



Sheetlines

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

This edition of *Sheetlines* was published
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superseded by later research.

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Published by
THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps
www.CharlesCloseSociety.org

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

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



ISSN 0962-8207

SHEETLINES

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Forthcoming meetings – 2005

11 March: Royal Geographical Society

Now that the alterations to their premises have been completed, and the archives there opened to the public, members might like to see what is available, and how to access this information. We shall of course be treated to a display of some of their rare maps, selected by Francis Herbert, one of the founder members of the CCS. There will be a limit of ten attendees for this visit.

April: Defence Geographic Centre, Feltham

Our last visit was to their previous location, as it was closing, and Peter Jones then said we would be welcome to visit their new home once they had settled in. The actual date will be publicised on our website as soon as it is confirmed.

14 May: Annual General Meeting

By kind invitation of the Ordnance Survey, the 2005 AGM will be held at OS Headquarters, Maybush, Southampton, formal business commencing at 1200.¹ Further details will be provided nearer to the time, but we anticipate that the AGM will be preceded by a talk and followed by the members' map market.

Week commencing 6 June: OSNI Belfast plus ...

Following our successful visit to Dublin this year, Stan Brown at OSNI has kindly offered us a visit there, and has suggested some other Belfast locations we should be able to visit; as a result we now also have invitations to the Geological Survey, Public Records Office and Queen's University, so making this another three day event.

9 August: CCS Archives at the Map Department, Cambridge University Library

Our previous visit was very useful in showing members the sort of information that is stored there, and how to access it. Anne Taylor, the Head of the Map Department, has kindly offered us a further visit to enable more members to see some of our archives.

¹ As usual, the AGM will take place on a Saturday. Note that the date given on page 18 of *Almanack 2004* is incorrect.

30 August: Badley Library, Larkhill

This is the library for the School of Artillery, and we made two visits there last year. See page 5 and Frank Prest's report in *Sheetlines* 70. This date is the day after the annual one-day opening of Imber village. There will be a limit of 6 attendees.

21-23 October: Harmston weekend

This workshop at Harmston, near Lincoln, is intended to give members an opportunity to tackle an unfamiliar map series using the French 1:50,000 (Type 1922) as an example. The result will not include a cartobibliography but should result in a series description for *Sheetlines*. Basic accommodation will be included in the price.

November: 25th Anniversary Celebration

Details of this event will appear in the next edition of *Sheetlines*.

Places for all events except the AGM are limited and are allocated on a 'first come' basis. Contact Gerry Jarvis, Rulow House, Buxton Old Road, Macclesfield, SK11 0AG, telephone 01625 611594, or email visits@charlesclosesociety.org.uk.

Midland Group Meetings

The Midlands Group of the Charles Close Society will hold a 1:50,000 (*Landranger*) map cover workshop with Lez Watson on Thursday, 13 January 2005. Bring your own examples to help create a new, up-to-date, list of covers for the Ordnance Survey's 'most popular' map.

The subsequent meeting will take place on Thursday, 12 May and this will be followed by a 'bring and browse' meeting on Thursday, 8 September.

All meetings will start at 19:30 at the Voluntary Services Centre, Union Street Car Park, Union Street, Burton upon Trent (SK 246229). More information from Lez Watson at 54 King Street, Burton upon Trent, DE14 3AF, leslie@watson.as, (01283) 541303.

Congratulations

At their symposium held at the University of Durham in September, the British Cartographic Society presented Dr Christopher Board with the BCS medal, the Society's highest honour, awarded to persons who have made a distinguished contribution to cartography.

In his citation,¹ Michael Wood referred to Chris's selfless service to the geographic and cartographic communities for over four decades: 'As a tireless leader at national and international levels, his academic, organisational and unique personal abilities have combined to help transform ideas in cartographic thinking and to focus the many diverse cartographic groupings in the UK towards important global goals.' As well as Michael Wood himself, previous recipients include Helen Wallis, J B Harley and Ian Mumford.

We are delighted to congratulate the Chairman of the Charles Close Society on this well-deserved honour.

¹ See www.cartography.org.uk/Pages/Awards/ChrisB.html for the full text.

Congratulations also go to Peter Chasseaud, recently awarded a PhD by the Department of Earth Sciences at Greenwich University for his thesis ‘An analysis and evaluation of British, French and German military field survey and mapping in the First World War. Which country produced the best survey and mapping of the Western Front?’.

We look forward to its publication to find the answer!

NLS and RCAHMW websites

Peter Milne reports that the latest additions to the National Library of Scotland Map Library website might be of interest, not least for giving online access to mapping of Scotland up to 1:10,000 scale.

Ordnance Survey National Grid paper maps for Scotland, 1944-1991

<http://geo.nls.uk/indexes/info.html>

This pilot application illustrates web-mapping search methods to retrieve geo-referenced records for all Ordnance Survey National Grid paper maps for Scotland at 1:2500 and 1:1250 scales (excluding 100Km square NY). These include 45,000 records for sheet maps surveyed between 1944 and 1991 in the National Library of Scotland’s collections.

Bathymetrical Survey of the Fresh-Water Lochs of Scotland, 1897-1909

<http://geo.nls.uk/bathymetric/>

This pilot application illustrates web-mapping search methods to retrieve geo-referenced records for digital images relating to the Bathymetrical Survey of the Freshwater Lochs of Scotland, 1897-1909. The application includes 562 loch locations, shown as blue dots on the map, with records and zoomable map images from the original Bathymetrical Survey charts for each loch.

Meanwhile, ‘doffcocker’ pointed out in the www.yahogroups.com/ordnancemaps discussion group that 1:10,000 maps of Wales are now available at www.rcahmw.gov.uk, the Royal Commission on the Ancient and Historical Monuments of Wales website. Their database is online under the name *COFLEIN*, this is similar to the RCAHMS *CANMORE* site and also links to 1:10,000 maps like *CANMAP*.

Your editor was surprised to discover that his local phone box was duly listed as an ancient monument, described as ‘post medieval’. When using this website it is important to let each page download fully before attempting to click on any of the control buttons.

Tidal bounce

Peter Haigh draws attention to research conducted by Dr Peter J Clarke and his team at Newcastle University’s School of Civil Engineering and Geosciences, reported in *The Sunday Times*.¹ Using GPS Dr Clarke has measured the regular, twice-daily, rise and fall of the land surface caused by the weight of water on the continental shelf varying as the tide ebbs and flows.

¹ Abul Taher, ‘Britain bounces as tide goes out’, *The Sunday Times*, 29 August 2004, 1.6.

The effect of tidal loading is apparently greatest with the large tides of the southwest, where a long, thin peninsula is exposed to the Atlantic Ocean. *The Sunday Times* reports that Cornwall rises and falls by four inches with each tide. Areas of the coast with a smaller tidal range are less affected, Liverpool having a tidal ‘bounce’ of less than one inch.

As Peter Haigh remarks, a cynic might infer that the worst place in England to put a tidal gauge would be around Newlyn in West Cornwall. Liverpool would be much better.

The British Geological Survey, Keyworth, 6 July 2004

Gerry Jarvis

As the organiser for this visit, I found myself in the unfortunate position of being last to arrive, due to traffic problems en route. I was still within the start time, but at the last minute I didn’t have the courage to ask any of the other visitors to take notes: hence my name on this report.

We were met by Jennie Hurst, the Map Librarian at Keyworth, and my prime contact for the visit. After initial introductions, we met David Bailey, our host for the morning. He escorted us for a series of all too short meetings with members of their staff.

We started with Mike, who has responsibility for fossils. I have a couple of specimens in my garden, but Mike looks after some three million! These include 250,000 master specimens, which are used by staff for identification and dating of query specimens that they receive. Unfortunately, all their mineral specimens were sent to the Natural History Museum in 1985, but they are now gradually building up a new set. Mike showed us a selection of fossil specimens, all of which are kept in glass topped drawers with felt seals, to avoid deterioration of the specimens. They are in the process of converting their handwritten records into computer form, which they estimate will take them some two hundred man years. Currently they have two staff allocated to this work!

We then met up with Rod, who is responsible for all the uninterpreted data records. These include papers that are passed to them by other organisations, in addition to their own papers. My notes indicated these included 9000 boxes of coal records, 1000 boxes from the Nirex study at Sellafield and 35,000 working maps from field investigations. Their Edinburgh office has 60,000 Scottish mine plans. They are a ‘Place of Deposit’, so the information is available to the public. It is a statutory requirement that a specimen of all bore drillings are deposited at Keyworth. This has resulted in 140,000 boxes being stored, and a purpose built storage area with forklift truck.¹ All the boxes are bar coded to simplify access.

We next visited the draughtsmen’s area, where we were shown around by Michael, who explained how the basic field slips are converted into a 1:10,000 map. From the time they start working with their first slip, it can take up to one year before a complete 1:10,000 master is available. These are then scaled to 1:50,000 from which the final public map is printed. A print run usually consists of 1800 copies. A new marketing approach will be to make the 1:10,000 map available to the public on a one-off basis.

¹ See the picture on page 36.

To complete the morning session, Rob talked about their work on digital mapping, and showed us some examples, including a fascinating display of 3D mapping.

We were then all ready for a lunch break in the staff canteen, and on the best day of summer thus far, I even found some of the group sitting outside, enjoying the excellent park-like facilities.

After lunch, Jennie collected us for a visit to the Library. This is open to the public, although we were treated to a tour of the remote library area, which is not open to the public, though the books are available, being collected by staff. Jennie then showed us six tables on which were laid out a variety of maps and BGS publications, and some old newspaper cuttings, which included reference to the Ordnance Survey. She has promised me copies of these cuttings, which might make some interesting *Sheetlines* infills. It never ceases to amaze me the effort which our hosts put in to provide an interesting visit for us, and our recent Dublin visit was a classic example. And when I looked at the displays on this visit, and the work that Jennie had put in to select the material for the displays, but also, after we leave, the work to clear up, a thank you just seems inadequate.

But at least a thank you via *Sheetlines* to Jennie, not only for the Library tour and display, but also for the administrative work in setting up the visit, and to David and his colleagues for an excellent morning tour. The pleasure in visiting Keyworth is not only looking at maps, but the various geological material available, and not forgetting the shop at the end of the visit, where in my seventies I have at last bought myself a globe, and not your typical one, but with the countries inlaid with various minerals.

The Badley Library, 2 September 2004

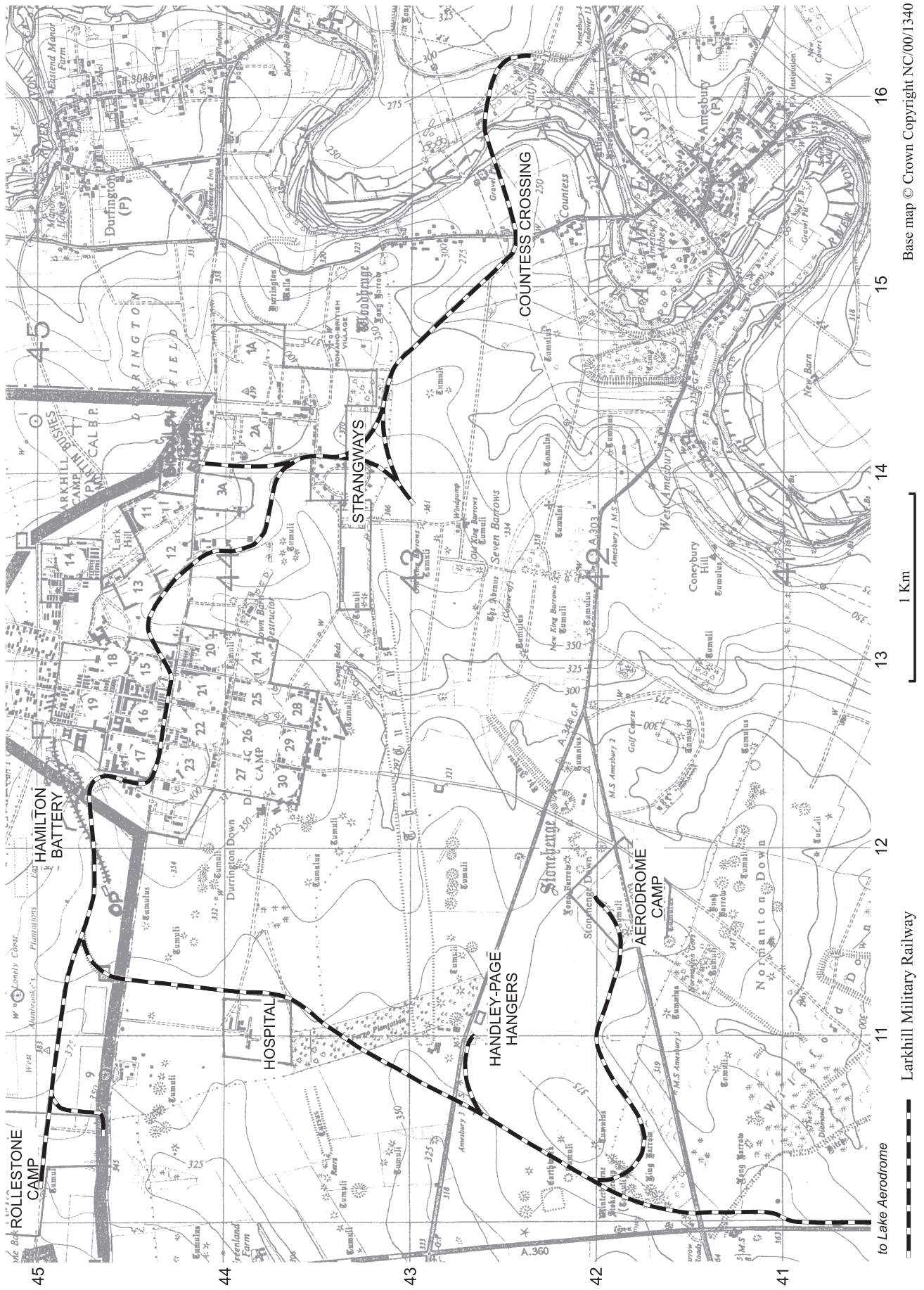
Gerry Jarvis

When we announced the 2004 visits in *Sheetlines* last December, we included a visit to the Badley Library, mainly for the benefit of our esteemed chairman and myself, since we learnt our trade as surveyors at Larkhill in the early 1950s.

The only difficulty with the visit was that it is a small library, so we were restricted to six attendees. However, by the end of December I already had a list of fourteen people, so I had no option but to put eight people on a waiting list, in case the first six all cried off! But when we visited Larkhill in April, I was so impressed that I asked the librarian, Amanda Young, if she could suffer a further visit in September, to which she kindly agreed.

I do not intend to write another report on this September visit, because Frank Prest gave an excellent write up on the April visit in the August *Sheetlines*, but you will find a photograph of this second visit on page 37 in this edition.

The original idea for a visit to Larkhill came from an article by Tim Nicholson in the April 1994 edition of *Sheetlines*, followed up by more recent discussion with Chris Board. Chris had already asked me if I thought we should do another visit, and I suggested that after two visits in one year, it would be fairer to give them a break for a year. But when I came to leave at the end of this visit, Amanda said that they would be very happy to see us again next year, so it is in the programme for next September. If you have an interest in matters military, put your name down. You won't regret it.



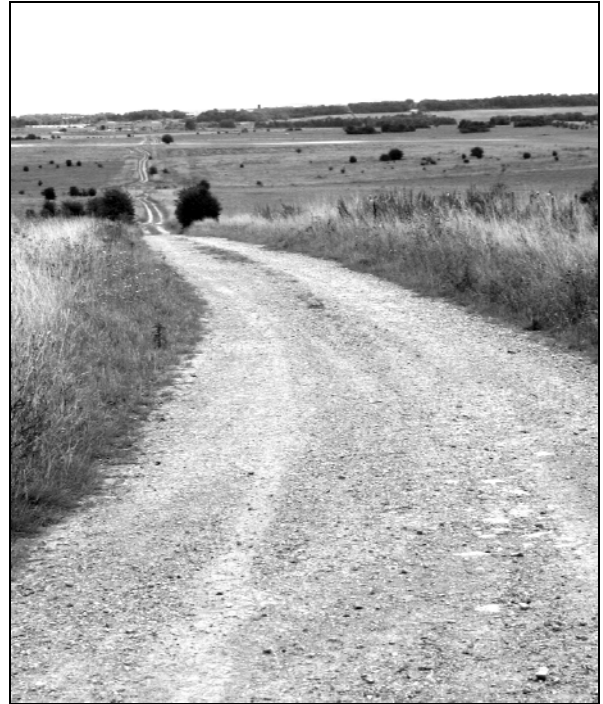
Larkhill Military Railway

Gerry Jarvis with Chris Board

All locations mentioned in this article, where not identified by grid reference, can be identified on Explorer 130.

The Larkhill Military Railway was quite an extensive line across Salisbury Plain, although it had a very short working life, from the beginning of the First World War through to 1928. Although I spent a year around Larkhill and Bulford in 1951 on National Service, I had no idea then that this line existed, but a CCS visit to the Badley Library in September 2004 prompted Chris Board and I to consider an extra day there to try and trace some of this line. Chris was also at Larkhill in the first half of 1950.

Thus on 1 September 2004 I met up with Chris at the Stonehenge Inn, and drove over to the Bustard Inn, well known to servicemen at Larkhill, where I had booked in overnight. For anyone visiting the area, the Bustard can be recommended not only for accommodation, but excellent food. The Bustard is just north of Rollestone Camp, which was the westward end of the railway [097 450]. What



The track east from Rollestone Camp

is now a military track east to Knighton Down can still be recognised as the track of the old line.

From there we drove back along The Packway towards Larkhill, stopping at 113 446, where *Explorer 130* shows a short stretch of curved path. This was the start of a branch from the Rollestone line south passing the Fargo hospital to Lake Aerodrome, and another airfield near Stonehenge itself. Just north of the road we identified a shallow cutting, which had obviously been part of the line. Its width would accommodate a single standard gauge track. Regrettably nothing of the line could be seen across the road to the south, as this is now a large ploughed field. But some background reading indicates the route can still be seen through Fargo Plantation to the south, although we did not investigate this area.

We then continued through Larkhill Camp, where for a short stretch the railway ran alongside the road. But regrettably no trace of that can now be seen because of subsequent developments. But in front of the Garrison Church, built in the 1930s, the churchyard boundary follows the line of the old railway not at a right angle with the Packway. A double row of hawthorn trees may mark the trace of the line north of the church.

However, to the south of the Packway we were able to follow a footpath for some distance, which is obviously the track of the railway. Parts of the footpath are well served with hardcore, presumably ballast from the line, and traces of earthworks also exist. Moreover *Explorer 130* shows this section as Dismantled Railway.



Ballast on the path south of the Garrison Church

Our next stop was at Strangways, high quality married quarters. Older maps show this as a triangular piece of track, presumably to enable trains to be reversed. We were unable to trace the line within the estate, although some background reading indicates remains of a small station and a separate platform in this area. However to the south east of Strangways a footpath again provides good evidence of ballast, and *Explorer 130* shows 'Dismantled Railway' once again.

On the first visit to the Badley Library in April 2004, Chris Jones, one of the Librarians, had mentioned that a bungalow on the Amesbury road, A345, from Stonehenge Inn had been a railway station, so this was our next destination [153 424]. The bungalow is now well hidden by trees, but by judicious positioning we were able to relate the bungalow to a photograph of the station. There is a footpath west and east at this point, which used to be

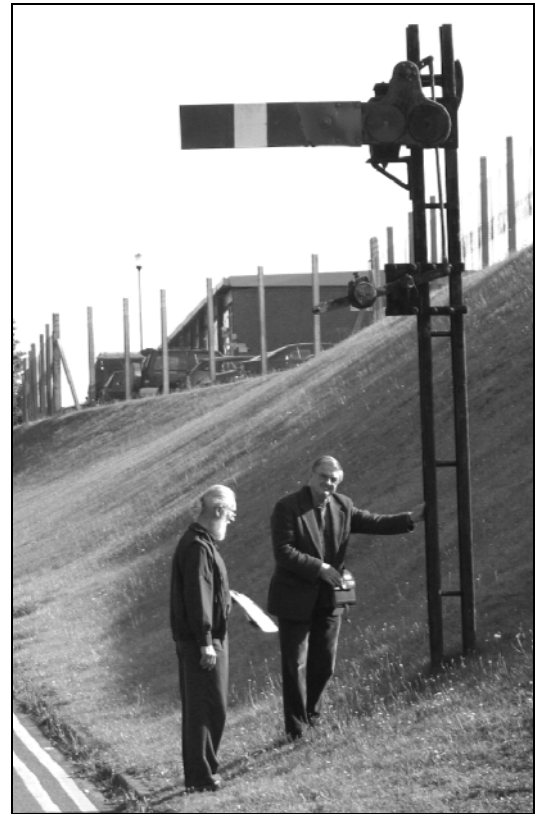
known as Countess Crossing. The path to the west leads back to Strangways, but that to the east leads to Ratfyn, which was the junction where the line from Amesbury separated into two branches, one to Bulford and the other to Larkhill.

From this point we drove south to Amesbury, then west past Stonehenge, and south on the A360 to Druids Lodge [100 390]. The railway south from Rollestone followed the line of the A360, but the road was busy, and we did not find anywhere to park to explore this section of the route until we reached Druids Lodge. The railway apparently finished north of this point, but Druids Lodge is interesting as there is an old water tower there. It did not form part of the railway network, but provided a water supply to a camp associated with the nearby airfield.

This concluded our activities for the day, and we headed back to the Bustard Inn, where we met up with Rod Leary for a pleasant evening and excellent food. We had some time the next morning before we had to meet at the Badley Library, so we thought we should explore the Bulford branch railway. This did not close until June 1952, and I was lucky enough to travel on it in January 1952, when our battery moved to Osnabruck in Germany, and we had a train to ourselves from Bulford to Harwich. We stopped for NAAFI services at what was then quite a derelict Kensington Olympia, before following the North London line to pick up the Harwich line. The railway journey was quite enjoyable, but on a night when all civilian sailings were stopped because of weather conditions, the Army were quite happy that one of the old Empire boats should put to sea, with predictable results!

Regrettably little now remains of this branch, as far as our brief investigations could determine. Bulford station was demolished, and the site forms part of a fenced area, with restricted access. We did not have time to try to locate the line beyond the station, although *Explorer 130* does show what could be part of the track. There is a railway signal at the base of a grass-covered embankment, marking the spot where a railway bridge once crossed the road, just south of the site of the station. This signal must have been moved from its original site.

This concluded our investigations. We would have liked more time to follow up other parts of the line, but we were surprised at how much of the railway track can still be identified, and we found it a very enjoyable exercise. I am grateful to Frank Prest and Rod Leary for providing background reading material and maps.



Rod Leary and Chris Board check the signal

Amendments to provisional list of 1:2500 bypassed plans

John Cole

These amendments apply to the lists of 1:2500 bypassed plans in *Sheetlines 58* and *59*.

Cornwall

New total: 147

Add SS1700 1905
SX2487 1905

Devon

Probably bypassed:

New total: 349
Delete SX9070
Delete SX9170
Delete SX9074
Delete SX9174

Warwickshire

New total: 88

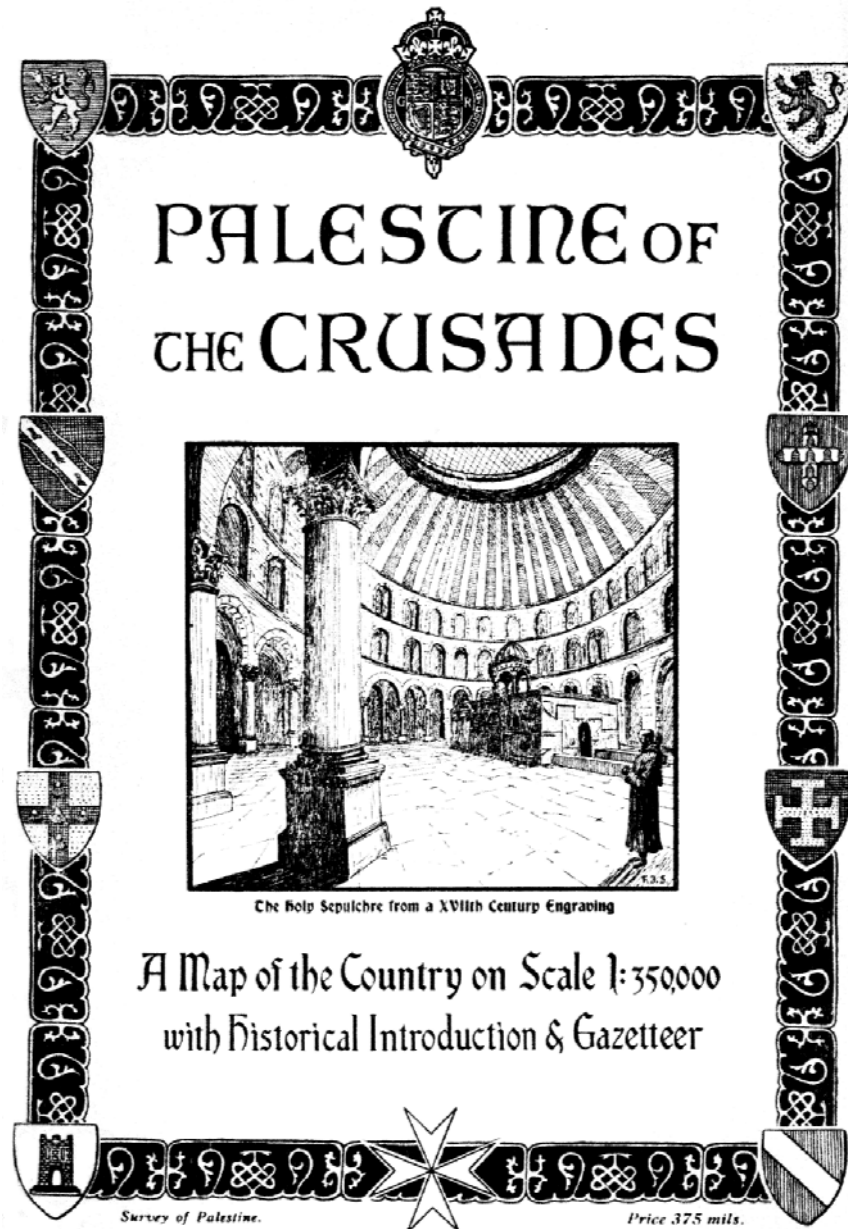
Add SP1693 1937
Add SP1793 1937
Add SP1985 1937
Delete SP1991/2
Delete SP2091/2
Delete SP2191/2

Whilst the identities of all certain or probable bypassed plans were traced from the survey diagrams of six inch to the mile maps,¹ it was not possible to do this in the case of SS1700. Six-inch map SS10SE was not published whilst SS1800 and SS1900-04 were incorporated in a westward extension of SS20SW. SX19NE was not published in extended form until the three plans to the north (SS1700, 1800 and 1900) were revised. SS1700, which comprises only a small portion of coast, eventually turned up in a local library.

¹ *Sheetlines 50*.

Palestine of the Crusades: almost an Ordnance Survey map?

John L Cruickshank



The development of archaeological and historical mapping by the Ordnance Survey during the inter-war period is well known. Seymour has given an account of the development of the Archaeological Branch, and Phillips has described the period maps produced. Harley provides a critique of the relative success and failure of these maps. Hellyer provides further detail and a cartobibliography.¹ The successful maps were produced in a consistent style. The map was more than just an overprinted topographical map, but was specifically designed and

¹ W A Seymour (ed), *A History of the Ordnance Survey*, Folkestone: Dawson, 1980, chapter 24, 237-240. C W Phillips, 'The Special Archaeological and Historical Maps Published by the Ordnance Survey', *Cartographic Journal* 2 (1965), 27-31. J B Harley, *Ordnance Survey Maps, A Descriptive Manual*, Ordnance Survey, 1975, 151-158. R Hellyer, 'The Archaeological and Historical Maps of the Ordnance Survey', *Cartographic Journal* 26 (1989), 111-133.

produced to convey several levels of historical information. The maps themselves were folded within decorative book-fold covers that also contained a letterpress pamphlet. The text within the pamphlet was not subsidiary to the map; it was a high quality academic publication in its own right that complemented the map.

While the production of historical mapping by national mapping agencies has been widespread, the style of the Ordnance Survey archaeological and historical maps has remained distinctive. Most other mapping agencies have limited themselves to publishing reproductions (or reissues) of old, and especially superseded, mapping.² While archaeological data are sometimes overprinted on their topographical maps, this has often been done by, or on behalf of, some external body. There have been few ‘official’ attempts to produce maps primarily of historical topography. Any accompanying text has been brief, and very much subsidiary to the map. In short, the Ordnance Survey style of historical mapping has seldom been imitated.³

One well-known emulation of the Ordnance Survey style of historical mapping is the Map of Monastic Ireland published by the Ordnance Survey of Ireland (1959, 1964). This includes (within a pictorial book-fold cover) a substantial letterpress text giving a history of Irish monasticism with a gazetteer, in addition to the map itself. That Dublin should follow (or compete with) Southampton practice is not perhaps surprising. This paper draws attention to a further (and earlier) example of a historical map emulating the Ordnance Survey’s practice that may be less well known.

Members of the Charles Close Society will be familiar both with some aspects of the career of F J Salmon and with his talents as a map-cover artist and designer. Francis Herbert drew attention to him in an early article in *Sheetlines*, and several of his cover designs were included (and illustrated) in Roger Hellyer’s catalogue of Ordnance Survey and Ordnance-Survey-related map covers. Francis Herbert emphasised Salmon’s admiration for Ordnance Survey practice, and although it might be considered that the inclusion of the ‘FJS’ cover designs in Hellyer’s list was not strictly necessary (since none was applied to an Ordnance Survey map), the Survey of Cyprus designs were printed by Ordnance Survey and in that

² The French IGN can supply both lithographic copies and copper-plate impressions of a large number of maps from the seventeenth century onwards, including all those of the *Carte de Cassini* and the *Carte de France d’Etat-Major* (see *Catalogue Cartes Anciennes*, IGN, no date). The Bayerisches Landesvermessungsamt München similarly produce copies of officially sponsored maps of Bavaria, including reproductions of the ten-sheet manuscript map by Philipp Apian of 1554-63. Many other examples could be cited, including the comprehensive republication in atlas form (in co-operation with the private sector) of many entire Dutch series.

³ The *Tabula Imperii Romani* project was initiated by O G S Crawford of the Ordnance Survey Archaeological Branch, and the sheets were originally conceived simply as overprinted editions of the standard *International Map of the World*. The cover design was by Ellis Martin. The fitful progress of the project reflected widespread lack of enthusiasm for the idea amongst the different national agencies responsible for the sheets. The more usual type of mapping can be represented by two examples. The Danish 1:100,000 archaeological maps of Zeeland (*Vore Fortidsminder*, 1937-47) are standard topographical maps with archaeological and historical sites identified by red and blue overprints. They were issued in very attractive coloured pictorial card covers which also contain a letterpress pamphlet, but these are no more than a catalogue of the sites marked on the map. The 1:200,000 *Übersichtskarte der Archäologischen Denkmäler im Rheinland* (1969) is a co-publication between the Landesvermessungsamt Nordrhein-Westfalen and the Landschaftsverband Rheinland – Rheinisches Landesmuseum Bonn. Despite being an overprinted standard topographic map of the Landesteil Nordrhein, and despite the integral cover being in a similar style as those of the official topographic maps, it bears the imprint of a private publisher, the Wilhelm Stollfuss Verlag. The text in the margin provides only a brief statement about the content of the map, while that on the reverse is simply a gazetteer of the sites marked on the map. Many standard topographical maps contain similar or greater quantities of archaeological information, including some of the current Ordnance Survey of Ireland 1:50,000 maps which identify very large numbers of archaeological sites.

sense were considered Ordnance Survey products.⁴ There are however other map covers prepared by Salmon that did not fall within Hellyer's remit.⁵

Palestine of the Crusades was photo-zincographed by the Survey of Palestine, Jaffa, in 1937. The map covers an area (using modern English names) between Tyre in the north, Amman in the east, and Gaza in the south-west. Within an elaborate decorative heraldic border is a layered relief 1:350,000 map of the area. The layers progress from green to orangey-brown in accordance with inter-war RGS/GSGS practice. Christian medieval place-names are given in a complex (and distinctive) system of hand-drawn alphabets, with modern (mostly Arabic) names in smaller italic. An attempt is also made to give some medieval Arabic place-names. Recorded medieval itineraries appear as red lines. Symbols identify the seats of patriarchates, archbishoprics and bishoprics, and the sites of walled towns, unfortified towns, villages, and large and small castles. Further symbols identify battlefields, places of pilgrimage, churches and monasteries. The association of some of these places with the Templars, Hospitallers, Teutonic Knights or Saracens is given. There is a 1:2,000,000 vignette providing a wider setting for the main map. The map was 'Compiled, Drawn & Printed under the direction of F J Salmon, Commissioner for Lands & Surveys Palestine, from information supplied by the Department of Antiquities and Père Abel of the École Biblique et Archéologique Française'. The cover is book-folded buff card (6¼ in × 8 in) with a black pictorial design incorporating an FJS redrawing of a seventeenth-century engraving of the interior of the Holy Sepulchre (see illustration). The border of the cover design is a simplified version of the border of the map with the addition of the Royal Arms. On the inside face of the front cover is a 'Note on the Decoration', signed by 'FJS', which describes the various heraldic symbols incorporated in the borders of the map and cover. The map is pasted to the inside of the back cover. Stapled within the cover is a 38 page booklet containing town plans of Jerusalem in the twelfth century and St Jean d'Acre in 1307, a 'Historical Introduction' of sixteen pages, a Gazetteer to the map, and a 'Note on Topographical Sources' signed by 'CNJ'. The map was reprinted with 'Corrections & Additions April 1940', and a print code for the letterpress of 'GPP.10209-500-10.5.40'. Considering its publication date, the map may be considered as one of the very last of the Crawford-era period maps.

In retrospect, the timing of the issue of this map was not auspicious. A complex civil war between Muslim Palestinians and Jews, in which the British administration was inevitably involved, was already underway in the country. The reprinting took place during the 'phoney war' at the beginning of what became the second world war. At the end of that war a flood of Jewish 'displaced persons' from central Europe entered Palestine, changing its population structure profoundly. Ethnic, religious, economic and political conflicts increased uncontrollably. In May 1948 the British gave up their League of Nations Mandate and withdrew from the country. From a period of anarchy emerged the Jewish state of Israel. Initially

⁴ Francis Herbert, 'The Salmon Collection of Map Samples in the Map Room of the Royal Geographical Society: Introductory Notes with an Inventory', *Sheetlines* 4 (1982), pp 2-5. Roger Hellyer, 'The Covers', (in) John Paddy Browne, *Map Cover Art*, (Southampton: Ordnance Survey, nd, ca. 1990); see in particular Hellyer nos. 196-199. Note however that Hellyer did not catalogue all states of the Cyprus covers. The *Survey of Cyprus General Map* of 1932 (Hellyer no. 199) appeared in a second edition (titled *Survey of Cyprus Administration Map*) in 1950, which was revised in 1952 and 1958. This appears in a variant of Hellyer no. 199 bearing the new title and the Elizabeth II Royal Arms. The third edition of 1965 (after independence) was also printed by Ordnance Survey, but the cover drawing of 'Agios Naunavas Church' was by a different artist. This was not catalogued by Hellyer.

⁵ Unlike the Survey of Cyprus, the Survey of Palestine did its own printing. *The Survey of Palestine Motor Map* 1:500,000 (1940, reprinted 1945), was sold in a buff card cover, similar in style to the Cyprus covers, bearing an FJS drawing of the 'Old City, Jerusalem'. I assume that others exist.

Israel's borders included only part of Palestine, but subsequent warfare has extended these to include the whole of the former Palestine plus some additional areas. Throughout this continuing turmoil all the warring parties have justified their differing stances on mutually incompatible historical grounds. In such situations historical texts are inevitably treated as political statements reflecting the perceived position of their author. On such political grounds historical ideas and texts may be promoted, modified, rewritten, condemned or suppressed.

At first sight surprisingly, the map (or at least a development of it) has survived all these political changes, although the letterpress and cover have not. There was however an essential continuity between the (British) Survey of Palestine and the Survey of Israel. Personnel, premises, records and reproduction material were transferred seamlessly from the old to the new organisation.⁶ Not only did the Survey of Israel continue the former British topographic map series, but a new successor to *Palestine of the Crusades* appeared in 1972, titled *The Crusader Kingdom of Jerusalem 1099-1291*. This is a map drawn, layered, and lettered in a recognisably similar style, but at the smaller scale of 1:400,000, and covering a substantially larger area extending from beyond Beirut in the north to the southern tip of the Dead Sea in the south, with a vignette at 1:2,000,000 extending coverage to Aqaba. The map is however narrower from east to west. As a result the Templar church at Amman in present-day Jordan is not shown, and nor on the main map is the Crusader fortified town of Gaza or another castle within the modern Gaza strip. The title and legend are given in three languages: Hebrew, English and French. There has been a substantial change in the presentation of place-names which are predominantly given in French or Latin forms rather than the English of the 1937 map. This has considerable historical justification since French and Latin were the predominant administrative languages of the Crusader Kingdom, not English which had yet to emerge from the mixing of Anglo-Saxon dialects with Norman French which was then under way in England. A few modern names are given in faint grey as alternatives to medieval ones (e.g. Tel Aviv-Yafo for Japhe, previously Jaffa). Arabic names are only shown when no alternatives are available. In addition to symbols for the seats of Bishoprics and Archbishoprics there are symbols for Jewish and Samaritan communities. The modern extents of several conurbations including Tel Aviv are marked. A small marginal map shows the boundaries of the other crusader states (at an unspecified date), and another the changing boundaries of the Kingdom of Jerusalem at different specified dates.⁷ As on the 1937 map there is a broad decorative border, but this is formed by a repeating motif that is unexplained. There is no heraldry.

There has been a long tradition in western Europe of mapping the Holy Land and its biblical history. Since the sixteenth century maps have been printed to illustrate the Bible. The nineteenth-century topographic maps made by the (British) Palestine Exploration Fund explicitly followed this tradition.⁸ The late Brian Harley however emphasised that the

⁶ For an account of this continuity see Dov Gavish, 'Foreign Intelligence Maps: Offshoots of the 1:100,000 Topographic Map of Israel', *Imago Mundi* 48 (1996), 174-183. The earlier continuities between the Survey of Palestine and the 19th century surveys of the Palestine Exploration Fund ('conducted' by Lieuts. C R Conder and H H Kitchener, 1872-77), and also yet earlier British military surveys, should be appreciated. See Yolande Jones, 'British Military Surveys of Palestine and Syria 1840-1841' *Cartographic Journal* 10 (1973), 29-41, and Seymour, *op cit.*, chapter 14, 154-7.

⁷ On my copy of the 2001 printing of the map poor colour registration makes the detail of these smaller maps almost illegible.

⁸ A *Special Edition Illustrating the New Testament also the Talmud and Josephus* of the Palestine Exploration Fund *Map of Western Palestine* (1:168,960, reduced from the one-inch map in twenty-six sheets), edited for the Committee of the Fund by Trelawney Saunders, was published (Edward Stanford, 2 October 1882). Different alphabets were used on this hachured map (printed in four sheets) to distinguish Biblical names, Talmudic names, Josephus' names and modern names. The map is also annotated with the locations of Biblical events.

making and interpreting of maps are both socially and culturally dependent. Not only was *Palestine of the Crusades* produced in a form derived from Ordnance Survey practice, but the content of both map and text reflected a western, Anglo-Catholic view of history in general, and of the crusades in particular. The conflict was portrayed as being bipolar, between Christian and Muslim. The divisions within the Muslim peoples of the area that enabled the Christian conquest of Jerusalem do not appear on the map. *The Crusader Kingdom of Jerusalem 1099-1291* altered this by reducing the number and prominence of Arabic place-names, suggesting perhaps greater permanence and intensity of European settlement than was in fact the case. The map also displays continuity of Jewish settlement in Palestine. This last point, of course, has present-day political implications for those arguing the justification for the existence of the modern state of Israel. From the map it might almost appear that the Western European Christian Kingdom of Jerusalem was the direct precursor of the twentieth-century (substantially European) Jewish state, and that the Muslim element in and around the Kingdom was of small significance. Even the extent of the map reveals the areas that modern Israel regarded as of interest in 1972. Thus, despite a superficial similarity of the second map to the first, the Israeli product gives a distinctly different view of history.

In the social, cultural, religious and ethnic soup that is (and was) the Middle East, one might imagine several other viewpoints that could be adopted in making a historical map of the Holy Land. An Orthodox Christian view would certainly be different. If a map were to be made reflecting an Islamic view of the history of the crusades, not only might its content be very different (and complex), but so might also be its presentation. There are a number of possible models. The Ottoman Turkish tradition of mapmaking had become enfeebled, and heavily influenced by the explosion of mapmaking in the Christian West, long before the end of that empire, but other Islamic mapmaking traditions have existed. Our imagination might run riot, but should be tempered by an appreciation, both that the use of maps of any sort is still much less general in the Islamic world than it is in western Europe, and also that the perception of the nature of history itself (and its importance) may be different. Unless a map is considered by users to carry something of meaning and of value it will be ignored. Would any one other than a westerner choose (at the present time) to convey a historical message about Palestine on a map? Might indeed a historical map of Islamic Palestine have more impact in the west (and even in Jewish Israel) than within the Islamic communities of the Middle East?

Finally, the contrast between these two maps of the Holy Land should prompt us to consider the inherent (and possibly unconscious) biases of the familiar Ordnance Survey archaeological and historical maps of Britain. There was an obvious initial bias towards mapping the archaeology of southern England, and Wiltshire in particular. This reflects a marked geographical bias in archaeological studies in the 1920s and 1930s that still persists to some extent. Nevertheless the OS maps may in fact have helped to focus archaeological attention on other areas of England, and even (belatedly) Scotland. The failure of *Seventeenth Century England* (1930) has cast a long shadow however. There has only been one subsequent post-medieval historical or archaeological map (*Georgian Bath*, 1989), despite the recent explosive growth of post-medieval archaeology. Indeed, with the exception of *Monastic Britain* (first edition 1950), even medieval archaeology was not touched until the publication (with the Royal Commission for Historical Monuments in England) of the other urban maps of York, Bath, and Canterbury in 1988-90. Biases in the choice of topics to map are however relatively easy to identify. Biases in the presentation of the maps themselves

may be more subtle and less easy for those of us familiar with the maps, and with traditional interpretations of British history, to recognise. Perhaps only an outsider will be able to identify them.

A postscript

Catalogue entries make it clear that the Survey of Palestine produced a number of other historical and archaeological maps under F J Salmon's direction and afterwards. *Palestine of the Old Testament* was produced in 1938 at 1:500,000. Like *Palestine of the Crusades* it was a layered relief map with an elaborate decorative border and a pictorial cover (showing Abraham's Oak at Hebron). The catalogue entries suggest however that there was no letterpress booklet with it. There seems to have been a 1944 London reissue of this map, as well as a 1946 Jaffa one. In 1935 the Survey of Palestine produced *Transjordan from Earliest Times to the Herodian Period*. This was followed, after the establishment of Israel, by the publication by Ordnance Survey (1949-50) of a three-sheet 1:250,000 *Archaeological Map of the Hashemite Kingdom of Jordan* for the Department of Lands & Surveys of Jordan. In 1946 the Survey of Palestine published *Galilee Ancient and Modern* at 1:250,000.⁹ There is a published history of the Survey of Palestine during the British period which probably enlarges on these matters, but unfortunately the text of this is in Hebrew, and therefore inaccessible to me.¹⁰ Finally it should be noted that in addition to the western Christian tradition of mapping the Biblical history of the Holy Land, there is also a similar (largely European) Hebrew tradition.¹¹

Cornish Explorers – B editions

John Cole

All twelve Cornish *Explorers* were published as B editions mainly in August 2003, the three exceptions in September and November. Lists appeared in *Sheetlines* 68 and 69 stating that 'These are all noted as revised for **selected** change 2003. No full revision date is given.'

All but four (including 109, which is a C edition resulting from a shift in map area in 1997) bear the legend: 'Revised for **significant** change 2003. 108 appears as B 'Revised for significant change 2003' and 'Reprinted for minor change 2003'. 106 and 107 simply appear as 'Revised 2003'. 103 appears (incorrectly) as an A.

Whether or not 'revised' (in the cases of 106 and 107) was intended to imply an overall revision was discussed at length in the article on the A editions in *Sheetlines* 58. A comparison of the whole of 106 and part of 107 using 1:10,000 scale maps updated to early 2000 and air photos dated 1999 clearly indicate only partial revision.

This is most apparent, as is usual in the case of the 1:25,000 map, in respect of field boundaries, mainly deletion, and may be gauged by examples from 107. Considerable deletion is carried out in squares 1356 and 1759 but not to the immediate south and east in the case of the former, or to the south, east and west in the latter. In square 1354 there is both

⁹ The date is from the British Library on-line catalogue, and may be a date of reissue. I have not so far however traced an earlier issue of this map.

¹⁰ Dov Gavish, *Land and Map; the Survey of Palestine 1920-1948*, Jerusalem, 1991.

¹¹ E & G Wajntraub, *Hebrew Maps of the Holy Land*, Wien: Brüder Hollinek, 1992.

deletion and addition of field boundaries but a large area, of vegetation (green on the 1:10,000 map) does not appear.

To put this into perspective (and to be fair to the modern OS) *Pathfinder* SX49/59 (1312, published 1969) field boundary representation was as per 1904-5 over 147 km² (out of the 200 total), 7 km² as per 1932, 40 km² as per 1953 and 6 km² (all open moorland of Dartmoor) as per 1964!

On the positive side, sheets 112 and 126 are far better in appearance in that the mix of upright and sloping lettering (a legacy from early *Pathfinder* days) has been rationalised in favour of the former. Other improvements on all sheets are as follows: all the 'sketched' lakes and ponds, and a few buildings have been replaced by properly surveyed detail from the larger scales; firebreaks in woods (as distinct from wide tracks) are clearly depicted and in the majority of cases are new detail, and it is thought that very little in the way of new built up area detail or major new rural building (as opposed to farm buildings) has been neglected. As has been noted earlier, selective field boundary alteration occurs on all sheets.

Of particular interest is the *Isles of Scilly* sheet, 101. Apart from the islands and islets there is a 1:2500 survey of Hugh Town; a 1:10,000 survey of most of Tresco and Bryher, and a 1:25,000 extract of Penzance. All of these have been revised to a degree fully or partly in keeping with the main map.

On the down side (for those who do not like this sort of thing!) there is a curious infestation of purple and red seabirds – a symbol peculiar to the Isles of Scilly Wildlife Trust? (Purple = 'always open' and red = 'limited access'.) One final improvement to 102, the redundant British Rail symbol (additional to the red infilled circle) has been removed.

No tidal alterations were immediately apparent on any sheet. Air photos (1999), seemingly taken at the time of a mean low, confirmed much of the low tide lines in the Newquay and St Austell areas (bar a possible alteration at Par Beach) but very substantial differences to the low water channel and various sandbanks at Padstow and the estuary of the River Camel.

Trig pillar building party

K S Andrews

As a footnote to the recent contributions about trig points,¹ a portion of my copy of One-inch Seventh Series sheet 33, *Rhum and part of Skye*, is illustrated. The map is edition A and the cover, RO3(cloth), has a date code 6.57.² The sole triangulation station marked on this map is the primary station on Askival, Rhum, 2659 ft.³ This and all other off-road spot heights are in italics: 'not surveyed by levelling'.

The map belonged to NG/24 Skye Pillar Party, presumably in the late 1950s. It shows the sites on Skye and Soay circled in blue using compasses with names and reference numbers, for their pillar building activities. Half of the site references are of the form NG24/TXX and the rest omit the 'T'. NG refers to the 100 km square.

¹ *Sheetlines* 69, 20 and *Sheetlines* 70, 58-59, 60.

² *Sheetlines* 70, 11-21.

³ J B Harley, *Ordnance Survey Maps: a descriptive manual*, Ordnance Survey, 1975, 7-8.



Pillar Builder to be dropped by helicopter.

For the highest points, denoted by double rings on the map, there is a note ‘Pillar Builder to be dropped by helicopter’. Hopefully this refers to a construction kit.

The southern half of the map shows two sites on Canna and two on Rhum, all with incomplete NG24 reference numbers deleted in red. The southernmost site on Rhum is actually in the adjacent NM 100 km square. I sense a realignment of responsibilities between pillar parties that ended with the NM pillar party building these four.

Edition A was given minor revision twice, A/ of 1961 and A// of 1969 but, as with most of rural Scotland, no edition B was produced.⁴ A/ has not been studied but A// records all the intended pillars except for one on Skye. The following points are of interest.

- Spot heights on roads are unchanged.
- Off-road spot heights in italics are unchanged.
- The primary trig station on Askival, Rhum, has increased from 2659 to 2663 ft., now recorded with upright figures (surveyed).
- Seventeen new pillars are recorded with heights in upright figures. Those that appear to be at the same location as spot heights on edition A have lost 1 ft (1), are the same height (2), or have gained 3 ft (2), 4 ft (2), 5 ft (3) or 9 ft (1, the pillar on Soay).
- A pillar builder was to be dropped by helicopter on Gars Bheinn, 2934 ft., on Skye, a rocky summit that appears difficult of access. Edition A// records the height unchanged and still in italics – and no pillar. The moral would appear to be not to contemplate building a pillar where a surveyor with heavy, delicate equipment would not be able to reach it.

Dealer's diary – Summer and Autumn 2004

Roly Hann

July

It is an astonishing fact that a holiday becomes a distant memory almost immediately. Unpack the car, sort the mail, collect the dog and was it really only yesterday that we were sat sipping wine in a garden in rural France between the fields of vines and sunflowers? Exhibiting at two book fairs the following weekend also forced me to start planning rather than reminiscing.

During the last year or so the popularity of book fairs has been in decline. There are fewer dealers wishing to exhibit and fewer customers coming through the doors. The Winchester Book Fair is no exception to this trend, so yet again in July we were under strength. However, because I had some fresh stock, especially non-OS maps, I had a particularly successful selling day, but was unable to find a single map to buy. This scenario nearly repeated itself the next day at the Bloomsbury Book Fair in London – I sold well but bought only two maps, a Fifth Relief and a map of *Monastic Ireland*. The latter, although published in 1979, is new to me. It has a very simple but appropriate cover design and one never knows when one might need to find the sanctuary of an Irish monastery!

⁴ Richard Oliver, *A guide to the Ordnance Survey One-inch Seventh Series*, Charles Close Society, 1991.

Apart from checking the display adverts in the local papers for antique fairs and book sales I usually buy the bi-monthly *Antiques Diary* magazine which lists all the antiques fairs being held all over the country. Hence after my visit to the antique fair in Brockenhurst, (four OS maps: rather boring, rather expensive), I then drove to the appropriate community centre in Totton. It seemed strange that there were no signs in the car park or indeed in the entrance foyer. My growing concerns were justified as I walked along the corridor and through the doors into the hall just in time to witness the drum majorettes start their Sunday morning rehearsal! Unsurprisingly not a map in sight.

August

The fact that, the day before, weather forecasters had confidently predicted Sunday to be the hottest day of the year so far rather undermined my enthusiasm as I drove towards Farnham for the book fair. Summer fairs are usually quieter and the heat wave would mean a busy hour or two in the morning and then an afternoon spent with fewer customers than dealers as most of the population migrate either to the nearest beach or swimming pool, or to a shady corner of the back garden with a gin and tonic and the Sunday papers.

Most of my regular customers arrived and I had a busy time selling but an even busier time buying. To be honest, some of the OS technical items offered to me were so unlike the normal maps and ephemera that I usually buy that I wallowed in a swamp of indecision: 'To buy or not to buy'. In the end I turned the items down and then the next day wished that I had not! However the purchases I did make included a set of eighteen maps printed by the OS in 1919 for the Admiralty illustrating the various actions and strategies of the Royal Navy in 1914. Some of the maps plot the course of running sea battles and include the most intricate details. I also bought a set of four one-inch Victorian OS maps of London and the surrounding countryside, a Popular map in an unusual green and white Forster Groom & Co. Ltd cover and several late 1940s copies of *On The Map*, the journal of the Association of Government Geographers and Allied Technicians, (previously known as the Ordnance Survey Technical Officers Association). Phew! There are several interesting articles dealing with mapping and clearly staff were unhappy with the planned move to return to Southampton after the war.

The day's most inexplicable purchase was a large chunk of Solnhofen Limestone which was the corner of one of the huge stones used in the lithographic process. According to Owen and Pilbeam (p. 58) 'the stones which required four men to lift each one.' It also states that the stones were stored at Southampton until the 1950s when they were sold off to local builders. My chunk shows part of the New Forest just north of Lymington. I have successfully smuggled it up to my study but am fearful that when my wife finds it she will requisition it to use as a doorstep in the kitchen.

Having agonised, biblically speaking, for three days and three nights, I finally decided to contact the chap with the OS technical equipment and he reassured me that he had not yet launched it for sale on the Internet and that it was still available. Trying to sound as horizontal as possible I said that I was still interested and he agreed to bring it to the London Book Fair next Sunday.

A few days later and I am the proud, hopefully only temporary, owner of some nineteenth century items of engravers' equipment. These include a spring press and a rack of tree and vegetation symbols, another spring press with a selection of lettering types and a boxwood scale tester, designed for the 1:2500 scale. The items are made from brass and other

high quality alloys and are beautifully engineered. There is another mystery item that will have pride of place on my table at the next Map Market, very appropriately at the Ordnance Survey.

On a more mundane level I also bought in London two half-inch 1908 dissected maps in excellent condition and a boxed half set of Greenwood's large scale map of Northumberland, dated 1828. This consists of three quite large maps, one of which has a superb engraving of Alnwick Castle. A building well known to Harry Potter film fans – of which, very sadly, I am one.

Inevitably after the burst of buying activity outlined above the next weekend was a complete waste of time, as I motored around the urban sprawl that is south-east Hampshire visiting antique fairs that were mapless. In fact a bout of severe frustration occurred during the next two weekends as I crisscrossed Hampshire failing to make a single purchase.

September

A few days before every Winchester Book Fair I walk a circuit around the city centre distributing posters mostly, but not exclusively, to the bookshops. Every time I visit the Oxfam bookshop I hand in two posters for display and climb the stairs to check the map racks. Almost invariably I draw a blank but 'hope springs eternal etc. etc.' To my surprise there are some Popular Editions and a few Fifth Editions. I pick up two quite rare Pops, sheets 40 and 48, walk around the other side of the rack and there on the floor is quite a large pile of *The Land of Britain* land use survey reports from the 1930s. But no land use maps.

The staff did not know if there were any maps and told me to come back the next day when the manageress would be in the shop. By lunchtime the next day I was the contented owner of sixteen land use maps and sixteen land use booklets (plus the two Pops), and the Oxfam shop was a fair bit richer. Most of the maps had short print runs, usually 1000, but only 750 maps were printed of Shetland and Orkney surveys. All the maps have pin holes in the margins but there are no university or college stamps on either the maps or the booklets so perhaps they were privately owned by a geography lecturer or someone who used to be on the staff of the nearby agricultural college.

CCS membership was well represented at the Winchester Book Fair with several familiar faces and at least one new face. It was a very, very contented member who purchased all the nineteenth century engravers' equipment and other OS bits and pieces. If all goes according to plan, the intention is to display the items at the map market next year at the OS.

I bought only a few maps, including a copy of the 1935 *Greater London* relief map. The indications are that the previous owner had trained his pet hamster to nibble around the edges of the front cover but to avoid damaging the map. I also acquired two copies of a 1:50,000 experimental map of London SW. My most exciting purchase was three examples of Henry James's illustrations of ancient sites, all zincographed by the OS in 1867. According to Owen & Pilbeam (p. 64 – what a really useful reference book it is), this was a less than subtle effort to turn surveying soldiers into local historians. The three examples are the Cromlech, near Kilkeel, County Down, the standing stones at Tursachan on the Isle of Lewis and a plan of Tursachan which resembles lines of squashed ants on a page. The two pictures are relaxed and gentle, both include figures best described as Victorian twee. James, seemingly, was also addicted to sailing ships at anchor in the distance. For me this has been a very satisfying day.

A friend of mine is very keen and tenacious at researching, on my behalf, on the Net and he has on more than one occasion excavated little nuggets of information to add to my

knowledge. He has informed me that a copy of Col. James's book was sold at auction in July last year for £1300.00, and that his illustration of the standing stones at Tursachan has been used on the front cover of a book published in 2002 called *Callanish – and Other Megalithic Sites of the Outer Hebrides*, by Gerald Ponting. This book sounds a bit of a long shot for the best sellers' list. The probability is that the three illustrations have been removed from a copy of James's book.

It was almost inevitable that after such excitement the law of averages kicked-in and during the next two weekends I wasted hours of my time and £s of diesel and ended up with one 1914 half-inch map of London. However, early next month I am off to North Wales for one of my regular walking holidays and I normally have an exercise-free day, (usually one of the wet ones), to tour a few book shops in the area. So fingers crossed!

October

A week of unbroken sunshine in North Wales is an unlikely event in the Autumn, or indeed any other season but, to be fair, most of the gales and torrential rain occurred at night. Capel Curig yet again was able to celebrate its status as rainfall capital of Britain so walking was a bit wet underfoot but the views from the tops were sharp and clear. My good fortune was not reflected in visits to bookshops: two maps from three shops is not a very impressive hit rate. However the huge International Antique and Collectors Fair of Wales was due to be held at the Royal Welsh Showground at Builth Wells and this was on my way back to Hampshire. By the end of the week I was eagerly anticipating my first visit to this event.

You would think that with more than a thousand dealers present success at buying would be unavoidable. Not true. I bought three maps from one of the dealers outside who had several OS Popular Edition maps flapping on a table in the wind. In fact some maps had already blown onto the grass under the table. As you would expect their condition was not great but neither was the cost. At another stand there was a large, tatty leather map case with an assortment of military maps inside. I picked out three that seemed reasonably unusual and asked how much (nothing was priced), and was sharply informed that I had to buy the whole lot including the rubbishy map case! I declined and retreated to the bosom of my family with a large bin bag full of dirty washing.

Having missed two consecutive London Book Fairs I had a slight attack of the 'guilts' and so arranged to exhibit at the Book and Printed Collectables Fair, held in the same hotel in central London but two weeks later. It is much smaller than the monthly book fair but runs alongside the huge postcard fair at the same venue. The intention was buying rather than selling as none of my London regular customers (with one exception) would be aware of my presence. In fact the sales were not too bad but I only made two purchases. The first was a really nice six-inch Town Map of Leeds, complete with street list and an undamaged tab insert. The other was a 1862 Report to Parliament on the OS and Topographical Depot, unfortunately with the covers missing. I bought this from a dealer at the postcard fair at a reasonable price thanks to some inside information from a Charles Close Society mole. Apparently this document has been in stock for at least a year or so, originally at a very high price (considering there were no covers), and my mole had charted the downward slide of the price and then invited me to move in for the kill. What else can I say except "Thanks very much, Chris!"

The visit to London more or less brings to a close the account of a year in my life as a map dealer. I would like to thank the members who have told me that they found the diary an

enjoyable and interesting read. I would certainly like to thank the members who thought it tedious and trivial but said nothing to me. Re-reading the diary has made me realise just how many wasted journeys I actually make each month, although the successes usually erase any bad memories. To the former friend who rang me a few days ago and said that at his local jumble sale he bought a box of over two hundred OS maps for ten pounds and what did I think – I put the phone down and took the dog for a walk.

The editor has asked me not to screw on the top of my journalistic pen too tightly, so when I eventually find that secret cache of rare maps *Sheetlines* will be the first to know. In the meantime I suppose I ought to go to a few jumble sales.

Coloured urban roads on the one-inch Third Edition

R C Wheeler

The manner in which some minor roads in towns appear in colour, and thus nominally Second Class, has long been a source of puzzlement to me. Knowing that the tarmacadam surfaces were starting to be employed about the time the maps were produced had caused me to suppose that the partial introduction of such surfaces had resulted in the patchy effect one sees. Without independent data on which roads were tarred and when, the hypothesis remained untested.

I then came across R A MacBrair's *Annual Reports* in his capacity as Lincoln's City Surveyor. Up to 1915, these give a cumulative list of tarmacadam roadways made, with dates of each, and conclude with the sound advice that

it is believed that economy in maintenance, sweeping and watering, results from this substituted kind of roadway, except where the street was previously paved with setts.

Having also acquired a Third Edition Large Sheet Series of Lincoln (Sheet 47, revised 1906, first published 1909) it was an easy matter to make the comparison. What was difficult was to make any sense of the results, to find *any* rational explanation for the choice of coloured roads. The following examples should make this clearer.

White roads with tarmacadam surfaces:

Park Street (from High St to Beaumont Fee) (1896)

East Bight (1896) – this is a narrow lane and the work in 1896 seems to have been in the nature of an experiment.

Bank Street (1904) – quite a busy street now, as a result of a one-way system, but in 1904 as important as any street in the centre that was not actually a main road.

St Mary Street (1906) – principal access to GNR station.

By 1906 only a dozen or so stretches of road in the city had such surfaces.

White main roads:

Corporation Street – a new street cut in the late C19 to provide improved access from the present A57 into the town centre. It was given a tarmacadam surface in 1906.

Coloured roads scarcely passable for vehicles:

North side of St Swithin's church – road here is 6ft wide.

Steep Hill – Even the Roman Ermine Street at about this point resorted to steps. It is said that at some date round about 1820, Charles De Laet Waldo-Sibthorp for a wager drove four-in-hand down Steep Hill, but since at least 1842 there have been iron railings closing off the top of Steep Hill to wheeled traffic.

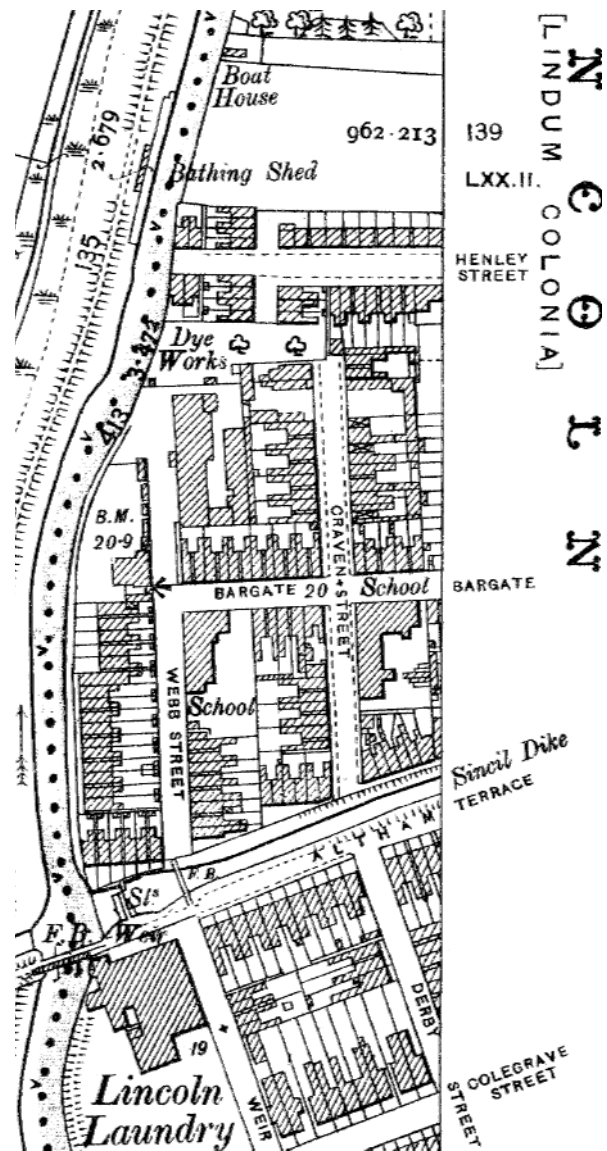
Little Bargate Bridge – the route across Sincil Dyke here is of undoubted antiquity but when Sincil Dyke was re-dug about 1826, only a footbridge was provided, not least because any vehicular access would make it possible to avoid the toll gate at the Great Bargate. There is another footbridge across Sincil Dyke two hundred metres west of the High Street which is also coloured up to 1912 but this is deleted on the 1920 printing.

Coloured roads that are entirely fictitious

Road along north side of Sincil Dyke west of High Street – the terraced houses here front directly onto the Sincil Dyke and the 'road' consists of a series of private pedestrian accesses from each of the cross-roads. These are dead-ends, continuous access being prevented by boundary walls which show every sign of being contemporary with the houses. The generalization from the large-scale to the New Series one-inch was perhaps ill-judged but is at least ambiguous. A one-inch reviser marking in the status of roads from inspection on the ground could not possibly have supposed that this was even a third-class road.

Connection from Webb Street to Henley Street – Private yards at the end of Webb Street are contiguous with private yards reached from Henley Street, but there is no indication that they interconnected, either in 1906 or subsequently.

Overall, it is difficult to avoid the conclusion that whoever selected the minor roads in Lincoln that were to be coloured did so solely on the basis of guess-work.



The contemporary 1:2500 (edition of 1907, slightly reduced) shows the true state of the north side of Sincil Dike and the absence of any connection between Webb St and Henley St.

Air photo mosaics: a short-term solution to topographic map revision in Great Britain 1944–51

Dr Christopher Board

Abstract

Initiated by the Ordnance Survey as a short-term remedy for the lack of up-to-date large-scale mapping, and badly needed for post-war planning and reconstruction, two series of air photo mosaics intended for official use were produced and subsequently published. At first only a series of mosaics at 1:1250 was planned, but planning authorities successfully pressed for a series of mosaics at 1:10,560 scale. Mosaics were produced originally for government departments, but were put on sale to the public to recoup some of the costs of production. Both series suffered from small demand, high price and interruptions in availability when they were withdrawn for security checks. Those areas covered by the series were selected by planners who needed up-to-date mapping for urban areas which had suffered from wartime bombing or had undergone considerable change. Some rural areas where local authorities had requested them to assist physical planning were also covered. By 1952 the mosaics had served their purpose as substitute maps and were being replaced by regular mapping at the same scales, but they are still valuable for the study of landscape change. Compared with conventional maps, the mosaics show more detail because they are less generalised. They show a rich variety of land uses and urban form, but they have few place names and no descriptive annotations.

One drawback to their use for studying landscape change is their amendment to obscure sites of secret installations. This was achieved by the substitution on the published mosaics of fake landscapes or false clouds to obscure secret installations.¹ Public Record Office files and Ordnance Survey publication reports enable one to reconstruct not only the coverage of the mosaics, but those which were subjected selective editing. Major libraries still hold copies of the unedited mosaics, but these are not yet available for study. Such falsification is strictly limited and mosaics can reveal for the English Midlands and South-East, South Wales and Central Scotland an image of the immediate post-war landscape which may be compared with later air photographs, mapping or the present landscape. Air photo mosaics may well provide the best detailed evidence of the development of urban housing, especially in London before 1940, since large scale mapping of that vintage is out of date or was very hastily revised on the ground. Comparison with German mapping updated from air reconnaissance missions in 1939–41 will be worthwhile.²

Early experiments in revising maps from air photography

Although Britain's national mapping agency, the Ordnance Survey, had experimented with air photography as a way of up-dating topographic mapping in the inter-war years, this had been confined to an 'artistic' air map of Salisbury published in 1919, and experiments to see whether air photography could be employed to revise 1:2500 plans forced OS to conclude

¹ C Board, 'Things the maps won't show us: reflections on the impact of security issues on map design', *Proceedings of the 15th International Cartographic Conference, Bournemouth*, 1991, Volume 1, 136–148.

² C Board, 'The secret map of the County of London, 1926, and its sequels', *London Topographical Record*, XXVII, 1995.

that it was not generally suitable. Indeed the official history of OS refers to the 'vast amount of work which still needed to be done before aerial methods could successfully be used'.³

When the Departmental Committee on the Ordnance Survey (Davidson Committee) reported in November 1938 it recommended the formation of an air survey unit within OS to aid more rapid updating of the 1:2500 plans, but practical difficulties and the outbreak of war put paid to civil air survey. Considerable topographic change occurring around cities and towns had by 1936 made the cyclic revision of 1:2500 plans inadequate for town planning purposes. In the short-term programme adopted by the Ordnance Survey in 1943 there is no mention of air photo mosaics.

The genesis of the air photo mosaic series

It was not until 1944 when George Cheetham, Director General of Ordnance Survey initiated another experiment in the Bristol area to see whether Royal Air Force (RAF) air photography could be employed to compile air photo mosaics at 1:1250. For rural areas the cost of overhauling the 1:2500 plans by ground survey would have been 'out of all proportion to its value'⁴ and not then undertaken. Cheetham envisaged a programme of air photography over twelve years starting in the summer of 1945. The Air Ministry agreed that the RAF should undertake this work, provided that the war with Germany were over and that the RAF's operational functions had priority.

Production of air photo mosaics for official purposes

Once the Ministry of Town and Country Planning had advised on areas which were to be given priority, permission was obtained from the Treasury in September 1945 to issue air photo mosaics to local authorities, public utility services and government departments at £1 per copy. So far only mosaics at 1:1250 scale were produced to meet the requirements of planning. These were stamped 'Circulation Restricted' and were not available to the general public and monthly cyclostyled lists of mosaics were sent to official OS Agents. Contemplating the wider use of these much more up-to-date products, by March 1946 Ordnance Survey turned its thoughts to problems created by the presence of features normally regarded as secret. A procedure was adopted for dealing with secret information on mosaics.⁵ In the meantime Dr Willatts of the Research Maps Office, Ministry of Town and Country Planning had asked for forty-one towns and the Birmingham conurbation to be covered at the 1:10,560 (six-inch) scale instead of the 1:5000 scale previously desired for planning the New Towns. Consultants urgently required these to draw up the plan for the Birmingham area. This request gave rise to the second series of mosaics, which covered a greater area and is better known. By October 1947 there was substantial coverage at the smaller scale in central Scotland and South Wales. Work continued into 1948 on producing the 1:1250 mosaics for London, partly to keep the new Air Photo Section occupied while the case for a 1:10,560 series was being prepared for submission to the Treasury. It seems that this move was driven by the desire to sell more copies to the public and thus to recoup more of the costs of production, which involved a kind of work not normally undertaken by the Ordnance Survey. The latter wished to concentrate on six-inch mosaics in spite of the

³ W A Seymour (editor), *A History of the Ordnance Survey*, Folkestone: Dawson, 1980, 235.

⁴ G G Cheetham, 1944. 57, to C T Houghton, 8 November 1944, in PRO OS1/1164 Revision of OS Maps. Air Survey. General File.

⁵ C Board, 'Things the maps won't show us: reflections on the impact of security issues on map design', *Proceedings of the 15th International Cartographic Conference, Bournemouth, 1991*, Volume 1, 145.

possibility that they would not pay their way due to small demand for a product five or six times the cost of a map at the same scale.

Expansion of the series for planning purposes

During 1946 it had become clear that town and country planning requirements were not merely for rapidly produced substitutes for the 50-inch to one mile (1:1250) plans but sometimes for 1:2500 plans and more often for six-inch (1:10,650) mapping which had become very out of date, despite attempts at rapid revision just prior to the Second World War. One reason for further delay in producing six-inch mosaics was the industrial haze which interfered with air photography of the Birmingham area. When pressed in September 1947, Ordnance Survey's Director of Field Survey who was not 'a great air survey enthusiast'⁶ agreed to ask the RAF to try infra-red photography. Shortly afterwards further justification for concentrating more on the six-inch mosaics was its use as revision material for updating six-inch, 1:25,000 and smaller scale mapping as well as a series for sale to the public. However, approval had to be obtained from the Treasury before a second series at the six-inch scale could formally be launched. In March 1948 support was solicited from the Ministry of Town and Country Planning and the Department of Health for Scotland, which dealt with planning there. The Director General's memorandum explained⁷ why air photo mosaics had been produced, but also reveals that there was a strong case for putting effort into the six-inch mosaics. The reply from the Chief Planner, S G Beaufoy, confirmed that the Ordnance Survey had done enough at the 50-inch scale to serve their purposes, adding that although they were acquiring stereoscopic air-photograph cover at 1:10,000, the six-inch mosaics were indispensable. No doubt this was because they were rectified and could be used as substitute maps and did not need any equipment or special skills to use them. It was pointed out that under the 1947 Town and Country Planning Act Local Authorities were obliged to produce plans within three years: and OS plans were out of date. 'So far as we can see, these air mosaics are going to be the only salvation of Local Authorities if they are to keep to the period of three years or anything like it.'⁸ On behalf of the Chief Planner, Willatts gave their order of priority to the East Midlands Coalfield, Greater Manchester, Merseyside, the Potteries, Birmingham and Black Country, South Wales and Greater London.

Air photo mosaics to be sold to the general public

Preparation for putting the six-inch series on sale required a paper justifying prices to be charged. This reveals much of the thinking behind the series. First it was regarded as a national service which cost OS far less, and could cost the customer far more, for a substitute map than would be charged for conventional maps at that scale. A wish to recover some of the costs of production lay behind the desire to increase sales. Calculations suggested that it would be necessary to sell thirteen times the current sales of each mosaic at fourteen shillings instead of the then price of £1, assuming that a stock were printed and sold through trade channels at a 25% discount. But twice that number would need to be sold to achieve the same level of 'profit' at 7s.6d (37.5p) per mosaic. It was generally felt within the Ordnance Survey that the bulk of sales would still be to local authorities, and a few others who had to have them, and that the general public's needs were better served by oblique air photographs. By

⁶ Seymour, *op. cit.*, 1980, 295.

⁷ Cheetham, 3 March 1948, in PRO OS1/304 Air Photo Mosaics: Sales to the Public, 219A, 219B.

⁸ S G Beaufoy, reply to DGOS, 18 March 1948, at PRO OS1/304 230A.

attempting to sell the mosaics more widely by publicising them cheaply, a different market could perhaps be reached. However it was likely that slightly higher rates of cancellations of stock held by agents would wipe out any profit. The paper concluded that selling at a price based on recoverable costs of compilation and printing was unlikely to increase sales to a worthwhile extent, and even less likely to recover a higher proportion of non-recoverable costs such as air survey. Due to the small demand for the series, the author advocated mosaics should be produced only for those areas for which there was a demand from the local authority and that all copies should be printed on demand, that the selling price should be decided in concert with the Treasury.

Fortified by the support of the planners, Ordnance Survey approached the Treasury in May 1948 with concrete proposals drawing attention to other reasons for the poor demand for mosaics, listing security regulations and the consequent lack of publicity, lack of complete coverage of towns except for two and their high price at £1 apiece. It sought authority for a series of six-inch mosaics for not more than six areas of county size selected by the Ministry of Town and Country Planning at a price of 10s retail (7s.6d wholesale). At the same time the 1:1250 mosaics would be continued to be produced for towns which were already 60% completed, but their price would be reduced to 7s.6d retail. However the Treasury did not accept the suggestion that mosaics should be printed to order, preferring that print-runs should be limited. They also accepted that mosaics could be regarded as temporary maps and could be priced by taking into account the costs of making the negative and positives, but not other preparatory work, such as rectification and compilation. Approval was given for a six-month trial from July 1948, extended for a further period ending in October 1949. Sales and issues of the 1:1250 mosaics to government departments averaged less than one per mosaic published compared with two and a half mosaics of the six-inch scale. The Ordnance Survey asserted that there was little doubt of a demand for the mosaics, but that sales were disappointing given publicity in the national press. For Scotland similar arrangements were agreed with the support of the Department of Health for Scotland. In the Central region six-inch maps were from twelve to fifteen years old, but thirty or forty years old elsewhere; even the Special Emergency Edition of 1938 was twelve years old and did not cover the country. Likely demand for mosaics was two or three copies of each published.

Official doubts about the mosaics as a series for sale

When the results of the lower prices had been reviewed by March 1949, of the 1:1250 mosaics, more than three times the number were presented free under the Copyright Act as were sold and issued, while nearly the same number of the six-inch mosaics were presented, as were sold or issued. This confirmed the greater demand for the six-inch mosaics, but did little to convince the Treasury that the experiment was a great success. Early in 1950 after further discussions with the Treasury a new policy was adopted for the publication of mosaics. Publication of the 1:1250 mosaics as a regular series would stop, except for those required to complete the London area. Specific mosaics could be ordered on demand but would cost £24 for the first one and 12s.6d for each additional copy. For the slightly more popular six-inch mosaics, Ordnance Survey would complete and publish those on which work had already started or which were required to complete the coverage of areas then nearly covered. After that, the publication of six-inch mosaics as a regular series would cease. Government departments such as the Ministry of Town and Country Planning would

be able to obtain mosaics as required. Mosaics would also be produced for local authorities who would be charged the costs of production.

The impact of national security policy on the air photo mosaic series

It seems that this restrictive policy was being driven by economic considerations, but the other pervasive issue, that of security, was also present in the winter of 1949/50. Suddenly in February 1950 the Ordnance Survey monthly Publication Reports began to advertise sheets of the six-inch mosaics 'republished with slight amendments'. The significance of this phrase is revealed by letters from Colonel Bagot, Ordnance Survey to the Superintendent of the Map Room of the British Museum to whom copies of all published sheets had been sent under copyright provisions. On 31 March 1951 he wrote:

I regret to have to inform you that for security reasons more Mosaics, a list of which is given below, have been withdrawn from circulation. [There follows the list of several six-inch and 1:1250 mosaics.] There were two editions of sheets 4204NE, 4204SE and 4253SE. The second editions which can be identified by a small 'B' in the bottom left-hand corner are not 'security'. I should be glad if any of these Mosaics held in your library could be withdrawn from any catalogues and made inaccessible to readers.

Republished editions carry the letter B and have had certain installations obscured by false fields or painted clouds. At the time of writing (April 1995) the original editions may still not be seen by members of the general public although they are held by the copyright libraries. Examination of the Ordnance Survey's monthly publication reports shows, for the six-inch mosaics at least, exactly which sheets were republished and therefore which of the original sheets contained installations on the secret list. Thus it is possible to identify those mosaics on which the representation of the landscape has been modified. There is no published record of the 1:1250 mosaics being republished in amended form, although Colonel Bagot's letter to the British Museum listed six sheets of the 1:1250 mosaics from Plymouth, London and Dover which were withdrawn from circulation. It can be assumed therefore that they had such a limited circulation, chiefly among planning authorities, that it was not worth the effort of falsifying them. Ordnance Survey sheltered behind the economic considerations when members of the general public wanted copies of a withdrawn 1:1250 mosaic.

Perhaps reinforced by the security issue, internal criticism of the economically driven policy continued, especially from the Director of Map Production and Publication who in November 1951 wanted to reduce stocks of mosaics and to stop making new ones. He thought 'the average member of the public would rather have an out of date map than an up to date mosaic...' There seems little hard evidence for this assertion, except possibly the view by the Assistant Director, Publication Division that the public were misled by relief appearing 'inside-out' because North was at the top. This appears to refer to what occurs to relief on air photographs if they are viewed with shadows created by illumination from the south or bottom.⁹

The last notification of mosaics being republished with slight amendments appeared in the report for May 1952. Thereafter economic considerations once again dominated the publication policy for mosaics. In June 1952 Bagot wrote to all Ordnance Survey agents recalling all stocks of mosaics because 'it is considered desirable to concentrate all copies of

⁹ Ordnance Survey, PRO OS1/305 Minutes 135, 22 November 1951 and 134, 19 November 1951.

mosaics at this office'.¹⁰ This had the virtue of following policy agreed with the Treasury and reduced the availability of mosaics to zealous seekers of information. Production of new mosaics all but ceased, and to save fruitless enquiries from agents and the public lists of those mosaics whose stock was exhausted were published in the monthly reports between August and October 1952.

Further impact of security rules

This remained official policy until early in 1954 when the sale of air photo mosaics was stopped, as recorded by a minute made by the Director, Establishment and Finance which read: 'The sale and issue of OS Air Photo Mosaics is one of the items that is likely to be affected by new security rules that are expected to be issued during the course of the next week or two. Meanwhile the DG has decided after consultation with DMP and DEF, that further sales and issues should be withheld'.¹¹ What precisely triggered this revision of security rules can only be surmised, but its effect was significant. For, in July of that year another minute referred to the problems created by the new situation, giving details of the impact of current instructions on the sale and issue of air photo mosaics.¹² Crucially, air photo mosaics had passed the test if they did not include a 'key point' [a secret installation], but now they had to be examined one by one to see whether they included a feature of the kind embargoed by the new restrictions on what kinds of things could be shown. As requested, information on average issues of mosaics was supplied later that month, showing that demand had declined considerably.

Average Monthly Issues of Air Photo Mosaics

	1949	1950	1951	1952	1953
six inch	390	370	170	160	40
50 inch	90	40	35	12	8

The number of issues to official libraries was considerable and extended beyond the usual places of deposit to the Natural History Museum. The National Library of Scotland had received 1395 six-inch mosaics; the Natural History Museum, 1524 plus 3432 1:1250 mosaics, and the Ministry of Housing and Local Government (incorporating the former Ministry of Town and Country Planning), 745 of the latter. It is also known that the Ministry of Agriculture had been issued six-inch mosaics and that some of these were annotated. Despite this evidence of use, Brigadier M O Collins, the Director of Map Production (DMP) wanted to get rid of mosaics. He thought that security implications made the series valueless and that the time had come to destroy remaining stocks and return the negatives to store. The Director of Establishment and Finance (DEF) disagreed, preferring to wait until August 1955. Not satisfied, Collins pressed the point with the Director General, arguing that any change in security regulations was irrelevant to a decision to cancel the series.¹³ In the meantime all mention of air photo mosaics was removed from the booklets describing medium-scale maps and large-scale plans whose earlier editions had included them.¹⁴

¹⁰ Ordnance Survey, PRO OS1/305 Minute 142A, 21 May 1952.

¹¹ Ordnance Survey, PRO OS1/305 Minute 143, 29 January 1954.

¹² C Board, *op.cit.*, 1991, 137.

¹³ Ordnance Survey, PRO OS1/305 Minutes 173-176, January 1955.

¹⁴ Ordnance Survey, *A description of Ordnance Survey Medium Scale Maps*, 1955 and *A description of Ordnance Survey Large Scale Plans*, 1954.

Official notification of the impact of this latest security complication was sent in September 1954 under confidential cover to government departments and the copyright libraries who had been receiving copies of mosaics. The letter reminded them that:

The issue and sale of Air Photo Mosaics was discontinued 'until further notice' pending consideration of the matter by a sub-committee of the Cabinet Committee on the Security of Economic and Industrial Information. This committee has now issued instructions to the effect that Air Photo Mosaics may not be supplied outside the Government service if they cover certain installations.¹⁵

As the security checking neared its end in October 1957, it was noted that some key points had been added to the list since the mosaics had been published. While not specifying which the new ones were, this justified the review, which was finally completed in December 1957. The complete list of all mosaics containing details of installations which appear on the current secret list is given in the Ordnance Survey file.¹⁶ It was reported to the Director of Map Production that 6% of the six-inch mosaics and 0.3% of the 1:1250 were in this category and therefore issued to the British Museum. Should the British Museum be told that 'in the interests of national security the listed mosaics are not shown to anybody?'¹⁷ In reply the Director of Map Production considered that the information in the list made it possible to release most of the mosaics for sale to local authorities and schools, to issue unclassified (non-secret) mosaics to the Commission on Ancient Monuments, but wished to defer discussion of access to the listed mosaics by readers at the copyright libraries such as the British Museum. Ordnance Survey were in no hurry to answer the British Museum's queries about the availability of the mosaics because someone had to examine carefully each of the listed mosaics to judge whether it disclosed the existence of a 'secret point'. Even in January 1958, the recommendation was still to take no action and it was not until 1962 that the issue again became a live one.

The end of air photo mosaics as an Ordnance Survey series

As the security checking neared completion in November 1957 the Ordnance Survey's Map Publication Division called for a review of policy to decide whether the remaining stocks ought to be written off. There were 3745 six-inch mosaics and 513 1:1250 mosaics in stock. Only four six-inch mosaics had been issued in the previous 15 months and no issues of the 1:1250 mosaics had been made for several years. A few requests for mosaics had been received, but all were turned down.¹⁸ No decision was taken at this stage. Five years later stocks had been reduced by issues to official bodies (137 in 1961) to 2222. There were then available 800 different six-inch mosaics and 96 at the 1:1250 scale. Once again the Publication Division recommended the cancellation of the Policy statement and writing off remaining stocks.¹⁹ Mindful of their value to the British Museum, the latter was given first refusal from a list sent to them.²⁰

¹⁵ Ordnance Survey, confidential letter to Superintendent of the Map Room, British Museum, dated 1 September 1954.

¹⁶ Ordnance Survey, PRO OS1/305 List 246A, 1957, to accompany Minute 246 dated 3 December 1957 by Assistant Division Officer, Large Scale Drawing Branch.

¹⁷ Minute 246, *op. cit.*

¹⁸ Ordnance Survey, PRO OS1/305, 243. Minute from Assistant Director, Publications Division to Director, Publications Division, 4 November 1957.

¹⁹ Ordnance Survey, PRO OS1/306, 9A. Note from Assistant Director, Publications Division to Director, Publications Division, 20 July 1962.

²⁰ Ordnance Survey, PRO OS1/306 33A. Letter from Lt Col C W Farrow to Director, British Museum, 9 September 1963.

Requests made to the National Library of Scotland (NLS) had disclosed that some individuals who were refused access to the mosaics in Edinburgh had seen them instead at the Department of Health for Scotland. The National Library of Scotland wondered whether the mosaics in their possession were no longer restricted.²¹ In a holding reply, Ordnance Survey stated that rules for the issue of air photographs had recently been revised, but that because of the age of the air photography most of the mosaics could be made available, 'pending a general ruling from the Departments concerned which they may not yet be in a position to give you, I suggest you should refer individual mosaics for decision on their release whenever any demand for them arises'.²² An inconclusive exchange of correspondence dragging on into 1963 indicates that the newly established Ministry of Housing and Local Government and the Scottish Development Department were responsible for security clearance for air photographs and it seems that no one wished to become involved in the painstaking task of checking each mosaic. Hence the issue remained unresolved – as it does at the time of writing.

The value of the air photo mosaics: then and now

When the Ordnance Survey finally decided to dispose of the remaining stocks of mosaics they approached the British Museum, who suggested that a set of those available be offered to a university, indicating that 'the six-inch mosaics are of great value to geographers and receive considerable use in this Map Room'.²³ The Director of Map Production sought the cancellation of the Policy Statement and approval for the action taken on disposing of remaining stocks, most of which were given to the new University of Sussex.²⁴

When the Ordnance Survey were on the point of cancelling the Policy Statement which had brought the mosaics into being, their assessment was that the series had achieved their aim. Only the Archaeology Division expressed any interest in them, but they had no idea how useful they were without examining each one.²⁵ It seems that the desire to release storage space was more pressing and consequently the Ordnance Survey kept no record copies of the mosaics. Nevertheless the mosaics, for all their faults, contain much more detail than appears on the maps that replaced them.

For the Ordnance Survey, the air photo mosaics were not themselves used to revise large and medium scale mapping. They were not sufficiently accurate. Mosaics were temporary maps whose value to OS was to fill a short-term gap in the supply of up-to-date mapping, but to be replaced by regular mapping as soon as it was available. But for geographers and historians one of their chief advantages lies in their being rectified and related to National Grid sheet lines, making comparison with later mapping much more straightforward. Extra information not found on regular maps includes land use, field boundaries on the six-inch mosaics and even traffic flow on the 1:1250 mosaics. The date of air photography is given on each mosaic. Falsification of some detail on some mosaics presents a complication, but it is possible to identify those six-inch mosaics which were 'doctored' and thus to infer from detailed inspection and local knowledge which areas on the mosaics do not represent the

²¹ National Library of Scotland, letter from Keeper, Dept of Printed Books to Director General, Ordnance Survey. PRO OS1/306 dated 11 October 1962.

²² Ordnance Survey, PRO OS1/306. Letter 12A to NLS, 18 October 1962.

²³ Letter from the Superintendent, Map Room to Director General, OS, PRO OS1/306, 10 September 1963. PRO OS1/306 34A.

²⁴ Ordnance Survey, PRO OS1/306. Minute 44. Report from DMP to DG's Committee, 12 December 1963.

²⁵ Ordnance Survey, PRO OS1/306. Minute 30 from Archaeology Officer to Assistant Director Production, 5 September 1963.

landscape at the stated date of air photography. In some parts of lowland England enormous changes in land use and the removal of field boundaries have taken place since with increasing economic support for farming until quite recently. Drainage and enlargement of fields coupled with mechanisation have all played their part. The provisional large-scale maps at 1:10,560 and 1:25,000 of the early post-war period do not normally reflect the changes wrought by the plough-up campaign to increase food production during the Second World War. For students of the rural landscape, the six-inch mosaics deserve to be taken seriously as an additional source of information to be examined in association with the maps made for the National Farm Survey 1941-43.²⁶ For students of urban geography the larger scale mosaics give some depth to the urban landscape as it existed for those towns and cities which were badly affected by wartime destruction and before reconstruction on a grand scale began. In particular the almost complete coverage for London warrants much closer inspection as a record of urban land use and traffic densities to supplement contemporary planning documents. It is now clear that the hastily revised large-scale maps of the London area incorporating revisions to the three-inch map of London and earlier coverage in 1938 as a precaution against air raids is inconsistently revised and of dubious accuracy.²⁷

Major collections of air photo mosaics survive in the copyright libraries in London, Oxford, Cambridge, Edinburgh, Aberystwyth and Dublin, as well as at the University of Sussex in Brighton. Unfortunately there still remain problems of access to some of them by members of the general public.

Note. Sources in official files in the Public Record Office are given thus: PRO OS1/.

Afterword: updating the security situation

The paper reprinted here was delivered at an international conference outside the UK and was not well known. Only a few members of the audience were aware of the issues involved in protecting the status of certain features which would have been visible on air-photo mosaics, had they remained unedited, or 'republished with slight amendments'. Keen and sharp-eyed readers of recent *Sheetlines* will have spotted the unattributed 'space filler' entitled 'No more security deletions?'²⁸ This was occasioned by a television broadcast and an official explanation as to why air photographs were now on sale to the public which showed the shapes of certain buildings hitherto not permitted to be shown. It was reported that the D-notice system was changed to allow aerial photos of such places as Royal Ordnance Factories.

In the paper I concluded 'there still remain problems of access to some of [the mosaics] by members of the general public'. Just before the paper was delivered in 1995, but after it had been accepted and printed in the Proceedings,²⁹ I was informed by Tony Campbell of the British Library that he had received a letter from the Ministry of Defence to say that 'the restrictions originally imposed on access to the Air Photo Mosaics of the United Kingdom, dating from 1947 to 1953, and the associated correspondence are now lifted'.³⁰ This was in response to a request to National Monuments Record for formal access to be given to the

²⁶ See W Foot, *Maps for Family History: a guide to the records of the Tithe, Valuation Office, and National Farm Surveys of England and Wales, 1836-1943*. Public Record Office Reader's Guide No 9, 1994.

²⁷ C Board, 'The secret map of the County of London, 1926, and its sequels', *London Topographical Record*, XXVII, 1995.

²⁸ *Sheetlines* 64, 38.

²⁹ *17th International Cartographic Conference, Barcelona, Sept 3-9 1995, Proceedings*, Vol. 1, 1246-1255.

³⁰ Deputy Departmental Record Officer, Ministry of Defence to Map Librarian, The British Library, 25 August 1995.

original versions of six-inch mosaics SU97NE, TQ07NW and TQ07NE. These showed the Guards' Polo Ground, Datchet Common (anti-aircraft battery), Hawker's aircraft factory near Colnbrook and Heathrow airport in an early stage of its development. The first had been obscured by a single cloud, and the second had been replaced by a partly convincing representation of market-garden fields both of which were obvious on the B editions, especially when I was armed with local knowledge of the ground.³¹ Tony Campbell subsequently informed the Map Library in the National Library of Scotland of the history of the derestriction of embargoed mosaics and passed to them a copy of my paper reproduced above. It is clear that all air photo mosaics in legal deposit (and other) libraries are now derestricted.³² It would also seem that the effect of the change in the D-notice system should extend such derestriction to ordinary air photographs of the UK.

My paper, following the records preserved in the PRO, indicated that clouds were painted over the original image in order to obscure what sensitive information was there.³³ I have learned that one simple method of covering up such detail was to place a blob of cotton wool on the mosaic prior to re-photographing it.³⁴

Only recently the GeoInformation Group has become involved in a project to map those parts of the UK which were covered by RAF air photography and the more limited areas served by the mosaics made from them. Their object has been to create a continuous image map from stitching together mosaics by scanning at 600 dpi. Cassettari, when presenting his paper³⁵ to the Reading conference of the British Cartographic Society in 2003, showed a short newsreel by Pathé which described the innovation of photo mapping without of course revealing its secrets. The project uses the collection now housed in the University Library's Map Library, one of several collections, none of which appears to be comprehensive.³⁶

A few caveats must be entered at this point. The issue of security was ignored because the mosaics were intended only for government service, and became an issue only when the OS proposed to sell them to the public to cover some of the costs of production. Urban cover was dictated by the needs of planning concentrating on war-damaged cities.³⁷ In the early stages of the Ordnance Survey project, it had been hoped to cover the entire country, as large-scale mapping was often very out of date. This may explain why the South East of England is relatively well covered. The GeoInformation Group must be congratulated on lighting upon an accessible source for the study of landscape in the immediate post-war era. It is to be hoped that by the judicious use of RAF photography to fill the awkward gaps in coverage in the South East a more complete record can be created. One possible use would be to determine the post-war extent of hedgerow loss in the East of England, since the field boundaries on the 1:25,000 scale maps are based mostly on pre-war large-scale mapping. Care should be taken to use the unamended mosaics, as the presence of patches of past landscapes on the amended mosaics lie in wait for the unwary researcher.

³¹ See illustrations. Reproduced from copies supplied by the Cambridge University Library.

³² These would include the collection at the Commission on National Monuments England at Swindon.

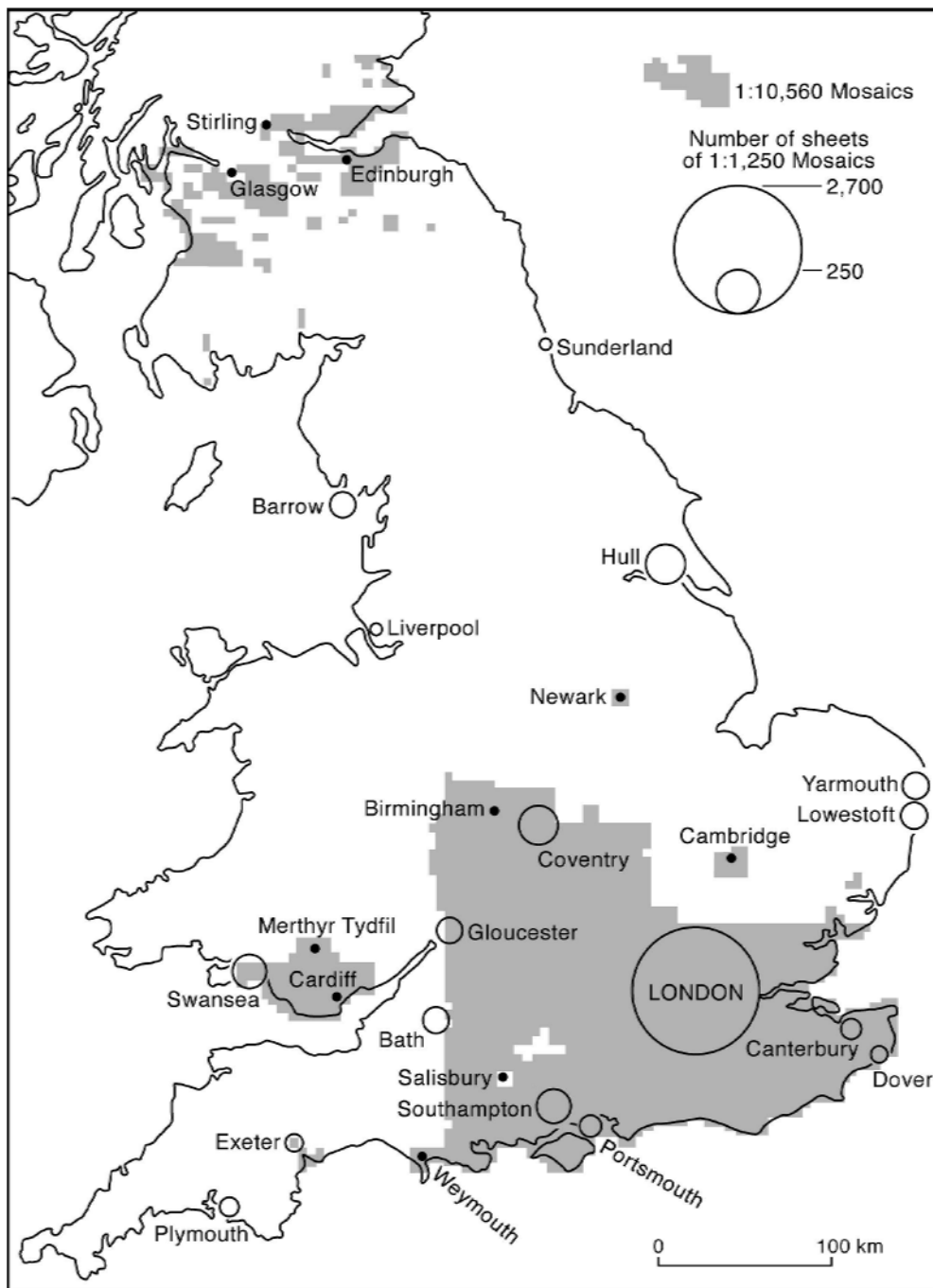
³³ Board, 1995, 1251.

³⁴ Personal communication, Peter Collier, University of Portsmouth.

³⁵ Cassettari, G (Seppe), 'Post War Ordnance Survey Photo Maps', *Bulletin of the Society of Cartographers*, Vol. 37 no.2 (2003), 57-58.

³⁶ Collections of air photo mosaics are held by the British Library, Cambridge University, the Bodleian, National Library of Scotland, Royal Geographical Society and University of Sussex.

³⁷ Coverage is displayed on the map accompanying this paper, shown but not reproduced in the conference paper in 1995.



Above: Coverage of 1:10,560 and 1:1250 air-photo mosaics

Opposite page, top: Extract from original air photo mosaic scale 1:10,560, 51/07NW, Hawker Aircraft Factory and airfield, Langley, east of Slough, Buckinghamshire. National Grid reference TQ (51) 020 785. Camouflaged roof of the factory and airfield on which a few aeroplanes were seen parked. Further east are the hamlet of Sutton and Richings Park. To the west are Horsemoor Green and the Meadfield Estate in Langley Marish. Southwards, on open land, nurseries and market gardening predominate. The Bath Road (A4) lies just off the bottom of the view. 'Richings Park' is in sans serif capital letters, a characteristic of the original editions.

Bottom: Extract from B edition of air photo mosaic scale 1:10,560. 51/07NW. The large airfield seen on the above has been replaced by fields based on the six-inch to one mile map, Buckinghamshire 56 NE, or on the 1:25,000 GSGS 3906 53/18 NE. Closer examination reveals that Parlaunt Park Farm within the airfield had been painted unconvincingly at its former location. The former farm tracks have been straightened and appear more prominent. 'Richings Park' now in Roman capital letters.



Mosaics reproduced by kind permission of the Syndics of the Cambridge University Library

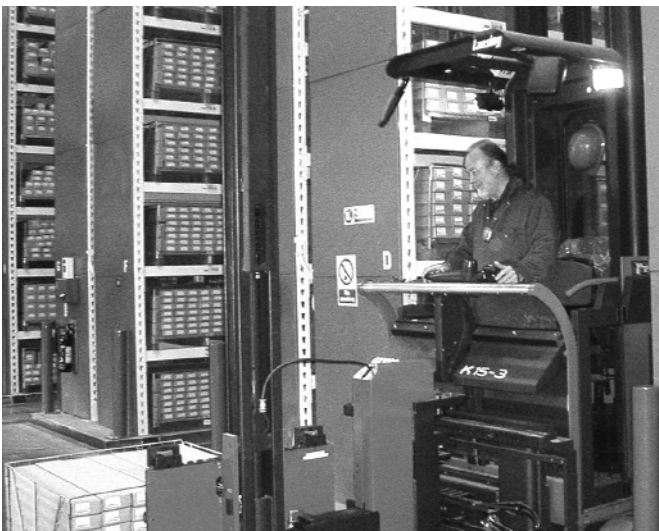
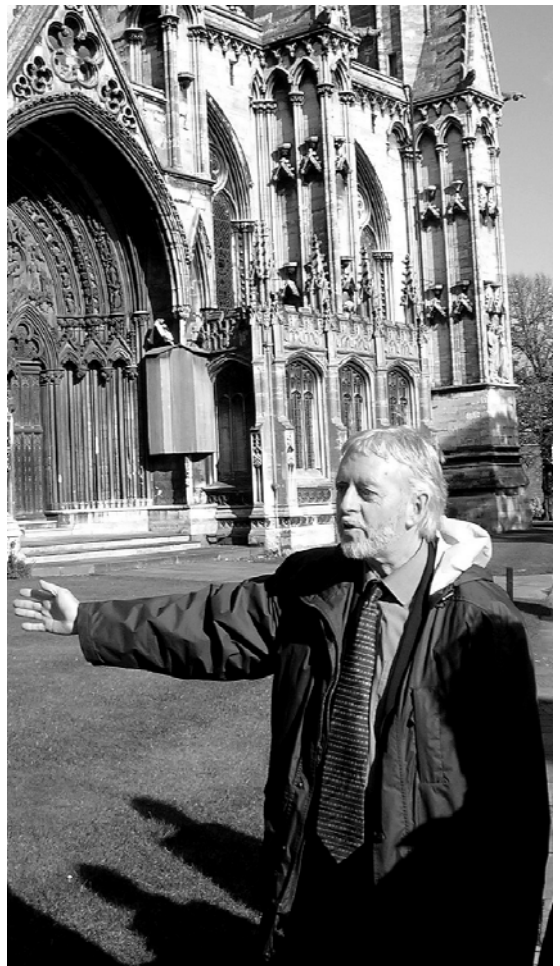


Summer and autumn meetings

In July we discovered that 'library stock' at the British Geological Survey, Keyworth included not only a dazzling array of maps (above) but also core samples – with a fork lift truck (below) to provide access, see page 4.

On 16 October, in Lincoln for the launch of a historical atlas of the city, we were privileged to be led on a walking tour by the City Archaeologist, Mick Jones (right).

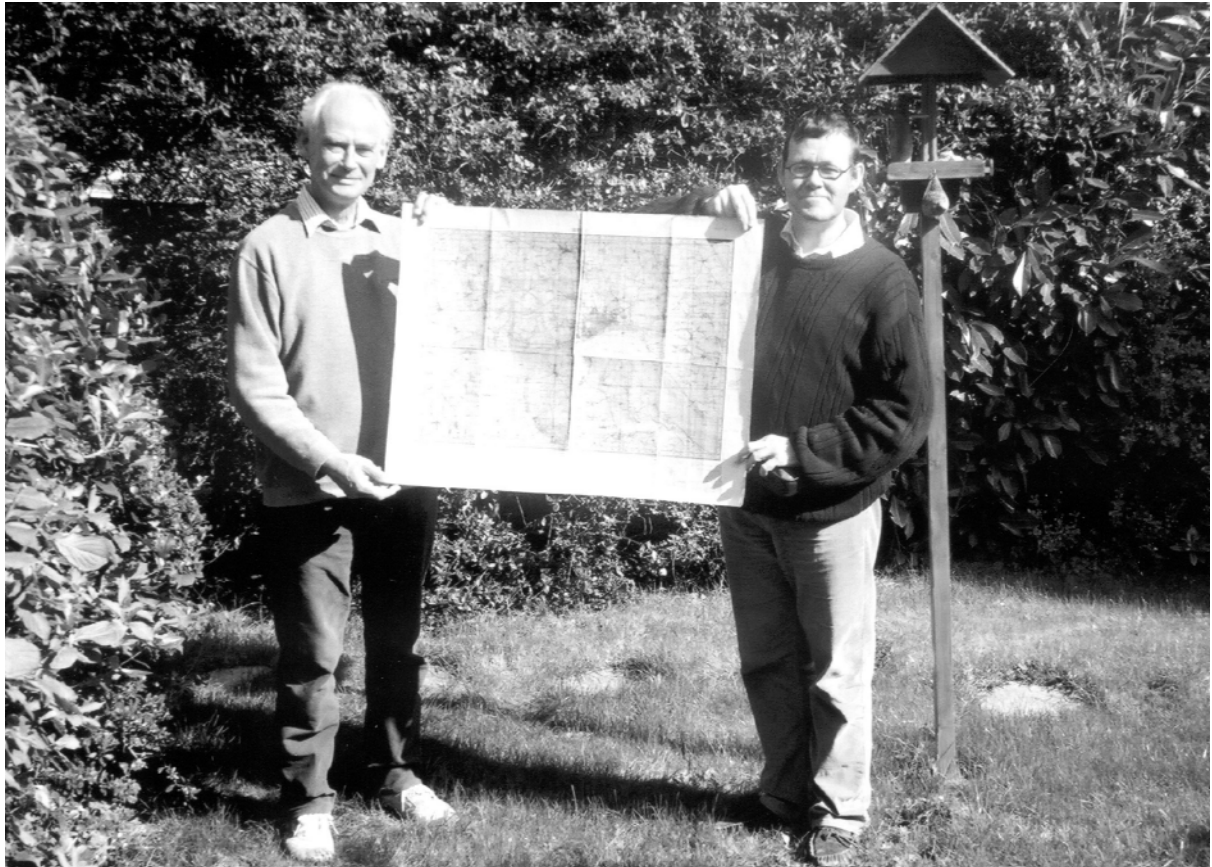
Pictures on this page by Gerry Jarvis.





GERRY JARVIS

At the Badley Library, Larkhill, on 2 September Amanda Young, seen with her assistants Pam Moilfied and Chris Jones, presenting a copy of 'Gunners at Larkhill' to Society Chairman and ex-gunner, Chris Board.



STEVE BRAIM

Roger Hellyer (left), sheet 33 (centre) and Richard Oliver (right) at the committee meeting in Exeter on 2 October. See page 44.



An air traffic controller at work at Croydon Airport in 1930 (above) and (below) the author with the same map, now on view in the Visitors Centre.



Ordnance Survey air maps and air traffic control

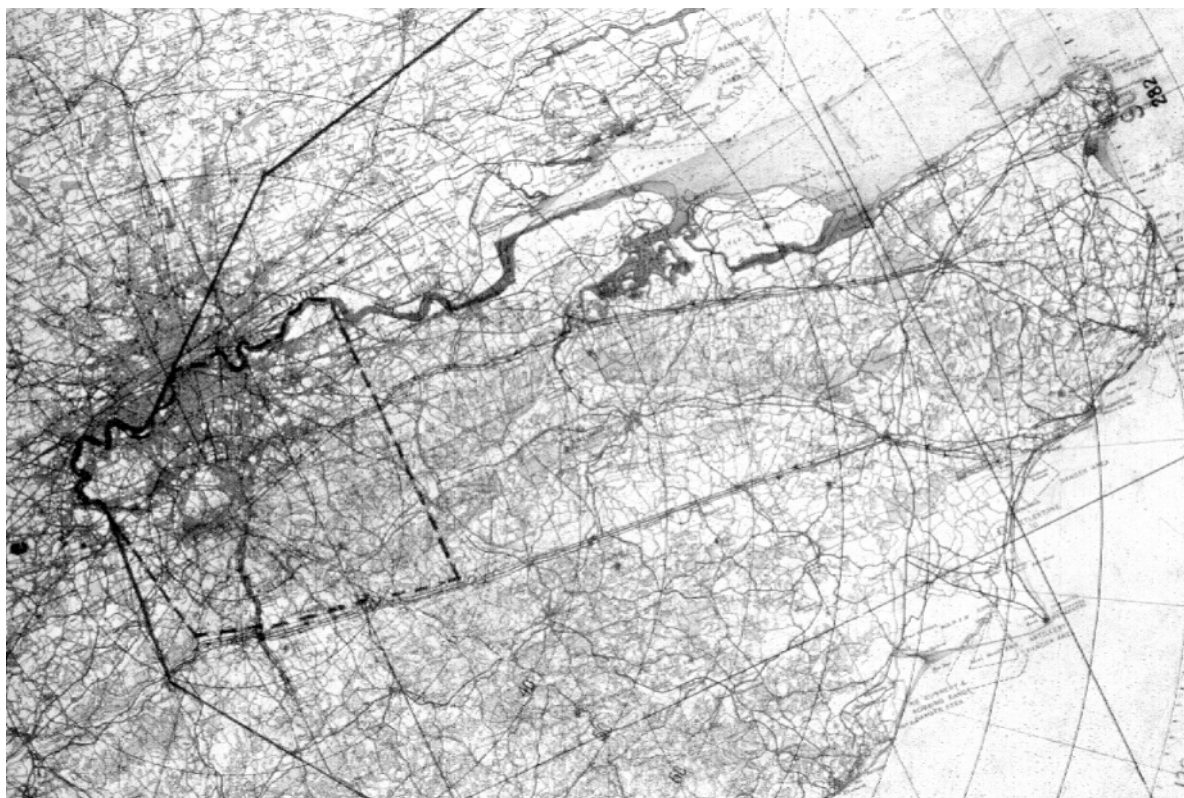
Tom Samson

One of the most historic items on display in the wireless room of the Air Traffic Control Tower at Croydon Airport is a map. This was in use in 1934 and preserved when the Airport closed in 1959. It was produced by combining a quarter-inch Ordnance Survey sheet of south-east England with the equivalent sheet of north-east France. The positions of incoming and outgoing airliners were marked with small coloured flags when these positions were reported by wireless. The colours indicated which airline was operating the aircraft.

Air Traffic Control was created at Croydon in the 1930s by James Jeffs, the Senior Controller at that time. During World War II he became involved with air traffic control of trans-Atlantic flights. Afterwards he was the Commandant of Prestwick Airport and later was appointed as the first Commandant when London Airport opened at Heathrow.

Position finding by wireless was first established at Croydon in the 1920s. The system used was a simple method of triangulation. The wireless operator in the airliner would depress his morse key to emit a continuous signal. Directional bearings would be taken by goniometer at three locations – Lympne in Kent, Pulham in Norfolk and Croydon itself. The bearings were relayed to Croydon by telephone and plotted on a chart to establish a latitude and longitude position which was then passed to the airliner. The procedure took two or three minutes from the initial request.

Navigation in clear weather was simple. Take off from Croydon to the south; follow the railway line to Redhill; turn left along the long, straight railway line to Tonbridge, Ashford and Folkestone; then a short sea-crossing to France and repeat of the system to Paris. Pilots



This extract shows both the Croydon Control Zone (dashed line) and the larger South East England Zone. Air routes are marked along the railway lines through Canterbury and Ashford.

would always fly to the right of the railway to avoid risk of collision with aircraft coming in the opposite direction. In bad weather conditions it was not unusual for a pilot to land in a large field to ask the way. If unable to take off again it was his duty to arrange a taxi to take the mails straight to Croydon or other suitable centre. A number of aviation beacons were erected along the route to aid night flying. An additional aid was the painting of names on station roofs, an example being TONBRIDGE.

Early Ordnance Survey quarter-inch aviation maps had the main air routes marked, together with golf courses (useful for forced landings) and the aviation beacons. The *South East England* sheet showed the first Croydon Control Zone that was established and also the South East England Zone. Pilots would have to obtain permission from Croydon to enter these zones.

The Croydon Airport Society has a number of archive maps available for research. These include some sheets mounted on aluminium panels. Another unique item is a series of strip maps, mounted on canvas with wooden rollers, depicting the complete route from Croydon to Cairo. All these items can be viewed at the Croydon Airport Visitor Centre which is at Airport House on Purley Way, Croydon. This is opened on the first Sunday of each month from 11 a.m. to 4 p.m. Group visits can be arranged at other times.

Further information is available from CCS member, Tom Samson, on 0208 660 8821.

Paul Baker: not quite as expected... *a mappy ramble led by Richard Oliver*

I – Buffo

Subjective significance: reminiscences of a collector

In the Ordnance Survey bi-centenary issue of *Sheetlines* in 1991 I made a short contribution to a group of articles on the theme of ‘my favourite map’. As I don’t have a single favourite, I decided to be bold and write about the map which stuck most in my mind and which I had least opportunity of studying.¹ So I described how, one day in July 1965, at the age of eleven years and four months, I had my first sight of a GSGS 3907 one-inch sheet in the short-lived style of the early 1930s, with no wood infill and all roads printed in the same yellowy colour. This impressed me more than anything I had yet encountered with a sense of the fourth dimension in mapping, and I wanted to own a map like it. The map was brought to school by a contemporary of mine called Paul Baker, as I had acquired something of a reputation for being map-minded, and for behaving enthusiastically when confronted with something new cartographically. I left the school a few days later and lost all contact with it, and then we moved from the town shortly afterwards, so I don’t know what has become of either Paul Baker or of what was really his father’s map. The sheet in question was 33 *Hull*, published at the War Office in 1932; as my father had a copy of the reduced-margin style of GSGS 3907 Second War Revision sheet 57, I knew that there was something called the Popular (1932) Edition, and it was evident that sheet 33 was an example.

¹ Richard Oliver, ‘A trip into the past or, Has anyone seen Paul Baker?’, *Sheetlines* 31 (1991), 10-11. In 1998 I was asked to contribute on the ‘favourite map’ theme to the newsletter of the British Cartographic Society Map Curators Group: I listed seven maps, headed by the ‘Paul Baker’ map which is the subject of this article: see Richard Oliver, ‘The problem with “favourite” maps’, *Cartographiti* 54, June 1998, 14-16.

Attentive readers will notice a confusion of Ordnance Survey and War Office mapping. They may also be wondering where they can find something with 'Popular (1932) Edition' printed on it. In fact, like the one-inch Old Series, which didn't become 'old' till replaced by the New Series, there never was a map calling itself 'Popular (1932) Edition', and the term only appeared a decade later. Like so much else about the 'Paul Baker map', things turned out not to be quite as they seemed, but it took several decades to realise this.



The writer's reconstruction of the scene in the playground at St James's School, Grimsby, around lunchtime one day in lateish July 1965: he is second from left, Paul Baker (to be interpreted symbolically rather than realistically) is third from left. Observe complete lack of interest from the others in the vicinity.

Over the next few years I learnt rather more about OS mapping, some of it from published sources, and more by inference from the maps themselves. It became apparent that there were actually *two* parallel 1:63,360 series: the civil one which was referred to in what there was of the literature in those days, and a military one which only really surfaced when sheets of the War Revision and Second War Revision were put on sale as a makeshift measure during World War II. Generally, militaria has repelled rather than attracted me, which may be something to do with encountering my father's old RAFVR uniform in mothballs in the spare room wardrobe when I was quite young, but there was an intangible quality of, for want of a better word, mystery about military versions of standard OS maps which was different. I continued to be haunted by the 'Popular (1932) Edition' generally and by sheet 33 in particular.

My father had been buying OS maps since the later 1930s, which was an inescapable influence: I started acquiring 'old' maps on my own account in the later 1960s. This was facilitated by the heyday of the jumble sale, and where we were now living in Surrey was well provided with them. Nowadays it is quite different; it is the Age of the Charity Shop, jumble sales are nearly as much a thing of the past as people who do not put an unnecessary, if not downright nonsensical, interrogative at the end of every other sentence, and no doubt in

a few decades historians will be writing theses and monographs with titles such as *Elections and party management in the age of the charity shop* and *The jumble sale and the crisis of economic management in the age of Wilson and Heath*,² giving extraordinary insights of which contemporaries were quite unaware and would probably have disagreed with profoundly.³ Anyway, thanks to jumble sales several useful little collections of maps came my way, and in April 1969 one yielded Popular (1932) Edition sheets 32 and 38 (to the west and south-west of sheet 33). Sheet 33 seemed quite possible.

In fact, sheets 32 and 38 must have been not merely a fluke, but almost a Flook.⁴ My copies aren't unique, but other exemplars certainly don't clutter the second-hand bookshops. As the 1970s became the late 1980s it became apparent that finding a 'Paul Baker' sheet 33 wasn't going to be very easy. On the other hand, it still seemed within the bounds of possibility: in 1990 a bookshop in Sherborne (the only occasion to date that I have set foot in the town) yielded Popular (1932) Edition sheet 28 (the sheet to the north of 33). I continued to visit second-hand bookshops. The house continued to fill up, quite alarmingly so, but there would always have been room for sheet 33. The history of cartography generally, and that of the OS in particular, moved forward: cartobibliographies started to appear of OS one-inch maps. I was responsible for some of them, and prepared one for the military versions of the one-inch, based almost entirely on the British Library collection (then very restricted in scope), and a few private collections. It was not intended to be published, and was more for the convenience of a checklist for collectors. I wrote my little piece for *Sheetlines*, and said that I'd prefer a 'Paul Baker' sheet 33 to a 1913 *Killarney*, given the choice: but eventually a *Killarney* was offered, at a reasonable price (for a *Killarney*) and joined the collection. No doubt a sheet 33 would have been cheaper...

Cartobibliography: the art of the publishable?

In about 1994 Roger Hellyer and David Archer set on foot a project to produce a volume of small-scale index maps; this led to an investigation of numerous map libraries and collections, including that of the Ministry of Defence. This last was probably rather more important in its results than we had anticipated, as it suggested that it might actually be practicable to produce a plausible and hence publishable cartobibliography of the military versions of the OS one-inch. By the mid-1990s I had seen a considerable number of these, and both Roger and I had been actively acquiring pre-1939 examples for our collections. Even putting these together, and inferring what we could from cumulative print-codes, it was apparent that our knowledge was very fragmentary. However, it was not this so much as apparent holes in knowledge of post-1940 series which had suggested that a cartobibliography of the military one-inch was not going to be an easy proposition. There were two noticeable gaps. One was that quite a number of sheets which had been published in Second War Revision form in GSGS 3907 obstinately refused to turn up as War Revisions; the other was a similar lack of printings of a large number of Seventh Series sheets in the early six-colour style (GSGS 4620, later M722), *i.e.* without tree symbols in woods. Roger's investigations for the indexes project drastically reduced the number of 'missing' War

² Or *How I learned to stop sniffing and love the stale smell*.

³ Charity shops do sometimes yield maps, and do sometimes offer more recondite fare than standard later twentieth century 1:63,360 and 1:50,000 mapping, as witness the large stock in the Amnesty Bookshop in Cambridge recently.

⁴ A strip-cartoon character in the *Daily Mail* between 1949 and 1984. The writer is a custodian of a specimen of the probably extremely rare North Lincolnshire Woolly Flook (*Flookus Trogus Decadus Lindsiensis*.)

Revisions, and indicated that my assumption about conversion of the military version of the one-inch from a New Popular to a Seventh Series base in step with publication of the civil version was false: so I stopped looking for a treeless military printing of sheet 105. (Note the symmetry: in the early 1930s the military one-inch had tree-symbols but no infill, in the 1950s it had infill but no symbols). All those elusive 1931-39 printings with the Modified British System grid and their yet more elusive predecessors with the British System grid had to be out there somewhere, including the 'Paul Baker' sheet 33. I suppose another reason for my continuing pursuit of this map was that over the years I had acquired a number of maps which, on any rational estimate, ought to have been still more elusive. Either that, or I had seriously misled myself in the reading of OS records. But then there are at least three copies of the Seventh Edition pilot sheet 142 *Hereford* of 1949 in private hands, although only about 400 were printed and none were available to the general public. The impossible turns out to be realistic, even a matter of course, after all.

The military one-inch cartobibliography has now been published by the Charles Close Society, between hard covers.⁵ Roger Hellyer's name and my name both appear on the title page: at a conservative estimate Roger did 95 per cent of the work, being responsible for the cartobibliography and all the travelling that entailed, whereas I only wrote the introductory essay, which is really largely a reworking of existing material. (Another symmetry: for the last three volumes of the Harry Margary facsimiles of the OS one-inch Old Series I was mostly responsible for the cartobibliography and Brian Harley was mostly responsible for the introductory essays.) As the work went forward, so some of the gaps were filled, but there are still a considerable number of instances in the finished book where we are morally certain that a sheet existed either in the British System style (printed 1923-32) or the early Modified British System style, without wood infill (printed 1931-3), but no copy has turned up. One such was the 'Paul Baker' sheet 33. We got as far as the likely print-code for it, 1250/33, from a cumulative run on the 1936 printing of the sheet, but then there were quite a lot of instances where these cumulative print-codes were the only evidence for a printing. Anyway, I'd actually *seen* the thing in 1965! However, we did learn enough from the print-codes to get some idea of the chronology of printing both the British System and Modified British System maps. It was apparent that a nominal War Office publication date did not necessarily imply printing in the same year, and indeed sheet 28, nominally published in 1932, was actually printed in 1933. Had 'Paul Baker' turned up, then he would have been a 1933, not a 1932 map. But then I didn't learn anything about OS and WO print-codes until, probably, some time in 1966.

A difficult time for authors

The most fraught time for the author of a book is the 48 hours before and the 48 hours after the first printed copies are received. Some important point comes to light which it is too late to do anything about, or the ISBN is wrong or, despite everything, there is an elemental idiocy in a caption to an illustration. If there are illustrations in colour you sometimes feel you should have put your foot down a bit more firmly about the precise shades used. A case in point is the first printing of my *Ordnance Survey maps: a concise guide for historians*, where I noted a 1:2500 revision of Taunton in about 1913-14, recorded in an OS annual

⁵ Roger Hellyer and Richard Oliver, *Military maps: the one-inch series of Great Britain and Ireland*, London: Charles Close Society, 2004: ISBN 1-870-59822-9.

report, but said that no copy was known. On the day, or the day following, receiving my first copy of the *Concise guide* I was in the Somerset Record Office in Taunton, and a copy of the missing mapping presented itself to me. I put it that way because, first, I was there to look at enclosure maps rather than OS maps and, second, someone had had the maps out of their cabinet, presumably to find out what Taunton had been like eighty years earlier, or otherwise in The Past, and there they were, waiting to be put away again. No doubt I am nosy, but maps lying around do rather invite inspection, don't they, in the way that books or loose papers somehow never do. Anyway, the *Concise guide* sold well enough to justify reprinting within the year, and I took the opportunity to make the necessary correction. However, I don't usually go to reprint, and thus get off so lightly.

For *Military maps* the apparently critical time turned out to be the 48 or 72 hours before the computer files got beyond adjustment before being used for direct-to-plate printing technology. Roger had found a small group of pre-war GSGS 3907s advertised on Forbes Robertson's website which filled in some of the gaps. There was just time to get them into the cartobibliography. It turned out that amongst them was a copy of the 1250/33 printing of sheet 33, the 'Paul Baker' map. It wasn't the same copy, as the one I'd seen in Grimsby thirty-nine years before had been folded six-by-two, and this was folded four-by-four. I suppose I shouldn't be so standoffish about the Internet... Anyway, a few weeks later we had a Charles Close Society committee meeting at my home in Exeter, and persuaded Steve Braim to take the photograph on page 37.

I probably had less time to look at sheet 33, 1250/33, in 2004 than in 1965, but I did notice something which I wouldn't have looked for until a few months before. To understand its significance I must explain a little.

One of the things which had struck me immediately in 1965 was the colour scheme: not just a single colour for roads, but no colour at all for woods. I had not then seen many pre-war OS maps, but the examples of the War Revision (orange or chestnutty roads), New Popular Edition (red and yellow roads) and Seventh Series (red, brown and yellow roads) suggested a tendency to increase the number of colours. Introducing green for woods some time after 1932 seemed logical enough; after all, the only Old Series sheet to hand, a small reproduction of part of sheet 46, was unquestionably monochrome. Introduction and increase in colour seemed part of a positivist paradigm, of Things Getting Better All The Time, whatever contrary signals might have been emerging from Mr Wilson's government, seen from the viewpoint of an instinctively conservative schoolboy, who would not have known a positivist paradigm if one had been served up instead of the fish and chips at Friday lunches.⁶ Widening acquaintance with OS maps over the next couple of years showed that things had developed rather differently. True, road infills *had* started with a single colour, but the civil version of the Popular Edition used two. And woods had been infilled since the 1900s... Oh, and the depiction of buildings on the Seventh Series turned out to be more generalised than on the New Popular Edition: I remember being greatly disappointed on realising this as I studied the suburbs of Tunbridge Wells from a distance of 170 miles or so, one evening in the dormitory at school early in 1966. Still, I suppose this implied disruption of lineal development was a useful start for one who would be collaborating with J B Harley a couple of decades later...

⁶ The significance of this is that easily the worst fish and chips I have ever had was for Friday lunches between January 1962 and July 1965, courtesy of the Grimsby school meals service. At that time Grimsby had a claim to be the greatest fishing port in the world: which is perhaps a proof of the proverb that cobblers' children are the worst shod.

II – *Serio*

Colour schemes of the 1930s

Before 1923 there was no separate military edition of the national one-inch map.⁷ In that year special military printings began, distinguished by the replacement of the squaring on the black plate by a military grid – the British System – on a separate purple plate. The military edition thus needed one more printing than did its civil counterpart, and needed a specially doctored black plate. The British System grid was unsuited for operations over a large area, and so the Modified British System was devised. Between 1931 and 1933 all the British System military mapping of Britain and Ireland was replaced by sheets carrying the Modified British System. The opportunity was taken to redesign the military one-inch; in future one road-infill colour would be used and woods would be shown only by symbols on the black plate. This would save two printings, and though it would still be necessary to print the grid in purple, the military version of the one-inch would need one less printing than would its civil counterpart. That economy in printing was in mind is evident from later (1930-2) printings of the British System sheets also lacking wood infill. No woods and one colour for roads was the style used on what I used to refer to as the ‘Popular (1932) Edition’, and it was also used on later printings of the 1:25,344 military map of the Eastern Counties (GSGS 3036), but it was evidently not wholly satisfactory, as from 1934 the military one-inch was once more printed with woods in green. Perhaps even less satisfactory to users was omitting road infills entirely: GSGS 3907 sheet 144 was printed in this style, but unfortunately the only known copy has had its margins cropped, and it is at present impossible to place it chronologically.⁸ The actual shades of ‘yellow’ used for the road infills varied considerably: for example the 1931 printing of sheet 115, which seems to represent the earliest stage, is decidedly lemony, whilst that of sheet 28, of 1933, is orange-brown. The intention is clearly the same: the practice, and so the whole ‘feel’ of the map, is radically different.

Though the style introduced in 1931 apparently economised on printings by using one road-infill plate instead of two, it followed its civil counterpart in another respect, in that separate water-infill plates – standard on the Scotland Popular, and used for most sheets containing tidal water on the Popular of England and Wales, such as sheet 33 – were retained. The very earliest Popular Edition sheets, printed in 1918, had combined water outline and infill on a single plate, but this was evidently unsatisfactory – did it complicate the production of an outline edition? – and the separate infill plate, already used on some experimental printings, was introduced. By 1931 the OS was prepared to have another try at combining water outline and infill: it started with the one-inch Fifth (Relief) Edition, which sought to get a thirteen-colour effect with half that number of printings, and this was the usual practice on newly-published small-scale maps into World War II, and also on some late

⁷ By 1923 a considerable number of one-inch maps wholly or mainly for military purposes had been produced by the OS, but these were all either single sheets or small groups covering particular districts of military interest, such as Aldershot. A few Third Edition coloured maps are known overprinted with military reference systems, but these should be regarded as forms of military district map produced for training purposes rather than as a start to an alternative comprehensive national military series: see Roger Hellyer and Richard Oliver, *A guide to the Ordnance Survey one-inch Third Edition maps, in colour*, London: Charles Close Society, 2004, 32.

⁸ My provisional interpretation of this frustrating exemplar of sheet 144 is that it is an early – 1931 – attempt to dispense with road infills entirely and rely wholly on the road-casings for road classification. This was, after all, the style of the 1:20,000 and 1:25,000 series, GSGS 2748 and GSGS 3906. An alternative interpretation is that it was a special printing, perhaps for training purposes and perhaps made some years later, akin to *Bordon*, *Farnborough* and *Netheravon*, for which road infills were unnecessary: see Hellyer and Oliver, *Military maps*, 71, 156, 161, 162, 163. A full-margin copy of 144 *ought* to settle the point. *Ought!*

1930s printings of the one-inch Popular Edition. However, it was only introduced as standard to the military one-inch in 1940, so late, indeed, that one War Revision printing, presumably in the second half of 1940, retains the infill plate, and two others omit it, but do not replace it with stipple on the remaining water plate.⁹

In theory, the fewer the number of printings per copy needed, the more economical a map series is to produce. 10,000 copies of a map in four colours need 40,000 passes through the press; were the same map printed in six colours then 60,000 passes would be needed. Similarly, the cost per copy of making a plate from which 10,000 copies are printed is a tenth of that from which 1000 copies are printed. However, economies on the number of press-passes and the costs of making up plates need to be balanced against each other. For example, a black printing plate which carries (a) outlines of roads, buildings, woods, etc, (b) text, (c) stipple building infill and (d) vegetation symbols may well have a separate ‘drawing’ for each, which have to be combined in register with each other on the printing plate: this was the basic procedure for later printings of the Seventh Series, for which the print-runs were comparatively large, and therefore the cost per copy of making up the plates from several separate elements was comparatively small. Before World War II print-runs for both civil and military maps were much smaller than they have been since, and the extra cost and complication of making up plates which combined several elements, and thereby saved one or more printings, would have had to be balanced against the machine-time saved. Further, there was the possibility that changing an existing design, so that for some years a mixture of sheets with, say, solid and stipple water-infill would be on sale, might have some effect on sales or on the OS’s public image. At any rate, whilst it was evidently worthwhile to print the military one-inch with road infills redrawn for a single printing, it was not worthwhile to do this for the water-infill. Which seems a little odd, as military maps, not on sale to the public, do not have to humour the public...

Can you believe it? One colour, two printings?

In 1938 a five-colour scheme for the one-inch Popular Edition and its contemplated replacement, the New Popular Edition, was devised: a combined water-outline and water-infill plate would be used, contours and second-class roads would be printed in orange-brown, and the black outline (linework and text), first-class roads and wood infills would continue to be printed separately, as before. This was in fact the colour-scheme used for the earliest Popular Edition sheets, printed in 1918, but those responsible for the five-colour scheme of 1938 seem to have been unaware that they were reinventing what had been devised twenty-odd years earlier. Nor do they seem to have noted that the early one-inch Fifth Edition ‘non-relief’ printings of 1934-6 were also printed in five colours, but with the difference that it was the first-class roads which were on the contour plate.¹⁰ The five-colour scheme used in 1934-6 seems much more robust than that used from 1938 onwards, but the adoption in 1937 of scarlet for first-class roads may have something to do with criticisms made to the Davidson Committee which was reviewing the OS at the time.¹¹

⁹ A separate water-infill plate is retained on the 24,000/40/R printing of GSGS 3907 sheet 101; water infill is omitted from GSGS 3908 sheet 30, 16,000/40/R and sheet 31[no code].

¹⁰ The discussion, with an experimental five-colour printing of sheet 109, will be found in National Archives (Public Record Office) [PRO] OS 1/52, and is excellently summarised in Yolande Hodson, *Popular maps*, London, Charles Close Society, 1999, 109-10.

¹¹ For more on this see Richard Oliver, *A guide to the Ordnance Survey one-inch Fifth Edition*, London: Charles Close Society, 2000, 13. Having the contours on the orange-brown plate might be a little more flexible than having them on

At any rate, the five-colour scheme was adopted for the Popular Edition of England and Wales, and sheets with second-class roads and contours in roughly orange or orange-brown were duly printed in six or seven passes.

No, you have not misread that sentence; I have not miswritten it.¹² The retention of separate printings for water-outline and water-infill is fairly obvious on many of the printings of this period, and can be readily explained by its being less trouble to retain existing serviceable plates and incur the extra expense of printing the infill separately than to go to the expense of making up a new combined plate. What is more remarkable is that, though the colours for second-class roads and contours appear *nearly* the same, orangey, it can be seen when the roads and contours cross that there were separate printings.

In other words, though there was one policy for the colour scheme, it was evidently often less trouble in the short-run to reuse serviceable existing plates, as with the water.¹³

And there was another instance. At least two nominal five-colour Fifth Edition sheets printed in 1936 – sheets 96 and 106 – were definitely printed with *six* passes through the press: the grid was printed separately from the other ‘black-plate’ detail.¹⁴

So much I had known for over twenty years when, one day early in June 2004, I needed to look at my copy of the 2500/39 printing of GSGS 3907 sheet 105, to answer some minor query of Roger Hellyer’s. At present, my flat maps are stored in a room which enjoys very strong light in the morning, and it was a very sunny morning when I was answering Roger’s queries and looked at sheet 105.

There was something very odd about it for a 1939 GSGS 3907. *The road infills were printed in two colours.* They were so nearly the same that, had the light not been so strong, I should not have noticed the phenomenon, but there it was: the first-class roads were printed in a slightly lighter shade of orangey-sienna than were the darker ones.

Well, if one’s like that, what about the others?

I drew out sheet after sheet: a substantial minority of GSGS 3907 and 3908 printings showed the same bizarre effect. As I was visiting Roger a few days later, I took the

the red-chestnut plate, as it would be possible to use the latter for further information, such as public rights of way, which would stand out better. However, as the modern system of recording public rights of way was only enacted in 1949, this might be thought anachronistic.

¹² I’m not sure if, in good English, you can ‘miswrite’ something, but, anyway, I didn’t do it.

¹³ For examples of England & Wales Popular Edition sheets with contours and second-class roads printed in similar colours see: 25, 3040...; 27, 2539...; 34, 2039...; 38, 2040...; 90, 2040; 109, 3040... Examples of Popular Edition sheets where second-class roads and contours are printed from the same plate are hard to find: the best I know of is the experimental printing of sheet 109 in PRO OS 1/52, which demonstrates the symptomatic ‘fusion’ of roads and contours. This can also be seen on the eleven New Populars printed in 1940-1: 157, 158, 161, 167, 169, 171, 172, 179, 182-4.

¹⁴ The effect is most striking on my copy of sheet 106, printing 6036, where the grid is consistently grey over the whole sheet. On my copy of sheet 96, 4036, the effect is strange: the grid is grey in the west part of the sheet, but gradually darkens towards the east. The late Guy Messenger’s collection (now in ‘Maps Messenger’ in Cambridge University Library) contains two copies of sheet 96, 4036, both with a uniformly black grid, but with minute differences in position, which are symptomatic of separate printing. That the grid is *black* on the Messenger copies indicates that it was intended to be in the same colour as the other black plate. It is at present difficult to determine whether the uniformly grey grid on my copy of sheet 106, 6036, is intentional or accidental, though the resemblance to the style devised in 1950 for the nascent Seventh Series is striking: the variable grey on my copy of sheet 96, 4036, is perhaps an argument against.

Neither ‘grey grids’ nor ‘grid shift’ have so far been reported for any other Fifth Edition sheets. (As the grid seems to have been drawn direct onto the printing plate, grid-shift between different printings is merely a symptom of making up fresh plates.) Some years ago it occurred to me that the 1:63,360 *New Forest* sheet of 1938, which can be interpreted as a prototype New Popular heavily disguised as a Fifth Relief, might have been printed initially without a grid, with a view to overprinting part of the stock with the yard grid for immediate sale, and part later with the new metric grid. However, none of the pairs of copies examined gave any support to this idea.

opportunity to examine his collection (fortunately under very bright natural light), and there was a great deal more of the same. And so often the first-class roads were printed slightly lighter than the second-class ones. Now, this was really very inconveniently timed, as it was far too late to revisit numerous collections and look for something which needed strong light and careful judgement, and all we were able to do was to make a brief reference in the essay, with a footnote of course.¹⁵

It was evident that, for both the civil map in 1938-40 and for its military counterpart in 1931-9, it was policy to have a colour scheme suggesting a combination of colours, but often to effect this by using existing pairs of plates, rather than making single new ones. Were there to be separate sets of road plates for the civil and military versions, all revisions would have to be carried out twice. This was perhaps the more usual practice, though at least one case is known where a separate single plate made around 1932 for the military version was combined in 1939 with a revised outline plate, making for an odd effect on the Scunthorpe by-pass.¹⁶

So far, so good: but why should there be a distinction in colour-shades? Why not use the same mix of ink for both?

Printing in battery: suitable for military maps

There are three possible answers. One is that for some reason the ink changed in shade in the course of a print-run: this is certainly known to have happened with the 1936 printings of Fifth Edition sheet 96. Another answer may be that rather more sheets *were* printed with two roads printings, but that the same mix of ink was used for both, or managed to retain its consistency of colour, and so the procedure is not readily apparent.

A third 'answer' could be that in the 1930s some of the printing of GSGS 3907 and 3908 may have used the method known as 'printing in battery': this was certainly used in the 1950s for the 1:25,000 Provisional Edition.¹⁷ Both that series and many of the pre-war printings of GSGS 3907 and 3908 and the British System-gridded predecessors were printed in very modest quantities, and it would be natural to look for economies, either of money or time or both. This would particularly apply to replacement of the British System by the Modified British System, which meant that all 250-odd GSGS 3907 and 3908 sheets had to be printed in the three years 1931-33, in addition to some reprinting; most of these sheets were printed in comparatively modest quantities, 1000 or 1250 copies being pretty typical. I have to say that I have no proof that printing in battery was used in the 1930s, and it may be that more knowledgeable readers will conclusively contradict me, but perhaps in so doing they might explain why the road infills differ slightly in colour.

'Printing in battery' is a means of minimising the need to 'wash down' a press once each colour has been printed, in order to avoid contamination from the previous colour on the rollers. If a multi-colour map is being printed on a single press as a single job, it will be necessary to wash-down the press after each printing has been completed. The same amount of time will be taken to wash down the press after each colour has been printed off,

¹⁵ Hellyer and Oliver, *Military maps*, 17 and n.87.

¹⁶ GSGS 3907, sheet 39 (the sheet to the south of sheet 33!), W.O.1000/39C: evidence that a single military road plate was used, rather than a pair of obsolete civil road plates, is provided by the legend, where the road infills have been redrawn to fit the redesigned road casings.

¹⁷ See Roger Hellyer, *A guide to the Ordnance Survey 1:25,000 First Series* (with an introductory essay by Richard Oliver), London: Charles Close Society, 2003, 23, citing minute 228 in PRO OS 1/383.

regardless of whether the print-run is comparatively large (perhaps 20,000 to 30,000 copies) or fairly small (perhaps 500 to 1000 copies). But supposing that, say, ten six-colour sheets are printed as a single job: then, once the first colour of the first sheet has been printed, all that is necessary is to change the plate and print the first colour of the second sheet, and so on, so that the first wash-down of the press is only necessary after the first colour of the tenth sheet has been printed: a total of six wash-downs instead of sixty. It follows from this that the particular shade of colour used ought to be common to the whole batch of sheets; however, as colours are liable to change in shade during a print-run, printing what is nominally the same colour in two separate passes may show differences.¹⁸

What I cannot explain as yet is why the first-class roads always seem to appear slightly lighter than the second-class ones.

Objective significance: the real importance of sheet 33

In 1965 I did not look for signs that the roads on sheet 33 were printed from two plates, because for one thing I was used to single-colour roads on the Second War Revision and made positivist assumptions about a progressive increase in colour which were wide of the truth, and for another I doubt that it would have been apparent to my untrained eleven-year-old eyes; after all, I passed my half-century before making the discovery, and then only by chance. However, when sheet 33 visited Exeter on 2 October 2004 I naturally looked for signs of two-stage road printing: and there they were, the first-class roads distinctly yellowy, the second-class roads distinctly brownly, once one knew what to look for.

But there was something much better than that, something which provided a double proof of two printings: the first-class roads were in perfect register, whereas the second-class roads, particularly on the right-hand side of the sheet, were distinctly out of register. This was something which I hadn't noticed on any sheet in my collection or Roger's. It would have been so useful to illustrate it as proof of two-stage printing: the subtle difference in shade might have been difficult to reproduce satisfactorily, but the mis-register would be incontrovertible.

The stock of the book arrived from the printers on 4 October.

Conclusions

First: elusive maps do eventually turn up. They may however turn up in somebody else's collection rather than yours. (And maps you never knew existed may also turn up, but that's another story.)

Second: it is apparent that, strange as it may seem, in the 1930s the OS were prepared to go to the trouble of two separate printings in nominally the same colour in order to maintain a particular colour specification for a particular series, presumably because it was cheaper to use two existing plates than to make up a single new one.

Third, authors should continue to be apprehensive of the 48 hours before and the 48 hours after stock is delivered.

¹⁸ Changes in shade are well demonstrated by the different shades for the grid plate on the three copies of Fifth Edition sheet 96, printing 4036, referred to above.



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Fingerprints all over it

John Davies

I have been looking at a new series of local street maps which is gradually covering much of the country. Called Focus maps they prominently display the OS logo on the cover with the legend 'Mapping sourced from Ordnance Survey'. No doubt this endorsement coupled with the affordable price of £2.25 will attract many sales. You can check the range available at www.focusmaps.co.uk.

My local sheet is 43, *Loughton*; the others I have seen are similar. It's on heavy duty paper and folds out from about 9" × 6" (slightly larger than A5) to about 24" × 18". Printed on both sides, it shows several town or village centre plans with associated indexes. Each of the plans has an Ordnance Survey logo in the corner with the message: 'This products [*sic*] includes map data licensed from Ordnance Survey by permission of HMSO. Crown Copyright reserved 2004.'

The OS symbol and the date seem to assure you of quality and topicality but the grammatical error rather makes you worry about how much care has been taken. And indeed, the accuracy of the information portrayed is poor. In the small area near my house there are at least four misspelled names and, more seriously, anyone using the map to reach the prestigious Repton Park housing development would be sadly lost. In its place the map shows Claybury Hospital, complete with a blue cross. The hospital was demolished in 1998 and the housing built the following year.

Even more startling than the accidental errors are the deliberate errors. This one map includes the following fictitious roads: Bravo Ridge, Charlie Hill, Delta Court, Delta Crescent, Echo Court, Echo Croft, Foxtrot Crescent. The neighbouring Harlow sheet has Golf Drive, Hotel Croft and Tango Terrace; no doubt you could collect the entire phonetic alphabet by buying a few more sheets in the series.

It is common practice in the commercial map industry to include a subtle 'fingerprint' or two so that you can detect and prove plagiarisms. But Focus maps appear to indulge in fingerprinting to a hilarious extent. More like bootprints than fingerprints. These, with the careless mistakes, make these maps poor value. I think it can only harm the reputation of the Ordnance Survey to allow themselves to be so closely identified with such a misleading and unreliable product.

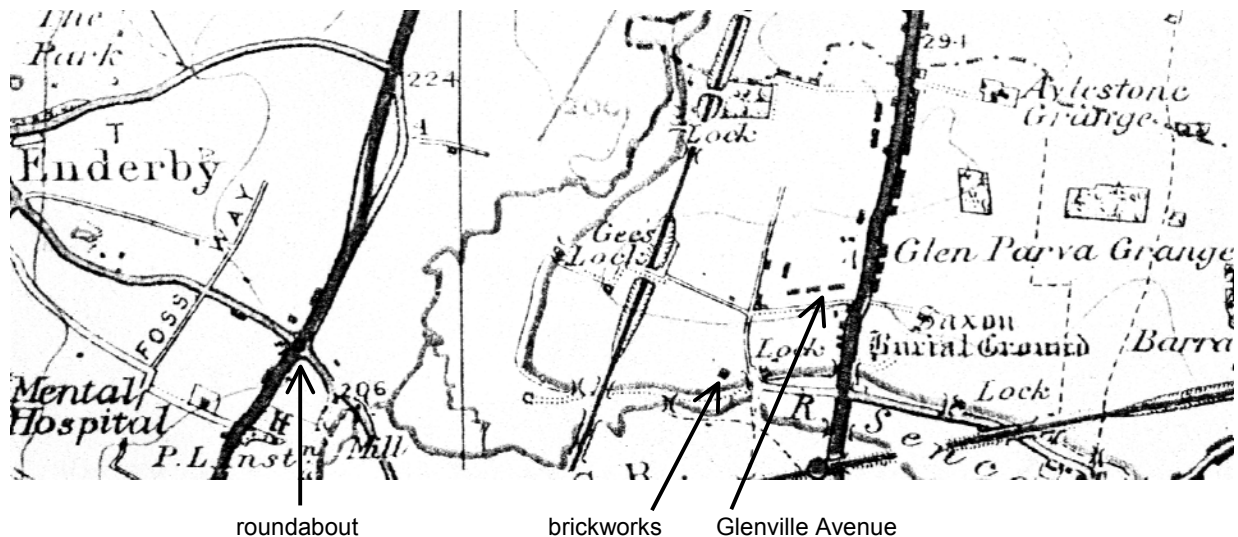
But the buyer can't say he wasn't warned; the front covers show a magnified extract of the map. Prominent on the *Loughton* cover (illustrated) can be seen an invented fingerprint and a spelling mistake! Under the magnifying glass, just north of its centre, is the phoney Delta Crescent. This stretch of road does exist but is simply part of Wellfields (misspelled on the map as Wellfieds!), separated by a grass strip. In some of the other fingerprints, the stretches of road are invented as well as the names.

Popular revision: lessons from Leicester

R C Wheeler

Development south of Leicester

One of the last printings of fully coloured pre-War maps for civilian use in the Second World War was the 5041 printing of the Leicester District one-inch, printing of which was completed 20 September 1941.¹ What has not been remarked hitherto is the extent of the revision incorporated, compared to its 5036 predecessor. In particular, there is a roundabout, where what was then the A46 Narborough Road crossed the B582 south of Leicester. This roundabout is a feature which otherwise first appears on the New Popular, not being found even on the Second War Revision. Adjoining the roundabout to the north was a building, and this is something which appears neither on the regular Popular series, nor on the Second War Revision, nor even on the New Popular.



One-inch Leicester District sheet (M40 R40 5041) enlarged by approximately 70%

Was this some short-lived structure recorded only on this printing of the Leicester District sheet and nowhere else? Before getting carried away, I looked up the relevant edition of the six-inch. The 1931 Edition of Leicestershire 37SW, based on a revision of 1928, shows that the field north of the future roundabout had been given over to suburban development. Four plots 100 yards north of the crossroads had been developed, together with one plot 25 yards north, whose occupant must have been surrounded by cows – or perhaps by workmen building more houses.

This caused me to look into the stages by which revision material for this area beyond the southern bounds of Leicester was incorporated into the Popular one-inch. Up to and including the 1933 printing (minor corrections to 1933) the area continued to be shown as it was in 1918. Only with the 1936 printing was the available large scale revision incorporated, and that was done sparingly. For example, the six-inch map shows Glenville Avenue, off the Leicester Road in Glen Parva, with houses both sides and a further street at its west end; this

¹ Job file in CCS Archives.

is represented on the one-inch by three blocks of building parallel to a pre-existing track, with a further block at right-angles. The new roads are not shown and the buildings look more like poultry sheds than suburban houses. Over on the Narborough Road, the four contiguous plots are shown as a block of building at the edge of the road – they do at least look like suburban housing; the isolated house next to the crossroads is ignored.

1936 also saw the publication of the Leicester District sheet. Material from the 1931 six-inch was incorporated in a very similar manner, so similar that it could have been by the same hand. However, it was not copied mechanically (e.g. by transfer) from one sheet to the other. If one looks at the building – actually a large brick works – north of the canal (WOFO 019185), it will be seen that the regular sheet shows it as a square aligned almost east-west, whereas the District sheet aligns it almost diagonally. Over on the Narborough Road, the District sheet represents the four contiguous plots in the same manner as the regular sheet; it also puts in the isolated house, setting this back from the road in something more like its true position. So the ‘roundabout building’ appeared on the map before the roundabout.



*One-inch Popular Edition sheet 63 (W.O. 28500/40, detail as in 3038 M38 R37)
enlarged by approximately 70%*

No further significant revision appeared on the 3038 printing (with ‘minor corrections to 1938’) of the regular sheet. However, by 1941, major improvements had been carried out to the A46, with Narborough being by-passed, a new alignment adopted to avoid a bend north of the B582 crossroads and, one presumes, this crossroads being upgraded to a roundabout at the same time. These improvements (presumably included within ‘Road Revision’) are shown on the 5041 printing of the District sheet. That printing also shows the new boundary of the City of Leicester, which had been extended in 1935.

Finally, the Second War Revision shows all of this (apart from the roundabout), together with a lot more suburban development (derived no doubt from the 1938 ARP Revision) and provides a more accurate representation of the brick works. But the Second War Revision lies outside the scope of this article.

Much of this only reinforces and clarifies what is set out in Hodson². *Minor corrections*, up to 1934, can be described as ‘a great deal³ of detail which is of little value to the public’ – coastguard stations and Wireless Telegraphy stations come to mind. There was clearly a change of policy in 1935 under which available large scale revision was generally incorporated.⁴ The date when a feature appears on the one-inch map by this route reflects the inner workings of the OS, not the date when the feature appeared on the ground.⁵ In contrast Road Revision, especially after 1934, caused changes to main roads to appear on the map fairly soon after they were made on the ground.

Three points stand out from the Leicester sheet. The first is the very sketchy manner in which available large scale revision might be incorporated. The second is the way in which revision might be drawn in parallel on two sheets. This could sometimes be so close as to be explicable only by the use of a common generalized drawing or the use of one as an exemplar for the other (as for Glenville Avenue) but could sometimes be divergent (as for the ‘Roundabout building’). Indeed, the manner in which the roundabout itself was shown on the 1941 printing of the District sheet but not shown on the Second War Revision, less than a year later, may be regarded as a further example of this variability. The third point is the manner in which the change in the city boundary was ignored in 1936 and 1938, being shown only in 1941.

Corby: Housing estate

For all the Leicester detail, the sources can be deduced. However, alterations at Corby are not so easy. Two areas are affected: a housing estate around grid reference SP 880900 and mineral railways at Gretton Plain (SP 895915). For the source of these, there is documentary evidence in the form of a minute in the job file addressed by Asst Supt R&S (R E Jurd) to Supt Litho and dated 7.6.40:

Herewith are the documents, ie W D & A and Intermediate Revision and 2 tracings of 1" Pop 74 shewing corrections at CORBY (which are clear from the services) in connection with the reprinting of the above.⁶

The note about tracings seems not to recur on any other job file. The rest of the minute (i.e. excluding ‘and 2 tracings ... CORBY’) also occurs on the job files for Dorking & Leith Hill (3.6.39), Middle Thames (5.6.39) and Manchester (29.6.39). Sadly, none of these files have the revision documents referred to.

The last state of the pre-war Popular (2038 M38 R37) shows development neither at the housing estate nor at Gretton Plain. The outline and water printing (1000/10/41 LR) acknowledges the housing estate by cross-hatching. The Second War Revision (5th Edition Style) (30,000/4/42 LR), which one assumes to incorporate directly the unpublished Fifth Edition drawings, shows the housing estate, complete with a church-with-tower. The A6116 adjoining it has been improved by the smoothing of two bends.

² Yolande Hodson, *Popular Maps*, London: Charles Close Society, 1999, 64.

³ The ‘great deal’ appears to be a figure of speech rather than a quantitative statement about the number of alterations.

⁴ See Hodson, p156, footnote 21.

⁵ The examples in Hodson, p157 of features which appear on the one-inch before they appear on the large scale plans do not conflict with this statement.

⁶ So what were W D & A? Intermediate Revision? What ‘services’? I regret I do not know.

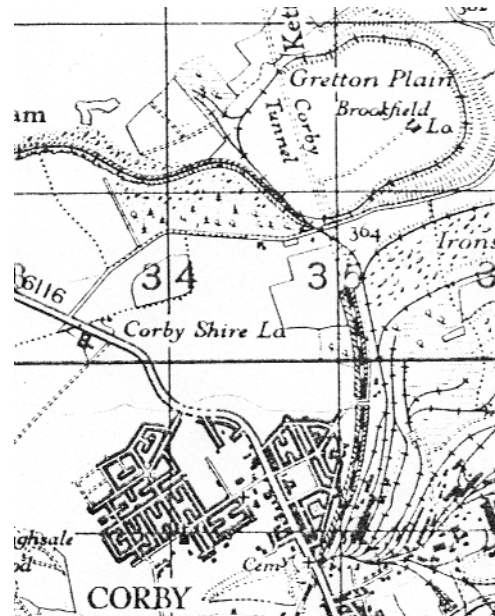
The Leicester District printing omits the church and adds an oval track (for athletics, perhaps). The road improvements are more obvious because they are shown as additions to the pre-existing road rather than superseding it. More interestingly, the closes in the estate have rounded ends rather than square.

Clearly if the Second War Revision is an accurate copy of the Fifth Edition drawing, the Leicester District tracing referred to in the job file is not taken from that drawing. However, for the housing estate it tells us nothing that cannot be learned from the six-inch National Grid Provisional Edition (1944 printing) of Northamptonshire 17NE, which acknowledges 'Additions in 1938' (normally meaning ARP Revision) and shows the housing estate with round ends to closes, (RC) church, oval track (with club house adjoining). The road improvements come on sheet 11SE. As at Narborough, the large-scale revision finds its way onto different sheets of the one-inch with differences in the generalization.

The Corby housing estate is in the SW corner and Gretton Plain in the NE corner of the extracts below.



*One-inch Leicester District sheet
(M40 R40 5041)*



*One-inch Second War Revision
sheet 74 (30,000/4/42 LR)*

Corby: Gretton Plain

Consider now the railways at Gretton Plain. Outline and water, Second War Revision and Leicester District all show the same track layout, except that the Second War Revision omits a short spur by the 364 spot height. What varies are the earthworks surrounding the loop. The outline and water edition shows this loop surrounded by a rock face as though sited in a former quarry. The Second War Revision shows (to its SE, at least) two distinct embankments, as though lines for dumping spoil formerly ran there. The Leicester District is similar but has filled up the depression between the two embankments.

So the Holy Grail of Popular revision – detail not shown on any other source – is hovering tantalizingly. Is it credible that the outline and water, the Second War Revision and the Leicester District show three separate surveys of Gretton Plain, or is the Leicester District

just a different generalization of ARP Revision? And where is the outline and water rock face derived from? It might help to answer these questions if a copy of the 1939 Special Emergency Edition of Northamptonshire Sheet 11SE could be located.⁷

Very often, the National Grid Provisional Edition of the six-inch can serve as a substitute for a missing Special Emergency Edition. The 'A' edition of this series (printed and published 1950) indeed acknowledges 'additions in 1938'. However, the track layout (including the spur at the 364 ft spot height) has a pecked line around it and inside that pecked line is nothing at all. Is this a security deletion or is it an unusual treatment of something that does not qualify as permanent detail?

In this case, the 1:25,000 adds to the confusion. Sheet 42/89 (announced in the OS Publications Report of May 1949) shows the western part of a quarry lined with a rock face. The railways that are shown on the one-inch maps run up to the top of the rock face as though suicidal trains might fling themselves into oblivion. Sheet 42/99 (announced in the OS Publications Report of June 1949) shows the eastern part of the same quarry, but now it is edged by a scarp. Perhaps this is just a different representation of the same survey data; but clearly the 1:25,000 sheets represent a later state in the history of the quarry than that depicted by the one-inch maps.

There is also a 'B' edition of the six-inch National Grid Provisional series, which acknowledges 'additions in 1938 and 1950', was printed in 1952, and shows the quarry filled (over-filled, in fact) with spoil; indeed, it depicts trees growing on that spoil.

It does seem to be possible to make sense of all this, by postulating the following stages of development:

- first quarry – as shown in outline and water edition,
- back-filling – shown in Leicester District and Second War Revision,
- second, larger & deeper quarry – shown in 1:25,000,
- back-filling of this – shown in 'B' NG Provisional six-inch.

The last of these states can plausibly be regarded as representing what was there in 1950. What dates should we assume for the three earlier states?⁸ From where did the Ordnance Survey get its information on these? And if the OS had such frequent surveys available to it, should we regard the Leicester District and the Second War Revision (and perhaps even 42/89 and 42/99) as representing genuine differences rather than different depictions of the same raw data?

So whereas the additions south of Leicester turn out to fit into the pattern of Popular revision as it is generally understood, those at Corby quite definitely do not.

⁷ Perhaps it does not exist: Cambridge University Library has a copy of the 1901 edition with print code 150/39, 75/41, 100/42. Is it plausible that so many wartime printings of the public sheet would be needed if a more up-to-date edition were available for official use?

⁸ Northamptonshire Record Office has an aerial photograph ZB1683/2-3 which can be dated to 1933 by the site clearance for the Tube Works and which shows Grettton Plain in its pristine state. Thus the whole sequence starts no earlier than 1933.

Reviews

A guide to the Ordnance Survey one-inch Seventh Series, Richard Oliver, London: Charles Close Society, 2004. ISBN 1-870598-23-7, softback, 68 pages, £5.00.

Despite having a well-thumbed copy of its predecessor, my review copy of the new edition of Richard Oliver's Seventh Series one-inch maps booklet led to much burning of midnight oil. That is because there is a fascinating new five-page section on marginalia, legends and conventions. I just had to get my maps out and check through a few points...

The Ordnance Survey was working towards producing a series of maps at one-inch scale that covered the country with one meridian, one projection, one sheet numbering system, one specification and one style. Developments are described that led to the aim being met by the Seventh Series instead of by extending the New Populars to Scotland, where the existing Popular maps still had Cassini projection. Great Britain therefore had a redrawn map on Transverse Mercator projection, with full revision dated 1944 to 1958, the maps being issued 1952 to 1961. Note that this was not a re-survey of the whole country, positional accuracy and altitudes were as good as they were before.

The new map series was very popular with the public and now it is popular with collectors; many dealers have copies at reasonable prices and for the cartophile there are editions and cover variants in abundance. This guide is for them and those interested in OS and map history. It is packed with the fruits of extensive research into the life cycle of the series, detailing its ancestry, gestation, birth, life and death, and finally there is a post mortem examination of each edition of every sheet.

Within the limits of 22 pages, the story is sharply focussed on the development and detail of the mapping itself. Peripheral scene-painting is eschewed. Look elsewhere to put the series in the context of the development of a battle-scarred adjunct of the military machine into a business-driven unit with financial targets and a public service element. Again, there is no space for a word on the dissected and cloth mounted versions, or even on the covers, all of which are an integral part of the Seventh Series package.¹ As Richard Oliver pleads in his foreword, the full story of the series needs to be written.

I should have liked to have seen a half-page chronological list giving key dates in the history of the series. This would have been of great benefit to lazy authors fishing for corroborative detail to add an air of scholarship to an otherwise bald and unconvincing narrative.² Better, though, to have five whole pages of excellent new material on the extensive matrix of changes to the marginalia, legends and conventions – all the matter under the neat lines that was tucked away out of sight in the short cover version until 1960. This is a brilliant addition to the research on the series and well worth the price of the booklet on its own.

The section describing map production is excellent but quite technical. Indeed, David Archer, in his review of the previous edition, found it difficult in places.³ It would definitely be challenging to the general reader who would surely welcome some dumbing down.

The 42-page cartobibliography is slightly updated. Key dates for all the 769 editions of the 190 sheets and the 74 editions of the 12 tourist maps are tabulated, with colour, price and outline editions described. I noticed one blip, edition A of sheet 190 was not put on sale 7/71

¹ See John Paddy Browne, *Map Cover Art*, Ordnance Survey, 1990.

² W S Gilbert, *The Mikado, traduttori traditori*.

³ *Sheetlines* 30, 29-30.

but 7/61. Also, take care when using column 4, which lists ‘Date of Magnetic Variation and/or official reprint date’ with a system of suffixes. This confused me; it would have been simpler to list the MV date, which nearly all of them are, with suffixes to indicate differing reprint dates. In particular, there seems to be a problem with the use of the suffix ‘v’, which is described as flagging the listing of the official reprint date when it is the year after the MV. For all the editions I have looked up, the MV date is given here instead, and in some cases the date of release for sale (column 9) is actually in the same year as the MV. Also we have the unexplained suffixes ‘m’ and ‘p’.⁴

This new edition of the guide is a pleasure to read. The typewriter font is gone, the quotes and underlinings are replaced by italics, long paragraphs have been divided, the text has bigger print and there is an index diagram by Chris Higley. Sadly, the cover design now matches the *New Popular* booklet cover, losing its relevance to the subject. Richard Oliver has put the CCS in his debt once again by issuing an improved edition of this respected booklet, thus making it available for the next generation of map-lovers and to replace our worn-out copies of its predecessor. Buy this booklet, get your maps out and enjoy Seventh heaven.

K S Andrews

Since the Charles Close Society’s visit to Dublin in June no less than four books have been published on the subject of mapping or associated with it and the Ordnance Survey.

The Irish Ordnance Survey (history, culture and memory), Gillian M. Doherty, Dublin: Four Courts Press, 2004. ISBN 1-85182-861-3. (237 pages, 14 black and white photographs.)

First and foremost this is not about maps and mapping, this study explores hitherto unexamined aspects of Ordnance Survey work, in particular its historical, archaeological and cultural significance, and its wider implications for nationality and identity. Colonel Thomas Colby and Captain Thomas Larcom intended to produce an encyclopaedia-like series of county memoirs to accompany the maps, a great survey that would explain Ireland literally, as the maps would geographically.

The times were a changing and Larcom and his contemporaries wanted to record as much as possible before it was lost maybe forever. Much of this work had nothing to do with the making of the maps, but it was felt that the Ordnance Survey was the organisation to do it, since if they didn’t who would.

In the event only one memoir (Templemore, Londonderry) was published, before the project was suspended, but not before an immense amount of research and work had been carried out for most of the country.

Altogether interesting insights into an aspect of the Ordnance Survey’s work in Ireland and, judging by the extensive footnotes throughout, a lot of detailed research has gone into this book, which is based on the vast Ordnance Survey records held in the National Archives, National Library and Royal Irish Academy.

⁴ I have investigated five instances of ‘p’. The maps show reprint dates that are the year after the MV. In four of the five cases, it is the reprint year that is tabulated.

Maps and map-making in local history, Jacinta Prunty, Dublin: Four Courts Press, 2004. ISBN 1-85182-870-2 hardback; 1-85182-699-8 paperback. (344 pages, which includes 73 illustrations, mostly map extracts.) One of a series of Maynooth research guides for Irish local history.

Now this is a book about maps, Irish maps and mapping, all sorts of maps, much of it Ordnance Survey, and I would say you do not necessarily have to be interested in Ireland or local history to appreciate this book.

The aim is to introduce the local history practitioner to the world of maps. With an introduction on what are maps, 18 pages; a historical overview on map-making in Ireland, 173 pages; how to read or interpret maps, 34 pages; locating maps, 31 pages; and working with maps in local history, 41 pages; appendixes and index, 33 pages. The book is accompanied with references throughout including the CCS and *Sheetlines*. This book does for Ireland, in fact it goes further, what has already been done for Britain by J B Harley, *Maps for the local historian*; David Smith, *Maps and plans for the local historian*; and Paul Hindle, *Maps for historians*.

Dr Prunty is a historical geographer, who has taught the subject of this book at graduate level in the National University of Ireland, Maynooth.

Surveying Ireland's past (multidisciplinary essays in honour of Anngret Simms), edited by Howard B Clarke, Jacinta Prunty and Mark Hennessy, Dublin: Geography Publications, 2004. ISBN 0-906602-42-4. (31 essays, 802 pages including over 130 illustrations.)

This is not about surveying as in map-making but as in looking at the past. The subjects range across archaeology, history and historical geography in particular. And whilst there is no single essay on the Ordnance Survey there are several essays appertaining to maps and mapping. Here are just some of them.

- Patrick Wallace, 'The big picture: mapping Hiberno-Norse Dublin' – this expresses the way archaeological excavations yield information that enables early maps such as Speed and Rocque and even early Ordnance Survey to be checked for accuracy which in turn can be used to gain a larger picture of an area.
- John Andrews 'Classifying early Irish town plans' – observations on early town plans 1540 to 1602.
- Rolf Loeber and Magda Stouthamer-Loeber 'The documentation of architecture and sites in Irish gazetteers and road-books' – the emphasis here is largely on gazetteers and road-books and their development between 1647 and 1875, includes a descriptive appendix of the books.
- Avril Thomas 'Londonderry c.1856: a city mapped in unusual detail' – this is about seven recently discovered large scale 1:660 plans that between them show intensive detail and give a very good picture of Londonderry c.1856. It has not yet been ascertained whether they were by the Ordnance Survey or by another. They are very similar in style and the Ordnance Survey did have a close affinity with Derry, in that they commenced the survey of Ireland here and the base line for the triangulation was along the side of Lough Foyle. There are some details on Ordnance Survey maps of Derry and an analysis of the contents of the seven plans.

- Jacinta Prunty ‘Military barracks and mapping in the nineteenth century’ – historically, military barracks have been significant features in nearly every major town or city in Ireland. Ranging in size from those that housed a handful of men to the Curragh Camp designed to hold over 10,000, a town in its own right? Mapping in nineteenth century Ireland was intimately connected with military interests and structures and an appreciation of contemporary military structures assists in the understanding of the ethos within which the Ordnance Survey work was carried out. This is by far the largest essay at 58 pages, and one that I found very interesting.
- Mary Davies ‘Illuminating Irish towns: the Irish Historic Towns Atlas comes of age’ – this short essay details the history of this project, which celebrated its 21st birthday in 2002. To date thirteen towns have been published and there are more in preparation.
- John Bradley ‘The Irish Historic Towns Atlas as a source for urban history’ – this explains how each town atlas is more than just a selection of maps and how the topographical information can be used.

The majority of the essays average 20 to 30 pages and are accompanied by reference notes at the end of each essay.

Anngret Simms retired from the Department of Geography, University College, Dublin, in 2002 after thirty-seven years service, as lecturer and associate professor. She also played a active role to a wider academic community, as a member of the Royal Irish Academy, a former president of the Geographical Society of Ireland, the Irish Manuscripts Commission, the National Archives of Ireland and through her overseas connections. Her colleagues hold her in the highest regard and her academic achievements have been considerable with a wide-ranging list of published works. One of her major achievements is as one of the instigators and principal editor of the Irish Towns Atlas.

George Petrie 1790-1866, the rediscovery of Ireland's past, Peter Murray, Cork: Crawford Municipal Art Gallery and Kinsale: Gandon Editions, 2004. ISBN 0-948037-091 hardback; 0-948037-105 paperback. (240 pages, over 200 black and white illustrations, mostly engravings, and 24 colour plates)

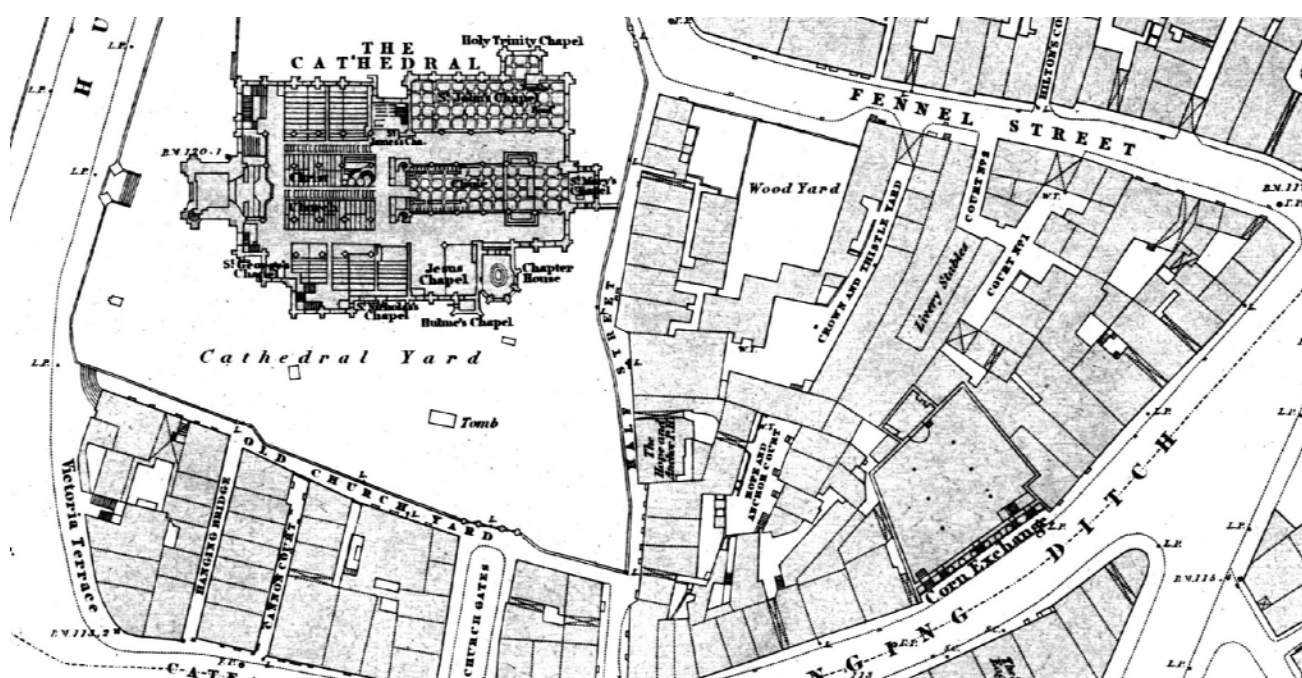
George Petrie, possibly more than any other person in the nineteenth century, recorded the cultural profile by which Ireland is identified today: as academician, antiquarian, archaeologist, artist, historian, musicologist and scholar, in each of these fields we encounter his achievements. This book tell us of his life and achievements as an antiquarian and artist. What has this got to do with maps? Well, Petrie worked for the Ordnance Survey; he was appointed head of the Topographical Department, its original purpose to provide correct spelling of names for the six-inch maps. This was extended to providing historical data for the memoirs to accompany the maps. During this time he continued his artistic pursuits, drawing and painting the sites of antiquities and landscapes. He also collected antiquities, which became one of the finest collections in Ireland. After his death it was acquired by the Royal Irish Academy, of which he was a member, and now forms part of the National Museums collection.

The book was commissioned and launched to coincide with an exhibition in Cork of his drawings, engravings and watercolours, many of which were used in the 1800s to illustrate guide-books. Even today his work is still being used; his watercolour of Dun Aengus Fort, Aran Islands has been used as the jacket design for the book *The Irish Ordnance Survey* (see

review above). The book falls into two parts: the first is about Petrie and some of his accomplishments, the second is a catalogue of his works and is profusely illustrated throughout. This is not an exhibition catalogue, it is a book in its own right.

Rodney O'Leary

Ordnance Survey 60 inch to 1 mile town plans of Manchester & Salford 1844-49, a CD-ROM published by Digital Archives Association, 3 Cedarways, Appleton, Warrington, WA4 5EW, £20.00 plus £1.50 p&p.



The CD is one of a range produced by the Digital Archives Association and contains the digitised images of 49 maps published by the OS between 1844-49 at a scale of sixty inches to one mile. They have been scanned from maps held in Manchester University and Manchester Central Libraries. The area covered is from Higher Broughton in the north to Rusholme in the south and from Pendleton in the west to Miles Platting in the east. The publishers state that ‘every street lamp and every road drain is shown. The internal layout of public buildings is shown, even the pews in churches. Public Houses are named and the type of work place and warehouse is indicated’.

The CD will run on personal computers operating under Microsoft Windows 95[®] or higher and Apple Mac systems operating under V7.1.2 or higher. Adobe Acrobat Reader V4[®] (included on the CD-ROM) or higher is also required. The reviewer used Acrobat V5 and V6 when running the CD-ROM. It was therefore necessary to cancel the automatic install routine for Acrobat V4 and go directly to the CD-ROM directory where the key files are found. These include:

- a guide to the CD-ROM,
- an introduction to the maps,
- the maps themselves,
- an ‘opening’ file.

Selecting the 'opening' file brings up an image of the Manchester Townscape and three options, to go to:

- the maps, which invokes the INDEX MAP;
- an introduction, which briefly describes the maps and then allows the user to select the INDEX MAP;
- a two-page introduction to the CD, including a basic navigation guide, which then allows the user to select the INDEX MAP.

Once selected, the INDEX MAP is displayed. Using standard Acrobat commands it becomes possible to display a series of 'bookmarks'. Navigation to a particular sheet or area is then achieved using the bookmarks or by moving the cursor over the index map itself. It is also possible to move around the maps using standard scroll bars. However, the reviewer found that whilst the horizontal slide bar allowed navigation within the selected sheet, the vertical slide bar moved to adjacent sheets. Printing of whole sheets or sections of sheets is straightforward using Acrobat printing facilities.

Because of the original size of each sheet and the large area covered by the index map, any initial displays are unreadable on standard monitors, making it necessary to zoom in to see any detail. The quality of the scanning is impressive allowing the reviewer's Iiyama Vision Maker 404 monitor to really perform to show the scanned detail with exceptional clarity. Zooming to 100% makes it possible to read street names and to see the outline of the buildings. Zooming to 200/300 % allows the names and internal details of the buildings to be viewed. The scanning quality means that any imperfections in the originals are also shown. Depending on the 'zoom' ratio selected, eventually the details become unfocussed.

The detail of the scanned images means that significant processing is required to view the detail. This can mean that Acrobat will run more slowly on 'older' systems. Experimenting with different machine configurations confirmed that the higher the processing speed and the greater the memory the more efficient the processing. The reviewer believes that it could be helpful if the CD instructions included more guidance on recommended configurations (processor speed, memory, display characteristics) in order to optimise performance. Given that Acrobat Version 4 is now somewhat dated it could also help if the instructions included guidance on how to operate with later versions of Acrobat. The evaluation was carried out using both the reviewer's laptop and desktop systems. The laptop being configured with 1 Ghz processor, 128 Mb RAM, screen resolution set to 1024 × 768 pixels, highest quality 32 bit colour, under Windows XP-Pro / Acrobat V6. The desktop configured with 600 Mhz processor, 512 Mb RAM, screen resolution also set to 1024 × 768 pixels, highest quality 32 bit colour under Windows ME / Acrobat V5. Using these configurations the performance was not always consistent but certainly improved by copying the files from the CD to the hard disk.

However, the reviewer believes that any lack of guidance such as that mentioned above and the odd performance inconsistency are more than compensated by the detail achieved by the producers of the CD-ROM which at a cost of £20.00 + postage represents excellent value for those with an interest in early detailed OS mapping of the Manchester and Salford area.

The publishers plan to have a website at www.digitalarchivesassociation.org, however as at the date of writing this site did not appear to be operational.

Professor David J Parsons

Details of the Digital Archives Association's other CDs will be found inside the back cover.

Kerry musings

David Archer

On a beautiful sunny Saturday in August, we went to Aberystwyth for the Fourth International Punch and Judy Festival. As a bit of light relief from the serious side of the day, I popped into the second-hand bookshop, and whilst browsing, heard a customer ask for a long out of print book. The owner replied that she knew the book but did not have a copy at present. After the customer had gone, the owner sighed and said that she had held a copy for five years, knowing that it was a very interesting but low value item, and had sent it to the skip a few weeks before. Don't we all know that feeling? Without even being ruthless, we sort out garages or kitchen cupboards, discarding things that were kept as they might be useful, and six years into the future have not been needed. Until the week after the binmen have taken them.

On the domestic front, this is fairly easy to rectify, as one can usually go out and replace an item, but for a mapseller or bookseller things are slightly different. One is aware that a rarity element is involved, and one might be discarding a rare state or one which is currently fairly common, but might be scarce in the future. Yes, I have been known to bin Ordnance Survey maps. Occasionally. Old Series, once flat, now rolled as tight as a sausage and so brittle that they split when one peeps into them. Large-scale sheets, so dusty and torn, that it would take a bakery to clean them and a week to iron flat again. Quarter-inch maps, made for the car, crammed into a glove compartment for ten years and showing it. Folded maps of any age just do not survive forty years exposure to the elements and saddlebags. These are the easy ones to deal with, and sleepless nights do not follow sending them on their way. The difficult decisions only arise when maps are in nice condition and nobody wants them. I still have hundreds of maps which I bought in my early years, especially flat sheets, which I really should part with, as I have never been asked for them, don't know anyone who might need them, yet can imagine somebody, somewhere, wanting them. So I keep them. Sad teaching sets, thirty very well used and mostly annotated copies of a *Snowdon* tourist map. Slightly sad but not tatty. Even in bright or mint condition I do not want thirty copies. I have had multiple copies of one-inch Populars, folded into covers, but well used by students. A few go, but the rest get boxed up and forgotten, when they should just be used to fatten worms, since there are ample numbers of good sound copies around.

So why keep them? In the beginning I believed that the odd one might be really unusual, that I was a guardian of these things and had a responsibility to the map community not to destroy rare maps. But they are not rare, and I now have no time to go through them looking for any rareness. Print codes, price stickers, unusual folds, all *might* be there, but even if discovered, they will not be earth shattering. Not now, given the in-depth analysis most map series have received. I might be destroying a rare map in grotty condition, but not an unknown map. Most unlikely. But still possible. So I keep them. In boxes where nobody ever looks, and in years to come, I or someone else will peep into the boxes when conducting the final clear out, and just put them into the skip without delving further. So why not do it now? Because I have several little corners in which to keep them, and they make the place look lived in. Less space would most certainly mean fewer boxes.

I do not only keep my own sad maps. Friends, customers and libraries pass on items they have weeded for quality and cannot bring themselves to throw out, just as I sometimes take maps to charity shops. Let somebody else take the decision. In the early days, I was reluctant to

throw things out as others have always known more about the maps than I do. But one cannot ask someone to come round and spend a couple of joyful hours going through boxes full of absolute tat in the hope of finding a rarity. Although it does happen. Years ago, I had a carton of sad maps sitting on the kitchen floor, unexamined. Whilst I was on the telephone an excited cry came from the kitchen; Dr Oliver had been spruting and had found a really tatty specimen of the first state of Third Edition sheet 118. Previously only suspected, never seen before.

Consider a public reference library that has to reduce a map collection of flat sheets. They might decide to keep a set of each of the one-inch series, so any duplicates are discarded, usually keeping the one in best condition. If the choice were between a common or a less common printing, condition would be the main consideration. So a rare map might be withdrawn and put in the annual book sale. A more specialist library with space problems, might decide to keep all print codes within a series, discarding duplicates. But some might have different prices from retained sheets and be rare. An even more specialist library might have a policy to keep every known state of a sheet, yet end up discarding rare maps because unidentified internal differences exist. Where does one stop? How many map libraries have budgets generous enough to pay people to look for these things and store such maps?

If anyone decides to withdraw a map from a collection, private or public, the key question is what will happen to it? If it were passed on in some way it would still exist, and if unusual, might stand a chance of being recognised as such. If it were sent to the skip and destroyed, it would be gone forever. One has to be very confident to send something to the skip, which is one reason why map librarians, quite rightly, fall over themselves to try and place discarded maps in good homes. Any home, other than the skip. But as a few members of our Society recently discovered, one just has to accept that occasionally, it is impossible to find a home for good interesting maps within a certain time, and off they go.

As far as I am concerned, the most unenviable job that I have heard of, is having to make a decision on library holdings no longer needed by the Ministry of Defence. Imagine yourself sorting through the hundreds of different maps produced for D-day, many headed *Top Secret* and dated to the day, not all of which will be needed to give a balanced file to be forwarded to what was the Public Record Office. For the ultra sensitive maps, was the decision between the PRO or the shredder? If any were disposed of, many must surely have been maps not in any other collection, different states, preliminary planning maps and such. Here, I assume that the question was not "Will anyone want it?" but "Is it an *essential* map that must be kept?" If the answer was no, then it was sent to be destroyed.

I once bought the residue of a geography department map collection. Ninety per cent of the maps were flat teaching sets of one-inch Seventh Series in quite good condition, which I did not want and had no space for. Few would ever be wanted. The map librarian knew this, but was not allowed to throw anything out. They must be sold and the agreement was that I had to take everything. Initially, my plan was to hire a van, collect the maps, drive home and take the unwanted sheets to the recycling centre in Welshpool. After some thought and a couple of telephone calls, I found a recycling centre ten minutes drive from the university, thus saving the van hire. Two journeys with a full Renault Five were thrown into the paper container, the only time I have ever taken small-scale maps. After the second trip, the foreman of the centre sold me some new transport books with slightly sad dustwrappers, which had been thrown in the skip by a printer. This, I took as a good omen for having gone there. But it did make me wonder, were all of my maps and those from the MOD and other sources really shredded and recycled once they left the collection?

Letters

Used maps

In *Sheetlines* 70, August 2004, Rob Wheeler gives an interesting account of the use of one-inch maps by a railway promoter, and the implications of just a single railway line inked in. In a world of dealers and collectors of things who are apparently obsessed in valuing items by their pristine unused appearance, it is well to be reminded that maps are essentially things to be used, folded and opened, annotated with a variety of personally valuable information, often forming a tantalising corpus with potential historical value.

Having spent most of my life working with and among millions of often ‘dirty old maps’, I started out my own collecting on the basis of personal interest rather than hygiene, though on the latter point many years ago I was gratified to find that the pieces of map picked up in the bushes of a Soviet training area which had been torn up and used as a substitute for Army Form Blank had been thoroughly laundered before I handled them!

Among several examples I have of some groups of ‘used’ OS maps I would identify these three types of use of one-inch maps:

- In a green cloth-covered slipper case bearing the label of John Arrowsmith, 10 Soho Square, London, with a manuscript title *Liverpool to Rugby 1834* there are twelve sheets dissected and mounted as one on strong linen. The date is apparently taken from the publication dates surviving along the bottom margin, although from the known dates of publication of the northern row of sheets and a surviving price statement a more likely date is c.1842. What utility this enormous artefact (7'9" × 8') served is hard to imagine, other than that it has precisely drawn additional railways in different coloured inks in the West Midland area. Struggling to lay it out on the living room floor led me to imagine a boardroom table of impressive dimensions.
- What I call my ‘cyclists’ set of New Series paper sheets from the 1890s are each cut into twelve pieces apparently to fit into a special holder on the handlebars of a bike. There are twenty-three complete sheets and pieces of another nineteen. As they include the full paper sheet the margins include the valuable embossed date stamps.
- My ‘auctioneers’ set of Popular Edition sheets is uniformly dissected, mounted and tagged by Stanford in 1929/30 for some/body/firm of auctioneers/estate agents/burglars. The bright copies have some locational annotations, but would appear to have been office reference rather than travellers copies. There are 134 of the 146 sheets plus the contemporary index.

The value of not breaking up such groups of maps is underlined by my box of what David Archer called ‘little marbled jobs’ and Richard Oliver identifies as ‘emarginate’. My lot of 89 quarter sheets of the Midlands and North, dissected and mounted by Thomas Day of Liverpool, gets off to a flying start diagnostically in having with it their contemporary reprint of the OS index of c.1874.

Ian Mumford

The Railways of Great Britain: a historical atlas

It was unfortunate that Lionel Hooper's review of this new work was, of necessity, little more than a summary of the contents; perhaps I can put a little flesh on the bone. I have known about Michael Cobb's railway atlas project for at least 25 years. Its concept paralleled a similar one to that of my colleague Andy Rush and I, which we had proposed to Ordnance Survey in the mid 1970s. While Cobb persevered with his project; we decided to take another route and have spent the time compiling a database of railway infrastructure the *Railway Record of the British Isles*. This now puts us in a somewhat unique position of being able to assess the real worth of Cobb's tome.

As Lionel points out, there have been several railway atlases published since the end of World War II. The first is by W Philip Conolly, *British Railways Pre-grouping atlas and gazetteer*, 1971. Although this is a small atlas it is still a reasonable introduction to the pre-1922 railway network of Great Britain; there have also been various spin-off versions of the standard work. The current railway network is dealt with by S K Baker, *Rail Atlas of Britain*, 1977, and is conspicuous by its use of white space! C J Wignall produced a *Complete British Railways Maps and Gazetteer 1825–1985* in 1983, which proved to be, on closer inspection, a nightmare of inaccuracies and is best forgotten. This was followed by *Jowett's Railway Atlas of Great Britain and Ireland from pre-Grouping to the present day*, Alan Jowett, 1989; a rather poorly drawn atlas that is reasonably accurate, although it does have some spatial problems, particularly with the National Grid. For Ireland the best work is *Johnson's Atlas and Gazetteer of the Railways of Ireland*, 1997. All of these publications suffer from the same deficiency: the railways are shown on a blank canvas, perhaps augmented by county boundaries and an arbitrary grid. Only one site name is shown; clarity is often lacking, due to the scale of mapping, and relating the information to OS topography can be tricky.

Cobb's Atlas is a world apart. The railway lines, past and present, are accurately related to the National Grid and a topographical background: the outline version of the Seventh Series one-inch map (a screened grey tint, which is quite acceptable). This approach is excellent apart from the following minor technical issues:

1. the exact dates of the one-inch bases are not mentioned, I presume the last published version has been used;
2. the coloured railway lines actually obliterate the one-inch railway evidence, which was probably sensible;
3. there is no 'gutter' space along the spine edges of the book, which means that some information has been 'lost' in the binding, a real nuisance which should have been avoided;
4. the map section pages do not indicate which 100 km National Grid square(s) the reader is in, can be a bind, especially as the index maps make no reference to them either.

The delineation of the railway appears, to us, to be reasonably thorough. Most of the 'tricky' sites and lines have been included. Opening and closing dates are also fairly accurate and include those for colliery branches. The problem we know Michael Cobb has had, is that he failed to keep a record of his sources of information for much of the data, and therefore is unable to prove anything – this is a real shame.

I am sure the exact location of some station ‘spots’ will be questioned and those of the more obscure or short-lived halts put under the spotlight; but I have to say some of these are notoriously difficult to be exact about. Goods sites are not covered.

The annotation of the map spreads leaves a little to be desired, with too much emphasis on the use of capitals and underlining; but that is a professional view (as a book designer). As is my opinion of the overall presentation: it is poor for such an important work. The typography is appalling; the title page and preliminaries very unsatisfactory. The index map, which sadly only appears at the front of volume one, is again badly considered in that it does not relate the map sections to the national grid, in particular the 100 km squares, their code letters and/or numbers; this is a serious omission.

Having said all this, it is a magnum opus that Michael Cobb has laboured long over and he must be lauded for his achievement; along with his extremely generous sponsor, the late James Colyer-Fergusson. Certainly buy it, as I doubt it will ever be reprinted – I think only a 1000 copies were produced.

David Milbank Challis

Exploring missing territory

In my letter in *Sheetlines* 68, p. 54, I mentioned the island of Hartamul which appears on *Landranger* 31 but not on any *Explorer* map. Subsequently I have discovered another missing island: Erisgeir (NM 381324, about 6 km ESE of Staffa). This is clearly shown on *Landranger* 48 but does not appear on *Explorer* 373. If anything, this is worse than Hartamul. That island required an inset; but square NM 3832 appears on the face of *Explorer* 373. The trouble is, it is shown as nothing but sea!

Of course it does not always work like this. *The Daily Telegraph* for 15 November included a lengthy piece about the hamlet of Penleigh (ST 854508, close to Westbury, Wilts) which had ‘disappeared from the map’ thirty years ago. As *Explorer* 143 marks not only Penleigh itself, but also Penleigh Farm, Penleigh Mill Farm and Penleigh Road (a bridleway) I thought this a little hard on the long-suffering Ordnance Survey!

David Purchase

Back of beyond?

In a letter which is rather too long to print in full, David Higgins, while accepting the impracticability of using double-sided maps in the field, considers that single-sided mapping wastes a lot of high-quality paper and proposes that the Ordnance Survey should use the back of the sheet for various useful information. He suggests including motorway junction diagrams; a diagram of local authority areas, with contact details; a map showing bus routes and service frequency; lists of inns and other accommodation.

Similar ideas have certainly been tried by, for example, Freytag & Berndt with their 1:100,000 *Wanderkarten* for Austria where the back of the map carries (or carried) comprehensive details of mountain huts and other information for walkers and climbers.

The main difficulty with David’s suggestion may be the rapidity with which the information would become out of date?

New maps

Jon Risby

This list covers small scale maps published between 17 July and 16 November 2004. They are listed by series, and in sheet number order. The columns are as follows: Sheet No. / Title / Edition / Copyright date / Full revision date / Latest revision date / Date of publication. There is also a list of those maps due for publication by OS (by series and in order of their proposed publication).

After the list of OS maps is a résumé of maps published by Alan Godfrey between July and November 2004.

OSGB maps

New editions noted ¹ in column 6 are 'Reprinted with minor change'

New editions noted ² in column 6 are 'Revised with selected change'

New editions noted ³ in column 6 are 'Revised for significant change'

New editions noted ⁴ in column 6 are 'Major roads revised'

Where details are shown in italics I have not been able to confirm the details by seeing the map itself, and therefore information is based on Ordnance Survey's list of new publications. I hope that I will be able to confirm information in the next edition of *Sheetlines*.

Landranger – new editions

33	Loch Alsh, Glen Shiel & Loch Hourn	<u>C1</u>	2004	?	2004 ¹	26/08/04
43	Braemar & Blair Atholl	<u>C1</u>	2004	1999/2000	2004 ¹	09/08/04
44	Ballater, Glen Cova	<u>C1</u>	2004	2000	2004 ¹	20/10/04
53	Blairgowrie & Forest of Alyth	<u>B1</u>	2004	1998	2004 ¹	24/08/04
54	Dundee & Montrose, Forfar & Arbroath	<u>B1</u>	2004	1998/99	2004 ¹	28/07/04
58	Perth to Alloa, Auchterarder	<u>B1</u>	2004	1997	2004 ¹	20/07/04
59	St Andrews, Kirkcaldy & Glenrothes	C1	2004	2000	2004 ²	28/07/04
67	Duns, Dunbar & Eyemouth	B2	2004	2000	2004 ²	07/10/04
89	West Cumbria, Cockermouth & Wast Water	C2	2004	1999	2004 ²	29/07/04
100	Malton, Pickering, Helmsley & Easingwold	<u>C2</u>	2004	1996	2004 ¹	12/10/04
104	Leeds, Bradford, Harrogate & Ilkley	<u>C2</u>	2004	1997	2004 ³	25/10/04
115	Snowdon & Caernarfon	<u>C1</u>	2004	1999	2004 ¹	22/07/04
126	Shrewsbury & Oswestry	B2	2004	2000	2004 ²	19/08/04
128	Derby & Burton upon Trent	D2	2004	2000	2004 ²	28/10/04
129	Nottingham & Loughborough, Melton Mowbray	C2	2004	1999	2004 ²	11/11/04
134	Norwich & The Broads, Great Yarmouth	<u>D</u>	2004	2001	2004 ¹	13/09/04
138	Kidderminster & Wyre Forest	<u>B2</u>	2004	1996	2004 ¹	03/08/04
143	Ely, Wisbech & Downham Market	<u>D</u>	2004	2000	2004 ¹	05/10/04
153	Bedford, Huntingdon, St Neots & Biggleswade	<u>C2</u>	2004	1998	2004 ¹	27/09/04
165	Aylesbury, Leighton Buzzard, Thame & Berkhamstead	<u>D</u>	2004	2001/02	2004 ¹	01/10/04
193	Taunton & Lyme Regis, Chard & Bridport	D	2004	2003	2004 ⁴	29/07/04
194	Dorchester & Weymouth, Cerne Abbas & Bere Regis	C2	2004	1998	2004 ²	12/08/04
195	Bournemouth & Purbeck, Wimborne Minster & Ringwood	D2	2004	2000/01	2004 ²	29/07/04
196	The Solent & the Isle of Wight, Southampton & Portsmouth	D2	2004	2000	2004 ²	29/07/04

Explorer – new editions

Sheets OL20 and sheets 131/132/140 are noted as ‘Revised for significant change 2004’. No full revision date is given. They DO NOT show Access Land, and are published in the existing *Explorer* covers. Sheets 342/363/420 are ‘Reprinted with minor change’.

OL20	South Devon	B	2004	-	2004	19/08/04
131	Romsey, Andover & Test Valley	B	2004	-	2004	08/07/04
132	Winchester, New Alresford & East Meon	<u>B</u>	2004	-	2004	08/07/04
140	Quantock Hills & Bridgwater	B	2004	-	2004	07/10/04
245	The National Forest	A1	2004	-	2004	15/07/04
342	Glasgow	<u>A</u>	2004	-	2004	26/07/04
363	Cowal East	<u>A</u>	2004	-	2004	02/07/04
420	Coreen Hills & Glenlivet	<u>A</u>	2004	-	2004	22/07/04

These are all noted as ‘Revised with selected change 2004’ and show Access Land. No full revision date is given. They are published in the new style *Explorer* cover.

OL1	The Peak District, Dark Peak area	A1	2004	-	2004	19/09/04
OL21	South Pennines	A1	2004	-	2004	19/09/04
OL24	The Peak District, White Peak area	A1	2004	-	2004	19/09/04
OL41	Forest of Bowland & Ribblesdale	A1	2004	-	2004	19/09/04
121	Arundel & Pulborough	B1	2004	-	2004	19/09/04
122	Brighton & Hove	B1	2004	-	2004	19/09/04
123	Eastbourne & Beachy Head	B1	2004	-	2004	19/09/04
124	Hastings & Bexhill	B1	2004	-	2004	19/09/04
125	Romney Marsh, Rye & Winchelsea	B1	2004	-	2004	19/09/04
134	Crawley & Horsham	B1	2004	-	2004	19/09/04
135	Ashdown Forest	B1	2004	-	2004	19/09/04
136	High Weald, Royal Tunbridge Wells	B1	2004	-	2004	19/09/04
137	Ashford	B1	2004	-	2004	19/09/04
138	Dover, Folkestone & Hythe	B1	2004	-	2004	19/09/04
145	Guildford & Farnham	B1	2004	-	2004	19/09/04
146	Dorking, Box Hill & Reigate	B1	2004	-	2004	19/09/04
147	Sevenoaks & Tonbridge	B1	2004	-	2004	19/09/04
148	Maidstone & the Medway Towns	B1	2004	-	2004	19/09/04
149	Sittingbourne & Faversham	B1	2004	-	2004	19/09/04
150	Canterbury & the Isle of Thanet	B1	2004	-	2004	19/09/04
161	London South	B1	2004	-	2004	19/09/04
163	Gravesend & Rochester	B1	2004	-	2004	19/09/04
267	Northwich & Delamere Forest	A1	2004	-	2004	19/09/04
268	Wilmslow, Macclesfield & Congleton	A1	2004	-	2004	19/09/04
275	Liverpool, St Helens, Widnes & Runcorn	A1	2004	-	2004	19/09/04
276	Bolton, Wigan & Warrington	A1	2004	-	2004	19/09/04
277	Manchester & Salford	A1	2004	-	2004	19/09/04
285	Southport & Chorley	A1	2004	-	2004	19/09/04
286	Blackpool & Preston	A1	2004	-	2004	19/09/04
287	West Pennine Moors, Blackburn, Darwen & Accrington	A1	2004	-	2004	19/09/04
288	Bradford & Huddersfield	A1	2004	-	2004	19/09/04
296	Lancaster, Morecambe & Fleetwood	A1	2004	-	2004	19/09/04

Tour Map series – new editions

7	Hampshire & the Isle of Wight	B	2004	-	2004 ³	22/09/04
9	Dorset, Somerset East, Bath & Bristol	B	2004	-	2004 ³	30/07/04
15	London including the M25	B	2004	-	2004 ³	30/07/04
16	Beds, Bucks, Herts, NW London	B	2004	-	2004 ³	30/07/04
17	Essex & NE London	B	2004	-	2004 ³	30/70/04

OS Travel map – Route map

Route map 2005	2004	-	2004 ³	04/10/04
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Irish mapsDiscoverer maps – new editions

7	Londonderry	C edition 2004	Nov 2004
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Discovery maps – new editions

53	Clare, Galway, Offaly, Tipperary	2nd 2003	Nov 2004
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Forthcoming OSGB maps

The following maps have been announced for publication.

Landranger – new editions

109	Manchester, Bolton & Warrington	C2	28/03/05
183	Yeovil & Frome	D2	04/04/05
184	Salisbury, The Plain & Amesbury	C2	04/04/05
182	Weston-super-Mare, Bridgwater & Wells	C2	11/04/05
185	Winchester, Basingstoke, Andover & Romsey	D2	18/04/05
174	Newbury, Wantage, Hungerford & Didcot	D1	25/04/05

Explorer – new editions

15	Purbeck & South Dorset	B1	14/12/04
22	New Forest	B1	14/12/04
29	Isle of Wight	B1	14/12/04
117	Cerne Abbas & Bere Regis	B1	14/12/04
118	Shaftesbury & Cranborne Chase	A1	14/12/04
119	Meon Valley, Portsmouth, Gosport and Fareham	A1	14/12/04
120	Chichester, South Harting & Selsey	B	14/12/04
129	Yeovil & Sherborne	B1	14/12/04
130	Salisbury & Stonehenge	A1	14/12/04
131	Romsey, Andover & Test Valley	B1	14/12/04
132	Winchester, New Alresford & East Meon	B1	14/12/04
133	Haslemere & Petersfield	B1	14/12/04
141	Cheddar Gorge & Mendip Hills West	B1	14/12/04
142	Shepton Mallet & Mendip Hills East	B2	14/12/04

143	Warminster & Trowbridge	B1	14/12/04
144	Basingstoke, Alton & Whitchurch	B1	14/12/04
153	Weston-super-Mare & Bleadon Hill	B1	14/12/04
154	Bristol West & Portishead	A1	14/12/04
155	Bristol & Bath	A1	14/12/04
156	Chippenham & Bradford-on-Avon	A1	14/12/04
157	Marlborough & Savernake Forest	A1	14/12/04
158	Newbury & Hungerford	A1	14/12/04
159	Reading, Wokingham & Pangbourne	A1	14/12/04
160	Windsor, Weybridge & Bracknell	A1	14/12/04

All of the above Explorer maps are being reprinted with the inclusion of Access Land. The anticipated timetable for the republication of the Explorer maps for England and Wales is as follows:

Upper North West, North East England and Wales – May 2005
 South West – August 2005
 West – October 2005
 East – November 2005

More information can be found on the Ordnance Survey website (via the *Map Shop* pages) or at <http://www.countrysideaccess.gov.uk>.

OS Travel Map – Road Map

1	Northern Scotland, Orkney & Shetland	C	28/02/05
2	Western Scotland and the Western Isles	C	28/02/05
3	Southern Scotland and Northumberland	C	28/02/05
4	Northern England	C	28/02/05
5	East Midlands & East Anglia including London	C	28/02/05
6	Wales and West Midlands	C	28/02/05
7	South West England and South Wales	C	28/02/05
8	South East England including London	C	28/02/05

Tour Map series – new editions

13	Oxfordshire & Berkshire	B	08/11/04
1	Cornwall	C	29/11/04
5	Devon & Somerset West	C	29/11/04
14	Northumberland	B	20/12/04

Forthcoming Irish maps

1	Donegal (NW)	3rd edition	Feb 2005
2	Donegal (N & Central)	3rd edition	Feb 2005
3	Donegal (NE), Derry	3rd edition	Feb 2005
6	Donegal (Central)	3rd edition	Feb 2005
10	Donegal (SW)	3rd edition	Feb 2005
11	Donegal (South)	3rd edition	Feb 2005
16	Donegal, Fermanagh, Leitrim, Sligo	3rd edition	Feb 2005
23	Mayo	3rd edition	Feb 2005
25	Sligo (East), Leitrim, Roscommon	3rd edition	Feb 2005
26	Cavan, Fermanagh, Leitrim, Roscommon, Sligo	3rd edition	Feb 2005

Alan Godfrey Maps

Details of Alan Godfrey's reprints of old OS maps are available from Alan Godfrey Maps, Prospect Business Park, Leadgate, Consett, DH8 7PW, tel. 01207 583388, fax 01207 583399, or from their website at <http://www.alangodfreymaps.co.uk/>. Maps may now be ordered directly from the website.

The columns are as follows: County / Sheet number / Title / Date of map / Month of issue.

Co. Antrim	40.04	Larne	1903	10/04
Cheshire	27.13	Knutsford (South)	1908	11/04
Cornwall	30.05	Gunnislake (South) & Albaston	1905	11/04
Gloucestershire	12.09	Tewkesbury	1923	09/04
Lancashire	96.13	Rainscough, Kersal & Hilton Park	1907	09/04
Leicestershire	25.02	Mountsorrel	1901	08/04
Leicestershire	37.03	Leicester (Knighton)	1902	09/04
London	91	Deptford (North)	1868	08/04
Merionethshire	37.03	Dolgellau	1900	08/04
Middlesex	20.06	Hounslow (West)	1894	11/04
Middlesex	20.14	Hanworth Park	1934	08/04
Norfolk	63.10	Norwich (NW)	1905	11/04
Oxfordshire	24.16	Burford	1919	08/04
Oxfordshire	26.08	Woodstock & Blenheim Palace	1919	08/04
Oxfordshire	31.08	Witney	1919	09/04
Renfrewshire	12.15	Barrhead	1911	09/04
Tyneside	15	East Jarrow	1895	09/04
Warwickshire	8.11	Erdington (East)	1913	09/04
Warwickshire	17.05	Bedworth	1923	08/04
Yorkshire	6.12	South Bank & Grangetown (South)	1927	10/04
Yorkshire	17.11	Guisborough	1927	08/04
Yorkshire	67.03	Castle Bolton, Middleham & Redmire	1910	10/04
Yorkshire	187.06	Otley	1906	08/04
Yorkshire	197.03	Hornsea	1926	11/04
Yorkshire	288.16	Sheffield (Longley)	1902	09/04
Yorkshire	289.11	Rotherham	1922	09/04
Yorkshire	291.10	Tickhill	1901	08/04

D-day maps

40/18	SW St Aubin – Sword & Juno Beaches	09/04
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England and Wales one-inch

11/12	Longtown, Bewcastle & District (includes map of Longtown)	1902	11/04
112	Chesterfield, Mansfield & Matlock (includes map of Pilsley)	1889	11/04
51	Lower Wensleydale (includes map of Aysgarth)	1904-13	10/04
102	Saxilby, Market Rasen & District (includes map of Normanby by Spital & Owmbly)	1906	08/04
236	Oxford, Witney & District (includes map of Bladon)	1893	08/04