 it also includes the office chief, Capt Henry James RE at Erneston, Granton. This appears on the six-inch map as a substantial property in its own grounds, appropriate to the son-in-law of a major-general, if not to an army captain.

David L Walker

About the question of the Ordnance map and what users called it, I have a couple of pieces of evidence which may be relevant. I presented a paper for the conference on William Smith and his map on the occasion of the Bicentenary of Smith’s iconic ‘Delineations of the Strata of England and Wales with part of Scotland’. It was about the maps behind the map.

I have a copy (from Oxford University Museum of Natural History) of a draft note by William Smith from 1825, probably February (although it is undated, it was together with a similar draft ‘Scarboro’ Feb’y, 1825’ about geological colouring of maps. He was giving a series of geological lectures at the time at several locations in Yorkshire). This draft lists maps that he had obtained for field mapping. Most of the references are of counties ‘large’ and counties ‘small’; I can figure these out from the pre-BO/OS one-inch mapping (=large) available to him in his active period 1795-1824. The reference for Kent is, however, specific as ‘Kent-Ordnance Survey’.

In his 1830 book, A Geological Manual, Henry De La Beche refers to ‘sheets ... published by the Ordnance’. De La Beche went on to work within the Ordnance in the Geological Office created for him. So we have here two professional users in the same time frame using both alternatives. This might signal the period when the change in usage came about.

John Henry
Dr Ian Mumford (8 March 1925 - 14 March 2015)

Ian Mumford attended Latymer Upper school, where he and fellow pupil Peter Clark met whilst fire-watching in the dark days of the winter of 1942/43. Another contemporary was yet another former CCS member, Brian Adams (1924-2006).

Ian served as a captain in the Royal Artillery in Burma and India and, on return to UK, graduated from the LSE in Economics with Geography.

He worked in the map room at the Royal Geographical Society where he managed the reconnaissance photographs for Hillary’s successful ascent of Everest. He then moved to Military Survey where he joined up again with Peter Clark, rising through ranks of the Map Research Officer class. Twenty-five years later he spent four years as British Liaison Officer (Survey) attached to the Defense Mapping Agency in Washington DC. He then worked as a records reviewer and volunteered at the India Office Library at the British Library.

It wasn’t just work. Ian made a large contribution to our understanding of the history of the Ordnance Survey and of map making in general: as one of the founders, with Peter Clark and John Keates, of the British Cartographic Society, and its first Honorary Secretary, as author of several chapters of the official history of the Ordnance Survey,¹ as a contributor to the multi-volume History of Cartography and as a founder member of the Charles Close Society. He was elected an Honorary Member of CCS in 2006.

Ian worked to help people understand that there is more to maps than the lines on the page – especially with the move towards computerised map indexes and digital cartography. He made the interactive presentation Map as Artefact, in which he encouraged the audience to understand how varied maps could be and that important information could be written on the back, as well as on the front.

Brian Garvan adds: Ian’s contribution to the world of cartography was immense and the fruits of his many endeavours will be enjoyed by future generations for all time. I, like many others, owe Ian a huge professional debt. The fact that he gained his PhD in 1999 at age 74 (Milestones in lithographed cartography from 1800) is a measure of the man. But above all, my memories of Ian are much more personal – he was an admired colleague and a very good friend.

Letters

I’d like to add a postscript to Crispin Jewitt’s concise summary of War Office map archive material in The British Library. The 388 reports in fourteen ‘DMO Secret’ volumes from the private office of the Director of Military Operations went to The British Library from MOD Whitehall Library on Leap Year Day 2000, as part of a transfer of confidential print and departmental reference material not required by The National Archives. The safeguarding transfer was made on the basis that much of the contents was elusive Government of India print or informed India's nineteenth-century foreign mapping policy, and was part of an arrangement between MOD Central Services Record Reviewers (‘weeders’) and India Office Records engineered by Dr Ian Mumford, a founder member of this Society and himself then a Record Reviewer for Directorate of Military Survey archives. Sadly Ian Mumford passed away on 14 March this year, six days after his 90th birthday. He would surely have been quietly pleased to see one of his many unobtrusive successes in preserving mapping records noted in print.

Andrew Cook

I sympathise with Philip Fry concerning the decision by OS to discontinue 1:250,000 maps. I find them very useful for route planning. I do not have a satnav, but prefer to use ‘paper technology’. Nicolson Maps do produce 1:250,000 maps of Scotland, but have no intention to venture south. I am proposing to buy some Michelin maps at 1:400,000, since these appear to be suitable for my purpose. Their regional maps in the series 505-504 should be some kind of substitute for the discontinued OS series. The Tour Maps from OS do not cover all of the UK and are at differing scales, depending upon the area.

I am a relatively new member of the Society with an interest in maps, but have no technical background of mapping. The contributions to Sheetlines are interesting, if somewhat technical at times. Would it be possible to have a glossary of abbreviations? They may be obvious to most, but not always to me.

David Galer

Would any reader of Sheetlines be able help me in trying to date this publication (left) or supply any further information. It is a book of 103 pages of which 100 are index maps.

Forbes Robertson

The piece about the status of the road on the Isle of Jura reminds me of a difference of opinion I had with the OS on a
related matter. When my local Explorer Map (Sheet 181 Chiltern Hills North) was last republished in 2009, I found that some rural yellow roads had been downgraded to white roads. Thinking that this was probably an error, I took the matter up with the OS and was astounded by their response: that this was that it was a deliberate decision because these roads only served ‘a few houses or farms’ and therefore did not merit the yellow infill. I protested that it was not for the OS to arbitrarily decide on the importance of a road but that map users need to know the status of a route. The roads in question remain metalled county public highways available to all traffic but depicting them as ‘white’ roads gives no clue as to their status, or even whether they are private or public. I took the protest right up to Director General level but still hit a brick wall; they would not concede that what they had done was against the needs of map users.

I wonder whether any other members have come across this invidious practice or indeed whether it has been quietly dropped?

Examples of the roads in question are at SP49205 20708 to 49194 20790 and SP48595 20532 to 48595 20502.

John Savage

Members may wish to revisit (or visit!) my Landranger covers web page.\(^6\) It is at a stage now where additions and corrections would be very welcome prior to a planned forthcoming article in Sheetlines. I may be contacted either by the postal address in the almanack or at lez@watsonlv.net.

Lez Watson

Regarding Paul Bishop’s point about rivers and boundaries,\(^7\) my understanding is that when a river moves its course gradually, by accretion and erosion, property boundaries and administrative boundaries will normally move with it. When a river shifts by avulsion (sudden change) or by improvement works, then boundaries are frozen at their positions prior to the change. However, one ought not to neglect the scope for action by Inclosure Commissioners, General or specific, to restore boundaries to their more convenient centre-of-river position. Certainly, the places where administrative boundaries along the Witham depart from the river appear to correspond to clearance of shoals by the Navigation Commissioners.

Rob Wheeler

My thanks, Mr Editor, for adding the excellent collection of Landranger ‘exact shape’ thumbnails to my stations story\(^8\) – even if one exposes me as a ‘fibber’ and another brings up a really hot potato. Sadly, I appear wrong over Inverness though I claim it is a very large rectangle – looking at the large scale it would need only slight adjustment to agree! But what sent me hotfoot down to WH Smith to look at 139 and Birmingham (New Street) was the reduction to a

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\(^6\) [www.watsonlv.net/pdf/landranger_covers.pdf](http://www.watsonlv.net/pdf/landranger_covers.pdf)

\(^7\) Sheetlines 102, 29.

\(^8\) Sheetlines 102, 30.
rectangle and the hot potato in the form of a bus station. Smith’s copy, which presumably is not the latest, (C5 of 2009) shows large-scale outline and no bus station and this agrees with the Explorer I have. But being a bus enthusiast as well as railway, I responded to your challenge with a cursory glance at some first edition Seventh Series and saw trouble from the word go!

The corresponding One-inch sheet was 131 of 1950, which correctly shows no bus station in Birmingham at the time. It does show one at Stourbridge, which is stretching things, but not at Walsall, which certainly was there at the time (ironically I later surveyed it at 1:1250 scale). Conversely, sheet 122 of the same vintage shows all six of Leicester’s bus stations plus the two I know of in Nottingham. I’m nowhere near as well up on bus stations as rail so I’m not in a position to investigate this, but if some reader has all the Sevenths they could have a real ‘field day’.9

By way of examples, at Leicester in 1950 there was no argument that St Margaret’s and Southgate Street were the main bus stations. But as far as I know, The Newarke, Newarke Street, Northampton Square and Western Boulevard were no better than on-street terminals, albeit with shelters. Anyhow, if the intention was to show these as stations then Belgrave Gate, a seventh, was left off.

Walsall’s bus station dated from 1938 (platforms and shelters etc). Whether Stourbridge’s Foster Street garage was such is debatable and in any case there was another large terminal (both Midland Red owned) nearby.

The only Landrangers I have are for Cornwall and Plymouth but I can report that all the Cornish examples: Penzance (Railway Stn), Falmouth (The Moor), Truro (Green St), Camborne (Union St), St Austell (Railway Stn), Newquay (Manor Rd) and Plymouth (Breton Side) are correctly shown.

John Cole

CCS members may be interested to know that we have now scanned 16,000 sheets of the OS 25-inch England and Wales mapping – just counties covering London and SE England so far, but expanding slowly west and north.10

Chris Fleet, National Library of Scotland

Lyn and I have been overwhelmed by the kind messages and gifts sent to us by so many members of the Society following our car accident. Thank you all so much.

Mike and Lyn Cottrell

(who were the victims of a serious motor accident in January and are now gradually recovering and making steady progress). We add our best wishes [Ed]

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9 In fact, the full set of Seventh Series maps is available to view at www.CharlesCloseSociety.org/CCS-sheetfinder and complete current Landranger coverage is at www.CharlesCloseSociety.org/OSMap

Danger! unexploded maps!

Above is part of a Transport for London publication of March 2015 describing progress on the Northern line extension to Battersea. Evidently one of the potential hazards is dangerous maps.

Water, water, every ... where?
Can you identify these lakes, lochs and llyns? No prizes, but correct entries win a special mention in December Sheetlines (which will also have the answers).