



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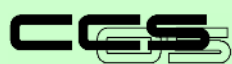
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THE CHARLES CLOSE SOCIETY
for the Study of Ordnance Survey Maps
www.CharlesCloseSociety.org

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.



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SHEETLINES

Number 84

April 2009

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for the Study of Ordnance Survey Maps

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Forthcoming events

Here is the programme of future meetings. For further information or to book your place, email Visits@charlesclosesociety.org or call John Davies on 020 8504 1766.

Saturday 18 April 2009, 2 pm, Cambridge University Library Map Room

The current Cambridge University Library building was opened in 1934 and the Map Room, still in its original accommodation and largely untouched since then, has recently undergone a major refurbishment. The visit will provide an opportunity to examine this new space as well as some treasures, old and new, from the map collection. Cambridge University Library is a Legal Deposit Library and so has a large collection of Ordnance Survey maps amongst its holdings of over a million maps and atlases dating from the sixteenth century to the present. A selection of these will be on display. This visit was originally arranged for January.

Saturday 16 May, Annual General Meeting, Ludlow

Details are on a separate flyer mailed to members of the Society with this issue.

Friday 3 July, Guernsey, Channel Islands

Following our series of recent visits to Dublin, Belfast and Douglas, we continue to investigate the mapping of Britain's islands. We will be guests of Digimap (<http://www.digimap.gg/>) who produce and distribute digital mapping of Jersey, Guernsey, Alderney, Herm and Sark, in association with the States of Jersey and States of Guernsey governments.

Thursday - Saturday 10-12 September, Edinburgh

This is a joint meeting with the Map Curators Group of British Cartographic Society, with talks, workshops, outings and a social event. More details later.

Thursday 29 October, 2 pm, The National Archives, Kew

Map Archivist Rose Mitchell will show examples from the OS historical records held at The National Archives (<http://www.nationalarchives.gov.uk/maps>), and her colleague Eunice Gill will showcase some newer materials being accessioned.

We apologise that it has not been possible to arrange the proposed Poland visit mentioned in *Sheetlines* 83.

'Maps & surveys 2009' – The Defence Surveyors' Association seminar

The Defence Surveyors' Association (DSA) is to run the third in its series of annual seminars on historical military and hydrographic surveying, mapping and charting at the Royal School of Military Survey, Hermitage, Newbury on Saturday, 20 June 2009. The seminar will run from 1025 to 1700hrs during which seven 35-minute presentations will be given.

The cost of attendance is £15, to include tea and coffee breaks and a finger-buffet lunch. The provisional programme is:

- 0945 Coffee, tea, biscuits in conference room. Move to lecture theatre.
- 1025 Chairman's welcome, opening comments and administrative points.
- 1030 *In the footsteps of Shackleton*, John Elder, DSA member ex RE Survey.
- 1110 *Models in camera – Allied model-making during World War II*,
Dr Alastair Pearson, University of Portsmouth Geography Department.
- 1150 *Mapping for a multilingual military alliance; the case of East Germany*,
Dr John Cruickshank, doctor, historian and Charles Close Society member.
- 1230 Finger-buffet lunch and drinks in conference room.
- 1330 *The Inter-Entity Boundary Line in the Balkans 1995-96*,
Nick Rigby, a DSA member, ex RE Survey, and Andy Fagg, D. D. Directorate of
Equipment Capability (ISTAR).
- 1410 *Measurement and visualization of improvised explosive devices (IED)*,
Duncan Lees of Plowman Craven Ltd.
- 1450 Coffee, tea, biscuits in conference room.
- 1520 *Current operations/techniques – Royal Artillery unmanned aerial vehicles*.
A briefing by an officer from 32 Regiment, Royal Artillery.
- 1600 *Current operations/techniques - Royal Air Force unmanned aerial vehicles*.
An officer from 39 Squadron, Royal Air Force.
- 1640 Final discussions.
- 1700 Conclusion.

As in previous years, the DSA would be delighted to see anyone from CCS who might have an interest in more military matters. Provisional or firm bids, with or without cheques at this stage, may now be made to Mike Nolan, Tall Trees, Broad Layings, Woolton Hill, Newbury, RG20 9TS, maptnolan@goosemail.com or telephone (01635) 253167.

If cheques are sent they should be made out simply to DSA. For those arriving by car, it would be appreciated if bids could include car make, model and registration number.

Other seminars

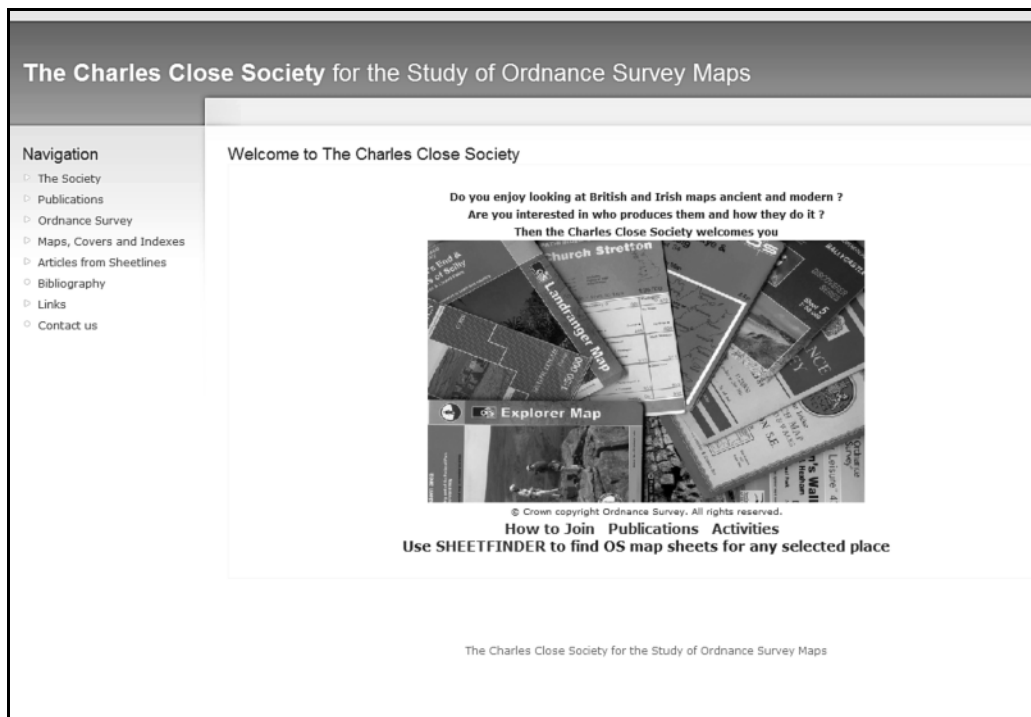
Tuesday, 19 May, 5.30 pm, The Harrods Room, Emmanuel College, Cambridge

Cambridge Seminars in the History of Cartography: *'Beautiful maps and attractive fields': a surveyor's view of ancient Italy*, Brian Campbell (Queen's University, Belfast)

Thursday, 21 May, 5 pm, The Centre for the Environment, South Parks Road, Oxford

The Oxford Seminars In Cartography: *Maps, modernity and the new Soviet man: cartographic culture in the USSR, 1917-1953* Nick Baron (University of Nottingham)

Updated website for the Society



Our extensively redesigned website has now been launched at www.CharlesCloseSociety.org. Visitors to the previous site (same address but with suffix ‘.uk’) will be automatically redirected to the new site.

The new site includes history of OS, examples of maps and covers, index diagrams for various map series, *Sheetlines* index and a selection of articles of interest reproduced from past issues of *Sheetlines*. We also have ‘Sheetfinder’, a gazetteer-based search facility that lists the OS sheets covering any selected place. The site provides links to map libraries and to organisations producing and selling maps, as well as links to members’ websites.

The site is designed to be maintainable by any authorised person and in this way we hope that members will contribute new material and participate in the on-going development of the site in response to the interests and activities of the membership.

If you wish to suggest additional links or to offer future involvement, please contact info@CharlesCloseSociety.org. We should be very grateful if anybody who currently manages a relevant site would add a link to our new site.

CCS2, City of York – 1920

As we go to press, the second in our series of map reprints, the OS six-inch ‘Town Map’ of York, 1920, is at a late stage in production and should shortly be available for distribution, free of charge, to all members who have paid their subscriptions for 2009.

Accompanied by Peter Haigh’s comprehensive notes, this reprint is quite a bargain. In December an original copy of the same map made the unbelievable sum of £1,020 on eBay!

Ordnance Survey news

New Pan Government Agreement signed: officials are not speaking to each other

It was announced on 5 February that contracts for supplying a range of geographic information to central government for the next four years have been awarded to Ordnance Survey and its business partner, Landmark (in conjunction with Dotted Eyes Ltd).

The Pan Government Agreement (PGA) provides almost 100 national bodies with access to core geographic information under consistent licensing terms. Contracts were awarded for its renewal following a competitive-tendering process. The new PGA will include a broader range of products, including enhanced addressing, road routing and points of interest data. At the same time, licensing has been simplified.

Because the Department for Communities and Local Government has ministerial responsibility for Ordnance Survey, monitors the commercial performance of OS as a trading fund and also, in its role as customer for geographic information, manages the Pan Government Agreement, there is potential for conflict of interest.¹

As guidelines issued by the Department make clear, considerable care has to be taken to ensure that the Department's 'customer' and 'shareholder' roles are separated:

Shareholder: The Sponsor Minister for Ordnance Survey (currently Iain Wright) deals with strategic and day-to-day issues in connection with OS commercial activities. He does not participate in any discussions or decisions relating to the Department's purchasing of OS data. The Director General of Ordnance Survey reports to Parliament through this Minister. The Department's Sponsorship and Governance Unit is responsible for managing the shareholder relationship with OS.

Customer: The Customer Minister for Geographic Information (currently Baroness Andrews) leads on issues relating to the purchase of products and services. She does not participate in any discussions or decisions relating to strategic and day-to-day issues in connection with OS commercial activities. The Data and Statistical Infrastructure Division is responsible for the delivery of the PGA, including the procurement of the new agreement.

Officials from each division are required not to discuss financial or procurement matters relating to Ordnance Survey with each other.

Ordnance Survey to cut costs

The *Southern Daily Echo* reports that Vanessa Lawrence has asked OS staff to sign up to a 5% real cost reduction.

She is quoted as saying, "I believe it is possible to take five per cent out for the first three years but maybe for five years. It is obvious from the staff that I have spoken to that they think it is very achievable." She went on to say that OS want to continue with high quality, high value, well-maintained data, but added "Fifty per cent of our costs are staff so job cuts are not being ruled out."

¹ See www.iggi.gov.uk/pg2.php for the products included in the agreement and full details of the guidelines on avoiding conflicts of interest.

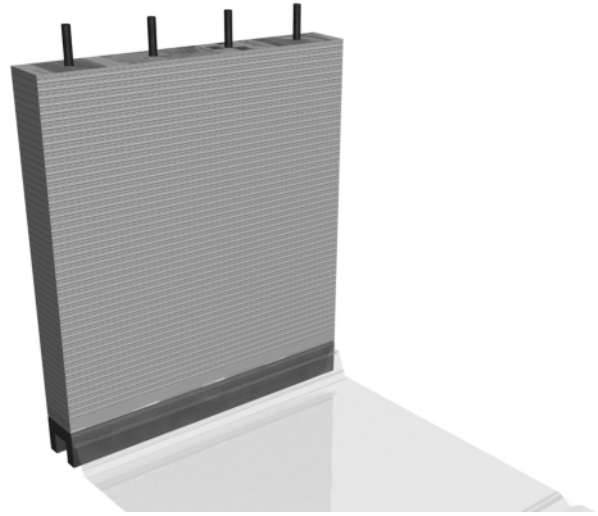
So, is this what happened to the withdrawn Scotland Tourist Maps?

An Ordnance Survey news release of 13 November 2008 tells us that London-based architects, Amenity Space, have received international praise for their unique recycled building blocks made entirely out of disused maps.

The Map Compression Block, which stacks maps on top of each other to create a heat efficient and strong building brick, was honoured at the San Francisco Urban Re:Vision Awards. The award recognised the project's innovative approach to producing an eco-friendly and sustainable building material.

Nicky Kirk, a director at Amenity Space, explained: "The project began when we started talking to Ordnance Survey about recycling some maps they had printed for a Royal Institute of British Architects event; the building block idea really grew from there. The bricks we've created not only have greater density than a 250 mm thick concrete block but also have similar strength. ... At the moment, 12,000 maps are sitting in our offices."

The project works by drilling holes through the centre of each map, which is placed over a series of steel rods fixed to a timber rail. The sides are then clad with a fire and waterproof layer and the maps compressed until they make up a solid panel.



Visit to No 1 AIDU, RAF Northolt, 25 February 2009

Eddie Ashill



Fifteen of us were greeted at the Guard Room and, as instructed, were processed to proceed to the unit, a futuristic looking block solely for the production of aeronautical charts.

Flight Sergeant Mike Simpson, a section leader and an RAF cartographer, gave us a preamble as to the purpose of the unit. Then we were formally welcomed by the Officer Commanding No 1 AIDU – Aeronautical Information Documents Unit, Wing Commander Charles Howard-Vyse, an ex-Tornado (fast jet) navigator! Mike concluded a session that gave us a detailed insight as to what takes place at Northolt and answered many questions.

No 1 AIDU was originally set up at Ruislip in 1953 and moved to RAF Northolt in 1956. The new, dedicated building opened in 1995. The unit is part of the Intelligence Collecting Group of MOD, receiving information from Feltham and JARIC at RAF Brampton.

It is a mandatory requirement that most products are produced on the 28-day internationally agreed Aeronautical Information Regulation and Control (AIRAC) cycle. Core

publications are en-route charts on the scale 1:1,000,000, low flying charts on the scale 1:500,000, both on paper and digitally, and back-up material to these charts.¹

The seventy en-route high level charts, used for flying in excess of 19,500 feet above mean sea level, cover North America, Atlantic Ocean, UK, Europe, Africa, Indian Ocean and parts of the sub-continent. The low level charts cover the UK and Europe, practically all of UK military flying today. The en-route charts are used at the flight planning stage of an operation. They are not topographical and are used purely for navigational purposes. Information includes airway routes, designated airspace, airspace reservations and radio navigation facilities, including '5 alpha' named waypoints, e.g. MALBY near Lyneham. Airway routes are indicated by name, e.g. GOLF 1, from London over the Severn to Strumble Head and to the United States and ALPHA 25, from the North West of England to Berry Head and Brittany. Each airway shows the true heading and the distance between waypoints or reporting points in nautical miles. Airways are coloured light green and sea or large rivers and lakes blue; the rest of the ground is white. The charts are drawn on an Oblique Mercator projection and are republished typically every six months or when required. They also include isogonals, showing bands of the variation at the time of publishing, and the altimeter setting areas are delineated.

The low flying chart, scale 1:500,000, and the 1:250,000 military helicopter charts of the UK are both topographical and in full colour, produced only for the military. They used to be classified but no longer are because sensitive information is no longer included. These are reprinted twice each year.²

En-route supplement booklets, covering the areas of the en-route charts, are also published twice yearly to give up to date information and are used in conjunction with these charts, permitting aircrew to use airspace and ground facilities to the best advantage. They give the exact location in latitude and longitude of every airfield and en route navigational aid with a huge amount of other essential information.

Other products include terminal charts for individual airfields/airports and cockpit display flip-charts, as well as minor airfield charts and charts of helicopter and hospital landing sites. Information about current vertical obstructions is collected on an on-going basis, to alert aircrew to hazards whilst low flying or during airfield approaches and take offs.

Development is taking place on system ED-76A, which allows more aircraft to fly in already crowded airspace by using GPS fixes instead of standard air traffic controls.

It is essential that all information and changes to the charts are integrated. GOTHIC, a system designed to achieve this, is currently being developed by a company in Cambridge. It is ground breaking but is encountering some teething problems.

The Unit is working towards ISO9001 quality management standard accreditation. The Army now does all military cartography training at Hermitage, near Newbury, but a senior NCO from No 1 AIDU is about to be seconded for RAF input.

The classroom briefing completed, we moved to see the different sections dealing with product planning, production, printing and dispatch. The planning section is managed by a senior NCO, as are all others, and is where all the data changes and intelligence are gathered, ready for incorporation. Here we perused the Aeronautical Information Publications (AIPs) issued by all countries from Afghanistan to Zimbabwe.

¹ More details will be found at www.aidu.mod.uk together with examples of the various charts.

² The Civil Aviation Authority also produce a 1:500,000 topographical chart with a different emphasis, see *Sheetlines* 81, 13.

The next section was fascinating because it produces the updated low flying charts. We were shown a digital presentation of a 'fly-through' over the half-million chart at 350 knots at various flight levels. This digital system is used on military bases that need to fly tactically; for example, I have seen it in the flight operations section at RAF Valley on Anglesey. The amount of information shown is detailed and impressive.

All updates are logged on 'Bible' copies of the last print, amendments highlighted in yellow and deletions in red. All changes and updates are input into the 'master' on PCs in this section. Here we learned that low level flying limit is a minimum of 80 feet above ground level! Wow!

Printing of the charts is done in a state-of-the-art print shop, by operators who are experts in using the complex machinery. Publications are stored in the warehouse prior to dispatch to the users. No time-expired maps are kept, for obvious reasons.

The unit's insignia is in the form of an RAF squadron badge: a sealed parchment over a flaming beacon with the Latin motto 'Quo certior eo tutior', 'The more fully informed the safer'. It well demonstrates that the unit is a very efficient and professional operation delivering a product of the highest quality.

Rodney Leary offered our thanks to Mike Simpson, and to be conveyed to all involved in our visit, for delivering to us a very detailed and instructive insight into the operation of this little known but essential facility, maintaining the high standards expected of the Royal Air Force in the 21st century.

'A brief record of the advance of the Egyptian Expeditionary Force' and campaign situation maps

Mike Nolan

I wonder if I might be allowed to add to the interesting article on the *Brief record of the advance of the Egyptian Expeditionary Force* in *Sheetlines* 83?¹

The *Brief record* has not entirely escaped historians of cartography, nor of historians of military survey. In July 1982, the section of the book describing the work of the Seventh Field Survey Company R.E. was reproduced by the School of Military Survey (SMS) as a handy instructional précis of information on the activities of that unit and given the SMS précis number 1519 as part of a series covering the history of military survey for reference by Royal Engineer officer and soldier students at SMS. How much use of those précis was actually made is perhaps doubtful. However, a copy may now be found in the Cambridge University Map Library within the collection of SMS précis now held 'alongside' the Charles Close Society collection of historical Ordnance Survey material. Quite coincidentally, a copy has just been made available to the public on the Defence Surveyors' Association (DSA) website www.defencesurveyors.org.uk as one of a growing collection of items on the history of British military survey, as has a transcript of *Report of the work of the Seventh Field*

¹ A letter on the same subject from Ian Mumford will be found on pp55-56 of this issue – CJH.

Survey Company R.E. Egypt, Sinai, Palestine & Syria December 1915 to October 1918 by Major W J Maule D.S.O., R.E., a typescript document of more than fifty pages.

Leaving aside the needs of air force users, the main role of military surveyors was the production of topographic maps showing the terrain over which a campaign might be fought. Historically, such maps attempted to show absolute position by means of a geographical graticule in addition to the relative positions of adjacent features on the map face. In the First World War the map face also carried a system of arbitrary map squares to make position referencing easier and from that system was evolved the mathematical map grid with which all users are now so familiar. These topographical maps, whether at small scale map covering the whole theatre of a campaign, at medium scale covering an army's area of responsibility or at larger scales showing corps or divisional or lesser areas of operations gave successively junior commanders a picture of the terrain with which they were immediately concerned.

To plan and execute operations commanders also had to visualise the positions of their own and enemy troops within the terrain, so the topographic base map became a base on which dispositions of troops were shown. As the scope of operations and dispositions of forces changed so were the maps updated. Such manually annotated maps were thus ephemeral objects to be discarded as operations developed, though many survive in archives. For the Egyptian Expeditionary Force's campaign, numerous examples of these maps survive in The National Archives in collections as Classes WO 301 and WO 153, and in war diaries, often complete with bold arrows showing movements or thrusts.

However the amount of detail on coloured topographic maps often 'muddies the picture' especially if the topography is severe or extreme and the use of coloured topographic maps is a little extravagant for such dated or ephemeral products. Hence arose the use of special, simplified, usually monochrome (sometimes a grey base rather than black), outline or skeleton maps for showing the dispositions of enemy or allied troops. These maps are variously entitled or referred to as 'operations maps' or 'disposition maps' or 'situation maps'; the latter since they are often overprinted with a title or sub-title such as 'Enemy Situation as known at ... hrs on ... 19....'

They are also known as 'enemy order of battle maps', described shortly after the War in the *Manual of map reading and field sketching*:²

Situation Maps, showing dispositions of the enemy's forces.

These maps in France were generally known as the *Enemy Order of Battle*. The maps varied in scale from a 1/million skeleton map, when it was desired to cover a large area, to the 1/100,000 or even larger scales when the object was to show the hostile troops facing an army or a corps. In every case the outline was printed in grey and the necessary information overprinted in colours. Small-scale situation maps were printed weekly for every theatre of war; the larger scales were printed by armies as required. Small-scale skeleton maps for this purpose are essential in every campaign.

In *Report on survey on the Western Front 1914-1918*,³ enemy order of battle maps were described as being 'Produced periodically by G.S. Intelligence at G.H.Q. and Armies to show dispositions of enemy troops.' Situation maps are described⁴ as 'To show *positions reached by our own troops* (my italics). Usually overprinted on existing trench maps, and issued during the progress of a battle.'

² HMSO, 1921, page 72.

³ HMSO, 1921, page 44.

⁴ page 45.

Many situation maps for the Egyptian Expeditionary Force's campaign, either showing extensive areas at small scale or selective areas at larger scale, survive in The National Archives classes PRO WO 301 and PRO WO 153. Only a few examples are quoted.

The Outline Map of N.E. Egypt at 1:500,000 scale, reproduced by the Survey of Egypt 1916, was used to show dispositions in Sinai between Egypt and southern Palestine from 20 May 1916 to 29 December 1916, though all of October and much of September are missing from the sequence. (PRO WO 153/1033/1 to 31).

Another sequence shows dispositions between 5 January 1917 and 19 January 1917. (PRO WO 153/1035/1 to 3)

The Outline of Sinai Frontier at 1:500,000 scale, printed by Survey of Egypt 22 January 1917 [719Z], was used to show dispositions further east between 26 January 1917 and 23 March 1917. (PRO WO 153/1035/4 to 11).

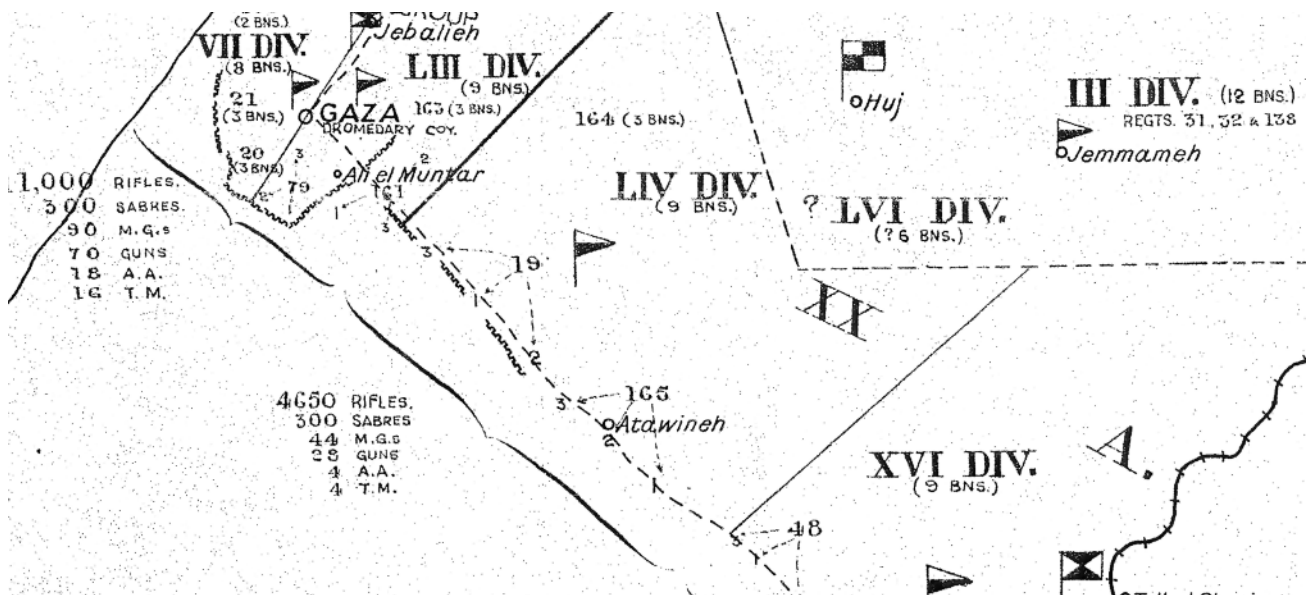


Figure 1. Detail from 'Estimated Enemy Order of Battle on Sinai Front'

By mid 1917, after the first two battles for Gaza and before the battle of Beersheba, small foolscap, landscape-format outline maps were being used to show the estimated orbat (order of battle) on the front between Gaza and Beersheba, typically:

Estimated Enemy Order of Battle on Sinai Front at 1:250,000? scale, sub-titled 'To accompany Intelligence Summary No. 224 of 14-7-17. Distribution and totals corrected to 13-7-17 and with the base map printed by the Survey of Egypt 7th June 1917' (48). This is a 'secret, not to be taken into front line trenches', black, blue and red foolscap, landscape format, map of the area from Gaza to Beersheba showing Turkish Sinai Front HQs, AC HQs, Divisional HQs, and cavalry patrols; giving the numbers of rifles, sabres, machine guns, AA guns and trench mortars. Divisional boundaries are shown and notes are included on unlocated units. (PRO WO 153/1200/58) (See figure 1).

Typical of a situation map at very small scale showing the wider picture of enemy dispositions on a small format sheet of manageable size is:

Sketch Map of Palestine – Distribution of Troops in Syria – Situation on 18-9-17 at 1:1,000,000 scale, a black and red outline, foolscap, portrait map showing believed Turkish disposition between Gaza in the south and Beirut in the north. (PRO WO 153/1200/61)

However, of relevance to the previous article and the main reason for this note is the set of 1:500,000 scale maps produced under the direction of Colonel R Meinertzhagen CBE, DSO of the HQ EEF Intelligence staff from late October 1917. These were described in his book, *Army Diary 1899-1926*:⁵

I have been issuing daily printed maps showing enemy dispositions; they have proved to be extremely accurate. Their distribution has extended to Corps and Divisional Commanders. Yesterday Guy Dawnay forbade me to send them to either Corps or Divisional Commanders as they 'might frighten them'. I thought that pretty poor.

These maps were issued daily from 28 October, 1917 to 19 December, 1917, almost all based on information from prisoners and DPM. After the war I checked them with the Turkish General Staff and they were remarkably accurate. ... My Mapping Section performed a remarkable task. They were given the originals at 4 p.m. and turned out twenty-five copies by 6 p.m. every evening.'

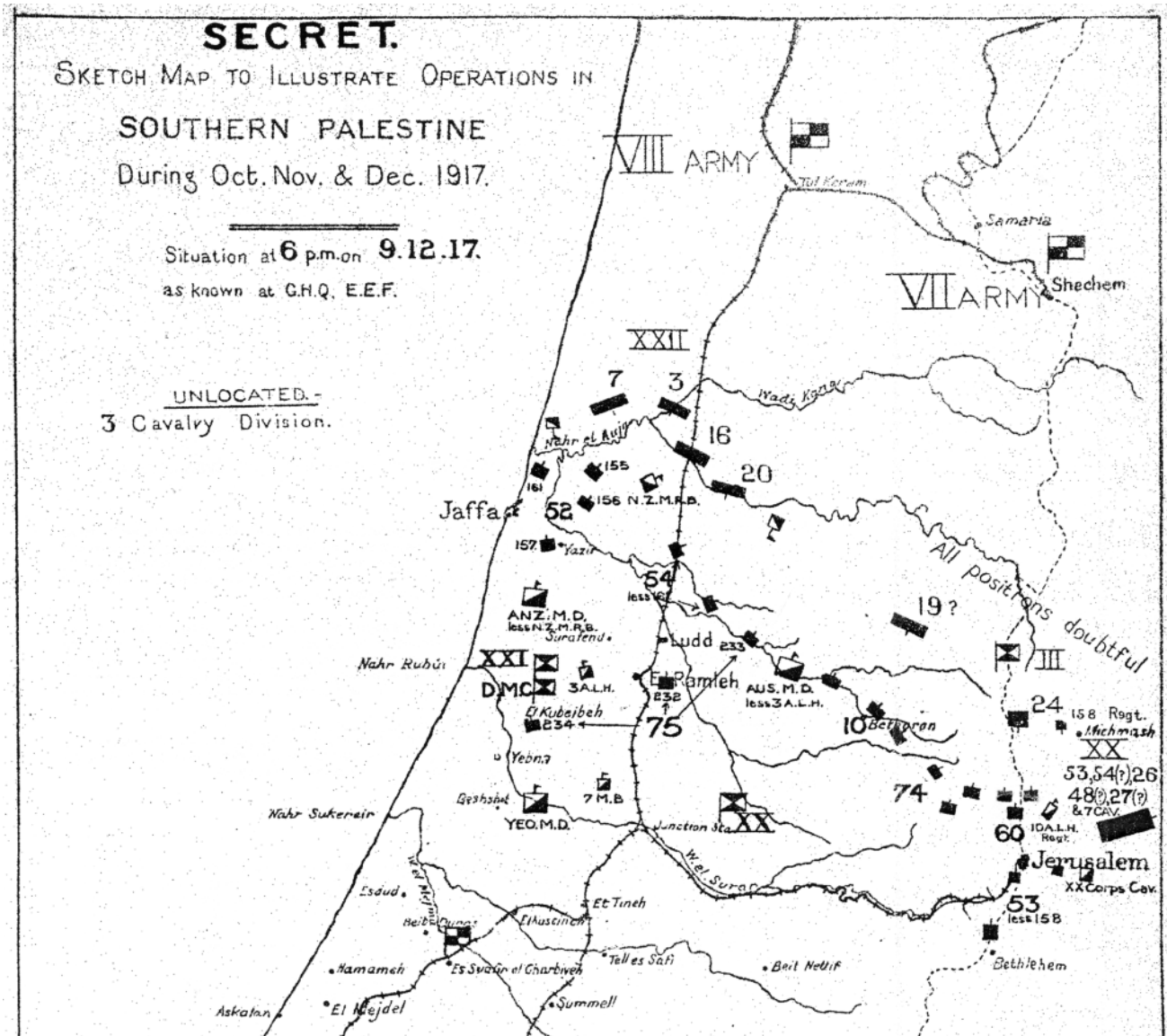


Figure 2. 'Situation at 6pm on 9.12.17' (approximately 60% actual size) – compare with Sheetlines 83, 19

⁵ Edinburgh: Oliver and Boyd, 1960, 224-225.

Copies of many of these maps exist in PRO Rolls WO 153/1038, WO 153/1041 and WO 303. From an entry in the War diary it appears that these may have been produced from about 25 September 1917 but only issued from the 28 October 1917. They were produced on a daily basis till 30 December 1917. These maps are typically:

Sketch Map to Illustrate Operations in Southern Palestine During Oct. Nov. & Dec. 1917 – Situation at 6pm on 9.12.17 as known at G.H.Q. E.E.F. Scale 1:500,000. This is a secret, grey, green (Turkish), red (British) outline map of the area from Asluj to Tul Keram S-N, showing British and Turkish dispositions, 21.5 × 34 cms oa. Reference – British, Red. Turkish, Green. A.H.Q. Corps HQ. Divn. Bde or Regt. Survey Coy R.E. G.H.Q. E.E.F. Nov. 1917. Unlocated units are also noted. (PRO WO 303/489, PRO WO 153/1041/44, PRO WO 153/1038/26) (*See figure 2*).

PRO Roll WO 153/1041 is a bound folder containing 56 of these situation maps, dated from 28 October 1917 to 19 December 1917, all showing the known situation at 6 pm each day. The folder bears the note:

Deposited with the Historical Section (Military Branch) by Mr C. Malamer, Historical Section. Note :- Mr C. Malamer belonged to the Survey Coy GHQ EEf during the period concerned by the maps and was one of the two draughtsmen responsible for drawing the coloured plates representing the two armies on each night. Partial Duplicates.

Mr C Malamer apparently served at both Gallipoli and in Egypt/Palestine since his signature also appears on some maps of the Gallipoli Campaign. It is not known whether he was a soldier or just possibly a civilian from the Survey of Egypt. It is known that civilian staff of that Survey were sent to Gallipoli to assist with the production of maps.

The maps are all, or were originally, classified secret and comprise a grey outline base map showing drainage, settlements, railways and some roads, with a green component showing Turkish dispositions and a red component showing allied dispositions. The reference panel shows symbols for army headquarters, corps headquarters, divisions and brigades or regiments. Unlocated units are listed. All bear the imprint, 'Survey Coy R.E. G.H.Q. E.E.F. Nov. 1917'.

The title was initially *Sketch Map To Illustrate Operations In Southern Palestine During Oct. & Nov. 1917*, but this changed slightly with time. With but few exceptions, they are subtitled '*Situation at 6 p.m. on ... as known at G.H.Q. E.E.F.*'.

When the *Brief record* was compiled, the base map was changed and the scale reduced slightly. The base includes a thirty-minute graticule and its extent has been reduced from foolscap format to that of the book-page, omitting detail south of Beersheba. The depiction of the Hedjaz Railway has been improved, as have other communications, and the settlements and drainage are shown in much greater detail. The content and position of the coloured dispositions components are identical to that shown on the original maps. It is arguable that the result in the *Brief record* is perhaps less satisfactory than on the original situation maps.

The promptness with which the *Brief record* was originally produced is remarkable. It was advertised in the *Palestine News* as early as 28 November 1918 as being available, shortly after General Allenby's despatch of 2 November 1918 (*Figure 3*).

In the *Palestine News* of 13 February 1919 it was recorded that the first edition had been fully subscribed in advance but that a arrangements had been made for a second edition to be produced in UK. This information was repeated in the 13 March 1919 issue of the paper (*Figure 4*).

RECORD OF THE E. E. F.

A record of the Advance of the Egyptian Expeditionary Force between July, 1917, and October 31st, 1918, compiled from official sources will be published by *The Palestine News* shortly after the appearance of the Commander-in-Chief's Despatch of November 2nd, 1918, in *The London Gazette*. The Record will contain :—

- (1). A portrait of General Allenby and full lists of the names of all General Officers and Units serving under his command at any time in the Egyptian Expeditionary Force.
- (2). General Allenby's Despatch covering the whole advance. These will be illustrated by fifty-six coloured maps, showing the positions of troops and the various phases of the advance.

The Record will be sold at 15 P.T. to those who subscribe before publication. Members of the E.E.F. who wish to secure copies at the subscription price are requested to communicate their names to The Military Editor, *The Palestine News*, G.H.Q., and to indicate, when sending the necessary remittance, the address (or addresses) to which the Record is to be forwarded upon publication. After publication the Record will be on sale at 20 P.T. at the offices of *The Palestine News* at G.H.Q., and in Cairo, and will be obtainable at 4 shillings at Home and in Australia and New Zealand. The price in India will be 3 Rupees.

Figure 3: Palestine News, 28 November 1918

RECORD OF E.E.F.

NO FURTHER COPIES AVAILABLE.

As numerous applications for copies of the "Record of the E.E.F." are still being received, it is necessary to remind our readers that no further copies of the first edition are available. the whole of the edition having been considerably over-subscribed for.

It is hoped to publish a second edition of 20,000 copies at an early date in England, and as soon as arrangements have been completed disappointed applicants for copies of the first edition will be advised.

Meantime, the "Palestine News" cannot accept any orders for copies in advance, but those desirous of securing the Record may send in their names and addresses (without money), so that they may be communicated with when arrangements for the second edition are completed.

Subscribers for the first edition are reminded that orders for copies of the Record intended for despatch to addresses outside the E.E.F. area should have been accompanied by a remittance of P.T. 5 per copy, to cover postage.

Figure 4: Palestine News, 13 March 1919

The Palestine campaign is possibly unique in that War Office maps used during that campaign were put on sale to all ranks of the EEF as early as 12 December 1918, for sixpence each, the *Palestine News* including indices of the 1:250,000 Syria series, the 1:63,360 Palestine Exploration Fund maps and the 1:40,000 Operations Series (Figure 5).

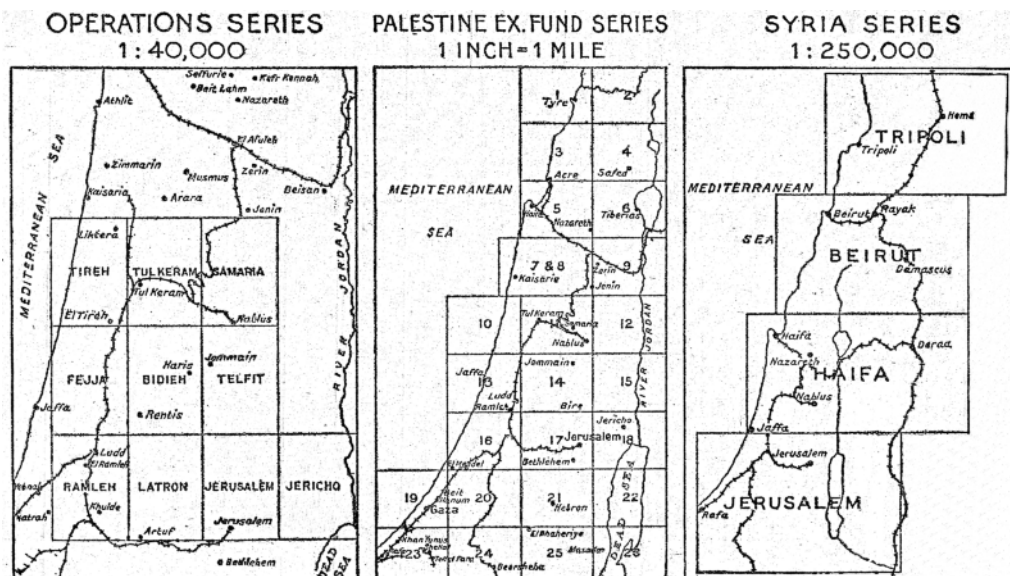


Figure 5: Palestine News, 15 December 1918

An unnecessary distraction?

The photo-zincographed Domesday Book of 1861-63

Bill Henwood

A short item about the Black Letter Prayer Book¹ contains the only previous reference in *Sheetlines* to one of the odder byways of Ordnance Survey history: the publication of photo-zincographed facsimiles of historical manuscripts and printed works.

The extent to which Sir Henry James as Director deserved the credit he took for the invention and development of photo-zincography in the 1850s has been considered elsewhere, as has the criticism levelled at his foray into the production of facsimiles at a time when the progress of the Ordnance Survey's core business was considered by some to be too slow.²

Pre-eminent among the published photo-zincographed works was a 32 volume facsimile of the Domesday Book, issued in 1861-64. In his introduction to the 'pilot' Cornwall volume, James gave his own version of how the project came about:

In an interview with the Right Hon. W.E. Gladstone, Chancellor of the Exchequer, he asked my opinion as to the applicability of this art to the copying of some of our ancient MS. Records, and I at once expressed my belief that we could produce fac-similes of them at a very trifling cost. But with the view of testing this, I had a small deed of the time of Edward the first copied and printed by this process, and with the sanction of the Right Hon. Lord Herbert of Lea, Secretary of State for War, copies of it were bound up with my annual Report of the Progress of the Ordnance Survey to the 31st December 1859, which has been presented to both Houses of Parliament.

Having established the fact that Photo-zincography is applicable for the purpose of producing any number of copies of ancient MSS., the Lords of the Treasury have directed me to copy that part of Domesday Book which relates to Cornwall, and this is now given to the public at the cost of production.

If the publication of the whole book by the same process should be ultimately decided on, it is intended to bring it out by counties, as Cornwall has been, so that any one may procure at a trifling cost an authentic copy of what relates to any part of the country in which he is more particularly interested.

His wish came true, because in the introduction to subsequent volumes, James states:

... the Lords of the Treasury, with the concurrence of the Right Hon. Sir John Romilly, Master of the Rolls, directed me to copy that part of Domesday Book which relates to Cornwall; and the publication of that part having excited great interest, and a desire for the continuance of the work, county by county, having been very generally expressed, I have been directed to publish this volume ...³

¹ *Sheetlines* 66, 50.

² For example by Ian Mumford in W A Seymour (editor), *A History of the Ordnance Survey*, Folkestone: Wm. Dawson & Sons, 1980, 164-5; Tim Owen and Elaine Pilbeam, *Ordnance Survey – Map Makers to Britain since 1791*, Southampton: Ordnance Survey, 1992, 59.

³ Altered in later volumes to 'I have been directed to publish the whole work' and later still supplemented with '... and this great task was accomplished in 1864'. An extra volume bringing together the previously dispersed text covering Cheshire and Lancashire has an explanatory preface by James, dated 31 March 1865, before the standard introduction.

Arrangements for Issuing the Fac Simile.



Fac Simile of Domesday Book,

RE-PRODUCED BY THE PHOTO-ZINCOGRAPHIC PROCESS

UNDER THE DIRECTION OF COLONEL SIR HENRY JAMES, R.E., F.R.S., &c.,

AT THE ORDNANCE SURVEY OFFICE,

By Her Majesty's Command.

The following Counties will be issued in the order stated below; in Cloth Boards, Imperial 4to. Those with * are Published.

* CORNWALL	4s. 6d.	SOMERSETSHIRE	10s.
* MIDDLESEX	8s.	LEICESTERSHIRE & RUTLAND	8s.
* SUSSEX	10s.	DEVONSHIRE	10s.
* SURREY	8s.	WORCESTERSHIRE	8s.
* HAMPSHIRE	10s.	DERBYSHIRE	8s.
* CHESHIRE, INCLUDING PART OF LANCASHIRE	8s.	GLOUCESTERSHIRE	8s.
WARWICKSHIRE	8s.	WILTSHIRE	10s.
SHROPSHIRE	8s.	OXFORDSHIRE	8s.
* BEDFORDSHIRE	8s.	YORKSHIRE	21s.
STAFFORDSHIRE	8s.	LINCOLNSHIRE	21s.
HEREFORDSHIRE	8s.	CAMBRIDGESHIRE	10s.
DORSETSHIRE	8s.	NORTHAMPTONSHIRE	10s.

NORFOLK, SUFFOLK, and ESSEX,

THE THREE COUNTIES IN LITTLE DOMESDAY BOOK,

ARE ALSO IN PREPARATION.

... by the application of Photozincography to copying and printing MSS., and by publishing the work in parts, any one can now procure at a trifling cost, an exact fac-simile of the part of the original MS. in which he may be more particularly interested, and while the public is gratified by this, Her Majesty's Government will not be put to the cost of a single shilling for the production of the work.

Well, perhaps. Subscriptions were evidently sought, as in some of the introductions James refers to gentlemen agreeing to take in total between 50 and 250 copies of their county volume. A price list from early 1862 (*figure 1*) shows that while Cornwall ('given at the cost of production') runs to just twenty pages and sold for 4s.6d (22½p), Devon with 44 pages cost ten shillings (50p), while Lincolnshire with 86 pages was a guinea (£1.05), hardly a 'trifling cost' in the 1860s. That the facsimiles sold poorly is reflected by their inclusion in the 1924 Ordnance Survey catalogue over 60 years later, where a complete set in 2 volumes was still on offer for £20, while individual county volumes could be also still be obtained ('Prices on application').⁴

Price may have been part of the problem but another issue was that the facsimiles were just that; with no proper explanation, no transliteration to modern script and no translation. The publishers Vacher and Sons soon sought to fill this gap (*figure 2*). The back page of their advertisement is printed in a heavy Gothic script that is not easy for the 21st century eye to follow, an odd choice when one reads:

The Fac-Simile Copy of part of "Domesday Book," Photo-Zincographed under the direction of Sir Henry James, has been well received as a step in the right direction to render our principal Public Records more generally available. But, no sooner did the first County appear, than numerous enquiries were made for the means of understanding the quaint and contracted Original; with the very natural remark, "We can't understand it" – "We can't read it."

After debating the relative merits of a Latin text in modern type and an English translation, they concluded 'that both a Latin and an English Version were equally necessary in any complete illustration of Domesday' and offered both together. In the introductions to some of the facsimiles, James acknowledged Messrs. Vacher's initiative and style of presentation: 'This is an admirable arrangement, and should be adopted for every county'.⁵

The Domesday facsimile volumes are large (Imperial quarto) and handsome, printed on a high quality thick cream paper that rarely shows signs of deterioration or foxing after 150 years. The reproduction of the text (in black and red) is generally sharp and clear. The boards are ornate and decorated, with embossed gold titles.⁶ The narrow spine, however, is prone to split and eventually disintegrate – re-bound volumes have been seen with replacement spines that themselves look old, so this may have been a design fault as much as an inevitable consequence of the passage of time.

There have been many subsequent reproductions of the Domesday Book⁷ but the 1860s facsimile stands comparison with most. Whether it should have published by the Ordnance Survey is another matter.

⁴ *Catalogue of Maps and other Publications of the Ordnance Survey 1924*, Southampton: Ordnance Survey, 1924, 18.

⁵ It would be interesting to know if this was achieved. The transliteration and translation of the text in the 1865 combined Cheshire and Lancashire volume ran to a second edition, published in 1882 by Minshull & Hughes of Chester.

⁶ The material and design used for the covers of the pilot Cornwall volume are somewhat different.

⁷ Including the well known series published by Phillimore & Co. Ltd.

IN IMPERIAL QUARTO, ARRANGED FOR BINDING WITH THE FAC SIMILE OF THE RECORD.

A LITERAL EXTENSION

OF THE LATIN TEXT,

IN MODERN TYPE, LINE FOR LINE WITH THE ORIGINAL,

AND AN

ENGLISH TRANSLATION,

OF

Domesday Book

IN SEPARATE COUNTIES,

WITH INDEX OF PLACES, &c.;

To accompany the Fac Simile of the Original Record
 Photo-Zincographed under the direction of Col. Sir H. James, R.E., F.R.S.,
 at the Ordnance Survey Office, Southampton.



COUNTY OF MIDDLESEX (EXTENSION AND TRANSLATION) 6s.; CLOTH BOARDS 8s.
 OR, BOUND WITH THE FAC SIMILE OF THE RECORD IN CLOTH, 14s.

COUNTY OF SURREY (EXTENSION AND TRANSLATION) 12s.; CLOTH BOARDS 14s.
 OR, BOUND WITH FAC SIMILE OF THE RECORD IN CLOTH, 20s.

*The EXTENSION and TRANSLATION of other Counties are preparing, and
 will be proceeded with by Messrs. VACHER & SONS, in the order in which
 they are assured of 100 Subscribers for any County.*

Subscribers' Names can be sent through any Bookseller; for—

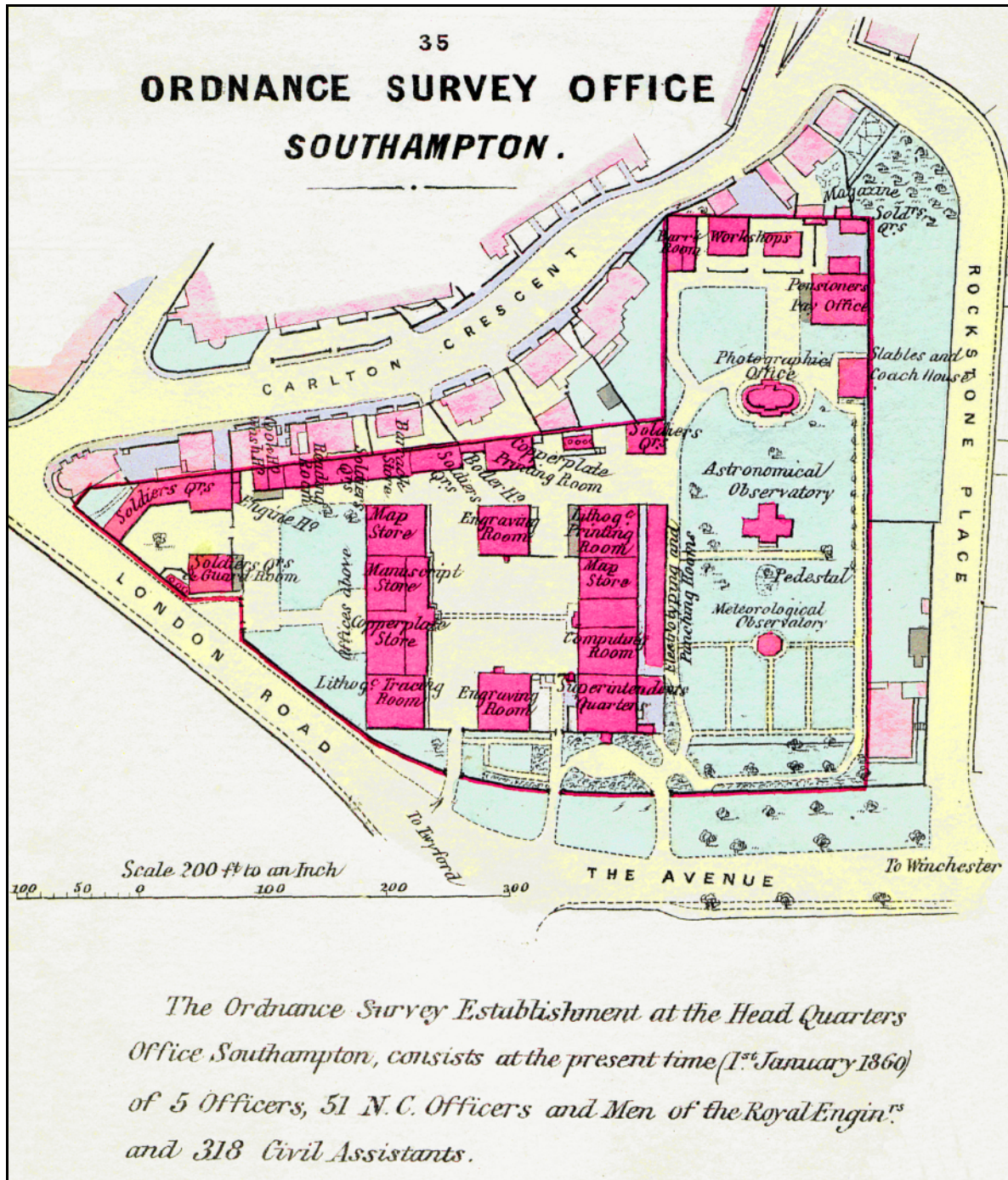
THE LATIN EXTENSION in Modern Type, with ENGLISH TRANSLATION; or,—
 THE FAC SIMILE, EXTENSION AND TRANSLATION, bound together.

London :

VACHER & SONS, 29, PARLIAMENT STREET.

1862.

The Ordnance Survey Office in 1860



This plan is from a pocket-book, Barracks, England, South Western District, issued by the Inspector General of Fortifications in 1860. Designed for use in the field, the book was prepared at the Topographical Department of the War Office and contains barrack plans reduced from larger scale published originals.



Above: 'Ordnance Survey Office, Southampton' by F G O Stuart (courtesy of Roger Hellyer)
Below: 'Ordnance Office Southampton' by R B Brown (courtesy of Bill Stone)



The Ordnance Survey Office – two Edwardian views

Chris Higley

Two Edwardian postcards have recently been sold on eBay; both show views of the Ordnance Survey Office in London Road, Southampton.

The top illustration is of a card published by Francis Godolphin Osborne Stuart (1843-1923), a photographer who moved to Southampton in 1883. He produced his first postcard in 1902 and went on to publish a further 2500 in the years that followed – mainly local topographic views and pictures of the ships that used Southampton docks. Apparently his own pony and trap frequently appear in local street scenes.¹

As with many other good quality colour pictures of the time, this card was printed in Germany. It must date from shortly after 1903, when the former branch of Grant and Mad-dison's Bank (right foreground) was absorbed by Lloyds, and was certainly produced before the use of German printers ceased abruptly in 1914. A knowledgeable reader may be able to confirm that F G O Stuart's serial number, 1129, gives a date of around 1906.

The buildings can be readily identified on Ellis Martin's remarkably detailed drawing for the 1919 OS Christmas card, reproduced here from an article by the late Phil Broomfield.² In the centre of Stuart's view is the barrack block, with a wing of the South Range behind, and in front, peeping round the National Provincial Bank, a building marked on an 1895 plan as "staff sergeants' quarters".³

The second card, postmarked 1907, was published by R B Brown of Southampton. Compare this impressive view of the South Range with the nearly contemporary postcard of the 'Ordnance Office' reproduced in *Sheetlines* 75, 6.



¹ The information in this paragraph is taken from an article on the website of the City of Southampton Society, see <http://www.coss.org.uk/37.html>

² *Sheetlines* 67, 19.

³ *Sheetlines* 24, 27.

John Dennett's papers: part two

David Archer

Since two photographs of Ordnance Survey employees were published in *Sheetlines 79*, I have been in touch with four former members of staff, who have commented on the people shown and have given some background to life and work in OS. This is my first foray into what is known as 'oral history', and it has highlighted some of the strong and weak features of such an exercise. The strongest point is that people remember so much that is accurate, and not written down anywhere. The weakest points are that memories sometimes fade and sometimes, if accurate, the original information was inaccurate.

Having conducted this short exercise, I can see that memories can be triggered to a surprising degree by the use of photographs, diagrams, prompts and so on.

A copy of *Sheetlines 79* was sent to Tony Headon, who showed it to Vic Brimble, both former employees of Ordnance Survey, though from different eras, and still living in Southampton. It was hoped that they might be able to identify some of the people in the photographs, which they were indeed able to do. Their comments and notes were then forwarded to Richard Porter, who checked the Ordnance Survey library, adding to the information. Tony and Vic made a suggestion of where the first photograph was taken, but when a plan of the site was sent, much more detail was forthcoming. This piece is a mixture of both memory and literature based research; it deliberately has a lot of loose ends. I hope that, on the positive side, it shows how much information there is to be got from 'oral history', and how it can be used to back up and give a human face to dry annual reports and training documents. It also shows how the latter can sometimes clarify statements of how things went on in a very large organisation, in which most employees were unable to wander about and verify facts.

Vic Brimble joined Ordnance Survey in October 1937 and re-joined in 1946 after war service with Airborne: N. Africa, Arnhem, Europe advance, Norway and East Africa (Mau Mau). His father was with the field survey, and later became Assistant Superintendent Areas. In 1938, Vic's wife, Gwen, was working in a Post Office opposite London Road when her father, an OS messenger, told her of a vacancy. Someone popped across and interviewed her in the Post Office. Thus, the Brimbles (and Tim Healy in the second photograph) came from 'Ordnance Survey families'.¹ Tony Headon joined in February 1961. Richard Porter joined Ordnance Survey in 1984 on the merger of the Directorate of Overseas Surveys with Ordnance Survey, but remained in the Overseas Surveys Directorate throughout. Eric Wood, who served in LSD 5 in the early 1950s, saw drafts of this piece, made comments and supplied extra information.

First photograph: Seven men in front of a wall.

'The photographer has his/her back to the north wall of the West Pavilion Stores, with the roof seen behind the wall being that of the Electro Building. Probably taken in the 1950s (pre-1956?)'.

¹ See Tim Owen and Elaine Pilbeam, *Ordnance Survey: map makers to Britain since 1791*, Southampton: Ordnance Survey, and London: HMSO, 1992. Box item page 175.



1. Peckham.
- 2.
3. John King. Superintendent, LSD 5.
Born 28 August 1896. Joined OS 31 January 1911.
Draughtsman Grade 1 (Superintendent) from 16 August 1943 until 1956 (LSD 5).
4. William C Bedford (known as Bill). Superintendent, LSD 2.
Born 4 February 1890. Joined OS 25 October 1930 (as ex-regular R.E.).
Draughtsman Grade 1 (Superintendent) from 15 April 1946 until 1955 (LSD 2).
5. H E Haskell (Waff). Grade 2, LSD 2.
Born 10 July 1899. Joined OS 10 July 1938 (as ex-regular R.E.).
Draughtsman Grade 2 from January 1946 until 1956 (LSD 2).
6. R F Gerken (Reg). Grade 2, LSD 2.
Born 15 June 1916. Joined OS 1 April 1935.
Draughtsman Grade 2 from October 1948, then Grade 1 from 19 January 1959 until the mid-1970s. In 1957 he was in 1:25,000 Drawing No.2.
7. John R B Dennett. Grade 1, LSD 2.
Born 18 November 1912. Started as a Scheme A Boy in 1928 in the Reduction Department (until 1930). Joined OS 1 January 1946 (as ex-regular R.E.). Draughtsman Grade 2 from 14 October 1948 (in Large Scales Control in 1957), then Grade 1 from 11 March 1957 until 1972.
Superintendent Large Scales Control 1959 to 1969.
Superintendent Planning and Control 1969 to 31st December 1972.
Appointed MBE in the Queen's Birthday Honours List 1970.

Second photograph: Eight people behind a plan chest.

‘Probably taken in the Large Scale Control Section in London Road. Mid to late 1960s, as the move to Crabwood was complete by the end of 1969’.



1, 2, 3, 4, 6, 7 have not been identified.

5. John Dennett. See notes above.

8. Tim M Healy.

Born 20 May 1919. Joined OS 1 February 1939.

Draughtsman Grade 4 from 1 January 1946 (seniority date given as 18 August 1936) until 1979.

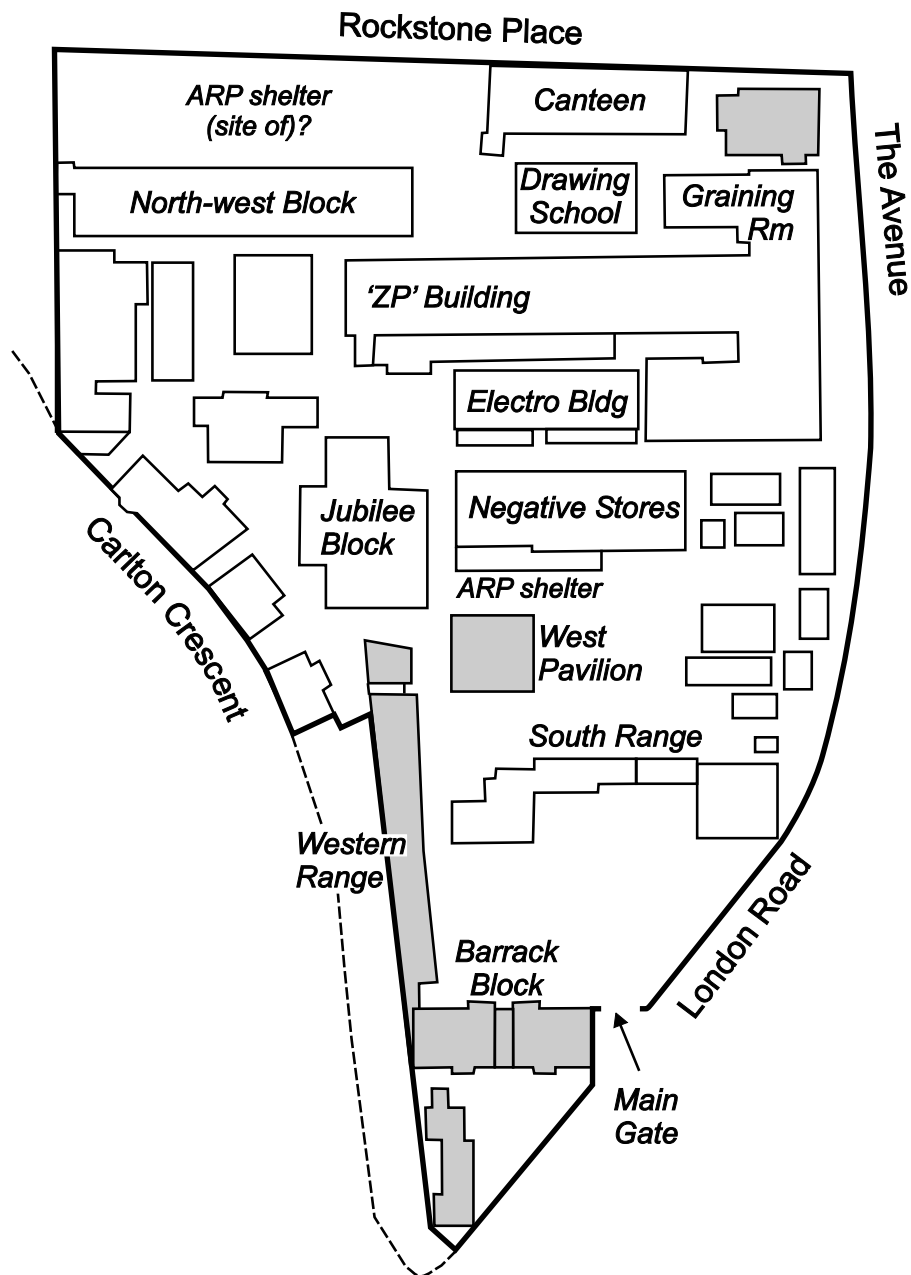
In LSD 5 in 1957.

LSDs

As most of the people in the first photograph were senior members of the various Large Scales Drawing (LSD) offices, a lot of the information received concerned these, and is given here as reported. Little mentioned by Tony and Vic has been checked against any available printed sources, so that lapses of memory might be present. Where all is accurate, it shows a personal, everyman employee knowledge of OS; something totally lacking from Seymour,² but very much a part of the feel of Owen and Pilbeam. Sometimes, the oral tradition diverges from the ‘official’ version found by Richard, but is the more interesting for that reason.

My questions and the information received follow. Ideally, it would have been better to visit people and tape an informal discussion, but all was done by telephone, letter and hand-written notes.

² W A Seymour (Editor), *A history of the Ordnance Survey*, Folkestone: Dawson, 1980.



Ordnance Survey, London Road, Southampton

Based on a plan of OS Headquarters in 1953 by John Paddy Browne.³ Many of the buildings shown in Ellis Martin's card on page 19 were lost during the blitz or had been altered. The site has since been redeveloped, but the shaded buildings were still there when this plan was drawn up in 1989.

Were there more than five LSDs?

Vic thinks there might have been a sixth before 1940. There were certainly only five in 1951 and 1957. Tony believes a sixth was formed circa 1967, and he was in LSD 6 in the Western Range from about 1968 until after the move to the new headquarters in Maybush.

³ For the original version of this, with the names and contemporary uses of every building, see *Sheetlines* 25, 17-19. For plans of 1855, 1895 and 1934 see, respectively, *Sheetlines* 18, 18, *Sheetlines* 24, 27 and *Sheetlines* 18, 19. A plan of the Ordnance Survey Office in 1860 is reproduced in colour on page 17 of this issue.

The OS Annual Report for 1950/51, Appendix A to the Large Scales Division report gives more detail,⁴ with all LSDs based in Southampton except LSD 1.

LSD 1	4000 sq ft in two spurs at Esher
LSD 2	1178 sq ft in ZP Building 2880 sq ft in Electro Building
LSD 3	3920 sq ft in ZP Building
LSD 4	3240 sq ft in South Range
LSD 5	3326 sq ft in Jubilee Block

Note LSD 1 at Esher. See below for probability at Chessington c.1955-57.

As part of staff training, OS produced a series of booklets, *Notes for candidates for technical examination*. Two issues of *The Directorate of Establishment & Finance* notes, Revised-Sept, 1957, and Revised August, 1960, have staff structure diagrams similar to that for September 1951, reproduced on page 68 of *Sheetlines 80*, and both refer to 'L S Drawing Sections' without saying how many sections there were, or if each section was referred to as LSD 1 and so on. On page 1 of *The Large Scales Division* notes, Revised June 1968, it refers to: '*L.S. Drawing Sections: (1, 2, 3, 4, 5, 6, and 7)*'. So apparently there were seven LSDs in later years. The seventh might have been 'formed for a specific job, but I can't remember what'.

'All five were in Southampton at the London Road site [in the 1960s]', along with a vast number of other departments and functions. 'At Crabwood (now known as Maybush) were Medium and Small Scales. Also Repayments', who, Tony notes 'regarded themselves as the very elite and guarded their position very jealously – as I found out when transferred there!' 'For a while there were tracers, mostly young girls, down at Bargate (Land Registry)' (see below). 'Headquarters and Administration were at Chessington until they returned to Southampton'. Much of this ties in with the piece by Ron Matthews in *Sheetlines 80*, page 68, and the notes by John Paddy Browne to accompany the plan of London Road in 1953.⁵

What work did each LSD do? Or did they all do the same thing?

The general feeling is that yes, they presumably did the same thing, most of the time. This was 1:1250 and 1:2500 work, both drawing and scribing.⁶ Occasionally, repayment jobs, e.g. Aberfan Enquiry maps (which Tony worked on). Also six-inch work, when their own work was short. There was very little mixing between LSDs 'except when comparing edges'.

On page 1 of *The Large Scales Division* notes, Revised June 1968, under 'Additional tasks',

- L.S.D. 1: Repayment Services for other Departments (and other additional tasks).
- L.S.D. 2 and 3: Instructing junior staff in advanced techniques.
- L.S.D. 4: Preparation of Land Registry master Traces at 1:1250 and 1:2500 scale.

'In the 1960s, all potential draughtsmen/women spent six months in the Drawing School, and were then transferred to LSD 2 to produce 'proper' work and train on production work. When they were thought 'able', they were transferred into the other LSDs. To progress up the pay scale, an efficiency bar had to be passed, preferably before the age of 21, otherwise one remained on age 20 pay until the bar was passed'.

⁴ Unpublished typescript in OS Library.

⁵ *Sheetlines* 25 (1989), 17-19.

⁶ Drawing included on enamel for new survey editions, and on glass (with plastic ink) for continuous revision (CR) work.

How many people were in each LSD?

Vic suggests 50-60. Richard's research showed LSD 1 at Esher in 1951 (see above); this was probably the LSD at Chessington by 1955, with total staff diminishing to nine by 1958 (see below). In 1957 it was only just over half the size (25 total staff) of the others (48, 46, 49, 43), with the grades somewhat imbalanced – four Grade 2 and only twelve Grade 4 (the other LSDs had 1, 2, 2, 3 and 39, 34, 36, 31 respectively). After 1958, LSD 1 would have relocated to Southampton and been restored to full strength.

The Ordnance Survey Annual Reports for 1954-55 onwards give the distribution of staff as at 31st March:

Large Scale Drawing and Reproduction Division

	<i>Supervisory Staff (Clerical and Technical)</i>	<i>Other grades</i>
31st March 1955		
Drawing Section, Chessington	1	55
Drawing Section[s], Southampton	5	<u>223</u>
		278 Total
31st March 1956		
Drawing Section, Chessington	1	48
Drawing Section[s], Southampton	5	<u>237</u>
		285 Total
	<i>Main Supervisory Staff</i>	<i>Other staff</i>
31st March 1957 ⁷		
Drawing Section, Chessington	5	25
Drawing Sections, Southampton	17	<u>189</u>
		214 Total
31st March 1958		
Drawing Section, Chessington	3	6
Drawing Sections, Southampton	21	<u>254</u>
		260 Total
31st March 1959		
Drawing Sections, Southampton	21	283

What was the hierarchy below Superintendent?

The hierarchy was:

Division(al) Officer (DO)
 Assistant Division(al) Officer (ADO)
 Superintendent = Grade 1 or Chief Draughtsman
 Grade 2 or Senior Grade ⁸
 Grade 3 or Higher Grade
 Grade 4 or Basic Grade

When occupied by military personnel, the DO was a Major, the ADO a Captain, R.E.

⁷ The text, page 11, refers to changes in organisation and accommodation, presumably heralding the demise of the Section at Chessington. It also mentions the use of LSD staff on six-inch work.

⁸ For 'Senior Grade' etc. see Ordnance Survey, *Annual Report 1954-55*, 16.

In 1962 an Assistant Cartographic grade was created ‘for the more routine type of work, particularly in large-scales drawing’.⁹ Known as carto assistants, these posts were below Grade 4 in the hierarchy, and although intended to undertake the more routine tasks, post holders were often very capable, with many being re-graded Grade 4 or TG1 in a re-organisation in the early 1960s. ‘It had been hoped that carto assistants would be local people under the age of eighteen, in order to save on lodging allowances’. Vic remembers there being a Chief Superintendent somewhere in the hierarchy, but this post had vanished by 1951.¹⁰

Richard notes that post titles within the hierarchy could change over time. Within the Directorate of Overseas Surveys the senior posts were: Senior Grade and Superintendent, both Grade 2. The SG was often an older ‘workman on the bench’,¹¹ whilst the Superintendents were responsible for more administrative and supervisory duties. Senior Superintendent was Grade 1, Chief Draughtsman, and was in charge of a whole section, with two or three Superintendents under him. Two Assistant Chief Cartographers (ADO) were above the Grade 1, with the top post being the Chief Cartographer (DO).¹²

Were there only men in the LSDs?

Richard notes from OS records that *all* Draughtsmen Grades 1-3 were men in 1957 (not just those in LSDs), and so were almost all the Grade 4s in LSDs who joined before 1934, the only exceptions having joined in 1924 (2), and 1928. However, Vic and Tony believe that women only appeared in the late 1930s. Tony notes that ‘Vic’s wife joined as a colourist, quite a skilled job, in 1938, and then moved into One-inch and later to Photo Drawing. She was not given any formal training, and received no help or guidance from any of the men. After the war, she was re-graded to Basic Grade Draughtswoman. When Gwen and Vic married, she had to leave OS and was given a small gratuity’.¹³

Were all LSD staff civilians or were some military personnel?

Tony notes : ‘When I joined, the military were only in the highest positions, but Vic points out that Lt D Welsh of Proving¹⁴ was probably a time serving officer who would be moved from section to section to gain experience. Royal Engineers who joined OS after finishing military service expected to be promoted. They joined at Grade 3 and were ‘fast tracked’, especially Sergeant Majors’. (See Superintendent in ‘Senior Grade and Superintendent’ above.)

‘Pre-war there were ‘Scheme A Boys’, aged between fourteen and eighteen, who were employed prior to army service. When eighteen, they went to Chatham and eventually joined the Royal Engineers’.¹⁵ ‘At one time, there were also fourteen year old boy buglers, but it is not known exactly what their position was within OS. It is said that they played at the morning parades, on Armistice Day and so on. They might have been orphans of OS staff’? Tony notes: ‘I also believe, prior to the war, full morning parades were held as per army,

⁹ W A Seymour (Editor), *A history of the Ordnance Survey*, Folkestone: Dawson, 1980, page 321.

¹⁰ For the 1951 hierarchy see Ron Matthews, ‘OS family tree-September 1951’, *Sheetlines* 80 (2007), 68.

¹¹ Richard notes that there were very few such Senior Grades.

¹² See *Eighth report from the Estimates Committee, Session 1962-63, Ordnance Survey*, 162-3.

¹³ I understand this was a Civil Service-wide practice. For couples who could not afford to lose the second income, women had to resign on the birth of their third illegitimate child.

¹⁴ Ron Matthews, ‘OS family tree-September 1951’, *Sheetlines* 80 (2007), 68.

¹⁵ See also *Sheetlines* 79 (2007), 8.

rifles and all'. 'Post-war yes, all civilians, though many men were ex-regular R.E. from the days when all seem to have had to join the Survey Battalion at c.18 years. Dates of 'joined OS' given above seem to exclude such R.E. service'.

The Girls

In the 1950s Ordnance Survey was a military led establishment, in which civilians were a large and necessary component, and most were male. The comparatively few females were usually known as 'the girls', and if not looked down on by the men, they appear to have been treated differently.

The majority of the women were in LSD 2.

Richard notes the following :

In 1957, among the Grade 4 staff,

In LSD 1 there were 2 women, age c.28

In LSD 2 there were 21 women, one age c.59

three age c.45

six low-mid 30s

eleven c.18-25

In LSD 3 there were 2 women, age mid-high 30s

In LSD 4 there were 2 women, age mid 30s

In LSD 5 there were 0 women¹⁶

Vic says that H E Haskell (LSD 2) was 'in charge of "the girls"', and was responsible for the 'First courses for girls' – those who were re-graded to Draughtswomen after the war, and had previously been employed as 'colourists' and other minor jobs, with very poor pay.

Vic says that his wife, when a colourist, initially only had two days paid leave a year, any more was unpaid. The great majority of those who joined during the war (and were still there in 1957) were women; later, the proportion of women in the intake fell away, but all the 26 recruits (September 1956 - April 1957) in the Instructional Drawing School were unmarried women aged 17-24. Even when Tony joined in February 1961 'there was a coolness to girls joining, because it was felt that most would start families and their training would be wasted'.

Instructional Drawing School

In his notes, Eric Wood refers to the IDS, which was in the same OS Branch as the LSDs.¹⁷ 'Before my stint in LSD 5 I received training in the IDS between January and April 1952. There were about 25 in training under Mr Horner, of whom two were women; most were about 16 or 17 years of age. The course, apart from drawing, also included elementary instruction in levelling and surveying, areas and boundaries, and lettering. After training, the apprentices would move to one of the LSDs. When approaching 18, the men would be expected to do their National Service. It was always assumed this would be in the Royal Engineers (Survey Battalion based at Newbury). Afterwards, a place in an LSD would be assured to those NS men from the R.E.s. I remember the IDS being close to the canteen (very convenient!) and on the first floor close to the graining shed. Incidentally, the glass marbles

¹⁶ Tony remembers 'a good third were female' in LSD 5 circa 1962-67.

¹⁷ Ron Matthews, 'OS family tree-September 1951', *Sheetlines* 80 (2007), 68. In operation, it appears to have been almost a part of LSD 2.

used for graining enamels sometimes came in handy in kettles to stop furring! Mr Rowlands was my instructor; a very genial gentleman who on some Saturday nights was to re-appear as dance band leader in the canteen’.

I think that these notes merit recording for several reasons.

1. Elsewhere in his notes, Eric suggests the first photograph was taken ‘in the car park outside the old A.R.P shelter, used in the 50s as a zinc store’. Vic mentions the area at the very top of the plan as having contained a below-ground air raid shelter (nicknamed Jamaica Inn): Tony knew it as rough gravel and used for car parking.¹⁸ He also mentions there being an air raid siren on the top of the Jubilee Block Stores as it was the highest point in Southampton. All of this detail, accurate or not, highlights just how much we appear not to know of the London Road site between 1939 and when the Queen opened the new Maybush headquarters in May 1969. There are lots of ‘modern’ sites, such as breweries, iron works, and swimming baths that have received archaeological investigation in recent years, so why not London Road, especially whilst there are still people to tell a tale?
2. The use of glass marbles echoes the ‘high chair’ story in the original John Dennett piece, and the photograph caption on page 113 of Owen and Pilbeam. All are the sort of ‘tricks of the trade’ that I like to know of, and seldom appear in official documents. If not recorded, they will be lost, as would ‘skives’ such as writing ‘DEA’ (Destroyed by Enemy Action) on a piece of work when one did not fancy checking a boundary record. Or ‘My colleagues, however, were very amiable and a general atmosphere of ‘esprit de corps’ pervaded the office, both inside and out. Time-keeping was tightly kept, but once ‘at work’ on the enamels the pace became leisurely to the extent of being ‘laid back’.
3. Mr Rowlands, dance band leader on a Saturday evening.¹⁹ This says a lot about employee morale. They had no need for expensive weekend team bonding ventures.
4. National Service: note the words ‘assumed’ and ‘assured’ which are almost certainly absent from official documents.

Tony Headon notes ‘As you will realise, OS was always changing, what might apply one year wouldn’t apply the next, the only fairly constant thing was the rules for drawing’.

Acknowledgements

Although I have attempted to bring everything together, most of the above information is not mine, the quotes are from Tony Headon, Vic Brimble and Eric Wood, whilst the figures and tabular material result from the research of Richard Porter. Raymond Turley also supplied invaluable assistance in the preparation of this piece. Chris Higley, as he so often does, found supporting material to enhance the whole. To all of them we are most grateful.

¹⁸ At the time of the Cuban Missile Crisis, staff in LSD 2 were informed that shelters were ready, but were never told where they were.

¹⁹ Because the pay was low, many staff had second jobs, especially of an evening in the Southampton Telephone Exchange.

Chain of events

*John Cole*¹

When I joined Ordnance Survey in 1952 a popular perception was that at least part of the work involved endless sunny days perched on top of a Scottish or Welsh mountain peering through the eyepiece of a theodolite. Dragging a chain or tape measure amidst the slag heaps of an unspeakable industrial landscape or along bleak streets of seemingly endless terraced houses did not enter the mind. Nevertheless, apart from a minority who entered triangulation, traverse, levelling or even archaeological survey – or undertook the multitudinous office tasks at Southampton, Chessington or Esher – field survey training meant a stiff dose of chain survey and large-scale map completion.

Joining three months before such a course commenced, I spent the time gaining some insight into the goings on at Bristol Division Office, employed, along with five other lads, on wielding a drawing pen, presumably to see if there were any budding draughtsmen amongst us. I was the least likely to impress in that direction, but in the event all six of us were sent for field survey training.

At that time, chain survey was known as ‘detail survey’ and, with air survey still in its OS infancy, chaining was the method used for the bulk of town and city work then underway. Training in the method necessitated long suffering Southampton residents being subjected to gangs of (mainly) callow youths plaguing them to ‘measure in the garden’ or inconveniencing them on the pavement or road whilst chaining operations were in progress.²

In the main, two blocks of work were tackled at Southampton – in my case the first at West End, the second at Midanbury. The hope obviously was that, by the time of the second block, trainees would be much more into the swing of things and would have learned from the mistakes which were bound to occur. Many of these came to light when the chain survey work was completed on the actual map – in my own case there was a quite terrible plotting error from the chain survey book.

On completion of training few, if any, actually commenced chain survey work, it being deemed that a good deal of map completion experience was first needed. I was able to testify to the wisdom of this after I had completed National Service and returned to Southampton for a refresher course. Although by then (1956) tachy and air machine plotted surveys were also underway, chain was still very much in vogue and once again two blocks, at Chandlers Ford and Shirley High Street, were to be surveyed. However it soon became clear to the instructor that I and two colleagues (also ex-National Service) knew exactly what was expected as a result of our first block efforts and he left us to our own devices in order to help a hard-pressed fellow instructor with half a dozen brand newcomers.

Posted back to West Bromwich in 1957, I was a little taken aback when the Chief Surveyor asked, “Why don’t you want to do some chain survey?” I said that I must have been mis-heard as I was exceptionally keen to experience the method which had fascinated me from the moment I joined. In 1:1250 resurvey sections at that time, the lowest surveying grade, four, was in fact divided. The best and most experienced, apart from completing the most difficult maps, also helped out the section supervisor with the validation of completed

¹ This account of the author’s own experiences of chain survey follows on from the article by G Foster in *Sheetlines* 83.

² Up to the 1950s such training had not been concentrated at Southampton. There had been ‘schools’ at Coventry, Catford (London), Bristol and Dalkeith (near Edinburgh).

work. The next best did the chaining, whilst the third category, including all those fresh from training, carried out examination or map completion. Since this completion depended considerably on the calibre of the chain work framework, the importance of this stage could not be overemphasised.

In the event I was lucky, as the nine chain books I was responsible for turned out to be the last in the Black Country before the method switched to tachy survey. Indeed I had gone on an early experimental course for tachy at Wolverhampton the same year. The remaining area for chaining, to the north of West Bromwich, was quite un-typical of the Black Country in that a large percentage was rural.

A canvas bag contained the equipment for the operation.³ The accompanying documents were the 'Field Content Book' (OS 023), and one or more 'Revision Point Albums' containing the photos needed to identify RPs. Oh, and perhaps most important of all was the field assistant (or labourer: though the more exact term, as it appeared in the book, was 'chainman'). The disposition and skill of the chainman could do a lot for the efficiency of the operation and unfortunately the best examples were more likely to be found in areas of high unemployment.⁴

The field content book contained an irregularly shaped extract from the latest county series 1:2500 map, the area usually bounded by roads, railways or major geographical features. It would be divided into blocks to enable the chain lines run to be entered diagrammatically onto form OS 245, which eventually was sent to the line plotters at Regional Office. There were two pages at the front of the book for records and index, and another two at the rear for statistics, such as how much work was done each day, and a more sinister and complex page detailing the eventual calibre of the work regarding speed and accuracy. Even so it did not fully expose the value or shortcomings of the survey, which could only be found on the finished plot. Finally at the rear of the book was a 31-item reminder.

Thus armed, the surveyor set forth to identify the RPs he would be using and also to reconnoitre the chain lines which had been recommended by the section supervisor (shown in pencil on the 1:2500 map section). The ideal, and speediest, lines would be those along the face of long straight walls or housing blocks fronting right onto the street, booking the measurement at every property junction. Failing this the line would be as close to detail as possible and various points offset – that is, measurements were taken at right angles to the point of detail from the chain line. The lengths of offsets were limited to eight metres to points of detail but up to twelve to supply a curving feature.

No fewer than 35 pages of the Biscuit Book⁵ are devoted to the actual chain survey, so only a few of the more important aspects are mentioned here. Ensuring that the line was indeed straight was of the utmost importance. Otherwise detail surveyed from it would be unreliable and further chain lines run from it might fail to plot. Therefore lines exceeding two hundred metres in length had to be 'traced'. If several vertical objects, e.g. telegraph posts or lampposts, could be lined up so much the better. Failing this, various alignment marks could be made on the ground using the assistant and offset staff. If the surveyor could not see the exact spot where the line would terminate he would look for a good 'forward object' to site onto. Similarly the assistant was expected to site a back object as a further check. Lines that

³ This was described by Mr Foster, *Sheetlines* 83, 36.

⁴ Eric Weight notes that in the late 1940s, in Catford (where Eric started work), the Chief Surveyor would only recruit chainmen from the ranks of retired police officers from the local station. The fact that they knew the district, as well as much of the local population, very much contributed to the efficiency of the work.

⁵ *Instructions for detail survey*, 1948.

exceeded three hundred metres (or of lesser length if broken or undulating ground intervened) had to be traced using a small line-tracing instrument (or a transit theodolite). Should very steep slopes be encountered, an Abney level would be superior to the normal pocket level as the bubble in the former could be tilted up to 60° to the line of sight. And if a straight line was not possible, e.g. in a factory complex, traversing would be resorted to (within limits) and angles measured using a theodolite or even (and more commonly) a simplistic former 'artillery director'. A forward and back reading would be taken at each turn of the traverse and recorded on form OS 05. Angular and distance misclosures would be allowable up to certain limits. Chain lines themselves would run from RP to RP or more normally to and from usually short lines joining pairs of RPs.

The revision points would have been instrumentally slotted onto either the unwieldy forty centimetre enamel coated zinc plates or the anodised (later enamel coated) butt joint plates. These would be in the regional office awaiting the arrival of the OS 245s showing the chain lines and traverses surveyed. The line plotter would accept (again within limits) and plot these, or reject and return to the surveyor with a hint as to the possible cause of error. A large error was usually easy to spot: a small one often quite difficult. Should the line still not be plottable the section supervisor might have to investigate and I can recall a very extreme case (in the last days of chaining) where a tacheometer was eventually used along a very difficult line to try to pinpoint an error.

Reference points or 'pickets' along the chain line – usually acting as jump off points for other chain lines – explain the remaining contents of the canvas bag. A chisel cut in the form of a $10 \times 10 \times 5$ centimetre triangle could be used on a road or sidewalk. More popular was a nail driven through a washer (not a nail on its own which could be confused with a traverse station for minor control). Sometimes even a wax crayon triangle was employed, though the crayon's main use was to unobtrusively mark RPs when identified. On soft ground, wooden pegs were driven in, not to show more than half an inch above surface, or a triangle was cut into turf. The main use for the steel tape was to measure between RPs away from main roads, usually house corners inside gardens, where chain use would have been impracticable.

I commenced work with a great deal of enthusiasm: a bit too much as it turned out, resulting in the following curious incident. The first book contained a section of railway line in a cutting, and on the diagram two pencil lines had been drawn across the line, which, I thought, gave me the opportunity right away to use the Abney level. Sadly, on completion, both lines were rejected for small errors, and even more sadly failed a second time. The section supervisor was none too pleased, not so much at my making mistakes but at my slavishly running the lines at all, which he claimed were not necessary! It involved him in an altercation with a person of similar grade to himself who had recommended the lines and who rather sheepishly told me later that I had to use my own judgement in such matters.

The next book of significance was number five, which included a very awkward river. Several pages became covered in mud in the course of surveying this. Also, at a road bridge, I and my assistant were witnesses to an accident involving two cars and a lorry. No one was seriously hurt but we had to help alleviate traffic chaos until police arrived. Perhaps as a result of problems such as this I was later reproached for slow work. Never a fast worker it was the one and only occasion I attracted such a deserved reprimand.

The last two books were in terrain more representative of the area, involving canals (in use and derelict) several small industrial and chemical works, including one where I spoilt a pair of good trousers, and also derelict land that had been the scene of bygone industry. It

was also the first time I had seen canal dredging in process – first out was a dead cat – and I never ceased to wonder at seeing local youths swimming in Midland canals.

I had the same assistant throughout the nine-month stint and he proved reliable and amiable enough, provided he could have his lunchtime beer. He was not the smartest dresser though, as mentioned, good clothes were not always a good idea, but one amusing incident sticks in my mind. I was observing the angles of a traverse and he was at the end of the ‘leg’ to be measured, looking a bit morose (rarely did he look happy anyway). I then saw a boy scout approach him and engage in conversation. After he had left I found my assistant looking a bit perplexed. Doubtless due to his scruffy overcoat tied with string round the middle, coupled with his expression, the scout had thought he was ‘down on his luck’ and had offered him a shilling!

It was possible for me to complete one 1:1250 map arising from my own chain survey. The northern edge of this map marked the boundary between chain and later tachy and I completed a small triangle of land including a few houses extending over the map edge. The tachy surveyor later picked up some of this detail and there was a flurry of alarm when a discrepancy of about 0.3 metres between the two forms of survey was noted. Also surveyed was the frontage of one of the houses some distance from the road detail, agreeing exactly with the graphically surveyed position – a fact which I was at a loss to explain as it had been surveyed from the surrounding chain survey! There was further anxiety in that the Regional Officer, who was visiting, wanted to look at the maps of the area but to everyone’s relief (especially mine) he said that two forms of survey, especially if one was more sophisticated than the other, would never quite agree and should not really have been merged. He was also highly amused when the ‘accurate’ house was pointed out.

As far as I can establish, chain survey as a dedicated task came to a conclusion in 1960,⁶ but it certainly was not the end of the method. I still have an FCB, now called a ‘chain survey book’ and numbered OS 274, containing various supplementary surveys at both 1:1250 and 1:2500. The first was at St Austell, where the air machine plotter could only supply a pencil outline in the narrow streets of the old town centre. Simply fitting in under the perceived eaves was not altogether satisfactory in this case and it was simpler to run chain lines (about 300 metres worth) between positively identified points (penned in red) and offset the frontages. Needless to say this was done very early in the day before traffic and pedestrians were about in quantity.

Chain survey totalling 1600 metres was next carried out for a small regularly shaped estate on the continuous revision document for Bodmin. This was at 1:2500 scale, using for control points old detail of reliability proved by an air photograph of some years earlier.

The third exercise was again at 1:1250, at Brixham in Devon, and involved the rural area to the west of the town. In the first sector it had been possible to use 1950s 1:2500 resurvey chain books to survey badly overgrown hedges, but in addition two traverses were run (between RPs and tachy points) to survey detail in a wood. In the other area, in spite of additional tachy, about 80% of a map consisting of field boundaries and streams needed about 15,000 metres of chainage and over 300 offsets.

All of the above was properly booked but a considerable amount of additional chainage, particularly on the 1:2500 map, was simply booked in a notebook. Even on 1:1250 work, today’s RTK or GPS-aided surveyor may still occasionally resort to the odd chain line with offsets.

⁶ *Sheetlines* 68, 48.

Covering post-war Scottish Populars

K S Andrews

This article builds on the contribution to the subject by Richard Oliver.¹

Introduction

The Second World War was responsible for the one-inch Scottish Popular maps with National Grid. When it ended, the need to restore British civil mapping quickly caused the New Popular Edition to be reduced in scope from covering Great Britain to just England and Wales, leaving Scots with revised pre-war Popular Edition maps on Cassini projection for another ten years. The National Grid was superimposed, emphasising their antiquity; being a Transverse Mercator system, it slopes across the sheets. The edition comprising 91 sheets, numbered 1 to 88 and 90 to 92, was initially issued from August 1945 (sheet 72, *Glasgow*) to April 1948 (sheet 1, *Yell & Unst*) and was progressively superseded by the Seventh Series on new sheet lines between late 1955 and mid-1961.² Sheets commonly cover an area measuring 28 × 19 miles, landscape format, giving a map 71.1 × 48.3 cm, but 19 sheets are portrait. Several are non-standard, e.g. *Glasgow* weighs in at 34 × 24 miles. The maps measure 11 × 20 cm when folded, the covers being 11.8 × 20.5 cm, portrait.³

Like and unlike

Roger Hellyer distinguished between the New Popular cover H96.1a by Ellis Martin and the Scottish Popular version H96.1b, with lion rampant, which resembles it.⁴ The New Popular cover is the larger, at 12.2 × 20.8 cm. To adjust the design to the smaller cover, the ripple edge is subtly modified. The New Popular is 12 ripples by 22 but the Scottish Popular is 11 ripples by 20, with one wider ripple part way down.⁵ The field inside the border is thus reduced from 10 × 18.5 cm to 9 × 17 cm. Space is further restricted by the height of the Scottish lion rampant: this fearsome beast, with the crown, is 0.8 cm taller than the roundel on the New Popular cover. The device is not new, it is a scaled down version from the pre-war cover of the Popular Edition of Scotland, where the giant creature, literally red in tooth and claw, must have scared away timid shoppers.

Scottish Popular covers also differ from New Populars in that the paper and cloth maps are not Bender fold. Paper, cloth and dissected versions of each Scottish Popular sheet are all covered the same way with two cards. Standard size landscape sheets when folded have seven panels horizontally, so the back cover is hinged by its left edge but some non-standard landscape and most portrait sheets have an even number of panels so their back covers are hinged on the side users of New Popular dissected maps would expect.

The index diagram on the back is common to New Popular and Scottish Popular covers, as are the insides with grid working information, though London and Bristol Cathedral must

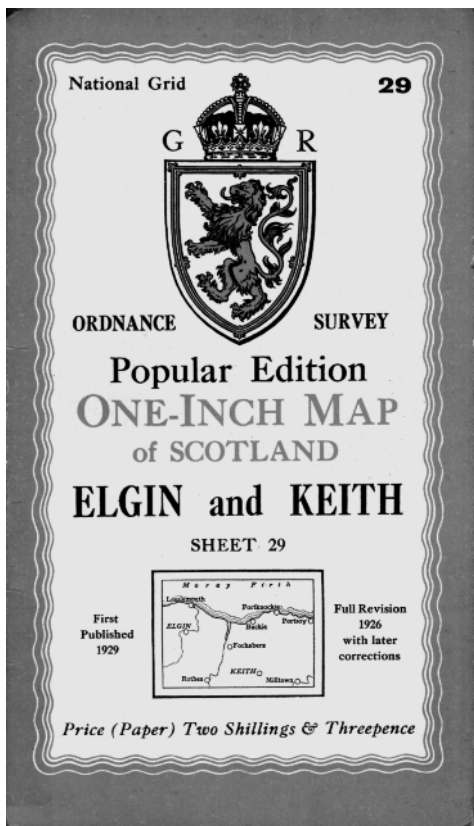
¹ Richard Oliver, *A guide to the Ordnance Survey one-inch Popular Edition of Scotland*, London: Charles Close Society, 2000, 15-16.

² *Ibid.*, 24-43.

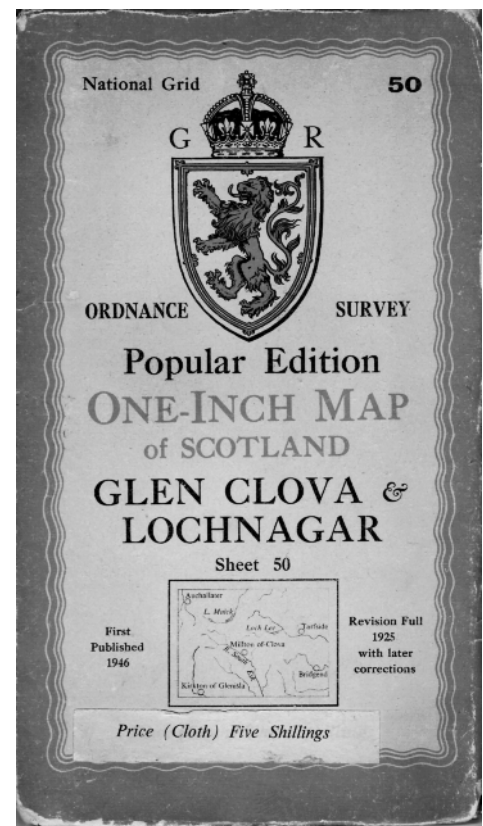
³ Some portrait format maps are a bit taller when folded and when covered, e.g. sheet 25, *Raasay and Applecross*, which can be up to 21.3 cm tall. The cover of sheet 72, *Glasgow*, one of the largest landscape sheets, varies from standard size up to 12.2 × 20.8 cm (the size of New Popular covers).

⁴ John Paddy Browne, *Map Cover Art*, Southampton: Ordnance Survey, 1990, 132.

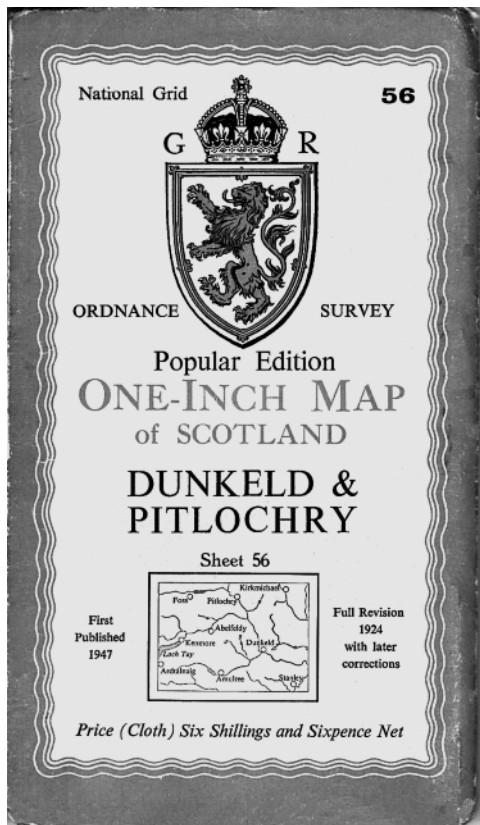
⁵ Did Martin get his inspiration for the 'raspberry ripple' motif from the water-lining of the coast on the sketch maps?



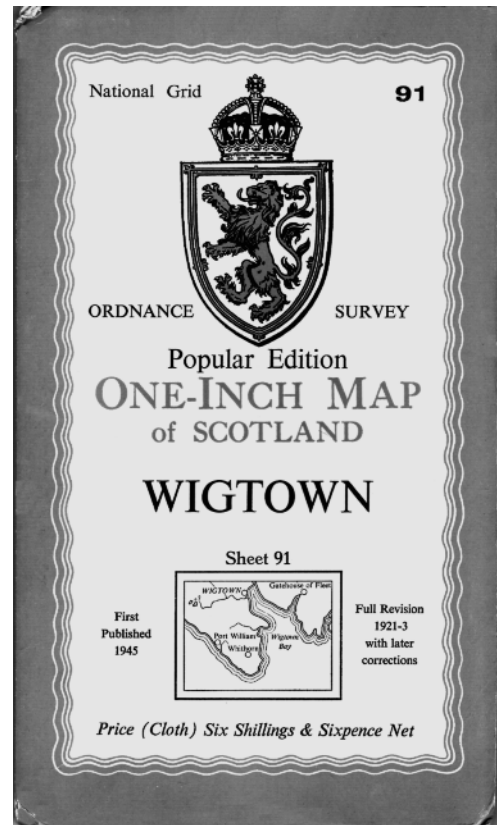
a. Group KA-S3 with 'SHEET XX'



b. Group KA-S4 with 'Sheet XX'



c. Group KA-S5 with 'Popular Edition' smaller



d. Group KA-S6 with 'GR' omitted

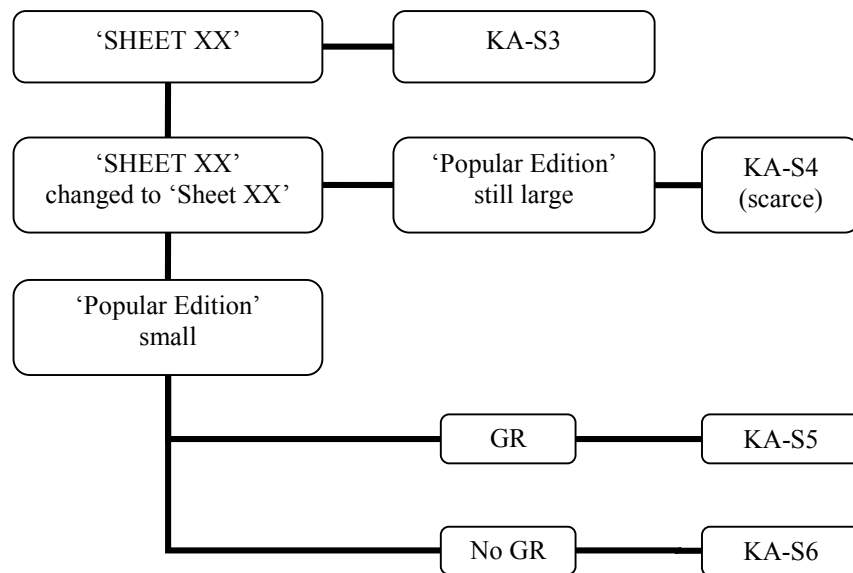
Figure 1: The four front cover groups

have seemed inappropriate examples to Scots. See reference 6 for a detailed treatment of these features.

Grouping the cover types

The front cover groups will be familiar to students of the New Popular Edition.⁶ The similarities of the cover features have allowed the same groups to be used with a prefix S for Scotland. Readers bemused by the multiplicity of New Popular variants will be relieved to realise that groups KA1 and 2, used for covers with 3-box sketches, have no Scottish counterpart, there is no spine to worry about and covers equivalent to group KA4 are very scarce.⁷

Most Scottish Popular front covers are similar to groups KA3, 5 and 6 and are styled KA-S3, KA-S5 and KA-S6 as shown in this tree and illustrated in Figure 1.



Classifying the variants within the groups

The paper, cloth and dissected covers are combined for classification and sheet-specific information is generalised. The original printed price is used; if hidden by labels, it can usually be deciphered by torchlight shone from below in a dark room.

Initially, the strategy adopted in this project was to identify each Scottish Popular map cover using the corresponding New Popular classification but it soon became apparent that, though this approach was usually satisfactory, there were covers that did not conform. It was therefore thought best to classify the front and back parts of the cover separately since there were potentially many combinations. This method also has the advantage of making classification a simpler procedure.

See Tables 1 and 2 for the features specific to the variants within each front cover group. Back cover variants are in Table 3.

⁶ *Sheetlines* 76, 14-28.

⁷ About 8% of New Popular covers are in group KA4; for Scotland KA-S4 drops to 1% (5/560). They would appear to date from about 1950 when there was a lull in the revision of Scottish editions – they are seen on editions of sheets that were issued initially in group 3 covers, stock evidently running low.

Table 1.*Group KA-S3 'New Popular Edition' in large print, 'SHEET XX'**Group KA-S4 'New Popular Edition' in large print, 'Sheet XX'*

	S3.1	S3.2	S3.3	S3.4	S3.5	S4.1
GR font 1	Y	Y				
GR font 2			Y	Y	Y	Y
Paper price	2/3	2/3	2/3	2/3	2/3	
Cloth price	3/-	3/-		3/-	3/-	3/-
Dissected price	5/-	5/-	5/-	5/-	5/-	
Tan card inside					Y	
Sections (1), (2), (3).	Y					
Sections (a), (b), (c).		Y	Y	Y	Y	Y
Grid reference deletions /	Y	Y	Y			
Grid reference deletions				Y	Y	Y
Orkney & Shetland reference inside			Y	Y	Y	Y
Number seen	43	63	54	117	96	5

Price shown where example seen.

Table 2.*Group KA-S5 'New Popular Edition' smaller, GR**Group KA-S6 GR omitted*

	S5.1	S5.2	S5.3	S5.4	S5.5	S6.1	S6.2
GR font 2	Y	Y	Y	Y			
GR font 3					Y		
Paper price, Net	3/-	3/-		4/-	4/-	4/-	4/6
Cloth price, Net	5/-	5/-	5/-	6/6	6/6	6/6	
Dissected price, Net							
'National Grid' heading inside	Y	Y					
Grid reference deletions	Y						
Grid reference deletions \		Y					
National Grid and Reference System			Y	Y	Y	Y	Y
His Majesty's Stationery Office			Y	Y			
H.M.S.O. (Booklet still 1/3)					Y	Y	Y
Number seen	4	77	13	7	10	67	5

Price shown where example seen.

Table 3. Back cover variants

	1	2	3	4	5	6	7	8	9	10	11
Red grid, no N by Shetland	Y	Y									
Red grid with N by Shetland			Y	Y	Y	Y	Y	Y	Y		
Red sheet 89 on index			Y								
Red printing omitted						Y					
86/92 overlap not hatched.							Y	Y	Y	Y	
'Scale of Index' longer											
Seventh Series index											Y
2 lines below index.	Y	Y	Y	Y	Y	Y	Y	Y			
The open... <i>Published</i> ...											
5 lines below index. The open...									Y		
5 lines below index. NOTE:- Orders for...										Y	
5 lines below index. NOTE - These maps...											Y
Tan card inside					Y	Y					
'may be omitted, thus:' below diagram II	Y										
'omitted thus:-E538932,' below diagram II		Y	Y	Y	Y	Y					
'E538932, N177061 will' below diagram II							Y				
'3877, or, more frequently' below diagram II								Y	Y		
Large grid diagram.										Y	Y
'are now replacing the figures'											
Number seen	43	63	54	128	95	1	8	41	27	76	25

Variant 6 has not been seen on New Popular covers.

Variant 10 has the New Popular index with no red grid and no text east of Wick 'Sheet lines of...'. .

Table 4. Variants with New Popular equivalents

<i>Scottish Popular</i>	<i>Number seen</i>	<i>New Popular</i>	<i>Scottish Popular</i>	<i>Number seen</i>	<i>New Popular</i>
S3.1,1	43	3.2	S5.1,4	4	--
S3.2,2	63	3.3	S5.2,4	1	--
S3.3,3	54	3.4	S5.2,7	8	5.1
S3.4,4	117	3.6	S5.2,8	41	5.2
S3.5,5	95	3.8	S5.2,9	27	5.3
S3.5,6	1	--	S5.3,10	13	5.4
			S5.4,4	1	--
			S5.4,10	6	--
			S5.5,10	10	5.7
S4.1,4	5	4.2	S6.1,10	47	6.1
			S6.1,11	20	6.2
			S6.2,11	5	6.3

A cover is classified using the scheme KA-S(group.front cover),(back cover) so that a cover in group 5 with front cover type 2 and back cover type 7 is KA-S5.2,7. As can be seen by studying the list of variant combinations found (Table 4), this scheme was necessitated by some covers in group KA-S5. In groups 3, 4 and 6, all covers had New Popular counterparts, with the sole exception of S3.5,6 where the back cover is taken to be a one-off printing blip. The intended cover was surely the orthodox KA-S3.5,5. For an illustration of back cover variant 6, see the earlier query from Tim Bleasdale.⁸

The number of variants for New Popular covers in groups 3, 4, 5 and 6 is 31. The number of Scottish Popular variants is just 19, of which 14 correspond to New Popular variants. Their fascination lies in the unpredictability of group 5 covers.

The geographical distribution of the early cover variants is tied into the sketch map study, which will be reported in due course.

Generic and sheet-specific printing

On the front, the black text ‘National Grid’, ‘ORDNANCE SURVEY’ and ‘Popular Edition’ are not fixed relative to the shield, as is also the case with, to a lesser extent, the letters ‘GR’ astride the crown. These generic components of the cover design would appear to have been printed with the sheet-specific elements of sheet number (top right), title, sheet number with sketch map, and the price line. All covers also bear the dates of publication and revision. The two initial generic printing passes were therefore, in black, just the lion and crown motif and, in red, the wavy frame, the infills to the cap of the crown, lion and shield and the text ‘ONE-INCH MAP of SCOTLAND’. The red plate was modified to lift this latter text for groups 5 and 6 when ‘Popular Edition’ was raised and printed with smaller lettering. The insides and back are wholly generic.

Typefaces

By reference to the OS *Specimens of Type* book, Chessington, 1947, the typefaces on the front covers were identified. The bold sheet numbers, top right, were Founders Type Grotesque point size 18. Elsewhere on the front, three typefaces were used. Two were Caslon in inspiration and one was Times.⁹ The Caslon faces were Founders Type and the Times was Monotype. The covers in groups 3 and 4 were printed in Old Style, the flamboyant ampersand used in some titles and prices being quite characteristic (see Figure 1b). For ‘ORDNANCE SURVEY’ and where a title would otherwise take two or even three lines, Old Face Heavy Compressed was employed; this font has a simple ampersand and a characteristic ‘G’ (see Figure 1a). For groups 5 and 6, Times Roman was used throughout, except for the Grotesque sheet number, the red lettering which was left in Old Style, and ‘Sheet XX’ (see Figures 1c and 1d).

The sheet number line ‘SHEET XX’ was in Old Style and for group S4 ‘Sheet XX’ was also in that typeface. In groups S5 and S6 ‘Sheet XX’ was changed to Founders Type Old Roman with its characteristic ‘e’. The sketch maps are a separate topic to be considered subsequently.

⁸ *Sheetlines* 81, 56. See also page 57 of the same issue.

⁹ William Caslon (1692-1766), English typeface designer and foundry owner.

King George's font

To be a bit different, there were three typefaces used for the GR monogram astride the crown. The first, (font 1 in the tables of variants), seen on KA-S3.1 and S3.2, is Old Style. It was soon replaced by font 2 (unidentified), which was carried through from S3.3 to S5.4. The last, font 3, Times Roman, is seen solely on S5.5, the final variant before the GR monogram was removed due to the death of King George VI. These font alterations were easily done because the monogram was printed during the sheet-specific printing pass (see above).

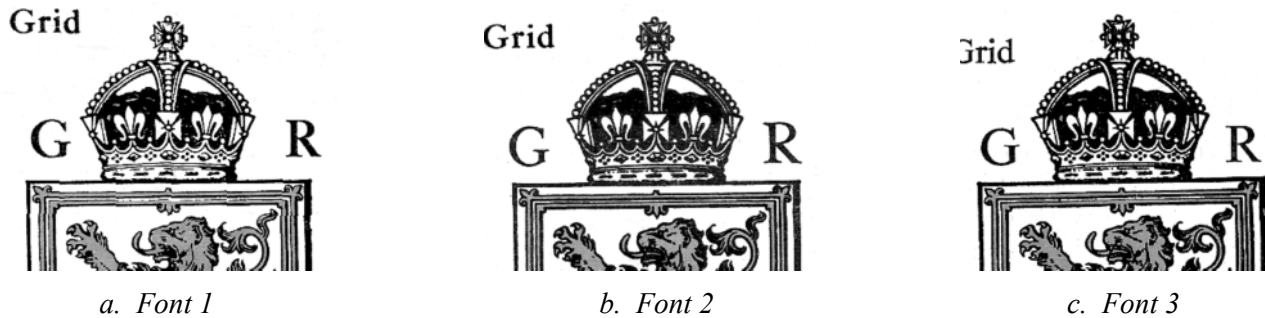


Figure 2: King George's font

Titles

The first phase of titles are seen on covers in groups 3 and 4, where capital letters in a range of point sizes were used except for 'and' and, sometimes, 'of' or '-on-' in lower case. The ampersand was used instead of 'and' to balance the layout or where space was at a premium. A cover with an unusual point size change is 'THE CHEVIOT HILLS' whereas 'THE CUIILLINS, RHUM & CANNA', a popular sheet with rather more challenging hills, lacks this quirk.

With groups 5 and 6, Times Roman had no compressed version. Not even an ampersand would have prevented 'CASTLE DOUGLAS AND KIRKCUDBRIGHT' needing three lines. On two lines in the compressed font version, 'Grampian Mountains and Blair Atholl' is now in Times Roman sentence case so as to fit 'Grampian Mountains' on one line. We now have 'The CHEVIOT HILLS' needing two lines.

There is one title change to note. Sheet 81 was 'KELSO' from group 3 to 5 and 'KELSO and THE CHEVIOT' for group 6.

Point size changes

For the majority of covers, the sketch maps are landscape format, for which space is available within the limited free area of the cover. There is, however, a high proportion of two-line sheet titles in Scotland and these cause the cover to look cluttered. The crunch comes when a two-line title is combined with a portrait sketch, e.g. sheet 60, 'NORTH JURA and FIRTH of LORNE', when the layout was relieved by font size reductions – the sheet number and price lines of covers like this were reduced from point size 12 to 8. Later, when the cover was modified with 'Popular Edition' in smaller print placed closer to the shield, 'ONE-INCH MAP of SCOTLAND' was moved up the red plate and the cluttered appearance of these problem covers was relaxed. The sheet number lines were then all in the normal point size but the price line was changed to the intermediate point size 11 for all the portrait sketch covers, even where the title occupied a single line.

Price changes

<i>Date range</i>	<i>Paper</i>	<i>Cloth</i>	<i>Dissected</i>
to 30.6.50	2/3	3/-	5/-
1.7.50 – 30.6.52	3/-	5/-	10/6*
1.7.52 – 31.3.58	4/-	6/6	none seen
1.4.58 – 31.12.60	4/6	7/- [†]	--
1.1.61 on	5/6 [‡]	none seen	--

The date ranges are taken from New Popular data by analogy.

The price lines for 2/3, 4/6 and 6/6 used ‘&’ but ‘and’ was used for some 6/6 prices, especially on covers S5.4 and 5.5.

Very few covers have been seen printed after the price rise of 1.4.58. None were seen having the prices from 1.1.61, which would only have affected the Shetland Islands sheets 1-4, had new cover batches been needed for them.

The paper strip method is more common for price changes than rubber stamps.

* The half-guinea price for a dissected map from July 1950 has only been seen on a neat rubber stamping ‘Revised Price 10/6 net.’ similar to that used to re-price paper maps at 3/- and cloth at 5/-.

[†] The seven shilling price for a cloth map from April 1958 has only been seen on an official price change strip.

[‡] Only seen as ‘Revised Price 5/6 net.’ stamped on a copy of sheet 1 in cover KA-S6.2,11 signed ‘A D Bateman 1961’.

Date codes

There is a date code on the front hinge of about half of the covers in the following variants.

KA-S6.1,11 11.56 (four seen), 2.57, 5.57, 6.57 (two)

KA-S6.2,11 5.58, 7.58 (two), 1.59.

On New Populars the rear hinge was used and on the Seventh Series the front hinge.

The tan card interval

Back cover 4 and its tan card equivalent 5 were found on approximately 40% of Scottish Popular maps seen and 45% of those were the tan version. The tan covers KA-S3.5,5 were evidently produced in large numbers. It has already been shown that the tan-carded New Popular covers came after printing was begun on the spines of the covers of paper New Popular maps and therefore the plain card version was used before the tan one. In this study, sheet 35, *Sound of Sleat*, on cloth was found in both covers, printing 2235 in the tan cover S3.5,5 and the later printing 2337 in the plain S3.4,4. There is a similar situation with two copies on cloth of sheet 61, *Oban & Loch Awe*, with 8046/Cr in the tan cover and the later 2328 in the plain one. It is therefore deduced that the plain cards S3.4,4 were used both before and after the tan card version S3.5,5.

Shuffling the cards in group 5

Table 4 shows four variants in cover group 5 that have no correspondence with New Popular covers.

Now the advanced student will know that the grid working text inside the front and back of New Popular covers comes in nine varieties and will realise that the Bender cover format ensures that the two pages match as intended. The two-part cover on Scottish Popular maps has no such built-in assurance of conformity and where changes are trivial this is of no consequence. Indeed, the changes to the angle of cancellation of grid references and to the wrapping of the text around Diagram II seem pointless. However, the change from printing the inside front by letterpress to lithography which occurred at front cover KA-S5.2, as consistent cancellations reveal, was a beneficial change that saved the effort of overprinting (and the embarrassment of poor registration in an organisation where accuracy of registration on maps was vital).

Variant KA-S5.2,4 arises from two pages of grid working explanation not seen in conjunction on New Popular covers. The other variant with an unexpected pairing of grid pages is S5.4,4 which has the radically new version of the inside front with an old version of the inside back – hence Diagram II without Diagram I.

Variant S5.1,4 arises from the use of cards not seen on New Popular maps after KA4.2. Variant S5.4,10 has a new price on a card combination only seen on New Popular covers at the previous price. This shows that stocks of card were sensibly used up rather than discarded due to minor updates.

Endgame

The last change seen on the generic front card was the replacement of ‘His Majesty’s Stationery Office’ inside by ‘H.M.S.O.’ for variant KA-S5.5. The last change to the back card was the use of the Seventh Series index and the new note below it, variant 11.

Five examples of variant KA-S6.2,11, paper, were seen; these bear the price from 1.4.58 and this is the last change to the cover detail.

No covers were seen with ‘which have replaced the figures’ above the large grid diagram inside the back or with the HMSO booklet priced at 1/6 inside the front. These changes can be dated from Seventh Series date codes to August 1958 and June 1960 respectively. Therefore it is concluded that the last stocks of card with generic printing were produced before those dates.

The last sheets of the Scottish Popular and New Popular editions were superseded together in mid-1961 but the absence of Scottish Popular variants corresponding to the late New Popular variants KA6.4, 6.4x, 6.5, 6.5x and 6.6 presumably reflects the very different relative sales of Cornwall and Devon sheets compared to the Outer Hebrides, Sutherland and the Shetlands.

Disclaimer and acknowledgements

The study of 900 New Popular covers failed to find two of the variants.¹⁰ This study of a mere 560 examples of a set of two-part covers with more potential for variability will offer ample scope for additional contributions, which will be welcome.

The author is indebted again to Richard Oliver who revised the introduction, to Anne Taylor for access to the Messenger Collection at Cambridge University Library and to Peter Gibson who has reported on his collection and sent half for scrutiny. Thanks are also due to Tim Bleasdale whose hospitality, map collection and railway signage brightened a nostalgic visit to snow-covered Harrogate.

¹⁰ *Sheetlines* 82, 17-21.

DOS / OSD series numbers

Richard T Porter

At the conclusion of his article on ‘Edition codes’ on OS maps, Richard Oliver¹ gives an example of the Overseas Surveys Directorate’s practice. Perhaps I may expand a little on this.²

The series numbering system used by the Directorate of Overseas Surveys, as developed by June 1971, usually used three digits. The first indicated the scale range, the second and third (00 – 99) indicated the country, thus:

1 – 100	Preliminary mapping, no longer used
101 – 199	1:5000 and larger, up to 1968.

With increasing demand for 1:1250 and 1:2500 scales, these were indicated from November 1968 by prefixed zeros and then, with the mapping of Male (1979) and Stanley (1988) at 1:500, a five digit number was introduced, so that the full sequence ran:

00001 – 00099	1:500
0001 – 0099	1:1250 (also 1:1000 and 1:1250)
001 – 099	1:2500 (and 1:2400 if it arose)
101 – 199	1:5000 (and 1:4800)
201 – 299	1:5001 – 1:10,000
301 – 399	1:10,001 – 1:25,000
401 – 499	1:25,001 – 1:63,360
501 – 599	1:63,361 – 1:126,720
601 – 699	1:126,721 – 1:253,440
701 – 799	1:253,441 – 1:500,000
801 – 899	1:500,001 – 1:1,000,000
900	International Map of the World series
901 – 1000	Small format maps. The former ‘Colonial Office List’ and ‘Report’ maps did not use the regular country numbers.

Four-digit numbers, not involving country numbers, were used for various specialist maps, and were allocated in order as the maps were undertaken, regardless of scale or country:

1001 – 1999	Geological maps
2000 – 2999	Miscellaneous maps
3000 – 3999	Land resources maps
4000 – 4999	Print laydowns
5000 – 5999	Mosaics
6000 – 6999	Photo-maps
7000 – 7999	Reproduction-only tasks
8000 – 8999	Rectified prints; orthophotos; enlargements (except those for internal use).

} But when part of a national map series, these bore the appropriate scale and country numbers, suffixed M or P.

The country numbers were allocated in the order in which the countries were first mapped, hence Jamaica, the first country taken up in 1946, was 01, but the system of invariant country numbers was not evolved for several years: British Somaliland 1:125,000

¹ Richard Oliver, ‘“Edition codes” and identifications on Ordnance Survey maps’, *Sheetlines* 83, 33.

² The main authorities for what follows are internal DOS circulars *D.O.S. Numbers* of 21 November 1968 and 10 June 1971; a file note *Overseas mapping and the consequences of OS International*, May 1991; OS International, *List of overseas mapping on sale from Ordnance Survey* (various years 1991-95); personal knowledge.

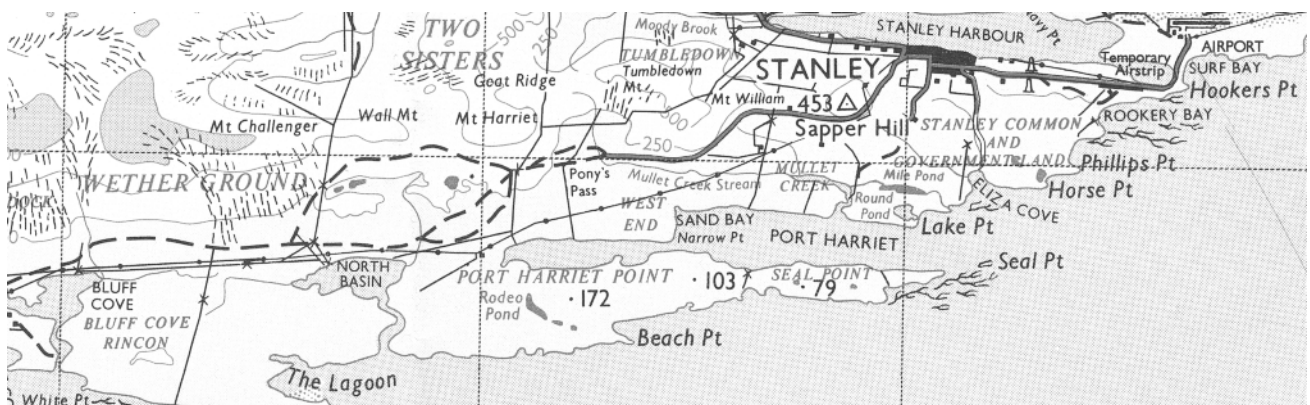
mapping (1952-57), for example, was DCS 39 but the 1:50,000 mapping (1952) was DCS 27; only the 1:25,000 series (1959-60) used the full DOS 339.

Oliver's example of the Falkland Islands highlights two other features of the DOS system. When a series was redesigned on totally different sheet lines (but at the same scale) the series number had to be altered (and the edition numbering to start again at 1). This was achieved by adding '/1', as happened also with the Belize and Lesotho 1:250,000 sheets. An earlier, ad hoc, method of differentiating series in such cases was used for Belize 1:50,000, where the $\frac{1}{4}^\circ$ sheets, DOS 4499, replaced the much earlier landscape 449. I am not sure how brief the circulation was of OSD 653/1, but it had a print run in January 1996 of 5000 copies, funded by the Falklands government, who presumably took the great bulk of the stock.

The second point of interest about series OSD 653/1, Edition 1-OS, is its anachronism. DOS became the Overseas Surveys Directorate of OS in April 1984 (not 1985), but in April 1991 OSD changed its name to OS International. Now it had been decided at the time of the merger that an existing DOS series would retain its DOS prefix on new sheets produced post-merger, but that any new series commenced post-merger would be prefixed OSD. If this policy were to have been carried forward, any new series after 1 April 1991 would have become, say, OS Int 060 (St Helena: Jamestown); however it was felt that this lacked simplicity and was liable to mis-transcription, while 'OS', on the other hand, though not used as part of a series number by OS Great Britain, would give no hint that it related to an overseas country.

I therefore decided that, given the accepted continuity of use of existing DOS and OSD series, the few formally anachronistic series such as OSD 653/1 or OSD 060 would not stand out. The only hazard seemed to be that researchers in years to come might deduce that publication of such an OSD series 'must have been commenced in the days of OSD, between 1984 and 1991'. File OSD 58/108/1, if preserved, will refute that theory. Otherwise *Sheetlines* may be the sole authority for what actually happened, and why! There is an analogy here with the continued use of 'GSGS' on some military mapping.

Finally, not all DOS / OSD mapping carried a series number referring to DOS or OSD at all, especially when it was part of a 'joint project' with the country. In Bermuda (Bda ...), Jamaica (Series 1), Liberia (LIB ...), Nepal (NEP ...), Zambia (ZS ...), for example, some or all of the mapping employed the country's own series numbering system, alone or – Lesotho (L ...) – in conjunction with the DOS system.



The then little known Bluff Cove, Two Sisters and Tumbledown appear on this extract from 1:250,000 DOS 653 Falkland Islands East sheet, edition 2-D.O.S. 1977. – CJH © Crown copyright NC/00/1340

Post-war 1:2500 Provisional Edition maps of Birmingham

John Cole

I have a collection of nine copies (in A3 form) of County Series 1:2500 maps obtained from Birmingham Library a few years ago. They are reductions to eighteen inches to the mile, i.e. slightly larger than the Godfrey Edition.

These maps were revised 1937-39 apparently, from the evidence of an unsigned 1946 paper,¹ with the assistance of air photography. For six of the maps the main characteristic is that roofed areas are not indicated and there is a heading to the effect that it is a 'Provisional Edition' and that it is 'Published in outline only and without areas, levels and minor details, due to the loss of the revision documents'. Minor details appear in the main to comprise: railway lines, tramlines, administrative boundaries, kerbs, artificial slopes (mainly railway cuttings and embankments) and vegetation. Details of the maps are as follows:

Warwickshire 14.5 [Central Birmingham]. Revised 1937. Published 1946.

Examples of all the minor detail listed cross the map edges for about a quarter of an inch before abruptly terminating. Minor detail which was published includes over sixty signal posts (but not mile posts) along railway lines, signal bridges and boxes.

Warwickshire 7.16 [Handsworth]. Revised 1937-8. Published 1945.

Minor detail as above except that none is shown at map edges.

Warwickshire 14.2 [Saltley and Washwood Heath]. Revised 1937. Published 1945.

Minor detail as above excepting that again such detail is shown crossing all edges. Again there is a profusion of signal posts, some signal boxes and a couple of railway mileposts are noted. On public roads the only annotation appears to be GP (guide post) and in works areas Chy (chimney).

Warwickshire 13.12 [Edgbaston]. Revised 1938. Published 1945.

In this instance all the minor detail listed in paragraph two is shown except areas and levels. A note at the base of the map states 'For levels see previous edition of this plan'. Minor annotations noted were: LB (letter box), MP (with distance, 'Stephenson Place 2', given), SD (sun-dial), FB (footbridge), TCB (telephone call box), and Fn (fountain).

Warwickshire 13.16 [Bournbrook]. Revised 1939. Published 1945.

Minor details as above except for an abrupt termination of the Bristol Road tramlines half way across the map! The continuation is shown on the previous 1917 edition, with a spur leading into a tramway depot. This depot is still extant and annotated on the 1939 revision and in fact the route lasted until July 1952. At the point where the tramlines end the road had been widened and the lines themselves sited on the reserved centre section of the road.

¹ 'Notes on a visit to Esher on 16th April', copy kindly supplied by OS Library and bound with papers from file CR11398. Esher was the OS air survey HQ at the time. Some 290 County Series 1:2500 maps were said to have been revised but all records were lost in the Blitz. See also *Sheetlines* 64, 17.

Warwickshire 8.13 [Aston]. Revised 1938. Published 1945.

All minor detail except levels and areas is shown but depiction of kerbs appears partial. In one area where an administrative boundary is mered 'edge of kerb' the kerb itself is not shown.

Warwicks. 7.7. Staffs. 68.7 [Newton Road (West Bromwich)]. Revised 1937. Published 1947.

This and the remaining two maps are not annotated as 'Provisional Editions', areas and levels being shown, excepting spot heights, on this map.

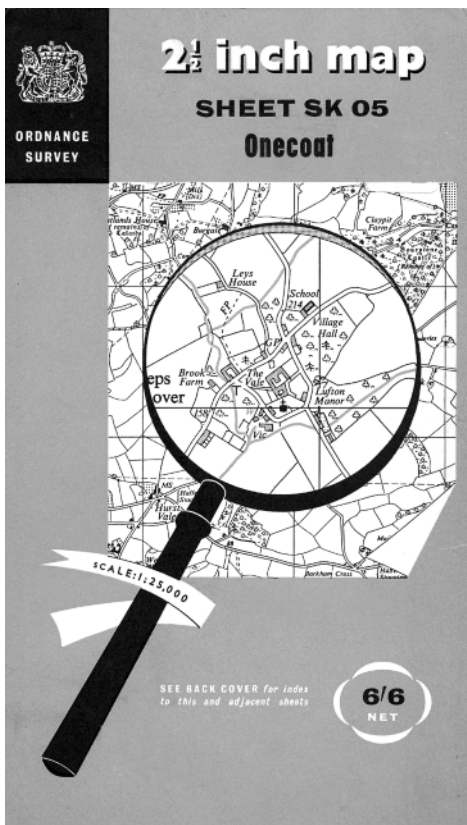
Warwicks. 7.4. Staffs. 68.4 [Great Barr]. Revised 1937. Published 1941.

The annotation 'Printed on "War Substitute Paper"' appears on lower margin. This annotation also appears on the map below, but in a different position.

Warwicks. 7.8. Staffs 68.8 [Hamstead]. Revised 1937. Published 1941.

Some roofed areas on this map and on that for Newton Road are stippled but it appears that only detail existing prior to the revision has been so treated.

The first six maps listed are totally built up whilst the last three range from about 20% to 80% rural. The price quoted in all cases is six shillings and eight pence.



Could do with another coat?

Bill Henwood has sent in this candidate for the occasional series of misprinted map titles: a curious rendering of Onecote in the Staffordshire Peak District. As it dates from the 1960s, he wonders whether the typesetter had been watching too many Berger paint adverts on the TV.

Visit to FWT

John Davies

The challenge facing cartographers at FWT is how to convey a vast amount of detailed information in an easily understood format. FWT, one of the leading suppliers of mapping to bus and rail companies and local authorities, strive to produce maps of complex networks such that the travelling public is reassured and encouraged to make use of public transport.

They have developed four main styles, as illustrated here, which can be tailored to suit local requirements. Each of the styles has advantages and disadvantages: FWT often combine them in a single map to provide greatest clarity of service provision in an area. The coverage of a map may vary between a small local area, a town or city, a county or even a larger region, each demanding different solutions. FWT will normally recommend the most appropriate design for the particular map and budget, unless the client has an existing house-style or preferences.

Clients include the major transport groups First, Arriva and Stagecoach and local authorities such as Devon, Bristol, TfL, Centro and many others. Some clients have OS licences under which FWT can make use of *MasterMap* as a base; in other cases out-of-copyright mapping is used.

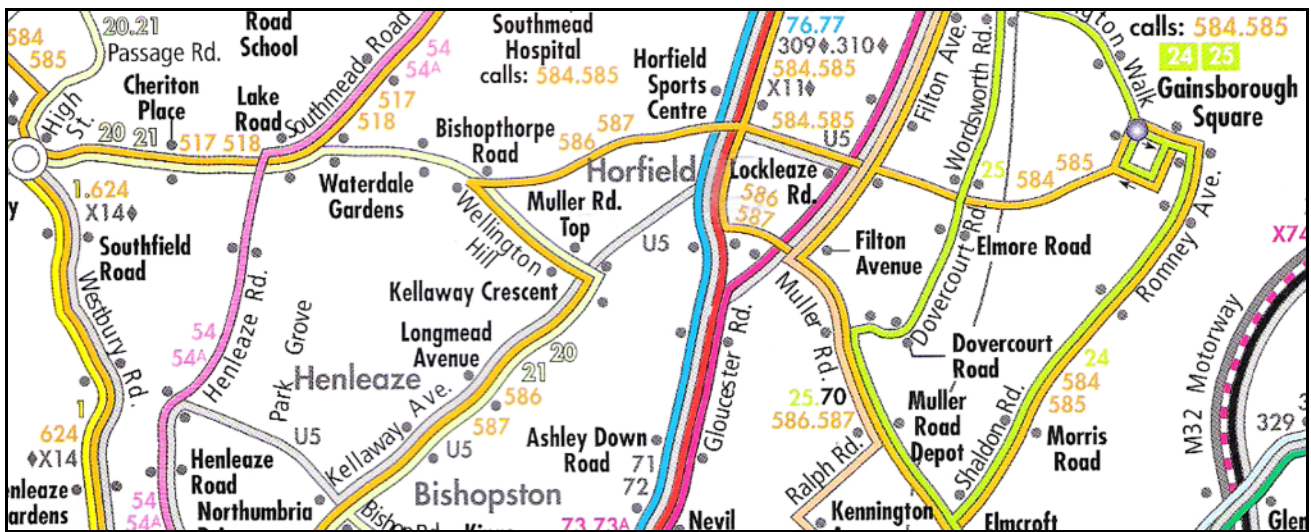
FWT services include cartography; typesetting, such as production of timetables and posters; digital services including developing interactive mapping and managing websites, and editorial services. As well as transport maps the company produces a variety of items such as tourist maps, cycle maps, street maps for estate agents, and a series of illustrated 3D 'Wayfinders' for Islington council. Their website www.fwt.co.uk gives more information.

FWT was founded in 1973 and is part of the Cook, Hammond and Kell Group, which also includes National Map Centre retail shops. The office at Highgate, north London has about 35 employees, using for the most part Freehand and Quark Xpress software, and Apple Macintosh computers.

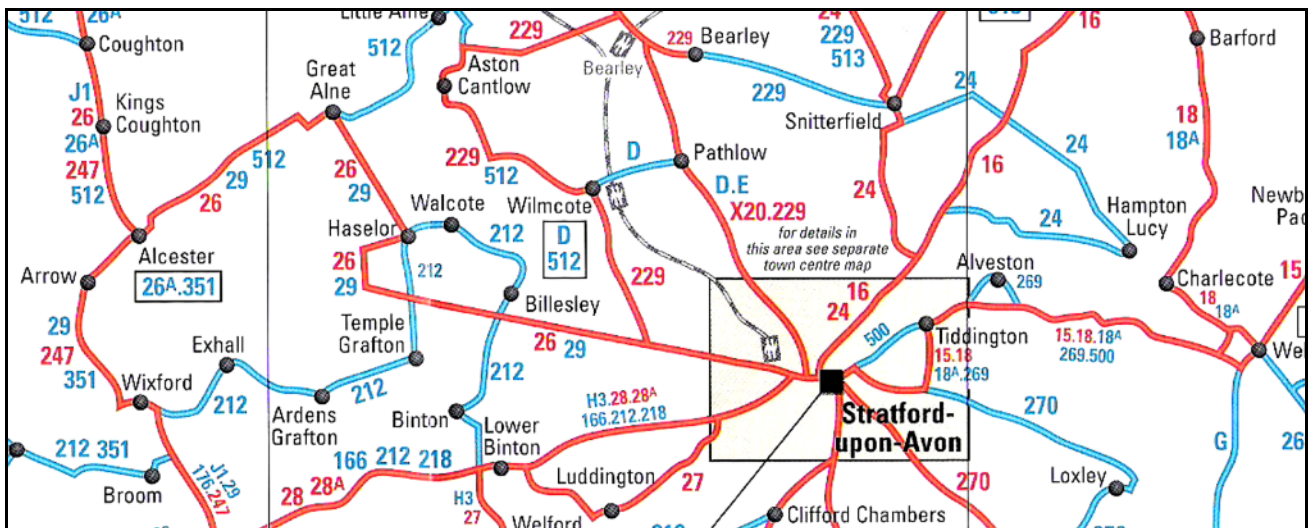
Our thanks to editor Phil Tyler and cartographer Ashley Lawrence (both, incidentally CCS members) and to digital cartographer Mark Knowler for their hospitality and for showing us behind the scenes at FWT.



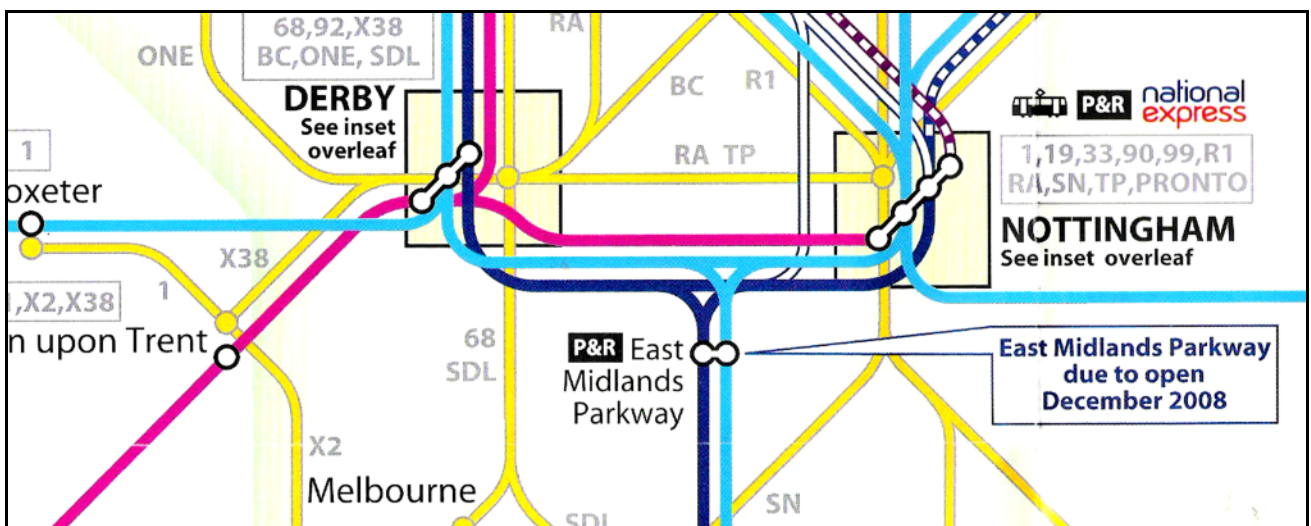
1. Street map having bus routes in-filled in colour



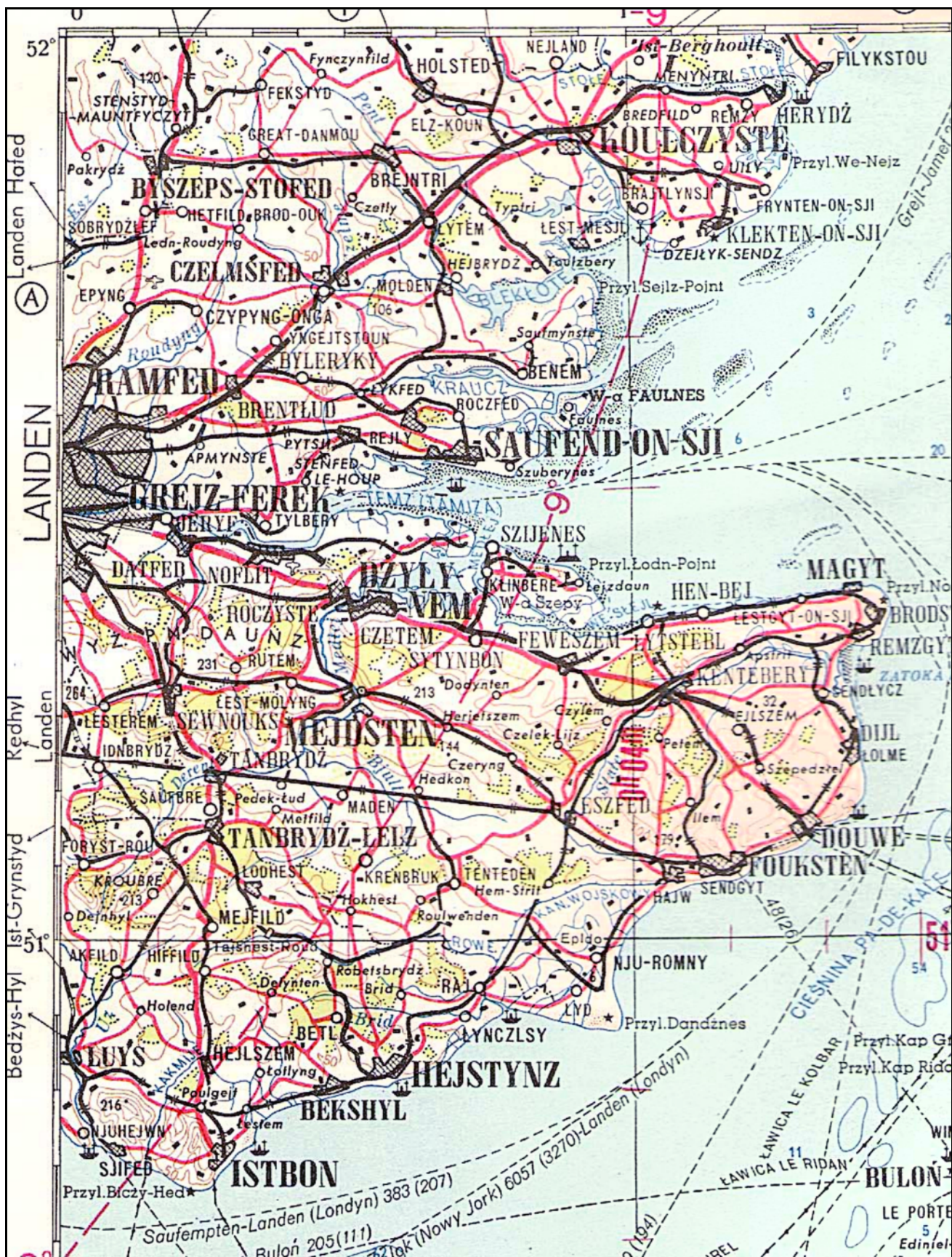
2. Each service shown in a different coloured line, making it simple to trace a route



3. Services shown geographically as lines of a single colour



4. Diagram in the style of a 'tube map'. All images © FWT



Extract from Polish 1:1,000,000 sheet M-31, printed in 1956
Reproduced by courtesy of John Cruickshank

Puzzle corner – a walk from a Landen bus stop

In *Sheetlines* 83 we invited you to identify Szijenes, Dzylynem, Tanbrydź-Łeiz and Luys.

Had we added Saufend-on-Sea and Landen, you might have guessed more easily that these are names appearing on a Polish map of S.E. England. The map is the military 1:1,000,000 sheet M-31, produced to Warsaw Pact standards in 1956. Although this seems to be an independent creation, rather than a reprint of the Soviet edition, the Poles have adopted the same policy on place names as did the Russians. This is that the names are rendered phonetically such that the user (the Polish or Russian soldier, as the case may be) will be able to correctly pronounce the names, even if he doesn't recognise them on the road signs.

London is given as Landen/Londyn, the latter being the Polish version of the name. Sheerness, Gillingham, Tunbridge Wells and Lewes are rendered as shown above; other names include Łytstebł (Whitstable), Sobrydźłef (Sawbridgeworth) and Czypynng-Onga (Chipping Ongar).



George Jasieniecki's identification of the bus shelter on our reprint of the London Passenger Transport Map as being at the corner of Falloden Way and Addison Way in Hampstead Garden Suburb prompted Gerry Zierler and John Davies to mount an expedition to the site. A major road scheme has altered the landscape and Gerry reports that, "it is difficult to place the exact position but fun trying"!

The expedition then proceeded on foot, westwards, along a key recreational route and paused for Gerry to take a picture, against the low afternoon light, of John atop a trig. point with the arch of a well-known landmark in the background. Can you identify the trig. point? The answer will be given in the next issue.

Excuses, excuses!

Warning: Roads are shifted, houses burn, are abandoned or rebuilt, a round world distorts a flat map, man's memory is fallible; expect not exactness.

From a 1961 map produced by Putney Historical Society (Vermont, USA) used as part of an art installation by Douglas Heubler. Currently on show at Tate Modern and seen there by John Davies.

The Defence Surveyors' Association website

Mike Nolan

Many Charles Close Society members are already aware of the Defence Surveyors' Association (DSA) and its activities as a result of advertisements in *Sheetlines* for its annual seminars. The DSA is a registered charity, an association primarily of serving or retired former RN, RA, RE, RAF surveyors and hydrographers, and civilians who work, have worked or have interests in the 'surveying', 'cartographic' and 'geospatial' environments.

The DSA has a website at www.defencesurveyors.org.uk. This website has recently been reviewed and expanded with the intention of making more information accessible to the public at large. Hopefully it is easy to access and navigate around this website but three tabs may be of particular interest, *Ranger*, *Historical Documents* and *Newsletters*.

The ***Ranger*** tab gives access to the Association's journal *Ranger*, now produced twice a year. Presently, issues from Winter 2004 to Summer 2008 are loaded together with an index of all articles that have appeared in all issues. Back copies will be loaded in due course, as will the Winter 2008 edition. All *Rangers* include a DSA membership application form.

The ***Historical Documents*** tab gives access to certain key documents relating to military survey and is sub-divided into World War One, World War Two, School of Military Survey training aids, unit histories and carto-bibliographies.

Of note in ***World War One*** are *Report on Survey on the Western Front*, by Colonel Jack, (HMSO, 1921) and *History of the Fourth Survey Battalion RE* by Colonel McLeod, unpublished until now.

The ***World War Two*** tab gives access to Brigadier A B Clough's landmark monograph *Maps and Survey* (HMSO, 1952), the history of Military Survey in all theatres of that conflict, with all 620 text pages and 57 example map extract plates. Also of note is *Z Location or Survey in War* by Lt Col J T Whetton and Lt Col R H Ogden, which tells the story of the Fourth Durham Survey Regiment RA.

The ***Unit Histories*** tab accesses brief histories of the 13th, 14th and 19th Field Survey, which were formed to assist in the execution of the surveys of Ireland and Great Britain, written at the time of their 150th anniversaries of formation.

The ***GSGS Mapping*** tab presently gives access to two sample carto-bibliographic documents:

G.S.G.S. Map Index is a very simple Excel listing of GSGS-designated 'War Office' numbered maps from 2001 to 5000 plus. It is hoped to include data from Crispin Jewitt's *Maps for Empire – The first 2,000 numbered War Office Maps* shortly.

Explanation of G.S.G.S. Mapping is actually a simple carto-bibliographic listing of 'War Office' maps with GSGS Misc designations.

The ***Newsletters*** tab is a new entry, which has just been opened to include documents published by organisations linked to the DSA. The first document to be placed within this tab is the latest RN HM newsletter *Triton* which was published in December 2008.

Enquiries about the DSA may be made to Tony Keeley, the Hon. Secretary, at secretary@defencesurveyors.org.uk or tel: 01635 204244.

Book review

Iain Fraser (editor), The Pictish Symbol Stones of Scotland, Royal Commission on the Ancient and Historical Monuments of Scotland, 2008. 152 pages £20. ISBN 978 1 902419 53 4.

Those who have visited north-eastern Scotland will have encountered its remarkable carved stones teeming with animals, odd stylized decorations and (sometimes) Christian symbols. Some may have been intrigued to learn more about them, or may even have formed hypotheses about what they represent. RCAHMS has now produced a completely revised edition of its description of the corpus, listing all 215 sites and illustrating each object at each site. So those who are curious to learn more can save themselves a lot of travelling, or, better, put their ideas in order before they set out. This is undoubtedly a splendid publication – but why does it justify a review in *Sheetlines*? Well, it casts light on a couple of aspects of OS history that I had not given any thought to before.

The first can only be described as OS vandalism. Not one, but two of these stones have OS benchmarks carved on them. In one case (Monymusk), it is placed just to one side of a cross formed of interlace. In the other case (Abdie), it is simply cut in the middle of one of the characteristic abstract symbols. The OS in general had great respect for antiquities. Pictish stones had been illustrated in printed works since 1726. So why was the OS maltreating sculptured stones in this way: was it because they were ‘foreign’? Alternatively, should we blame Colby for doing away with the broadly-educated corps of surveyors he inherited and replacing them with artificers for whom antiquities were just another category of item to be surveyed? Were any protests made by the inhabitants of the parishes concerned? Did the OS issue any instructions to prevent further recurrence? Notwithstanding the poor survival of later-nineteenth-century OS records, these are questions which this Society might find it worthwhile to address.

The second matter concerns the history of archaeological mapping more generally. The introductory notes to this volume describe the previous attempts at a definitive catalogue of Pictish stones and give an honourable place to OS’s *Britain in the Dark Ages* map (northern sheet, 1939). This was an era when the cost of publishing, the convenience of having an existing physical map to which another layer or layers could be added, and perhaps the greater closeness of the professional and popular archaeological worlds, meant that a single publication could serve both, and could meet its publication costs through mass-market sales. Has that era now passed away? These days, the professionals’ solution would probably be a web-based catalogue, where the users could select what features they wished to see and have them instantly displayed on a suitable base-map. Lithography once offered a means of presenting spatial data in a way which brought out previously unsuspected relationships, but it required decisions to be made by the cartographer, decisions which could be made once only and therefore needed judgement. Digital mapping enables users to make their own decisions; if they get them wrong they can always try again. So did the OS retreat from the leading edge of archaeological publication as a consequence of the spread of information technology, or had it retreated already? One could perhaps demonstrate a general causal process by a review of the archaeological maps of other countries’ official survey bodies. Or was the OS unique in venturing along this path in the first place?

Rob Wheeler

Kerry musings

David Archer

A good number of years ago, I accompanied a friend to a lecture on railways in the main hall of Welshpool High School. We were surprised that the place was full, nearly all men in middle life and older, quite a respectable looking crowd. I cannot remember what the topic was, but the audience fidgeted and coughed through the first thirty minutes of rather turgid stuff until the speaker just happened, in passing, to mention Dr. Beeching. En bloc, the seated listeners swayed forward ever so slightly and a universal and loud hiss surged towards the stage. They then sat back as before, as if nothing had happened. My next sentence will probably cause a similar reaction from a good many members. I have come to the conclusion that the most attractive Old Series are those which have had a bit of hand colouring added. Just as I could not eat brussels sprouts until I discovered they were bearable with HP sauce, so I have never really been happy with the Old Series, but am now aware that I quite like them if hand coloured.

As with so many members, my first introduction to these maps was the purchase of a couple of David and Charles reprints in green and white benderfold covers. My memory is that Foyles had a roomful and were selling them off cheaply. I think that I was pleased with them, bought more and was glad to be able to go a long way back in time for little outlay. I then came across the same maps in the paper Ellis Martin style envelopes and considered these 'difficult' because they were a fiddle to open. I also noticed the poor quality of the original maps reproduced, with almost impossible to read hilly areas (regardless of the covers they were in). In addition, there was something not quite right about the dates, but I was not sure what. Old Series maps were now considered a real pain.

As my small accumulation of maps increased, so the odd Old Series crept in, meaning I came across it priced very reasonably (cheap). Most of these acquisitions were in fact bits of Old Series maps, dissected, usually with small annotations, and lacking margins. All eventually turned out to be New Series or small sheet Thirds. How was I to know? All black and white one-inch maps lacking margins looked the same to me (and many still do). I knew that the Old Series came with and without hachures, so it was safe to consider anything that *looked* like an Old Series to be one. And what did an Old Series look like? Small-scale, oldish-looking, without colour. Hachures were a clincher. Anyway, nobody ever mentioned New or Revised New Series in those days. One went from the Old Series straight to the coloured large sheet Thirds. Well, me and my sort did.

I was aware of the Harry Margary reprints of early states in book form when they were coming out, but could not afford them. And anyway, the maps were rubbish, as I knew courtesy of Messrs David and Charles. I could get nowhere with them, so why consider the books? True, they had essays, but these did not seem to follow on from each other, and one had to wait so long for the next instalment. When I began trading, I bought the available volumes and started using them. Overnight, I was converted – to the Margary volumes, but still only lukewarm with regard to the original maps.

I suppose that I warmed to them as I became more familiar with the maps. In those days, interest in the Old Series appeared to centre on watermarks, and initially, looking for watermarks was a major problem because I could not find any. Never having seen one, I would hold a sheet to a strong light and thought that yes, maybe that was a pattern in the

paper, but no way did it say Whatman, let alone give a date. However, once you see one, and know what you are looking for, everything changes. Pure frustration evaporates and is replaced by intense frustration, as most watermarks have a densely hachured hill printed over the important bit. Yes, in most cases one can make out the words, and usually the '18' in the date is easy, but the last two digits of the year, the most important thing are a pest. Threes, fives and eights apparently come up in so many different styles of similar writing. And you are relying on these to date the map, having been fired with enthusiasm by the writings of Messrs Mumford,² Clark³ and Clarke.⁴ Today, watermarks are still great fun, and the Old Series has lots of them. For beginners, I suggest looking at the Isle of Wight or other coastal full sheets with lots of white paper.

Gradually, I worked out my own way of dealing with the maps and actually began to enjoy them. I stopped using the Margary cartobibliographies for dating and used the maps themselves. Later, for the first time, I came across some really early states which are just so different that one falls for them. The paper seems thick, soft and fluffy without being so. The ink is a warm brown rather than cold black, and the overall effect is one of great age, so much older than maps printed twenty years later. Somehow they are exceptional.

Subsequently, I found some early states with the roads colour washed yellow which appealed and made me consider colouring in a totally different light. I conducted an experiment and laid two identical post-1850 states, side by side. The hand coloured map was far nicer.

I would not say that I am passionate about the Old Series, but am now very fond of them, despite everything. Meaning? Meaning that in my book, a map series should be set out on neat sheet lines, be numbered logically, tell the user what the symbols mean and have an indication of how up-to-date the various features are. As a series, the Old Series fails miserably. Only one sheet has a title, others are referred to by number. 'Sheet 60' is pretty meaningless to most people. On sale for over a hundred years and no sheet titles. Secondly, there is no legend, no key to the symbols, abbreviations and conventions used. OK, most people can guess what a small windmill means, but a circle with a dot in the middle hardly evokes a coal pit.

Perhaps the most irritating aspect of these maps is that despite changes to the map detail, with few exceptions, the original publication dates were never changed, and only in later years did the small print say that railways had been updated. No other revision was acknowledged. Eventually, there were maps on sale with a publication date of over seventy years earlier. Such maps must have been like seeing an atlas in Waterstones: published 1940, motorways revised 2007. Even Sir Henry James did nothing about it. James, who was full of himself and who crowed about the wonderful modern Ordnance Survey, let newly revised maps be sold showing a publication date of up to fifty years before. A marketing nightmare.

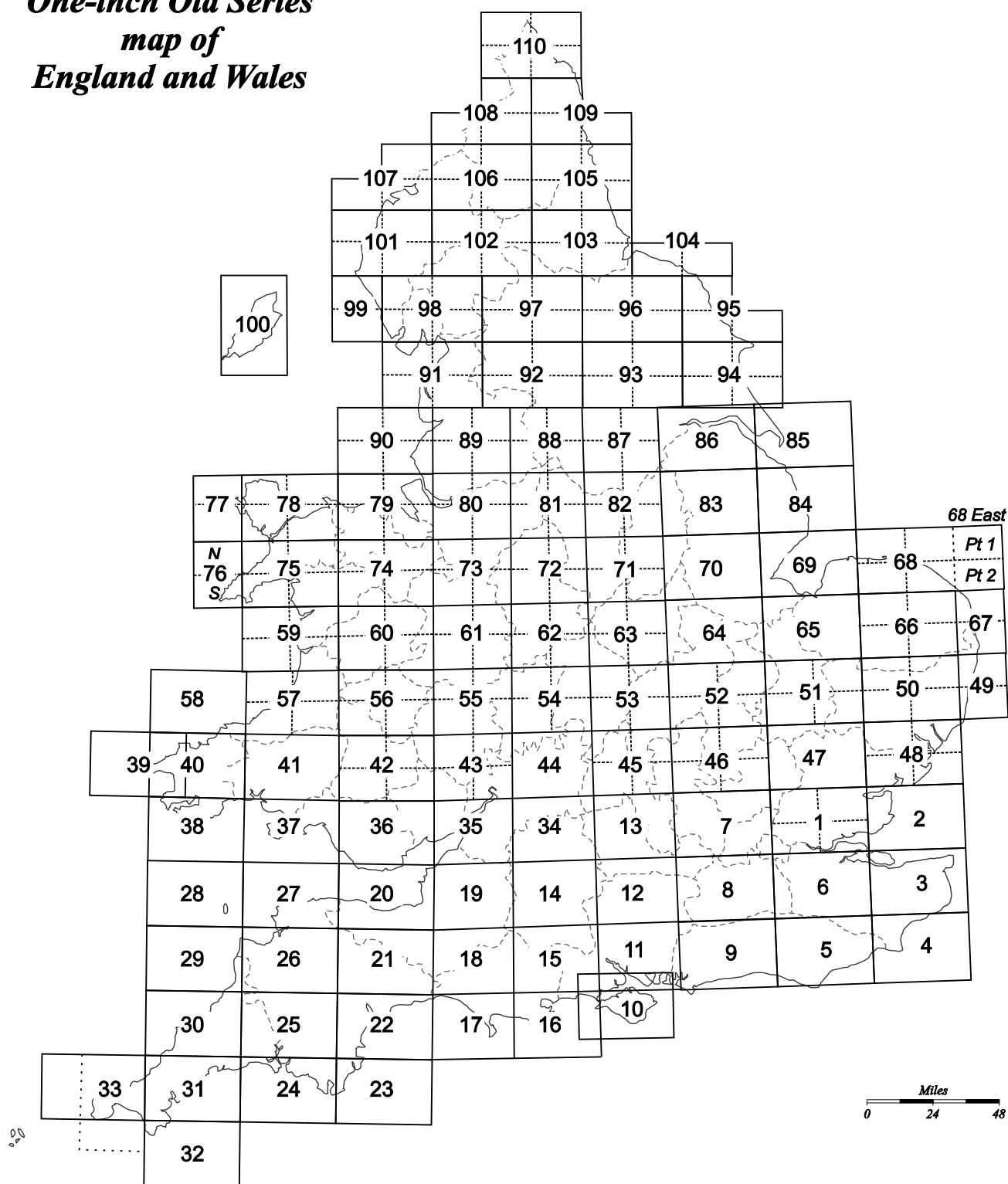
Or, consider the arrangement of sheet numbers. What a mess of a series, second only to the Explorers of today. Initially issued as county groups of maps, the sheet numbers reflect this, so that England, south of London is covered by four and a half distinct blocks of maps, with the numbering in each block being separate and clockwise. From Swindon – I'm sorry –

² I Mumford, 'Engraved Ordnance Survey one-inch maps - the problem of dating', *The Cartographic Journal* 5 (1968), 44-46.

³ I Mumford and P K Clark, 'Engraved Ordnance Survey one-inch maps : the methodology of dating', *The Cartographic Journal* 5 (1968), 111-114.

⁴ R V Clarke, 'The use of watermarks in dating Old Series one-inch Ordnance Survey maps', *The Cartographic Journal* 6 (1969), 114-129.

***One-inch Old Series
map of
England and Wales***



Dashed lines indicate sheets issued as quarter sheets, suffixed NW, NE, SW, SE (except as shown). Sheets 1 and 48 were originally published as full sheets. Sheets 43 and 55 were reissued as full sheets. Sheet 33 was reissued in portrait format.

This is one of a series of index diagrams which have been prepared for the relaunch of the Society's website. Go to www.charlesclosesociety.org and select 'Maps, Covers and Indexes' – CJH

from sheet 34 northwards sheets are numbered along boustrophedon lines, with one row of numbers reading left to right and the one above reading right to left, and above that left to right again. As for the actual numbers used, 1, 2, and 3 are fine, but ‘Sheet 68 East Pt No. 2’ is not exactly elegant, or did someone miss this teeny weeny bit of land at the planning stage so that we now have to refer to sheet 68 as published in six quarters?

Someone in the Ordnance Survey knew what was needed, as is seen by the clear numbering and truly beautiful sheet lines of the Scottish one-inch First Edition, and eventually there was some good news and bad news. The OS did what they should have done years previously, and renumbered the maps. But only the northern sheets, which were henceforth referred to as the first issues of the New Series, thus giving a name to the existing maps, the Old Series. Un-named by the Ordnance Survey until into their seventies, how sad. The Scottish maps were of a uniform size, 24" by 18". A set of paper flat copies forms a neat pile. Not so the English and Welsh cousins, where it would not be too far fetched to say that no two maps were the same size (a little far fetched maybe, but the message is clear). And the shape varied quite frequently. Initially issued as full sheets, *nominally* rectangular 36" by 24", but with variations, followed by quarter sheets, *nominally* rectangular 18" by 12", but often narrower and tapering northwards. Look at a good index diagram to see how the sheets for middle England are squeezed, and are not rectangular, how full and quarter sheets are jumbled and many lines are wonky. Not a pretty sight.

I know several people who like a neatly ordered life and changed to collecting a set of Seventh Series in large covers, when they discovered that a set of small covers was not possible. Lucky them that they were not interested in the Old Series. Sheet numbers all over the place, large and small sheets, noticeably tapering small sheets, not to mention fifteen different sizes of dissected maps when folded, all would drive them crazy, as would the visual impact of the various sized sheets if kept flat. Imagine a set of paper flat Old Series with large full sheets at the bottom, quarter sheets on top, and the tapering and ever smaller sheets of middle England above these. Something more akin to a paper pyramid than a map series.

Letters

‘A brief record ...’

I refer to the article by O’Loughlin on the EEF advance in 1919.¹

In publishing this piece about the EEF, which has no presented evidence on its relevance to the study of Ordnance Survey maps, the Editor continues his policy (stated in *Sheetlines* 76) of encouraging us to consider a variety of interesting cartographic topics and not get bogged down with too much detailed and abstruse material isolating OS products.

The author reviews *A Brief Record ...* with very detailed descriptions of some maps created and printed at the Survey of Egypt as a souvenir volume of memorabilia, published in 1919 (reprinted in England in 1919) for soldiers returning from the campaigns in the theatre. The author’s presentation is of a new conception of the map as a semiotic object and the map as ‘text’, which ignores the vast number of manuals of map ‘reading’, and the long history of

¹ *Sheetlines* 83, 12-23. See also Mike Nolan’s article on pp7-12 of this issue – *CJH*.

maps published giving an immediacy to portraying engagements, battles, as well as campaigns or wars. What better example of his idea of the 'map as narrative' than those in Sabine's *History of the war in France and Belgium in 1815* (1844 and 1848), which exposed Wellington's bogus claim to having won Waterloo single-handed in an exquisite set of anaglyptographic engravings showing amongst others, for example, the scenes at Waterloo at 11.15 a.m., 7.45 p.m. and 8.05 p.m.

The weakness of his argument is compounded by his footnote 14, which dismisses, in a garbled reference, the two versions of *Report of the work of the Seventh Field Survey Company R.E. Egypt, Sinai, Palestine & Syria, December 1915 to October 1918* (June 1919 in ms), which is attributed in ms. to Major W J Maule, Survey of Egypt. The second version apparently tidied up for retyping some fifty years later has a slightly different title. They were seen by several researchers including Collier and Dov Gavish at MRLG at Tolworth, and a copy presented to Ron Adler, historian of the surveys of Palestine, by the Director Mil Svy.

The *Report* comprises some sixty foolscap typed pages, in which there is, I think, only one reference to the secondment of an officer, Lt Crowder of the Hampshire Regiment, from the Ordnance Survey. There were also several people from other parts of the Empire, so there was no question of it being an Overseas Branch of the OS! The *Report* gives full details of the staffing, equipment and productions in what eventually was embraced by 7th FSC. The fact is that they had made for lithographic printing 594 plates, from which 123,200 copies were printed, of which 15,000 were overprinted, including the production in 1918 and 1919 of 88 various sheets at non-topographic scales, requiring 119 plates (implying multi-colour items). The rapid production of the *Brief Record* would have been facilitated by the local availability of the relevant reproduction materials of the map illustrations in diaries and sit-reps, from which only a few were selected for the souvenir volume.

When the records of the Great War were to be opened as a whole in 1964 under the new Thirty Year Rule, Peter Clark and I were invited by the WO Departmental Records Officer to advise on the processing of the nearly three tons of mapping material, accumulated by the official historians, which were in the WORC at Hayes. We recommended the separation of the copies of ex-stock mapping used as reference material by the historians and for them to go to MRLG for assimilation into the eventual new classes to be transferred from MilSvy Map Library to the PRO. Over several weeks I sorted out, as logically as possible, copies of all maps, whatever their condition, bearing official unit stamps or annotated in any way which implied actual operational use by named officers or others. These were then listed by the Record Office staff in the new Class WO 153 to become immediately available in PRO along with the other classes of Great War records. Due to an unfortunate error a PRO guide recorded the class as containing 1215 'maps' instead of 'pieces', probably concealing from researchers the actual rich collection there of some 15,000 maps, which includes over 500 sheets related to the EEF theatre of operations, originating in the General Staff diaries and elsewhere as daily sitrep and disposition, etc., maps. In addition, in the later-created WO 303 Palestine Campaign there are c.650 maps of the theatre, and several typed descriptive lists from 1925 of relevant maps received in the WO Map Room. WO 303 was listed for transfer by the late Jim Tolson, who also did in 1991 a brochure of useful information about the class for the use of staff in PRO when confronted by researchers.

There is no reference in the article to any enlightening material in TNA/PRO. That's a lot of maps still to be read!

Ian Mumford

Fudge

The November 2008 issue of *The Caravan Club Magazine* includes an editorial piece extolling the virtues of OS maps illustrated with an expanded version of the photograph on the cover of the Explorer OL 29 *Isle of Wight*.

There is also a ‘member offer’ of a price reduction on OS Select maps. The advertisement for this offer includes a photograph of a shaven-headed man wearing a large backpack looking at an opened *Explorer* map in a setting of green trees and bracken.



The front cover of the map he is holding is clearly recognizable as 148 *Maidstone & Medway Towns* with the silver corner design and photo of a couple walking away from the camera, correct for edition B1 ©2004 – so far so good. But the rear cover is clearly recognizable as for sheet 136, edition B1/ ©2004, the neighbouring sheet to the south. Even more curious is the map itself, only small parts of which are visible. The edge of the plain white back of the map is seen beside the cover as folded at the bottom, while on the other edge of the cover the predominantly green face of the map can be seen folded at the top edge. If either of these is correct, and they can’t both be, the user is looking at the map upside down. Further confusion exists in that the map corners are visible at the top and bottom of the last fold of the map and both show blue sea and have an orange inner border that is incompatible with the rest of the map, and can’t so appear unless the map is folded in an inexplicable way.

The whole map is (presumably) an ingenious computer assembly. But why bother??

Aidan de la Mare

Nantwich – large scale plans

I recently viewed the large scale 1851 plans of Nantwich in the Cheshire Record Office (ref LUN 4639). Richard Oliver describes these in his *Concise Guide* as having been prepared for the local board of health.¹

I am far from being an expert on such plans but thought the following comments might be of interest:

1. A level is recorded at virtually every property frontage.
2. Roads and footways are shown in two colours. By implication grey is hard surfaced ways whilst cream represents dirt surfacing.

¹ Richard Oliver, *Ordnance Survey maps, a concise guide for historians*, Charles Close Society, second edition, 2005, 165.

3. Each of the five manuscript sheets is signed by And[rew] Beatty Captain RE.
4. The sheets are annotated 'Surveyed in 1851 by Ordnance Survey in accordance with the provisions of the Public Health Acts'.

In addition to the 1:528 there is a two-sheet, 1:2500 plan of the Nantwich township on local sheet lines, also manuscript and signed by Capt. Beatty. The southern sheet is wholly outside the area covered by the 1:528 plans. On the northern sheet the outer limits of those plans are indicated by a dotted line except on the southern edge where it coincides with the sheet line. All these plans are very finely produced.

Cheshire Record Office have no copy of the 1874, 1:528, seven-sheet edition.

Pat McCarthy

What's in a name?

As part of a project my wife and I are working on, I have been researching when and why Brownsea Island and its castle in Poole Harbour had its name changed from Branksea. There seems to be some confusion, not least on OS maps.

It has been said that the name was changed early in the twentieth century to Brownsea to avoid confusion with nearby Branksome, on the mainland. OS maps that I have, indicate the following:

Island

Third Edition	Branksea
Popular to present	Brownsea

Castle

Up to Sixth Edition	-----
Seventh and 1:50,000 first series	Castle (remains of)
<i>Landranger</i> , second series	Branksea
<i>Explorer</i> (2007)	Branksea

The references to 'Castle (remains of)' are particularly interesting! This was possibly on account of the run-down appearance after thirty years of neglect by its then owner.

To add confusion, in a modern reprint of Moule's *The County Maps of Old England*, originally published in the mid-nineteenth century, the island is 'Brownseea'. On a map produced in 1857 in connection with the sale of the island, it is 'Branksea'.

If any CCS member can enlighten me further on this, I shall be most grateful.

Walter Paterson

Women reading maps

It's not a map, but I thought it worth pointing out that the dust jacket of Close's *The Map of England* depicts not one but two women sharing the pleasures of map reading with their male 'partners'.

Bill Henwood

A rubber stamp in the Ordnance Survey, 1877

ORDNANCE SURVEY OFFICE,
SOUTHAMPTON,

22nd October, 1877.

MR. ROSE,

In reply to your note, I have the satisfaction of informing you that the India Rubber Stamp supplied by you to this department in July last, has already yielded over 12,000 impressions, and that an impression made to-day appears to be as sharp and clear as those produced when the stamp was purchased.

R. M. PARSONS,

Lieut.-Col. Royal Engineers.

This testimonial in *The Southampton Directory* appeared in the four-page advertisement of 'Henry Rose, manufacturer of India-Rubber Hand Stamps, (By a process Invented by himself) 164, High Street, Southampton'.¹

The couple of dozen stamps that Rose illustrated regrettably omit an impression of that supplied to OS, so the question is, what did it depict for OS to use it 12,000 times in under four months (120 times a day)? A revised price? But not, presumably, of the one-inch, which seems to have been stable at 2/6 per full sheet or 1/- per quarter sheet in this period.²

Richard T Porter

Google doesn't always know best

In January I needed to travel from my home in suburban north-east London (IG8 0AL) to visit a fellow member in suburban south-west London (KT4 8HE). The online Google Maps has driving directions and what it calls a Public Transit option. The former shows a direct route through central London of about 25 miles, with a driving time of just over an hour which may be a tad optimistic but is not ridiculous. But as my house is adjacent to a tube station I tried the 'public transit' alternative (I later realised the word 'transit' should have struck a warning). This proposed a truly bizarre six-and-a-half hour journey, starting by walking for 22 minutes to South Woodford, taking an easyBus to Stansted airport (20 miles further north), then a three hour coach ride round the M25 via Heathrow to Gatwick airport followed by a series of local buses and a ten minute walk. Had I attempted to follow this suggestion I would have been disappointed, as the easyBus had ceased to serve South Woodford since last September. Trying the same route again in February, Google now confesses, 'Sorry, we don't have transit schedule data for your trip'.

John Davies

¹ W Cox (compiler), *The Southampton Directory. 1878. For the borough and the surrounding neighbourhood*, Southampton: 'Hants Independent' Office, 1878, between pp 8 and 9 of the advertisement section.

² *The Old Series Ordnance Survey maps of England and Wales, VIII*, Lympne Castle: Harry Margary, 1991. Introduction to carto-bibliography by R R Oliver, xxxii.

New maps

Jon Risby

This list covers small scale maps published between 6 November 2008 and 8 March 2009. 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 2008.

OSGB

Revision notes are referenced in column five or six as follows:

- | | |
|---|---|
| ¹ 'Reprinted with minor change'
² 'Revised for selected change'
³ 'Revised with selected change' | ⁴ 'Revised for significant change'
⁵ 'Revised with significant change'
⁶ '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 shall be able to confirm information in the next edition of *Sheetlines*.

Landranger – new editions

38	Aberdeen, Inverurie & Pitmedden	C1	2008	2001	2008 ²	22/08/08
89	West Cumbria, Cockermouth & West Water ^(+A)	C3	2009	1996	2008 ²	23/02/09
90	Penrith & Keswick, Ambleside ^(+A)	C3	2009	1996-97	2008 ²	23/02/09
92	Barnard Castle and Richmond	<u>C1</u>	2008	2000-01	2008 ¹	26/09/08
96	Barrow-in-Furness & South Lakeland ^(+A)	C3	2009	1997	2009 ²	23/02/09
97	Kendal & Morecambe, Windermere & Lancaster ^(+A)	C3	2009	1997	2008 ²	23/02/09
132	North West Norfolk, King's Lynn & Wroxham	D1	2008	2001	2008 ²	10/11/08
143	Ely, Wisbech & Downham Market	D1	2008	-	2008 ²	17/11/08
158	Tenby & Pembroke	B2	2008	1998	2008 ²	10/11/08
159	Swansea & Gower, Carmarthen	C4	2008	1995-96	2008 ²	10/11/08
160	Brecon Beacons ^(+A)	<u>B3</u>	2008	1999	2008 ²	13/10/08
186	Aldershot, Guildford, Camberley & Haslemere	C3	2008	1999	2008 ²	10/11/08
190	Bude & Clovelly, Boscastle & Holsworthy	D1	2009	2003-04	2008 ²	02/02/09
192	Exeter & Sidmouth, Exmouth & Teignmouth	C4	2008	1997	2008 ²	08/12/08
193	Taunton & Lyme Regis, Chard & Bridport	D1	2008	2003	2008 ²	08/12/08
195	Bournemouth & Purbeck, Wimborne Minster & Ringwood	D3	2009	2000-01	2008 ²	18/02/09
196	The Solent & the Isle of Wight, Southampton & Portsmouth	D3	2009	-	2008 ²	16/02/09
198	Brighton & Lewes, Haywards Heath	E2	2009	2001	2008 ²	16/02/09
199	Eastbourne & Hastings, Battle & Heathfield	D3	2009	1999	2008 ²	16/02/09
201	Plymouth & Launceston, Tavistock & Looe ^(+A)	D1	2009	2002	2008 ²	02/02/09
202	Torbay & South Dartmoor, Totnes & Salcombe ^(+A)	D1	2009	2002	2008 ²	02/02/09
203	Land's End & Isles of Scilly, St Ives & Lizard Point ^(+A)	D1	2009	2002	2008 ²	02/02/09
204	Truro & Falmouth, Roseland Peninsula ^(+A)	D1	2009	2002	2008 ²	02/02/09

^(+A) This map is also published in Landranger Active format.

Explorer and Explorer Active – new editions

OL1	The Peak District – Dark Peak area	A3	2009	2002	2008 ²	02/02/09
OL2	Yorkshire Dales – Southern & Western areas	A2	2009	2001	2008 ²	02/02/09
OL12	Brecon Beacons National Park – Western & Central areas	A2	2009	2001	2008 ²	22/12/08
OL13	Brecon Beacons National Park – Eastern area	A3	2009	2001	2008 ²	02/02/09
OL20	South Devon	B2	2009	2004	2008 ²	12/01/09
OL26	North Yorkshire Moors – Western area	A2	2009	2001	2008 ²	02/02/09
OL27	North Yorkshire Moors – Eastern area	A2	2009	2001	2008 ²	02/02/09
OL30	Yorkshire Dales – Northern & Central areas	A2	2009	2001	2008 ²	05/01/09
OL41	Forest of Bowland & Ribblesdale	A2	2009	2002	2008 ²	02/20/09
109	Bodmin Moor	C2	2008	2003 ⁴	2008 ²	13/10/08
148	Maidstone & the Medway Towns	B3	2008	2003	2008 ²	10/11/08
162	Greenwich & Gravesend	A3	2009	1998	2008 ²	12/01/09
163	Gravesend & Rochester	B3	2009	2003	2008 ²	12/01/09
175	Southend-on-Sea & Basildon	A2	2009	1999	2008 ²	02/03/09
179	Gloucester, Cheltenham & Stroud	A2	2008	1998	2008 ²	13/10/08
188	Builth Wells	A2	2008	1999	2008 ²	15/09/08
190	Malvern Hills & Bredon Hill	A3	2008	1996	2008 ²	10/11/08
208	Bedford & St Neots, Sandy & Biggleswade	A2	2009	1999	2008 ²	02/03/09
211	Bury St Edmunds & Stowmarket	A2	2008	1998	2008 ²	08/12/08
258	Stoke-on-Trent & Newcastle-under-Lyme	A1	2008	1999 ⁴	2008 ¹	22/09/08
270	Sherwood Forest	A3	2008	1996	2008 ²	15/09/08
278	Sheffield & Barnsley	A2	2008	2000	2008 ²	08/12/08
286	Blackpool & Preston	A1	2008	2000	2008 ¹	17/09/08
287	West Pennine Moors, Blackburn, Darwen & Accrington	A3	2008	1997	2008 ²	13/10/08
302	Northallerton & Thirsk	A2	2009	2000 ⁴	2008 ²	02/03/09
304	Darlington & Richmond	A2	2009	2000 ⁴	2008 ²	02/03/09
305	Bishop Auckland	A2	2009	2000 ⁴	2008 ²	02/03/09

All Explorer maps are also available in the Explorer Active format – edition details are the same as the relevant Explorer sheet.

Travel Maps, Route Map – new edition

Great Britain 2009	Edition 2009	2008	-	2008 ⁵	20/09/08
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Travel Maps, Tour Series – new edition

3 Lake District	D	2008	-	2008 ⁴	26/01/09
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Irish mapsDiscoverer maps

7 Londonderry	D				09/02/09
12 Strabane	D				09/02/09
17 Lower Lough Erne	D				09/02/09
21 Strangford Lough	D				09/02/09

Other Irish maps

Lisburn City Street Guide					16/02/09
Londonderry Street Guide					16/02/09
Limerick Street Guide					01/12/08
Waterford Street Guide					01/12/08

Forthcoming OSGB and Irish maps

The following maps have been announced for publication.

Landranger – new editions

103	Blackburn & Burnley, Clitheroe & Skipton	C3	06/04/09
109	Manchester, Bolton & Warrington	D3	06/04/09
57	Stirling & The Trossachs ^(+A)	B2	04/05/09
85	Carlisle, Solway Firth & Gretna Green	D1	04/05/09
98	Wensleydale & Upper Wharfedale ^(+A)	B2	04/05/09
99	Northallerton & Ripon, Pateley Bridge & Leyburn	C2	04/05/09
117	Chester, Wrexham & Ellesmere Port	D2	25/05/09
128	Derby & Burton upon Trent	D3	25/06/09
129	Nottingham & Loughborough, Melton Mowbray	C4	25/05/09
11	Thurso & Dunbeath	C2	22/06/09
40	Mallaig & Glenfinnan, Loch Shiel	C2	22/06/09
104	Leeds & Bradford, Harrogate & Ilkley	C4	22/06/09
86	Haltwhistle & Brampton, Bewcastle & Alston	D1	20/07/09
87	Hexham & Haltwhistle	D1	20/07/09
45	Stonehaven & Banchory	C1	20/07/09
95	Isle of Man	D	14/09/09
30	Fraserburgh, Peterhead & Ellon	B2	28/09/09

(+A) These maps will also be published in Landranger Active format.

Explorer and Explorer Active – new editions

138	Dover, Folkestone & Hythe	B2	06/04/09
160	Windsor, Weybridge & Bracknell	A3	06/04/09
169	Cirencester & Swindon	A2	06/04/09
170	Abingdon, Wantage & Vale of White Horse	A2	06/04/09
174	Epping Forest & Lee Valley	A3	06/04/09
265	Clwydian Range	A2	06/04/09
120	Chichester, South Harting & Selsey	B2	27/04/09
121	Arundel & Pulborough	B2	27/04/09
122	Brighton & Hove	B2	27/04/09
123	Eastbourne & Beachy Head	B2	27/04/09
132	Winchester, New Alresford & East Meon	B2	27/04/09
133	Haslemere & Petersfield	B2	27/04/09
134	Crawley & Horsham	B2	27/04/09
OL16	The Cheviot Hills, Jedburgh & Wooler	A3	22/06/09
OL42	Kielder Water & Forest	A3	22/06/09
325	Morpeth & Blyth	A2	29/06/09
332	Alnwick & Amble, Craster & Whittingham	A2	29/06/09
340	Holy Island & Bamburgh	A2	29/06/09
130	Salisbury & Stonehenge	A2	13/07/09
131	Romsey, Andover & Test Valley	B2	13/07/09
323	Eskdale and Castle O'er Forest	A3	20/07/09
OL14	Wye Valley & Forest of Dean	A2	24/08/09
152	Newport & Pontypool	A2	24/08/09
189	Hereford & Ross-on-Wye	A2	24/08/09
OL35	North Pembrokeshire	A2	21/09/09
OL36	South Pembrokeshire	A2	21/09/09

Travel Maps, Road – new editions

1	Northern Scotland, Orkney and Shetland	E	09/03/09
2	Western Scotland and the Western Isles	E	09/03/09
3	Southern Scotland and Northumberland	E	09/03/09
4	Northern England	E	09/03/09
5	East Midlands and East Anglia including London	E	09/03/09
6	Wales and West Midlands	E	09/03/09
7	South West England and South Wales	E	09/03/09
8	South East England including London	E	09/03/09

Travel Maps, Tour Series – new editions

1	Cornwall	E	09/03/09
4	Peak District & Derbyshire	D	06/04/09
8	The Cotswolds & Gloucestershire	D	03/08/09
2	North York Moors	D	31/08/09

Irish Discoverer maps

5	Ballycastle	E	09/03/09
15	Belfast	E	09/03/09

Irish street maps

Kilkenny	Third edition	30/03/09
Cork	Fourth edition	30/03/09
Galway	Fourth edition	30/03/09

Other Irish maps

Ireland Culture Map	Third edition	30/03/09
Ireland Touring Map	Third edition	30/03/09
Ireland Leisure Map	Third edition	30/03/09
Ireland Driving Map	Third edition	30/03/09
Dublin Pocket	Fourth edition	30/03/09
The Mournes, including Slieve Croob	2009	13/04/09

*New conventional signs***Field paths**

	<i>Footpath obstructed</i>
	<i>Footpath non-existent</i>
	<i>Bull in field</i>
	<i>Friendly farmer</i>
	<i>Stroppy farmer</i>
	<i>Farmer has gun</i>

Refreshments

	<i>Fat wallet required</i>
	<i>High cholesterol establishment KFC, Macdonalds, Burger King, etc</i>
	<i>Gastropub: overpriced food</i>
	<i>Roadside burger van</i>

These proposals are based on suggestions from Roly Hann for more relevant information on OS maps

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 be ordered directly from the website.

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

Ayrshire	17.09	Irvine (North)	1908	01/09
Ayrshire	17.13	Irvine (South)	1908	01/09
Brecknockshire	43.14	Gurnos & Ystalyfera	1914	01/09
Co. Durham	14.07	Ryhope Village	1895	01/09
Glamorgan	27.03	Llwynypia	1915	11/08
Glamorgan	43.10	Llandaff	1915	11/08
Glamorgan	27.02	Gelli	1914	12/08
Glamorgan	11.05	Hirwaun & Tower Colliery	1897-1902	02/09
Gloucestershire	38.04	Coleford	1920	12/08
Gloucestershire	76.06	Brislington	1902	01/09
Gloucestershire	76.05	Bristol (Knowle)	1902	02/09
Lancashire	105.02	Daisy Nook & Limehurst	1933	12/08
Liverpool Large Scale	34	Liverpool (Wapping)	1849-64	11/08
Liverpool Large Scale	35	Liverpool (St James Mount)	1849	02/09
London	92	Greenwich & The Isle of Dogs	1867	02/09
Middlesex	16.01	Alperton & Stonebridge	1936	12/08
Middlesex	19.03	Harmondsworth & Longford	1935	12/08
Staffordshire	18.09	Trent Vale & Hanford	1898	01/09
Yorkshire	231.06	Hipperholme & Shibden Hall	1930	11/08
Yorkshire	202.14	Farsley	1915	12/08
Yorkshire	247.08	Ossett (SW) & Combs	1905	01/09
Yorkshire	217.02	Stanningley	1906	02/09
Yorkshire	262.12	Royston	1904	02/09
Leeds Town Plans	19	Leeds (Pottery Field)	1847	02/09

England and Wales one-inch

The italicised place name in brackets after the title is covered on a large-scale map on the reverse.

40	Askrigg, Kirkby Stephen & Upper Swaledale (<i>Askrigg</i>)	1904	11/08
91/104	Alford & Mablethorpe (<i>Mablethorpe</i>)	1897	11/08
114	Lincoln & District (<i>Metheringham</i>)	1898	02/09
115	Horncastle & District (<i>Woodhall Spa</i>)	1897	12/08
116	Skegness & District (<i>Winthorpe</i>)	1897	12/08
127	Grantham & Sleaford (<i>Caythorpe</i>)	1898	02/09
205	Saffron Waldon & SE Cambridgeshire (<i>Fulbourn</i>)	1893	02/09
222	Great Dunmow & District (<i>Great Dunmow</i>)	1893	02/09
234	Gloucester & District (<i>Painswick</i>)	1896	01/09
239	Hertford & St Albans (<i>Welwyn</i>)	1898	02/09
281	East Somerset & West Wilts (<i>Wellow</i>)	1897	02/09

Germany

Ruhr 04	Schalke, Horst & Bottrop	1944	02/09
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