



# *Sheetlines*

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

This edition of *Sheetlines* was published in 1994 and the articles may have been superseded by later research.

Please check the index at  
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THE CHARLES CLOSE SOCIETY  
for the Study of Ordnance Survey Maps  
[www.CharlesCloseSociety.org](http://www.CharlesCloseSociety.org)

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

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



## Charles Close Society — Future Meetings

### Spring Meeting, BATH— Saturday, 12th March, 1994

A meeting has been arranged at the Manvers Street Baptist Church Hall, Manvers Street, Bath on Saturday, 12th March 1994. The church complex is in the city centre, very close to the Railway and Bus/Coach Stations, and the termini of the buses from the Bath Park-and-Ride car parks.

**Topic: After a brief introduction, the day will be for members to show “My favourite OS discovery — maps or related ephemera” Start 1030**

Please bring three (or so) items to show, or even find out more about.

A nominal charge of £2 will be made to meet the cost of hall hire and coffee; lunch will be available on the premises, or at one of many restaurants nearby.

Please book with Lionel Hooper, 3, Malvern Villas, Bath, BA1 5JS (Tel 0225 330006). If you would like a pack of what's on, what to see and do, and where to stay, (bring the family — let them have a day or weekend out, too) please send a foolscap 61p. S.A.E.

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### **Annual General Meeting —Birkbeck College, LONDON Saturday, 14th May 1994**

*The 1994 Annual General Meeting will be held in Room 401, Birkbeck College, Gresse Street, London, W1P 1PA, 1030 for 1100. The AGM Agenda will be distributed with the April Sheetlines; following the A.G.M. Brian Adams will talk on “From 18' W to Longitude 0° — episodes from the lives of a cartographer and a meridian”*

*The now traditional Map Market will be held in the afternoon, at 1430*

*Lunch will be available at the local hostelry, The Bricklayers Arms.*

*Please inform David Archer, CSS Secretary, if you wish to be booked in for lunch, otherwise you might not have enough stamina to make the Map Market!*

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### **Visit to the Ordnance Survey, SOUTHAMPTON — Friday 17th June, 1994**

A programme of interest to newer members and for others who have not previously visited the Ordnance Survey will be arranged and the visit will commence at 1100. If the meeting is over subscribed, or there is a significant number of previous visitors who wish to attend, a second visit will be arranged in the Autumn, with a different programme. As arrangements need to be made well in advance, **anyone wishing to attend, or who think they MIGHT like to attend, please contact David Archer CSS Secretary, NOW, and certainly not later than tomorrow.**

**Future Meetings , continued**

### Editorial

The second time is always easier than the first — well, so the saying goes. Certainly, I have tried to avoid making the *same* errors as in my first issue of *Sheetlines*, and I must make a number of apologies for errors which occurred. Firstly to George Jasieniecki, for mis-spelling his name; to our previous editor, for mis-attributing one of his articles; to our Chairman, Yolande Hodson for completely omitting one of her articles (the computer ate it!), and to Richard Porter for mis-spelling Gretag in the article on page 39. The original Mr Bartholomew might also have turned in his grave .... For any that I have missed, please forgive me.

One of the pleasant things about this task is the letters which I have received, and the information which I am beginning to appreciate that is available and of which I was unaware. One such item brought to my attention was the publication by *The Irish Times* of a supplement to its edition of 25th May, 1993 about the Irish Ordnance Survey. Not being available any longer at the Head Office in Dublin (the London Office in Fleet Street only retains backcopies for two months). I located a copy in the Central Library, Bristol, so it is very possible that anyone who particularly wishes to read it can find a copy in their local county council main library. However, by kind permission of the Editor, I am reproducing a number of articles from the supplement, and there is also a review of the rest of the supplement by Brian Biddestone.

It is always a sad occasion when a Society has to report the death of a member; Guy Messenger died in November, aged 73. Until the end of his fruitful life he continued to send items to *Sheetlines* and I am pleased to be able to include them in this edition. Regretably, it also includes his last puzzle, many of which have graced the pages of *Sheetlines* and pleasurably taxed members minds.

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### Kenneth Guy Messenger

27 February 1920 - 25 November 1993

Guy Messenger was born in London, but some of his ancestors came from Leicester and other parts of the east midlands, and he lived in Uppingham for most of his adult life. The son of a dentist, he was educated successively as a weekly boarder at a prep school in Hendon (where they wore Eton collars and straw boaters) and then at Felsted School in Essex. He then went to Emmanuel College, Cambridge, changing after a short while from dentistry to botany. After spending most of the war as a staff officer in India, he returned to Cambridge. From there he went to Uppingham School, where his main subject was biology, but where he also taught chemistry. He retired from teaching in 1980, but continued G.C.E. marking work for some years. He also continued to play the double bass in the Uppingham School orchestra and to contribute to the life of the school.

Mr Messenger senior had bought Ordnance Survey maps in the 1920s (with carto-bibliographical consequences sixty years later which he could surely be excused for not foreseeing!), but Guy's early experiences were with the Bartholomew half-inch. After the war he started to buy maps in some quantity, though more for immediate use than for collecting reasons. One particular immediate reason was botany; he was an active member of the Botanical Society of the British Isles, in 1970 he published the Flora of Rutland, and during the last few months before his death botany rather than cartography was his main preoccupation. He was a long-time Fellow of the Linnean Society. One is therefore unsurprised to finding him protesting against the omission of parish boundaries (much used in botanical recording) from the 1:50,000 Second Series. (He acquired a set of the First Series shortly

after it was issued.) However, even in the 1950s as a modestly-positioned and paid schoolmaster, he was buying older mapping, including a fine part-set of the One-inch Old Series. In the late 1970s dealers started to issue catalogues, and this enabled him to expand his collection considerably. Retirement gave him the opportunity both to collect maps and to study them. He was in the first group to join the Charles Close Society, as soon as membership was advertised, though he did so with some reservations, thinking that he would have far more to learn than to offer. He learnt something: he was to offer a great deal, including the first monograph on a twentieth century OS map series, three substantial carto-bibliographical booklets, and numerous contributions to Sheetlines. His interests were broad, and are exemplified by his 'revisions' of the carto-bibliographies in Volumes I and II of the Margary Old Series facsimiles, his work on map covers, his work on pre-1914 Ordnance Survey one-inch maps in colour (some of which remains unpublished), and his article on the One-inch Fifth Edition in Sheetlines 3, which he later dismissed as 'naive', but which contains comments on grid line spacing and sheet line changes of permanent value, of a sort which far too seldom find their way into print.

His greatest contribution to OS studies is, of course, The Ordnance Survey One-inch map of England and Wales, Third Edition (Large Sheet Series): a map study monograph, on which he began work at the turn of 1981-2, and which was published by the Charles Close Society in March 1988. With the Society's subsequent publishing successes it is easy to forget that six years ago a venture like this was distinctly speculative, and that CCS funds were inadequate to pay for the venture. It had to be financed partly by advance subscription and partly by Guy paying some of the bill out of his own pocket, thereby enabling 300 copies to be printed rather than the originally projected 100. The speculation was justified, both Guy and the Society recouped their investment, and it laid the basis for the success of future CCS publications, in both intellectual and financial terms, as the eventual profits formed the nucleus of a publications fund, which has enabled the Society to publish without having to embark on advance fund-raising to pay the printer's bill. This monograph was not the first of the Society's publications; that was a makeshift booklet on the One-inch Seventh Series, issued in time for the Society's Annual General Meeting in May 1986, which relied heavily on Guy's work in various map collections, and, indeed, without which it would probably not have been issued.

Guy was elected to the Society's Committee in 1984, and from 1987 to 1991 he acted as its Publications Manager. As well as storing and distributing the increasing number of publications, he even printed some of them, in the form of back numbers of Sheetlines, run off on the Uppingham school photocopier. Unfortunately, the demand started to outstrip capacity, whilst still being too small to justify using a commercial printer, and it was Guy who, on the spur of the moment at a CCS Committee meeting, had the idea of cutting costs by reprinting in combined volumes. This both cut the printing bill and led to an unexpected rise in the demand for back issues of Sheetlines, and helped the Society out of a very awkward situation. In 1991 this and similar work on behalf of the Society was recognised by the conferment of Honorary Membership. In expressing thanks for the award Guy said that membership of the Society had enabled him to make several new friends at a time of life when the tendency was usually the other way. In conversation earlier, he had said that one of the enjoyable things about the Charles Close Society, unlike certain others to which he belonged, was that there were no axe-grinders. Something else about the Society which he liked was the way in which members were willing to share information rather than to hoard it: he was particularly pleased in March 1993 when two members found a (so far) unique copy of the 1909 printing of 'Third Large' Sheet 118, and passed it on to him. (Incidentally, he was very careful with the use of English and disliked such phrases as 'nearly unique'. And he would not have called either the monograph or the maps the 'Third Large'.) His last substantial contribution to the Society was organising a study meeting in Uppingham on 6 March 1993, on the OS half-inch map.

Though the 'Third Large' study is Guy Messenger's most substantial contribution to Ordnance Survey studies, his outright magnum opus in the conventional sense is probably The Flora of

Rutland. In terms of influence both are almost certainly dwarfed by his real magnum opus, that of teaching at Uppingham School for over thirty years. One suspects that he must have possessed considerable authority as a schoolmaster; as one who only came to know him after his retirement, this writer could not help noticing his gift for being able to put over some comment differing greatly from one's own fixed ideas with such authority that the best one could say was 'Er, well...', leaving him with the field. This was anything but dominating; one suspects he had the valuable quality of being able to communicate with pupils man-to-man. He seems to have been drawn to Uppingham School by its strong tradition in music. Guy's interest in music was considerable. For visitors to his home it took the tangible form of an impressive collection of the music of Mozart on long-playing records; as he feared, in a letter to the Gramophone in January 1986, the displacement of LP by compact disk narrowly defeated his hope that it would one day be 'comprehensive', at any rate on vinyl, but he also enjoyed English church music, and applied himself to such problems as to which of Schubert's works might provide a finale for the Unfinished Symphony. (He was not impressed with the suggestion of using the B Minor entr'acte from Schubert's Rosamunde!) It was unfortunate, to say the least, that increasing hearing difficulties in his last years restricted the sorts of music which he was able to enjoy.

Of Guy's main interests, that in music seems to have interacted least with Ordnance Survey matters, though it probably helped develop his friendships with some similarly-minded CCS members, and his Mozart-collecting is of a piece with his tendency to 'complete sets' of novels by certain authors and of certain OS map series. He was a voracious reader, and took a particular interest in landscapes in fiction: wholly real landscapes, wholly fictitious landscapes, and those which were a mixture of the two, with an unrecorded change somewhere on a railway journey, say. He was interested in railways, as had been his father before him, but his active interest declined with the passing of steam, and with what he saw as the deterioration in the quality of railway journals, which culminated in a letter to one of them in 1978, saying that, after 59 years of family subscription, he was giving it up. That he did not do so a year or two before can be regarded as fortunate, as thereby he might not have come across map dealer's advertisements, and, in 1981, through those map dealers, the Charles Close Society. His reminiscences of past railway journeys, and indeed much else, brought the past to life in a way that it never does in a book. (Notably memorable was a twenty-four hour journey in a troop train from Aldershot to the Clyde in January 1941, prior to embarking for India.) Not that this was done with any histrionics; his approach was very much a plain-cooking one, going for substance rather than for show. He was aided by a very good memory: I have seen him work out a complicated route for driving across London via the Blackwall tunnel, and then traverse it twenty four hours later entirely without prompting. And often, when looking at a map, however old it was, he could recognise a route which he had taken years before. He thoroughly enjoyed motoring, and took a keen interest in the construction of the A1-M1 link (now the A14).

Guy Messenger first introduced himself to the Charles Close Society as 'a botanist with a fixation on OS maps'. As well as writing *The flora of Rutland* (and keeping careful record of subsequent changes), from about 1986 onwards he was interested in the distribution of elms and in their revival in the wake of Dutch Elm disease. Some remarks at a Botanical Society of the British Isles meeting in Glasgow were followed by elm reports from BSBI members all over Britain, and even specimens: one morning in October 1987 the breakfast table was covered with sprigs of elm and elm leaves. 'I told them not to send specimens', he observed with a thoroughly schoolmasterly mixture of authority and resignation as the biggest spray of the lot emerged from a padded bag. This was followed by extensive travel in England and Wales, recording and photographing elms, with a view to proposing a reclassification of the English elms. With characteristic modesty, he once ventured to doubt whether he was a 'scientist', though employing scientific methods; anyone looking at the 'elm albums' compiled following the elm journeys would have been impressed by the thoroughness, and anyone who compares his carto-bibliographical work with that of some other

writers will find a concentration on what has observed rather than what might reasonably be inferred to exist. This rigorous integrity and honesty was the most obvious manifestation of Guy's religious beliefs, which were both strong and undenominational; the revival of the elms suggested to him an analogy with the continuation and resurrection of the spirit after death.

With the passing of Guy Messenger the Society loses one of its earliest and most valued members. For several of us the both the real and mental maps of the east midlands are irrevocably altered.

*Richard Oliver*

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### **Subscription Renewal — 1994/95**

On 1 July I entered my third year as the Membership Secretary of our society. I am thus in a position to make some year-on-year judgments on the membership patterns of the society, and the committee thought that some of these reflections would be of interest to members.

My first duty was to write reminders to those whose membership subscriptions were already overdue by four months, and a month later to remove from the active member list those who still had not paid. Reminders sent at this time over the past three years have numbered 59, 52 and, this year, 66. But the exercise of sending them out is undoubtedly worthwhile, because a month later, only 23, 25 and then 23 members had chosen not to rejoin us. Assuming an average membership total of 300 (a figure which has remained remarkably constant), this means we lose some 7-8% of our membership each year, and recoup much the same in new members.

I am assured that this figure is similar to other societies, and we may therefore view this level of loss as inevitable, even satisfactory. But we surely cannot continue to condone the other statistic these figures reveal, which is that in each of the last three years, around 20% of our membership have not paid their subscriptions as much as four months late. This last year, which was in no way atypical, there were actually 110 members, or over a third of the membership, who had not paid on time, by 1st March. Subscription payment patterns reveal that many of these delay paying until the AGM, and this one event accounts for the vast majority of those who pay between 1 March and 1 July. The fact that more than ever subscriptions were outstanding on 1 July this year derives directly from the fact that the AGM was in Edinburgh, and attracted fewer members than usual. But we should remember that even at the AGM subscriptions are paid six weeks late, and this too should not be considered acceptable.

Our constitution states that subscriptions are due on 1 March each year. This means, we must remember, that we are technically in arrears if they remain unpaid on 2 March. Overdue payment adds immediately and unnecessarily to the society's expenses.

In fact the majority of our membership react immediately to the request for subscriptions that accompanies the Christmas Sheetlines, and I am writing this piece now to encourage those of us who have been more dilatory to do the same. The need will be ever more pressing this year, because I have to tell members that professional commitments will prevent me from dealing with membership matters from late February until the end of May, so to have things cleared before that would obviously be of great benefit to our society. May I therefore ask for members' assistance by writing a cheque now? And may I conclude by asking that those who decide that they must leave us, please send me a letter of resignation?

*Roger Hellyer*  
*Membership Secretary*

## Marginalia

### *General Roy's Baseline on Hounslow Heath*

Leslie Watson of Burton on Trent is seeking information on the end points of General Roy's base line on Hounslow Heath. He is particularly looking for the end points expressed as National Grid references.

Although the base line is depicted on the Popular and 5th edition One-Inch maps and the Half-inch map of Greater London (1935), it is not on the current 1:50,000 Landranger Series, sheet 176. The terminals were determined to be 27,404.2 feet apart (8.353 km), at King's Arbour (north of Heathrow Airport by the A4) and at Hampton Poor House (near the western edge of Bushey Park). By measurement, Mr Watson has estimated the co-ordinates as TQ 078768 and TQ 138709 respectively, which by 'O' level geometry makes the line 8.42 km long — not far off. Is it possible to determine the co-ordinates more accurately (say to eight or ten places)?

*(David Archer has kindly checked his maps and measures the Grid References as TQ 077768 and TQ 137709 from a 1:25,000 map, but somebody might have the co-ordinates to more figures.)*

Part of the One-Inch Popular Edition sheet 114 *Windsor*. General Roy's Base can be seen running diagonally across the map SE to NW.

In passing, it is interesting to note the size of Heathrow Aerodrome in 1931!

At one time in his career your Editor worked in the Royal Navy establishment at Upper Lodge, just east of the southern end of the Base line; the story went that at one time the Lodge was a bordello associated with Hampton Court. If it still was in the time of General Roy, I trust his surveyors were not distracted from their work!



*Mystery sheets from 1937*

Again from Leslie Watson, who recently bought six paper, flat, One-Inch sheets in a roll. All the sheets are 15" by 12" and are described as "Portion of sheet...". They all carry a publication date of 1937, and print codes 5000/37, 2500/38 and 5045/Cr.

	Portion of Sheet	Name	Colours
Scotland	43	Cairngorms	Black, orange, blue, green
England and Wales	61	Mid-Severn Valley	Black, orange, blue
England and Wales	61	Mid-Severn Valley	Orange, blue
England and Wales	102	South Wales Valleys	Black, orange, blue, green
England and Wales	102	South Wales Valleys	Orange, blue
England and Wales	134	South Downs	Black, orange, blue

The sheet numbers and their styles appear to be of the Scotland and England & Wales "Popular" editions. Mr Watson guesses that they were used as teaching aids, but he would be interested to know their true purpose.

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*The 1:50,000 map of Northern Ireland*

Richard Oliver writes: Students of the sheet index on the 1993 printings of Ordnance Survey of Northern Ireland 1:50,000 Discovery Series Sheets 4 and 5 will have noticed that, as well as being revised to take account of the alterations in Donegal to the 1:50,000 sheets of the Republic, three new sheets have appeared, 34A, 35A and 36A; these would appear to be the standard sheets 34-6 (see index in Sheetlines 30, p.9) moved 10 km north, but, even so, containing very little of the province of Northern Ireland. I am advised by OSNI that Sheet 36A will be available by the end of 1993, Sheet 34A during 1994, but that there is no completion date yet for Sheet 35A.

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*The Second Series ('Pathfinders') and forthcoming developments:*

There are four interesting developments in train to be recorded. First, the impending production of 1:10,000 mapping from digital 1:1250 and 1:2500 data has led to a decision that in future the 1:25,000 will be revised independently from the 1:10,000, though presumably information at 1:10,000 and larger scales will continue to be fed to the 1:25,000 and smaller scales. The practical results of this change of policy have yet to be seen.

Second, work is to be carried out on raster-digitising the 1:25,000. Raster digitisation is a second-best to vector digitisation (used for the three larger scales) in that the scope for manipulation by the customer is very limited, but it should at least ensure that the maps do not have to be maintained by obsolescent analogue techniques. Again, the practical effects of the change of policy (I am particularly apprehensive about the image-quality) remain to be seen.

Third, a new revision policy is to be introduced:

Ordnance Survey have become concerned that their 1:25,000 Pathfinder Series is often perceived to be seriously out of date.

`This is being tackled by the introduction of a new fixed 3 or 5 year review cycle for every sheet. The word review is used deliberately as revision will still be based on affordability; whilst the aim is to incorporate worthwhile changes at the review, this may not always be possible.

`The previous review policy was driven [sic] by map stock levels. This meant that the best selling sheets were reviewed frequently, but others could go for long periods without revision.

`In some cases it is quite possible for a sheet to be reviewed several times without any changes being necessary. This means that although the sheet represents the current situation, the user perceives it as being out of date because the revision date remains unchanged. This problem will be solved by showing the last review date on the sheet, even if no changes were made.<sup>1</sup>

It might help were OS to be more forthcoming in future than they have been hitherto as to what the criteria are for revising both these and other small scale maps.

Fourth, we have a new 1:25,000 map series!

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#### *`New "Explorer" map series*

`...OS have announced a new 1:25,000... series, which will become available in March 1994.

`This series aims to fill the gap between the Outdoor Leisure Map Series' and the standard Pathfinder series, for the next most popular leisure areas of Great Britain. It will consist of existing Pathfinder mapping, combined into larger format sheets, overlaid with tourist information. The maps will be available flat, or with a card cover.

`The first titles will be:

1. Kielder Water (20km x 20km single sided)
2. Chiltern Hills North (20km x 20km double sided)
3. Chiltern Hills South (20 x 20 km double sided)
4. Mendip Hills West (30km x 20km single sided)
5. Mendip Hills East (30km x 20km single sided).'

[This builds on the formula espoused by Pathfinder 1126, Gower.] `Paul Franklin, Assistant Manager Publishing, Ordnance Survey, Southampton would welcome... suggestions for additional areas suitable for Explorer treatment, or general comments about the Pathfinder map series.'<sup>2</sup>

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#### *The third Bender?*

Richard Oliver writes: In *Sheetlines* **32**, pp.54-5, I described the origins of the now ubiquitous Bender fold, which made its debut on the OS One-inch New Forest Tourist Map published in 1938, and was publicised in the 1938-9 OS annual report, and mentioned an early German example, Strassenzustands-Karte von Deutschland, 1:1,000,000, of 1939. I have recently found a third early Bender-folded map, Sport- und Tourenkarte der Schweiz, 1:300,000, published by Kümmerly & Frey of Bern; both map and cover bear the code `Bew. No.4015 BRB.3.10.39.', which I take to mean October 1939. The discovery has some topicality, in that a gazetteer of placenames on the map within Switzerland is stapled inside the cover, in the same manner as with OS's new Travelmaster maps. I do not find the map itself cartographically exciting, though it is useful in that it distinguishes narrow gauge and single and double track standard gauge railways, and carries a wide range of tourist symbols; a vivid contrast with the OS 1:253,000 and 1:250,000 then and for four decades afterwards.

<sup>1</sup>-OS Information Paper 12/1993, quoted in British Cartographic Society \Newsletter 93/4.

<sup>2</sup>. Ibid.

The real point of interest concerns the invention and dissemination of the Bender fold. My own theory - which some may recall me demonstrating at a CCS meeting in London in 1987 - is that Mr Bender became exasperated by the tall thin fold long characteristic of the Michelin 1:200,000 and introduced in 1934-5 to the OS Quarter-inch Fourth Edition, and bent one in half. If Mr Bender could do this, so might others, and it therefore becomes a question as to whether the early German and Swiss examples deliberately emulated New Forest, or each other, or whether three separate inventions took place. If Mr Bender could bend a Michelin map in half, so could the Germans and the Swiss! I have the impression that the Bender fold may have caught on slightly more quickly in Europe than it did with commercial map publishers in Britain; it would be interesting to have this supported, or otherwise, by further discoveries of early Bender-folded maps.

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*More towns in London Town (Sheetlines 35 and 37)*

Guy Messenger reported that John Langford had drawn his attention to another two towns in the London area, and he himself had 'discovered' five more areas designated Town .

Norland Town — this was apparently an area to the north of Shepherds Bush and is named in a Railway Clearing House map of 1919; Norland Hall was a mansion on the north side of the turnpike road almost opposite the grounds of Holland House, and is named in the OS One-Inch Old Series Sheet 7.

Portland Town — on the same sheet and was located north west of Regents Park, towards what eventually became Swiss Cottage; Guy confessed that it is almost certainly one which escaped his memory when compiling the first list.

Globe Town — found by Guy on Sheet 1 , situated north of the mile End Road and east of Globe Road. Not far away to the east was Old Ford New Town, while Bromley New Town was a mile away to the south east between Bromley and Poplar. These three appear on the 1873 electrotype of sheet 1.

There was also Mile End New Town between Bow and Stepney, and Battersea New Town south west of Battersea Bridge, both in a Philip's Atlas of 1894.

The total number of towns has now risen to 30!

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*A symbol for supermarkets*

From Bill Barrett: current supermarkets — a blot;  
and when all planning permissions have been taken up — a white elephant

From David Parsons: for in-town supermarkets — SM or a small wire basket  
for out-of -town supermarkets — SM or a wire shopping trolley  
for supermarket with restaurant/cash dispenser/car park— appropriate  
symbol flanked by a knife and fork/symbol containing '£'/symbol on top  
of car.

*Puzzle Corner (set by Guy Messenger)*

If you could follow the whole length of it from start to finish you would pass through 177 National Grid squares, and at the end of the journey would be only 56 km from where you started.

During your journey, provided you always faced in the direction you were going, you would face all points of the compass, some of them many times. At your most northerly point you would be 30' of Latitude to the north of your most southerly; and at your most westerly 50' of Longitude to the west of your most easterly — WHERE? You might hear the sound of gunfire somewhere along yourway, and the sound of cathedral bells somewhere else — WHERE? You would cross just one integral meridian — WHICH & WHERE? Inwhich parish and county would your journey begin, and how many (modern) county boundary boundaries would you cross?

No prizes for answering, nor for deducing the name of your route and that it is all down hill (if imperceptably in parts, especially at high tide)

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### **The Ordnance Survey 1:25,000 map family**

Richard Oliver writes: There are several matters arising from my article in *Sheetlines* 36 which call for comment, amplification and correction.

#### Nineteenth century predecessors

Richard Dean draws my attention to an interesting map, A map of Windsor Forest and its vicinity, surveyed by Henry Walter, revised by Alfred E. Harrison and engraved by J. Dower. This 'new edition' is dated 1856; the map first appeared circa 1830. It is of some interest as the scale seems to be 1:25,344 (the true 2.5 inch scale); one inch to 30 chains (1:23,760) would be more to be expected, Walter being a land surveyor who produced numerous tithe, enclosure and other maps at the 3 and 6 chain scales. The map is rather different from the OS 1:31,680 surveys of the period, as hedgerows are shown, as are landowners, and it is best regarded as a drastically modified estate map rather than as a topographic map. It makes an interesting contrast with OS practice at this sort of scale, both then and later.

#### GSGS 2748 and GSGS 3906 before 1940

Recent investigations by Roger Hellyer suggest that coverage by the 1:20,000 map, GSGS 2748, was rather more extensive than I had supposed, and there may be more than 63 sheets to be found. There may also be rather more pre-1940 sheets of GSGS 3906 than is suggested by PRO OS 1/219; for example, a 'Provisional Edition' of 53/46 NE (Great Driffield) was produced in 1934, in the same manner as the 1940 sheets, i.e. by direct photo-reduction from 1:10,560, and printed wholly in black. Minor differences between this sheet (did it have companions?) and the 1940 sheets are the provision of an adjoining sheet diagram, in the positioning of grid figures, and in the elimination of gaps between constituent 1:10,560 sheets. (The copy seen is an imperfect cancelled one on the back of a 1942 printing of Sheet 44/56 NE.)

#### GSGS 3906 during World War II

In the past few months I have been able to examine some more of the sheets produced during World War II. It would appear that there was a policy of not producing sheets in hybrid styles. This is illustrated by Sheets 56/18 NE (south-east London), which derives from the 1:21,120 map of London, and 56/18 SE (Croydon and Bromley), which is wholly reduced from the 1:10,560, notwithstanding that part of it could have been supplied from the 1:21,120. Interestingly, both have 20 ft interval contours, derived from GSGS 3036; I don't know how widespread this practice was.

Sheet 53/20 SW (Maidenhead and Slough) in its 3rd Provisional Edition form has a note 'Corrected owing to defective Gridding', and has had the 'A.R.P.' building additions in-filled in solid black.

#### The post-1945 Provisional Edition

On the basis of misunderstanding a reference in a 'closed' PRO file (due to be opened in 1995), I said on p.10 of the original article that the Isles of Scilly were only covered by the Provisional Edition as late as 1964. In fact, they were published in the Provisional Edition in 1950, at the same time as much of west Cornwall, though the obsolescent 1:31,680 map of 1933 seems to have easily outsold them. All that happened in 1964 was that the 1933 map and the two standard-sized Provisional Edition sheets were replaced by a 20 x 15 km Provisional Edition-style special sheet; one map in place of three.

On p.13, I said that by the mid 1960s only a limited amount of revision was being carried out on the 1:25,000 Provisional Edition. This remains broadly true, but quite a lot of piecemeal revision (probably derived from that for later editions of the One-inch Seventh Series) was carried out on some sheets, including adding internal details of airfields, and occasionally new housing estates. A few late corrected printings of the Provisional Edition (e.g. Sheet SE 80, 1981, and SU 65, 1983) had extensive new building development shown by extensive swathes of coarse stipple, suitably annotated.

On p.15 I referred to the intended use of the 1:25,000 for civil defence purposes in the event of nuclear attack. Roger Hellyer draws attention to a copy of GSGS 4627, Sheet SU 41 (Southampton), Edition 2-GSGS, code 20,600/9/57, which has been overprinted in red by the OS, (complete with civil unique number 772) with isodose lines for nuclear explosions at Southampton quay (42051055) and Eastleigh (45651875), and 'Fig. 49', suggesting that it was intended for a book with at least 48 other figures. This was presumably for a civil defence manual or something of the sort: can anyone be more specific? It must be a strong contender for the dubious title of the Ordnance Survey's Most Morbid Map!

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### **Short Story: the First OS Dissected Maps**

The Survey's first dissected maps, folded and mounted in sections in OS covers, were an experiment that failed. Their story is to be found in the brief paragraphs tucked away in the annual *Report of the Progress of the Ordnance Survey* at the turn of the century, in the annual *Catalogue of Publications*, and in the contemporary monthly lists of publications that supplemented the catalogue.

The report for 1899–1900, covering the year up to March 1900, mentions a proposal to issue “experimentally” One-Inch maps of some districts<sup>3</sup> cut in sections, mounted and folded for the pocket, at 1s 6d for English sheets and 2s 6d for Scottish sheets. The maps concerned were the standard black outline New Series First Revision sheets hitherto sold by the OS only in flat form. Some were folded so small that — in the manner of maps mounted by OS agents — the margins had to be cut off and the conventional signs panel, scale bar and index to adjoining sheets pasted on the back of the map. Covers, not mentioned in the sources, are in the design H1(2) and H2 of the examples seen.

The monthly publications list for October 1900 shows English sheets 83, 84, 85, 86, 96, 97, 98, 99, 108, 109, 110, 111, 121 and 122 as published. These are the fourteen sheets of the Liverpool and Manchester region noted as published in the 1900–1901 Report. In the monthly list for May 1901

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<sup>3</sup> Not to be confused with the District maps, first published systematically by the OS in 1899, in black outline form with coloured roads, folded in covers. Watch this Space!

sheets 29, 30, 31, 37, 38, 39, 45, 46 and 47 of Scotland are shown as published. These are the sheets covering the area between Glasgow and Oban noted in the 1901–2 Report as being available. In January 1902 the price of the English sheets went up to 2s

The 1901–2 Report also said that the early sheets had enjoyed “a fair sale”, and that more were in the pipeline. Indeed, in July 1902 twelve more English sheets were published: 59, 60, 61, 62, 68, 69, 70, 75, 76, 77 and 78<sup>4</sup>. The 1902 Catalogue of small scale maps<sup>5</sup> further announced that “any other sheets can be specially mounted at the same price”. However, the high point of sales, such as it was, appears to have been reached; and thereafter it was downhill all the way. In the 1902–3 Report it was announced that when the One-Inch mounted and folded coloured map for an area covered by the dissected map became available, the latter would be discontinued. The 1903–4 Report said that since the whole of England and Wales was now covered by the coloured map, no more dissected maps would be kept. The Scottish sheets — and indeed the English ones — were still listed in the 1904 Catalogue.<sup>6</sup> but were all gone from the 1905 edition<sup>7</sup>, leaving only the statement, reiterated in the 1904–5 Report, that maps mounted in sections would be supplied if required — that is, to special order only.

Undoubtedly the decline of the first dissected maps was due to the relatively popularity of the fully coloured map, which had hachured hills, and was available folded in OS covers at the lower price of 1s or 1s 6d. Apart from lying flat when opened — the advantage of being mounted in sections — a dissected sheet had nothing going for it after its coloured rival appeared. It was, however, not dissection itself that had failed. Does anyone know when dissected maps were again listed by the OS as a standard option?

*Tim Nicholson*

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### **More on the ‘Map of East Anglia’ (1914)**

I was prompted by Ian O'Brien's observation (*Sheetlines* 37, p.33) that Richard Oliver's assumption of a non-military origin for the Map of East Anglia was implausible (*Sheetlines* 36, p.2) to look up some references. I began with one quoted by Richard himself, from which he takes the information ‘the whole matter began to be questioned in 1910’ (*Sidelights*: handover notes from Winterbotham to MacLeod, p.177). The full context of this paragraph leaves in no doubt the military origins of the Maps of East Anglia:

... in spite of continued political reassurances, East Anglia was considered a possible area for invasion. It became a matter of War Office policy to pay for the remapping of this area by the Ordnance Survey at the scale of 2½ inches to the mile. The map was to carry secret information and recontouring which was also to be secret ... it is interesting to note however that the original area of resurvey was, afterwards, hurriedly enlarged by the rapid photographic reduction of the six inch showing no secret information and available (if required) for subsequent national use.

In view of this paragraph, it is difficult to see how it became possible to dismiss a military origin for the map. Furthermore, the ‘questionable’ aspects of identifying this map series as ‘defensive’ in

<sup>4</sup> Surviving sheets known to the writer are, for England, 75 (Preston), 76 (Rochdale) and 84 (Wigan); and for Scotland, 45 (Oban).

<sup>5</sup> In 1902 and 1903 the large scale and small scale Catalogues were issued separately.

<sup>6</sup> The Catalogue for England and Wales, publications available at Jan 1, 1904

<sup>7</sup> The Catalogue for England and Wales, publications available at Jan 1, 1905. The separate Scottish Catalogue continued to list sheets 59 to 122 — all the English sheets — until 1908, but this contradicts the England and Wales Catalogue, and should probably be disregarded.

nature seem hard to sustain in view of the fact that Winterbotham's description of them came within a section which was actually headed 'The history of British mapping for home defence.' In addition, the theory that the maps were produced earlier than 1914 for manoeuvres is certainly a pretty one, and may yet be proved, but the evidence of dates of magnetic declination is often tenuous, and in any case, those very features which are cited as more suitable to manoeuvres than to counter invasion purposes, such as the construction of bridges, observation points, etc., are all absolutely fundamental data for a defending or retreating army, as any study of military cartography and topography from the present day back to the sixteenth century will readily illustrate. It follows that topographical information which was vital for home defence would be like gold dust to the enemy, hence the classified nature of the maps. It would seem, therefore, that far from reading too much into the 'secret' status of the maps, there is just as much evidence to support the genuine claim to classification as there is to the opposite view; the fact that otherwise civil mapping also carried this nomenclature cannot be taken as evidence that the Map of East Anglia is therefore non-military in origin.

The contention that the 2½" map was originally viewed as a dual civil/military map is easier to defend, because its direct origins would appear to date not from 1910, but from 1905, for Close, writing to Geoffrey Cheetham in 1948 stated that 'some time about 1905 Edmonds and some others pressed for a map of Britain on that scale' (RGS Archives), and when writing to Winterbotham in 1933, Close recalled that 'as to the 2½ inch map, the genesis of this was the rather persistent complaint of some of the officers of the G[eographical] S[ection], notably Edmonds, that there was no military map of Great Britain' (RGS Archives). His final sentence that 'what we did then was with the full concurrence of the O.S.' might well imply the idea of a possible civil future for this scale, not least, in order to secure its cost-effectiveness. Even so, such deliberations, had they taken place, would not preclude a purely military origin for the first Map of East Anglia, but they might indeed have influenced the selection of an imperial rather than metric scale. However, I would suggest that much more careful study on this subject needs to be undertaken before any further speculations are allowed to darken the printed pages of this journal.

*Yolande Hodson*

And more on the subject from Richard Oliver

Ian O'Brien, and Tim Nicholson, in *Sheetlines* 37, in correspondence and in conversation, have both strongly doubted my suggestion that the 1:25,344 Map of East Anglia (GSGS 3036) was connected initially with the 1911 manoeuvres. My main purpose in the original article was to show that GSGS 3036 was not a 'war map', in the sense of being produced in response to the events of August 1914 (as was the Western Front 1:20,000, GSGS 2742). I must admit that my suggestion that the mapping was originally prepared for use in the 1911 manoeuvres was made without being aware of how the block of sheets prepared at that time (Fig. 1) related to the 1911-12 manoeuvre area; as the accompanying diagram (Fig. 2) shows, they overlap, but substantial areas covered by the one are not covered by the other. The official report on the 1912 manoeuvres (Public Record Office OS 279/47) makes no explicit mention of mapping used, so presumably only the Half-inch manoeuvre area sheets were employed. However, that does not, in my opinion, exclude the possibility of use of the 1:25,344 map having been considered in 1911, but decided against by the time that these manoeuvres were belatedly held in 1912. Even if the main motive in producing the map was as a counter-invasion measure, the manoeuvres would have offered an excellent opportunity to field-test the new map. I never wished to suggest that the map was wholly a manoeuvre map: I have no idea what the costs of preparing such a map would have been, but it would presumably be considerably greater than that of a brace of Half-inch sheets, which could be readily prepared 'off the shelf' from existing material. (The possibility of the Cambridge sheet (85 N.E.) having been prepared in 1911 as part of a small block within the manoeuvre area for immediate use is disposed of by Sheets 109 N.W.

**Figure 1**

The index map on the cover of the 1911–12 Manoeuvre Maps, showing the manoeuvre area, and with the approximate area covered by the first 36 sheets of GSGS 3036 indicated by rough cross-hatching. It will be seen that the two do not coincide, but that a considerable part of the manoeuvre area is covered by GSGS 3036.

**Figure 2**

Cover from Sheet 85 NW of the 1:25,344 *Map of East Anglia*, showing the original (1911–14) extent of GSGS 3036.



and N.E., which are well outside the manoeuvre area, also having been prepared at this time.) Ian O'Brien has suggested that there may be nothing especially unusual in the mapping having been prepared in 1911, as there have been many instances since of mapping prepared on a contingency basis, and only taken to proof stage, full production being delayed until - or if - need arises (as it did with the East Anglia map in August 1914). This I accept, but it may be that, once the mapping had been prepared, there was a change in priorities; from at least 1909 onwards the Ordnance Survey and the War Office were engaged not only in preparing but also in printing various series of maps of north-western Europe, 'for official use only', and perhaps these were regarded as more likely to be called for than a counter-invasion map of eastern England. Is it possible that, had war been averted in 1914, the preparation of the East Anglia map might have been no more than a memento of War Office thinking around 1910-11?

Since writing the original article I have searched in the Public Record Office, but have been unable to find anything which has a bearing on the matter. However, there is an interesting minor change of wording in successive editions of the War Office Manual of map reading and field sketching (H.M.S.O.). In the 1906 and 1912 editions it is stated that 'Large scale maps (2 inches to 1 mile and upwards) are very rarely available in war. The occasions on which they would be required would be limited to deliberate operations, such as a siege.' (1906, p.6; 1912, p.7) In the October 1914 reprint with additions, this becomes 'Large scale maps (2 inches to 1 mile and upwards) are not always available in war. When available they would only be issued to certain units in small quantities. They are especially useful, when squared, to heavy artillery working in co-operation with aeroplanes.' (p.7)

One final point: why was there such a delay before the 1:25,344 map was given a GSGS number? If one had been allocated around 1911, surely it would have been somewhere well below 3000, instead of 3036? That early printings lacked a GSGS number is not significant, as similar examples are known earlier (notably the 1:31,680 map of military land on Salisbury Plain of 1900, allocated number 1471, and the four Half-inch sheets of the environs of London produced by Bartholemew on behalf of the War Office in 1900-01, allocated 1543), but what I find very odd is the apparent failure to allocate such a number.

*Richard Oliver*

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### **Ordnance Survey covers, 1920-45**

Among a small batch of maps added recently to my collection was a nice clean copy of the One-inch Tourist Map Scott's Country, 1921, mounted and folded in cover, style H40. Before making an offer for it I took the precaution of comparing it with the one already in my collection, and found, not greatly to my surprise, that the two covers are not identical, though the maps within are completely so. My new copy has a front cover identical with that in the H40 illustration, and a back cover with a simple rectangular panel in the middle containing the words 'Published by . . . . . Authority of the Ministry Agriculture and Fisheries' (extending over three lines of print). Both covers are large format hinged buff card, the front design printed on glossy paper and stuck on, the back printed directly on the card in black. On the copy already in the collection the words on the back cover are contained in a ornamental cartouche, and the word 'Net' is omitted from the price.

Most of the Scottish Tourist maps dating from this era seem to have first appeared in small format adhesive covers, and I think, but am not certain, that in the earliest versions, the word 'Net' was always omitted, though I have a copy of Rothesay & Firth of Clyde, paper folded in a small format cover with price Two Shillings & Threepence Net, and the back cover blank. But most of my small format covers are without 'Net'.

By analogy with the sequence of changes in cover presentation in the English and Scottish Popular One-inch and the Half-inch Series, which I have now worked out in some detail, I believe the sequence of changes in Tourist Map covers to be:

1. Small Format adhesive, without 'Net', back blank, 1920-c.1926.
2. 'Net' first added about 1926 and used until about 1933 or 1934.
3. Large Format hinged with front cover stuck on and back printed with simple rectangular frame, probably not before 1928, and certainly by 1930.
4. Cartouche on back, perhaps by 1932, certainly by 1934. 'Net' omitted from about the same date.
5. Front cover design direct printed on hinged card from dates that varied with different sheets, depending on size of stocks of small covers that had to be used up.
6. Brief interlude in 1936 when front covers were printed with E R instead of G R.
7. Bender fold Era, perhaps only the Trossachs sheet in the Scottish series, from 1937 onwards.

This sequence has been worked out from my Scottish collection only, but I am pretty certain that it is just as valid for English Tourist and District Maps, and for all three types of mount. What has still to be recorded for certain is that all the tourist sheets did in fact appear in the original small format covers. Also, the onset of Bender fold seems to be a bit of a muddle.

*Guy Messenger*

**"Parallel to the Meridian of Butterton Hill"  
— do I laugh or cry?**

Brian Adams

There was something rather comforting about the inscription "Parallel to the Meridian of Greenwich" found against the eastern borders of a number of the Old Series One-inch maps in southern England, from Kent to Hampshire, and the meridian line itself engraved across or outside the north and south borders of a column of these maps extending from Sussex to the East Riding. This suggested that Britain's first comprehensive series of reliable maps was firmly based upon Britain's own prime meridian, that of its Royal Observatory, which was subsequently adopted as the international zero meridian at a Washington conference in 1884. But the big drawback about Greenwich was that it was nowhere near the north–south centre line of Britain and would therefore have been most inconvenient as central meridian of a national map series, and so the sheet lines of Old Series Part II, Devon, were made parallel/perpendicular to an unspecified west country meridian.

For reasons which I detail in a technical section below, the early Ordnance topographical survey was computed in several portions centred on different triangulation stations across southern England, and in the area of Devon it was referred to Butterton Hill (near Ivybridge) and its meridian of longitude. The line of this meridian, from which base all the map detail was drawn in, was engraved in the southern margin of sheet 24 and the northern margin of sheet 27. Parts III and IV of the Old Series abutted Part II on its west and east sides respectively, and all the sheets in these parts had east or west borders labelled "Parallel to the Meridian of Butterton Hill", on the evident assumption that the borders of Part II had been made parallel to that meridian.

But what no-one, myself included up to now, seems to have noticed is that the meridian of Butterton Hill, as indicated by the markers on sheets 24 and 27, runs across Part II at an angle to the east and west sheet lines. Consequently, neither these lines nor any of those in Parts III and IV were parallel to that particular meridian, whilst those in Part IV were not even parallel to those in Parts II and III (apart that is from the western borders of sheets 17 and 18 which were common with the eastern borders of sheets 21 and 22).



As I conclude in the technical section, the sheet lines of Parts II and III were probably made parallel/perpendicular to the meridian of  $3^{\circ}\text{W}$ , whilst those of Parts I, V, VI and VIII, excluding sheet 10, were similarly related to  $0^{\circ}$  (Greenwich). This left Parts IV and VII to be fitted in between converging sets of sheet lines, with the results that all their sheets were both narrow and tapering. This is the reason for the lack of parallelism in Part IV referred to above, and was also responsible for the two columns of narrow, tapering sheets stretching right up to numbers 88 and 89 (sheets 11 and 13 were also narrow with 45 to 87 narrow and tapering).

I am at a loss to understand how the labelling error could have come about in such a compact organisation as the nascent Ordnance Survey, especially as the map detail was correctly laid down in relation to the true orientation of the sheet lines. But, whilst my immediate reaction to *Parallel to the Meridian of Butterson Hill* is now: "Don't make me laugh", it must be considered tragic that this misdescription has gone unnoticed for so long, and has been taken as gospel by those relatively few writers who have attempted to investigate the construction of the Old Series maps. One further thought: what if there had been Trading Standards Officers in 1813?

### Preliminary Investigations into the projections of the Old Series One-inch Maps

The few mathematical cartographers, myself included, who have attempted to evaluate the above projections have been daunted by the sheer magnitude of the investigations which would be required. But to provide our Chairman Yolande Hodson with some background to the projection used for the Popular Edition maps, which would assist her research into that series, I did some preliminary work on the Old Series which brought to light *inter alia* the startling facts about Butterson Hill meridian recorded above. To avoid overloading the main article with the more technical aspects of the investigations, I separated them out and discuss them here.

1. The calculation and setting down of the early surveys. It was realised in the early years of the Ordnance Trigonometrical Survey that not enough was then known about the size and shape of the Earth to carry out a rigorous adjustment of the main triangulation, but it was still necessary to calculate the positions of the triangulation stations in terms of rectangular co-ordinates so that they could be plotted on the copper plates of the new maps. At that time, too, the calculations were carried out by first adjusting the angles of each triangle to total two right angles, and then doing the computing as though the area concerned was flat.

William Mudge decided, very probably in consultation with Isaac Dalby, that the best way to take account of these factors was to divide the survey into several portions, in each of which one triangulation station was selected as an origin to which the rest were referred in terms of feet from the meridian and from the perpendicular; in other words in feet east or west and north or south. Mudge initially chose six origins spread across southern England at intervals of about sixty miles,—Greenwich, Beachy Head, Dunnose, Black Down, Butterson Hill and St. Agnes Beacon, although Beachy Head was only used for a comparatively small area.; as the survey proceeded northwards four more origins were selected at Clifton Beacon, Delamere Forest, Moel Rhyddlad and Burleigh Moor (from the second of which "Forest" was conventionally dropped by mid-century). The principal stations having been computed, co-ordinates for the secondary stations were calculated on the same origins, and the detail surveys were then fitted in, making the way clear for the One-Inch mapping to be plotted from those origins.

But, referring specifically to southern England, the origins other than Greenwich were not used in constructing the Old Series sheet lines, and hence, though without any surviving evidence of the actual draughting of those sheets, it is evident that the positions of the origins and the directions of their meridians had first to be set down within the sheet lines before the rest of the detail could be

drawn in relation to those origins. So we find the lines of these meridians engraved in the borders and/or margins of the southern swathe of Old Series maps, Greenwich on 5 and 6, and 1 and 47 (of which more below), plus 65, 69, 84, 85 farther north, Dunnose on 10, 11, 12, Black Down on 17, 18, 19, Butterton Hill on 24 and 27, and St Agnes Beacon on 32, 31, 30 and 29. If only this practice had been continued, investigation into the Old Series projections could have been much facilitated.

2. The graduated border round Part I. The first Old Series sheets showed evidence of transition between the privately produced eighteenth century county maps and the scientifically based 'General Survey of England & Wales'. Initially they mapped particular counties, but were already distinctive in being completed to the neat lines across adjoining counties; in addition Part I was provided with the then familiar graduated border, not constructed in conformity with the surveyed detail on the map, but quite probably drawn round the four-sheet map after completion. Technically, the graduation was constructed on the Modified Plate Carrée projection, on which the parallels of latitude were equally spaced horizontal lines and the meridians of longitude were equally spaced vertical lines.

Referring to the draughting methods outlined in section 1, Greenwich Observatory was plotted in its correct latitude and the meridian of Greenwich ran correctly through it, but the further one departed from the zero meridian, the greater the discrepancies between the notional vertical meridians and their true paths across the mapped detail, and between the notional straight parallels and their true curved equivalents. The somewhat obscure note below the south-west corner of sheet 1<sup>8</sup> was presumably intended to warn the map user of these points, but I advance it as a purely personal suggestion that it may also show evidence of an early Ordnance Survey controversy as to the propriety of the inclusion of a noticeably inaccurate border on a properly surveyed map of the new national survey.

3. The sheet lines of the earlier Old Series sheets. As I say in my opening paragraph, the sheet lines of Part II were parallel and perpendicular to an unspecified meridian; but the longitude of that meridian can be deduced from the angle between the sheet lines and the marked meridian of Butterton Hill, known as the convergence of those meridians. It must be appreciated that precise figures cannot be obtained from measurements made on a mounted copper proof, which has shrunk in the proving process and been distorted in the mounting process, but figures accurate to within ten minutes of orientation should be possible. As my measurements suggest that the sheet lines of Part II were parallel and perpendicular to the meridian of 3° 04' West, there seems little doubt that the chosen meridian was, in fact, 3°W.

The sheet lines of Part III were parallel to those of Part II, and were therefore also parallel and perpendicular to the line of 3°W, and I remark here that it was the fact that the meridian of St Agnes Beacon, as indicated by the markers in the margins, appeared to run across Part III at much too great an angle that first alerted me to the fact that the sides were not parallel to the meridian of Butterton Hill as they were labelled.

Returning to the eastern side of the country, as well as Part I, the sheet lines of Parts V (excluding sheet 10), VI, VIII, and X farther north, were all firmly based on the Greenwich meridian, and it is in the area between the sheet lines parallel to 0° and those parallel to 3°W that the real complications start. Not only were the bounding sheet lines of this area converging towards each other northwards, but their distance apart was nowhere near a multiple of a standard sized sheet. What the thinking ahead had been when Part II was schemed can hardly even be guessed at, except that longitude 3°W must have been seen as a reasonable central meridian for the western part of

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<sup>8</sup> The scale of Latitude and also that of Longitude around this Map, being drawn & graduated on a plane projection, the Latitudes and Longitudes deduced therefrom, can only be nearly true near to the Meridian of Greenwich.

Britain as a whole, for it ran quite near the edge of Part II and 4°W would have been more central to that part if a round degree had been thought desirable for its own central meridian.

Dealing first with the particular case of sheet 10, the Isle of Wight, although belonging to Part V it was treated very much as a special sheet and was displaced from the basic sheet pattern. Well known to be the first map to be labelled "Ordnance Survey", my measurements show its central meridian to have been remarkably 1° EAST. This choice must surely have been made to dispose the island more neatly within the sheet lines, a course to which I for one take no exception. Proceeding north to sheets 11 and 12, I have already indicated that they were constructed on the Greenwich meridian and they were rectangular, as sheet 13 was also; they were, however, narrow, the space between sheets 9 and 21 having been divided into three to accommodate sheets 11, 15 and 18, through which two tapering columns of sheets rose from 17 to 89 and from 16 to 88, whilst the third only tapered from 45 to 87.

A short cogitation on those facts will indicate that some very peculiarly shaped sheets could be found in this central trapezium, compounded by the fact that additional origins were brought into use in its northern part. It is in this area in particular that much more work, including some very detailed measurements, needs to be done before any conclusions can be reached on the projections, or possibly lack of projections, involved.

### **One-Inch Old Series map design in the early 1850s**

by Richard Oliver

A great difficulty for the student of Ordnance Survey map design for much of its history is the paucity of material apart from the published maps, and even some of those can prove elusive. The main exceptions are a great body of raw material for sheets 1 to 90 of the One-inch Old Series maps of England and Wales, in the form of the Ordnance Surveyors Drawings and associated hill and revision drawings, and some trigonometrical data for the initial six-inch and larger scale surveys. Anything else is so exceptional that even the discovery of a single unpublished manuscript map is an exciting event. The discovery of a group of several maps is yet more important.

When the late Brian Harley and I prepared the introductory essay for Volume VIII (relating to sheets 91-110) of Harry Margary's facsimile of the One-inch Old Series in 1989-90<sup>9</sup> we examined all the evidence for the background to and timing of changes in map design which we could find in British Parliamentary Papers, the British Library Map Library, the Royal Geographical Society's Map Room, and the Public Record Office, as well maps in numerous public and private collections, and we used every artifice we could think of to work everything we knew into the text. Shortly after we sent the introductory essay to press, Public Record Office class OS 12, which hitherto had contained eight late nineteenth century files on boundaries, was augmented by the addition of sixteen Old Series maps and a sheet illustrating boundary conventions on OS large-scale maps. These maps would appear latterly to have been in the OS Boundary Section. Thirteen of these additions are a significant extension to our knowledge of the development of the One-inch Old Series in the early 1850s. All seventeen additions are described in more detail in the appendix below.

One of the problems for the student of map design and pre-publication processes who has only published maps to work from is in establishing the 'lead-times' involved, between work on a

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<sup>9</sup>Harry Margary, *The Old Series Ordnance Survey maps of England and Wales, Volume VIII, Northern England and the Isle of Man*. With introductory essay by J.B. Harley and R.R. Oliver, carto-bibliography by Richard Oliver, and illustrations by Rodney Fry. Lympe, Harry Margary, 1991.

particular map to a particular specification<sup>10</sup> being started and that map's being printed and published. Often the only dates available are the ostensible dates of field survey and publication, which may need to be interpreted with caution. An extreme instance is the range 1854-93 for One-inch New Series (first edition) Sheet 348. Though 1854 is the earliest field completion date, in fact some of the work on this sheet was probably put in hand in 1848. It had been preceded by an 'Advanced edition published by photozincography' (sic) in 1892; but in the OS annual report for 1873 Sheet 348 is shown as 'engraving'. Sheet 348 as published in 1893 is very much in the New Series engraved style of the 1890s rather than that of the 1870s, and it is apparent that there is a 'missing', unpublished, version of this sheet - or, at least, that part of it which had been surveyed before 1873. A more subtle problem is presented by New Series (first edition) Sheets 272, surveyed 1860-5, ostensibly published in February 1876, and 285, surveyed 1867-71, and ostensibly published in February 1874.<sup>11</sup> On the publication date evidence alone, one would assume Sheet 285 to be the 'earlier' of the two, but there is in existence a copy (unnumbered) of Sheet 272, nearly complete, and printed no later than May 1872.<sup>12</sup> Thus in considering New Series map design it may, on the evidence of Sheet 272, be necessary to allow an interval of four to five years between the commencing of a sheet to a particular specification and its publication, but Sheets 285 and 348 suggest that the time lag was sometimes much shorter. Similarly, the order of eventual publication does not necessarily reflect the order in which sheets were started, and hence there is not necessarily a very close correlation between map design and dates of survey or publication.

Though both the Old and the New Series have an overall homogeneity of appearance, each was subject to numerous and frequent detailed and not so detailed design changes. The size and style of the 'writing' of names is a good illustration of this. On the earliest sheets, published between 1805 and 1825, the writing was fairly bold, but then it became much smaller and finer, though on sheets first published from the early 1840s onwards the size of writing tended to increase, and by the mid-1870s was quite bold. To make a wholesale change in writing so as to assimilate previously-published to new sheets would have been a big job, and it was never attempted with engraved OS maps, even when wholesale revision from circa 1893 onwards provided an opportunity.<sup>13</sup> (Even in the 1960s the replacement of hand- by photo-typeset lettering on early One-inch Seventh Series sheets proceeded fitfully.) The only completely, or nearly, uniform nineteenth century OS map series was the outline One-inch of Ireland, engraved between about 1854 and 1861, which was very fast work by contemporary standards.<sup>14</sup> In northern England and Scotland engraving proceeded much more slowly, and to a considerable degree the design of the map reflected when engraving was started, rather than the few months before publication.

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<sup>10</sup>. 'Specification' is used here in a loose sense; formal specifications for OS map series only seem to have been introduced in the early 1950s. Before then the approach seems to have been rather more casual, and instructions issued by reference to past practice: see, for example, minute 1 in Public Record Office (PRO) OS 1/355 for a 1:25,000 specification of 1936.

<sup>11</sup>. I have written 'ostensibly', as early - 1874-7 - printings of New Series sheets are very hard to find, and comparison of the publication dates given on the maps (which were sometimes altered in later states) and those in the official publication lists (printed in the *Journal of the Royal Geographical Society and Geographical Journal* from 1878 to 1914) shows that there was often a delay of one to three months between the stated publication date of a particular sheet and its being put on sale. The British Library Map Library, for instance, only received its first batch of New Series sheets in 1878, and by comparison of the BLML copies with later electrotype states, I suspect that some at least of these BLML are not in their original state.

<sup>12</sup>. In PRO T1/7200B/11660.

<sup>13</sup>. Indeed, the opposite occurred; on the revised edition of the New Series, former township place names on Sheets 1-73 which one might have expected to be changed from italic to Roman remained in italic. They were only changed to Roman on the Third Edition, published from 1903 onwards.

<sup>14</sup>. J.H. Andrews, *A paper landscape: the Ordnance Survey in nineteenth century Ireland*, Oxford University Press, 1975, pp.272-3.

A particularly obvious design change to the Old Series is the new border design adopted in the 1850s, and applied to sheets 94-110 and to all New Series sheets. Sheets 1-93 of the Old Series have a 'piano keys' border, filling almost the whole space outside the neat line. As a result, when figures for latitude and longitude values were added they were superimposed onto the 'piano keys'. (Latitude and longitude information was introduced onto the Old Series as a result of a recommendation by a Commons Select Committee in 1851.<sup>15</sup>) On the later style border the 'piano keys' are confined to the outer part of the border, so that the latitude and longitude figures appear on a blank ground. When preparing the David and Charles facsimiles in the late 1960s Brian Harley had commented on this,<sup>16</sup> but it was still uncertain whether the northern quarters of sheet 91 and the whole of sheets 92 and 93 had at first been prepared without latitude and longitude, or whether a few sheets were prepared in an intermediate style with latitude and longitude superimposed onto the piano keys before a complete redesign of the border was decided upon. The leisurely publication of sheet 91 did not help to answer this. Sheet 91 S.E. in its outline version (prepared originally for the Great Exhibition in 1851) was known without latitude and longitude, and it was a reasonable deduction that sheet 91 S.W. (ostensibly published 31 December 1847) had originally also been published without this information, and indeed in due course two copies of 91 S.W. in this state were discovered, but as latitude and longitude had been added to the hills version of 91 S.E. before publication at the turn of June/July 1852, and to 91 S.W. at the same time, it could be deduced that the northern quarters of sheet 91 were treated similarly at the same time, and at any rate before they were (ostensibly) published on 31 December 1852. Unfortunately the earliest known dateable copies of sheets 91 N.W. and 91 N.E. date from December 1856 and possibly early 1857, respectively. The additions to PRO OS 12 do not enable this question to be answered completely, but they do indicate that sheets 91 N.E., 92 S.W. and S.E. and 93 S.W. were originally intended to be without latitude and longitude, (and suggest that Sheet 91 N.W. also originally lacked this feature.). They indicate that the practice at this time was to engrave the border completely before any of the detail inside the neat line was started, and open up the possibility that the new border style was decided on in 1852-3; the first sheet to be published with the new border (if publication imprints are to be relied on) was 95 S.E., the engraving of which had started by 31 December 1852; the eight quarters of sheets 92 and 93 were only published between September 1857 and June 1859.<sup>17</sup> This suggests that the redesign of the border had been made by the end of 1852, i.e. whilst the OS was still headed by Lt-Col L.A.Hall and Captain W.D.Gossett. However, it may be that a new procedure was tried with sheet 95 S.E., whereby engraving of the detail was started before the new border design had been finalised, and that the new border style was finalised after Major Henry James had succeeded Hall as Superintendent of the Survey in August 1854. An undated copy of sheet 104 S.E. is known, with outline, names and ornament complete, but with the border very incomplete.<sup>18</sup> (It is also possible that the idea was toyed with of giving Old Series sheets 94 onwards a plain border similar to that adopted for the One-inch maps of Scotland and Ireland.)

Another innovation on the One-inch Old Series in the 1850s was the showing of parish boundaries. It has been explained elsewhere<sup>19</sup> how this came about through the need for maps with

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<sup>15</sup>·B.P.P. (H.C.) 1851 (519) XX, 359, Report from the Select Committee on Ordnance Survey (Scotland), evidence, qq 294, 725.

<sup>16</sup>·See notes to David & Charles Sheets 14-18 inclusive.

<sup>17</sup>·One of the causes of delay was the field-sketching of the hachures; obtaining these from the contours, as on Sheet 91, had not been a success. See Margary (1991), pp.xii-xvi.

<sup>18</sup>·See also the copy of New Series Sheet 271, in PRO MPH 432, which also has 'complete' topography but an incomplete border.

<sup>19</sup>·Margary (1991), p.xxiv. A much fuller account of the Index to Tithe Survey is to be found in Roger J.P. Kain and Richard Oliver, *An index and cartographic analysis of the Tithe Maps of England and Wales*, (Cambridge University Press, in press).



this information for use in conjunction with the 1851 census, and how this information was of necessity supplied from the tithe surveys for that part of England and Wales south of Lancashire and Yorkshire. For those two counties the OS could supply the information from the six-inch survey started in 1841, but for some reason chose to show parish but not township boundaries. The reason for this (which this writer regards as a serious limitation, possibly arising out of a misunderstanding by the officers responsible of the different nature of the 'parish' in different parts of England) is unknown, but there is now evidence that it was originally intended to show both parish and township boundaries, at any rate in those parts of Lancashire and Yorkshire which had been published in the Old Series before 1847. This evidence is copies of sheets 89 N.W. and S.W. and 90 N.E. and S.E. in PRO OS 12, which are marked up with both parish and township boundaries, as a preliminary to engraving. What is not yet clear is whether these boundaries were to be added to the original copper plates for these sheets, or to 'Index to Tithe Survey' duplicates, which was the usual practice for areas south of Lancashire and Yorkshire.

More subtle than the changes in writing, the redesigned border or the addition of parish information, yet probably much more important than those three put together, is the general depiction of topographic detail. This is probably the least studied aspect of the Old Series, not least because it involves the hardest 'grind'. Further work on PRO OS 12 may help to resolve a few problems. The 1850s was a period when OS one-inch map design was in a state of flux, and Old Series sheets 92-95 in particular have a number of features not found on other, earlier or later, Old Series sheets derived from post-1840 larger scale surveys, for example the naming of some country roads<sup>20</sup> and the fragmentary depiction of windmills by symbol, rather than by name.<sup>21</sup> What is striking about these is the patchy and inconsistent coverage, suggesting a change of mind part-way through the engraving of these sheets. The questions which have yet to be answered are, when were these design changes made, and at whose instigation? Were they made before August 1854, under the Hall-Gosset regime, or later, under James? Did James, or one of his subordinates (perhaps his number two, Captain Cameron), decide to revive windmill symbols, and then have second thoughts, or were they a parting gift from Hall and Gosset?

In any historical work, answers rarely turn up ready-packaged, and when they do it is a good axiom to be intensely suspicious of them. The significance of OS 12 is now that it answers questions definitely - it asks new questions, indeed - as that it takes us a little further along the way to a better understanding of the development of the Ordnance Survey One-inch Old Series.

#### **Appendix: notes on PRO OS 12**

These notes are intended to be read in conjunction with the carto-bibliographies in the relevant volumes of the Harry Margary facsimile,<sup>22</sup> where most of the abbreviations are explained. Watermark and embossed printing date (EPD) information follow the sheet number. New states are numbered as a later development of the previous state, e.g. 11+.

OS 12/9-11 are described in the class list as 'Old Series one inch maps: experimental sheets', and are dated '[1881]'. They appear, in fact, to be ordinary sales copies which have been annotated with local government board areas, and there does not appear to be anything either 'experimental' or extraordinary about them.

OS 12/9 - Sheet 87 NW [misdescribed as 87 NE in the PRO class list] -no watermark - EPD 2:1883. - State 13, but railway 3 retains its original name.

<sup>20</sup> See, notably, the northern part of sheet 92 N.W., the eastern part of sheet 93 S.W., and sheet 95 S.E.

<sup>21</sup> There are about a dozen examples of windmill symbols scattered across sheets 93 and 94. The decisions in favour of and then against the showing of windmills by symbol and of road names would appear not to have been made concurrently.

<sup>22</sup> The carto-bibliographies for Sheets 87-90 appear in Harry Margary, *The Ordnance Survey Old Series, Volume VII* (1990) and for Sheets 91-3 in *ibid*, Volume VIII (1991).

MS additions, writing in margin, areas referred to in various colours: 'Morley From Census Returns 1881'; 'Ossett cum Gawthorpe From a plan of Ossett cum Gawthorpe (no heading or date) and Census Returns 1881'; 'Castleford From Census Returns 1881'. Coloured: Borough of Leeds; Morley; Borough of Dewsbury; Ossett with Gawthorpe; Borough of Wakefield; Castleford; Borough of Pontefract.

OS 12/10 - Sheet 87 SW - TJHK, EPD 1:1882 - State 14.

MS additions, as above: 'Barnsley - From Census returns 1881.'; 'Rawmarsh - From Census Returns 1881.' Coloured: Barnsley; Rawmarsh; Rotherham.

OS 12/11 - Sheet 88 NE - no watermark - EPD 8:1868 - State 11+: Ei 1866 bot. l., 19 bnl; still 671 at Bierley, but 243 SW of Huddersfield.

MS additions, as above: 'North Bierley From Census Returns 1881'; 'Cleckheaton From Census Returns 1881'; 'Liversedge From Census Returns 1881'; 'Mirfield. Comprises the parish of Mirfield except that district of Ravensthorpe taken from a map, no heading, from L.G.B.<sup>23</sup> and denoted thereon by the letters A.B.C.D.E.F. Census returns 1881 gives Mirfield (part of).'; 'Batley From Census Returns 1881 and letter from L.G.B. 20.11.84 which says 'Batley Borough is the township.' Coloured: Borough of Bradford; Pudsey; Borough of Leeds; North Bierley; Borough of Halifax; Cleckheaton; Morley; Liversedge; Borough of Huddersfield; Mirfield; Borough of Dewsbury.

OS 12/12-25 are described in the class list as 'Parish Boundaries'.

OS 12/12-23 appear to be 'dry proofs',<sup>24</sup> but the paper is now somewhat faded, and the inked image may have suffered from wear.

OS 12/12 - Sheet 89 NW - watermarked JWT[M] 18... - This is probably State ED; arabic number as State 5.

Margins are fairly complete, without annotation, but with 'H1' in hairline, pencil, top right, and 'ex' in left, right and bottom margins, in pencil: solid boundaries added in red, evidently townships, as township names have sometimes been added, in Index to Tithe Survey (ITS) style, and 'T' (for 'Township') several times below placenames, in ITS style. East margin along neatline has been weakened, to facilitate joining to sheet to east, (for edge-matching purposes). A mid-way north-south pencil line divides the sheet into two equal halves. On rear is an OS MS store stamp, 18:v:1905.

OS 12/13 - Sheet 89 NW - [JW]TMK [18]46 - top margin removed above north neat line; east margin cut for joining, and subsequently restuck (before 1905, see reverse of map). This is probably State 4.

In bottom margin, l to r: 'Parish boundaries inserted Sept. 8/52 -Thos R. Nichols.'<sup>25</sup> 'Boundaries, Red. [illegible signature]' 'for insertion of Parish Boundaries'.<sup>26</sup> On the map parish boundaries are shown by red dotted lines, and parish areas are multi-colour tinted, with parish names in open block, very much larger than on the published maps, and with emphasised initial letter(s). Mid-way pencil line, as on OS 12/12. On reverse: OS MS store stamp store stamp, 18:v:05. 'Exd.' bottom left, in pencil.

OS 12/14 - Sheet 89 SW - [JW]TMK, no date - west margin removed, rest fairly complete, apparently no EPD. North margin broken for joining. Probably State 2+; arabic added as in State 3.

<sup>23</sup>·Local Government Board, a forerunner in some function of the Department of the Environment.

<sup>24</sup>·I.e., they were printed from the copper onto paper which had not been damped. This had the disadvantage that the ink did not 'take' so well as when the paper was damped (as it would be for ordinary 'sales copies', such as OS 12/9-11), thus producing a 'grey' or 'worn' image, but the advantage that paper distortion was greatly reduced. Dry proofs were therefore extensively used as revision documents and for geological survey work.

<sup>25</sup>·On this and the following sheets, this 1852 'insertion' probably refers to the plotting of the parish boundaries on the dry proof.

<sup>26</sup>·This appears to have been written on this and the following sheets shortly after printing in order to indicate the function of the dry proof.

In bottom border: Parish name 'Knowsley' on map face is struck through, with 'Should be Croxteth Park E.P.' in red and 'J.A.H. 11/8/60'.<sup>27</sup> In bottom margin: 'Parish Boundaries Inserted. J.G. Ramshaw 2 - September/52. For insertion of Parish Boundar[torn]'. In east margin, in pencil: 'To be traced for engraving. J.W.C.P. [?], 24/2/60.' [seems to be '60'; might be '62'].

Parish boundaries, names and tinting, and mid-way pencil line, as OS 12/13. On rear: OS MS store stamp 18:v:1905; 'Exd', top left, in pencil.

OS 12/15 - Sheet 90 NE - no watermark, evidently no EPD, margins complete. State 5. Township information added in red and midway pencil line as OS 12/12. Red lines have also been added on seaward parts of some offshore sand banks, possibly as notional 'Point A' boundaries, though they are sinuous. On reverse: OS MS store stamp, 18:v:1905.

OS 12/16 - Sheet 90 NE - JAMES WHATMAN T... - no EPD, margins complete, but torn top right, so arabic lost. Probably another State 5. In bottom margin: 'Parish Boundaries inserted Thos. B. Nichols 27th Augt./52 Do. & Names J.A. Harrison 8/12/55'.<sup>28</sup> Boundaries Exd. [illegible, as OS 12/13.] For insertion of Parish boundaries.' Parish boundaries, names and tinting as OS 12/13. [No north-south pencil line.] Top margin broke at neat line for folding. On reverse: OS MS store stamp 18:v:1905; 'Exd' in pencil, bottom l.

OS 12/17 - Sheet 90 SE - margins complete; no watermark, apparently no EPD. State 4. Similar to OS 12/12, with township information in red, and north-south pencil division: seaward boundaries as OS 12/15, as centre line along Crosby Channel. 'ex' in pencil, top margin, which has been broken along neatline for folding, as has east margin, ditto. On reverse OS MS store stamp 18:v:1905.

OS 12/18 - Sheet 90 SE - margins complete. JAMES WHATMAN T..., apparently no EPD. State ED/4. Similar to OS 12/13, (but no north-south pencil line). In pencil in sea, in SW, 'Traced'.<sup>29</sup> In east margin: 'Boundaries & Names inserted J.A. Harrison 12/12/55.' [Looks like '3', but 5 makes more sense, q.v. ante.] In bottom margin: 'Parish Boundaries inserted by J.Cleman [??] 28th. Augt. 52 Boundaries Exd. [same illegible signature as before] for Insertion of Parish Boundaries.' On reverse: OS MS store stamp 18:v:1905; 'Exd' in pencil, bottom left.

OS 12/19 - Sheet 91 NE - margins complete. JAMES WHATMAN T... 18... Apparently no EPD. East margin broken for folding. Pre-publication state: hachures complete, no publication note, latitude and longitude picked out faintly in margin, but no dicing or figures engraved; the only railway shown is an unnamed one from the south to Lancaster.

Parish names, boundaries and tinting as OS 12/13, etc, but with link lines for detached parts;<sup>30</sup> map is divided into 36 by 2.0 x 2.25" rectangles, in pencil.

In east margin: 'Part of name inserted 18 Jan'y 1854 [?]' [This refers to SLAI [in SLAIDBURN] in red on map face in SE]. In bottom margin: 'Tracings correct' [in pencil]; Boundaries Exd. [same illegible signature as before]; Finished R.J. 30/4/53.<sup>31</sup> Ph. Bounds. inserted by J. Rogan 27th Augt./52. for insertion of Parish Boundaries Inserted Jan'y 25 53 G.Bak[er] [torn]'.<sup>32</sup>

On reverse: 'Exd. except sheets 25 & 26'<sup>33</sup> [in pencil]; OS MS store stamp 18:v:1905.

<sup>27</sup>·This probably stands for John A. Harrison, an engraver, and presumably he thus acknowledges effecting the change.

<sup>28</sup>·Nichols indicates he has inserted the boundaries on the dry proof; Harrison indicates that he has engraved them on the copper.

<sup>29</sup>·Presumably this means traced for engraving; the tracing would be laid face down on the copper plate and drawn over in such a way as to transfer the image to the copper, thereby providing a guide for the engraver.

<sup>30</sup>·These link lines were ubiquitous on Index to Tithe Survey sheets, but were not used on Old Series mapping of Lancashire, Yorkshire and counties to the north; nor, indeed, on any larger scale. It is all the more interesting that their use on the standard one-inch was contemplated at this time.

<sup>31</sup>·I.e. presumably the engraving was finished this day.

<sup>32</sup>·It is unclear what this last entry refers to, unless the parish boundaries in Yorkshire were either plotted or (less likely) engraved as a separate operation from those in Lancashire.

<sup>33</sup>·I.e. the area corresponding to Lancashire six-inch Sheets 25 and 26.

OS 12/20 - Sheet 92 NW - cropped to neatline, no watermark. Pre-publication state; outline seems nearly complete, (but minor omissions, e.g. the circles for Shafts in NE corner), but no names or ornament, and no railways are shown.

Parish boundaries are in red, as are most of the names, but 'Giggleswick' is in black; several of the other MS parish names have been imperfectly scraped out and rewritten, suggesting that there were substantial second thoughts as to name placement.<sup>34</sup> No centre-line; the pleasant light-buff ground-tint effect is probably paper discolouring. On reverse OS MS store stamp 18:v:1905.

OS 12/21 - Sheet 92 SE - RT 1846 - east margin cropped. Top margin broken for folding. Pre-publication state: no imprint, border is original style without latitude and longitude, detail is completed to south edge and railways have 'sleepers', but names have only been engraved fully in the western third the of map, to Addingham-Denholme Park, though they are also engraved lightly in an area roughly corresponding to six-inch Sheet 169.<sup>35</sup>

Parish names and boundaries in red. (No centre line, no tinting)

In top margin: 8, 9, 10, in pencil, ringed; in bottom margin: pencil marks, including 'ANSS' (?), 'Stream corrected', in red with line pointing, 'Parish Names inserted Jany 1854 [torn] Ph and Parliamentary Boundaries inserted ...Harvey (?) 12th. Novr. 1853. Boundaries engraved 7th April 1854 [torn].' On reverse: OS MS store stamp 18:v:1905.

OS 12/22 - Sheet 92 SW - [JW]TMK [1]846. No EPD. Margins complete, top and east broken for folding. Pre-publication state: early-type border, scale not figured, no publication note, outline seems complete except along south edge, where most of the bottom 1/10 inch or so is blank.<sup>36</sup> Names extensively engraved in Lancashire portion, but by no means complete; none in area corresponding to six-inch Lancashire Sheets 47 and 64, for instance. Parish boundaries, tinting and names as OS 12/13. (No pencil centre line.) In west margin, in red, 'To be engraved smaller' (points to OWSHOLME), 'Boundary to be serted' (?), Parish & Parliamentary Boundary' (points to near Whalley). 'In east margin, in red: 'Boundy to be corrected' in red, with link line, twice. In black: 'Parish boundaries inserted by W. Pybus Jan. 5 /54 Parish names inserted by G. Smith May 11/54' In bottom margin: 'Parish & Parliamentary Boundary' (points to near Whalley), 'Boundary marked A.B.C.D. is the County Parish & Parliamentary boundy.' 'Extra Parochial Places to be written much smaller' [in blue]; 'Parliamentary Boundary', [for Clitheroe], 'Detail to be corrected', 'Fences to be corrected' [to assimilate parish boundary with edge of moorland]. 'Ph. Boundaries & names U. [?] ...Harvey 19th Novr 1853.' 'Ph boundaries inserted by J. Rogan 25th. Octr. /52 for insertion of Parish Boundaries'.

On reverse: OS MS store stamp, 18:v:1905.

OS 12/23 - Sheet 93 SW - JAMES WHATMAN T... 18... No EPD. Left margin removed, top partly so. Pre-publication state, no names, no 'sleeper' infill on railways, railway earthwork outer limits only, outline incomplete, e.g. Bolton Percy portion of six-inch Yorkshire Sheet 205, also along south edge. Border is old type, with no indication of latitude and longitude. Scale title and figures are present. Three-fold road classification is clearly evident.

Parish information added as per OS 12/13, etc. Mid-way pencil line, three parish names in red (see below), Bolton Percy and Ryther in pencil only. In top margin, in pencil: See written circular [??], Parish boundaries to be engraved as shown on this sheet. J.Y. [?] Bottom margin, in pencil,

<sup>34</sup> Possibly after the engraving of the other names had been started, and it was found that they conflicted with the original disposition of the parish names.

<sup>35</sup> The names engraved in the western part of the sheet seem to correspond to the area contained in six-inch Sheets Yorkshire 168, 185, 200 and 215.

<sup>36</sup> This is puzzling; see also Sheet 93 SW, below. As there was some eight years' difference between the field-completion dates of the surveys for Sheets 87-90 and Sheets 91-3, some discrepancies along the junction line between the two would be expected, but one might have expected the problem to be resolved by carrying out corrections to the older sheets, rather than 'fudging' the new ones.

same hand 'Let the Parish Dots be put on the plate, but the names will be better left out at present.'  
 'Parish Names of Kirkby Overblow, Addle & Leeds inserted 10th. Novr. 1853 JMH [?]' 'Boundaries  
 inserted by W. Newnam March 26./56.' 'Ph Bou...[torn]...nserted by J.G. Rawstham [?] 28th.  
 Oct./52 for insertion of Parish Boundaries.'

On reverse: OS MS store stamp 18:v:1905

OS 12/24 - Sheet 109 NW - THS - EPD 10:73. Full margins, chewed. State H-1.

Map has two bits of boundary in red at top; there is no indication of the meaning of this.  
 Otherwise it is an ordinary sales copy.

OS 12/25 - title:

'Ordnance Survey of Great Britain.

'These sketches show the method adopted for indicating public boundaries on Ordnance Maps,  
 and the sections exemplify the meanings of the boundary descriptions or mereings.

'All the cases numbered hereon are specially referred to in the 1914 Edition of "Notes on  
 Boundaries".

Lithographed or zincographed, hand-lettered sans serif, 28.5 x 19.95 ins, 19.0 x 16.0 within  
 frame. Purple 'Record Map' stamp.

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### **Mayson's Model of the Lake District 1875**

The model of the Lake District currently in the Keswick Museum, and to which Paul Swindell  
 refers (*Sheetlines* 37, p.4) is not Mayson's, but was made by Joseph Flintoft over a period of  
 seventeen years, and was completed at a scale of three inches to the mile in 1834, in which year it  
 went on view to the public.

The last person to see Mayson's model appears to be the well-known Cumbrian bookseller,  
 Michael Moon (of Roper Street, Whitehaven) who saw all, or part of it, lying against a wall when he  
 was allowed to clear out part of the near derelict Mayson's property in Lake Road, Keswick, about  
 fifteen years ago. The Curator of the Keswick Museum, in a recent letter to the author, stated that  
 she thought it might now be in Ambleside. Mr Moon now has in his possession several items  
 relating to the model, including the original agreement, dated 19 January 1875, between Thomas and  
 Henry Mayson and an apparently Italian model-maker, Raffaelli Monti, of 5 Langham Chambers,  
 Langham Place, London. From this it is apparent that the model was to be constructed out of plaster  
 of Paris in 25 blocks, each corresponding to 25 Ordnance Survey six-inch sheets. The rate was to be  
 £14.10s. per block. The model was to be painted by H.B. Hayes who was to be paid £2.10s for each  
 block.

Each block was to be moulded in parts or 'subdivisions' which were to be fitted together to form  
 the complete block. Every part of the model was then to be fixed in such a way that it would not  
 warp when all twenty-five were mounted together and the whole was to be based on 'and kept to the  
 mathematical faithfulness of the Ordnance Survey.' In addition, the model-maker had to supply a set  
 of 'perfect moulds.' The final model, when complete, measured fifteen feet square, and apparently  
 occupied a large room on the upper floor of Mayson's shop, where it formed a highly popular tourist  
 attraction, 'lit by electric light' for some years. An initial entrance fee was charged, but one of the  
 many posters (all identical to the one illustrated in *Sheetlines* 35) in Mr Moon's has an MS annotation  
 indicating that entrance was free during 'the season', indicating a contemporary reaction to  
 commercial competition - a free attraction would entice more customers into the shop.

The model was well advertised by the Maysons. Also in the Moon collection are large strip  
 posters, colour-printed in blue and red; a large poster (in poor condition), mounted or printed on card,  
 and featuring a pasted-on photograph of the model (this photograph has the appearance of an aerial  
 photo) and the laudatory comments of contemporary luminaries. Among these was G.B. Airy,  
 Astronomer Royal; seven of his letters, dating from August 1879 to March 1880, show that he had  
 ordered pairs of photographs from Mayson (the Maysons were renowned photographers of Lakeland

and published their own postcards) for use with a stereoscope. What appears to be one of these photographs is preserved in the collection, and it would be hard, with the naked eye, to identify it as an image of a model, rather than of the real thing. Its quality amply justifies Airy's congratulatory comments. The final item in the Moon collection is a section of the model itself, about the size of a six-inch quarter sheet, painted, and in fine condition. Contained in its original Mayson's wooden box, it is accompanied by sections of six-inch sheets on which the contours have been highlighted in different colours. Copies of the poster are for sale individually (£30 at present), but the collection would be sold only as a whole, and the asking price at the moment is about £1000. These are undoubtedly items which should be in a public collection, but the appropriate local museums are apparently too indigent to purchase them.

*Yolande Hodson*

### **Did the Ordnance Survey only record what existed?**

John King has raised the question as to whether the Ordnance Survey has shown proposed constructions on any of its maps. The origin of the question is that Bartholomew's map of the Solent area clearly shows the once proposed railway tunnel to run from Lymington on the mainland, under the Solent to the Isle of Wight, and to join the Newport to Freshwater branch between Freshwater and Yarmouth by means of a triangular junction. And Bartholomew's, at least originally, carried the legend "Reduced by permission of the Ordnance Survey".

In the book *History of the Southern Railway* by Dendy Marshall and Kidner, (Ian Allan 1963) reference is made to the proposed tunnel:

On several occasions, the question of making a tunnel has been mooted. Test borings were made in the (eighteen) seventies. A few years before the 1914 war the subject was taken up again; Sir Blundell Maple being a prominent supporter of the scheme. Under the name of the 'South Western and Isle of Wight Junction Railway', a tunnel was to be made under the Solent from the Lymington branch of the L.S.W.R. to the F.Y.N.R. The last attempt to arouse interest in the scheme was after amalgamation; but the Southern Railway, having spent a great deal of money on new boats and pier reconstruction, did not encourage it; and the County Council and the Chamber of Commerce vetoed it, chiefly owing to the cost.

(So when did Bartholomew's first show the tunnel, and cease to show it? And what were the basis of Crutchley's maps showing proposed railways?)

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### **Lake District meeting, 23rd October, 1993**

An informal meeting open to anyone interested in Ordnance Survey Maps

Although the intended formal meeting about Lake District maps to be held in October has been postponed to sometime in 1994, Steve Simpson decided to emulate Tim Nicholson's successful London meeting, and on 23rd October an enthusiastic group of 16 members and visitors met at the Shap Wells Hotel mid-way between Kendal and Penrith, on the old A6. Members journeyed from as far afield as Macclesfield, Southport and Darlington, and visitors came from Lancaster and Ulveston. Your treasurer set out from Chessington at 5 a.m. (!) and everyone was in time for the start at 11 o'clock.

After coffee and biscuits, Tim Nicholson began with "My favourite Map"; in fact "...Maps" as he very entertainingly guided us through a varied selection of maps and ephemera, favourite for

technical, aesthetic or cartobibliographical reasons; or simply because he liked them. No 5th Relief or Killarney sheet here, but highlights for me included a late electrotype of an Old Series quarter sheet, an OS advertisement overprinted on a Popular Sheet of Cornwall, a tea towel with a large scale map printed on it, and an ARP overprint on the standard OS town plan of Southampton. A healthy discussion ensued about the relative merits of the selection before Tim was duly thanked and the floor opened for the audience to show off their own favourites.

Unusually for CCS members, there was a pause before normality was regained and briefcases, plastic bags, rucksacks, tubes and other receptacles sprang open to reveal a marvellous assortment — an Old Series made into strip maps for railway surveyors, non-OS aeronautical charts, OS cover design variations, one-inch geological maps, a 4-sheet Old Series composite map of the West Yorkshire area, as well as many OS sheets covering the Lake District, ranging from the Old Series to the modern 1:2,500 4-sheet tourist maps. Steve had ready access to his own collection and ably demonstrated the tremendous difference in clarity between outline and standard Old Series sheets of the Lake District. There was also an impromptu "Who's got the biggest map?" competition, won convincingly by a huge Old Series composite covering 40 miles around London, plus the south coast from Bognor Regis to Colchester.

Participants were eventually prised away to a superb three course buffet lunch, sharing the dining room with a very quiet (?—*Ed*) group of Northumbrian Young Farmers, canny Lads and Lassies everyone (although your contributor is somewhat biased). At this point, we also bade farewell to Yolande Hodson, who had introduced the proceedings.

Then, back to the action. Steve introduced us to his Bicentenary presentation set of 7th Series final printings, gloves and tissue paper included in the leather bound box. The set gave rise to the 1991 reprinting of the Lowestoft sheet 137 (available from your Publications Manager at a very reasonable £5, including postage and packing). If anyone has ideas for uses of the box, roughly 3' 6" square and weighing some 60 lbs, other than as ballast in a car for icy roads in a Cumbrian winter, Steve will be pleased to hear from you!

The free-for-all began again, only brought to a close as people headed home after a most enjoyable and enlightening day. The remaining five people spent the last hours of daylight (and a magnificent sunset) walking the valley of the Birk Beck towards Tebay; this became known as the first gathering of the CCS Rambling Group, new members welcome, no joining fee. We had hoped to wave to Tim as he journeyed down from Penrith, but the trains "were off", so we contented ourselves with walking up the central reservation of the M6 instead. (This is possible without threat to life or limb; refer to the Landranger sheet 91 for explanation.)

The day for me was polished off with an excellent 5 course meal, which in true CCS/BCS tradition finished around midnight, and at which time it was unanimously felt that October 24th\*, 1994, would be a great date for another Shap meeting. I, for one, will be there and Steve is to be congratulated on arranging a first class meeting.

*David Watt*

*(\* It might be for those who were still there after midnight, but for the rest of the membership the meeting will be on 22nd October! See Future Meetings inside rear cover. — Ed.)*

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### **Visit to the National Railway Museum York, 6th November, 1993**

There seems to be a definite correlation between interest in railways and interest in Ordnance Survey maps. Certainly this was a particularly well attended meeting, with almost 40 members present. So large a party was only feasible through the willingness of our host, Phil Atkins, to show separate groups around his Library both before and after lunch.

The NRM is a branch of the Science Museum. Its library does not compete with the PRO/Scottish Record Office as a repository for railway archives, but is, in origin, a working library for museum

staff (although its accommodation for outside readers has steadily expanded over the years). Its principal primary materials are engineering drawings and works photographs, to which have been added more general railway photographs, bringing its collection to some million negatives. There is an extensive collection of books and periodicals, especially of periodicals devoted to single railway companies.

we were shown examples of its Railway Clearing House maps, which were pleasingly drawn and authoritative, but whose information is generally available elsewhere. Most of the library's OS material has been acquired in a more haphazard way, such as the donation of Irish Coloured Edition One-Inch and ¼ inch maps, and laid out for our inspection. Accessions of this type can yield maps not normally found in institutional collections and thorough delving by the afternoon group produced a Benderfold Leicester & District Popular which generated much excitement.

Other maps laid out by our host included a fascinating map of 1846 drawn for the Board of Trade to show lines built, building, and (most numerous) projected, just at the peak of railway mania, and a one-inch map of the Huddersfield and Manchester Railway and adjacent country of the same year. There was also a set of ten-mile geological maps (including parts of France) designed and drawn by J.A.Knipe and published by Stanfords in 1856. But for usefulness and density of information, it must be difficult to improve on some of the recent railway atlases on open shelves in the reading room, of which a US atlas and a GWR one with tiny track diagrams seemed particularly noteworthy.

The news that the Science Museum was to impose substantial staff cuts on the NRM cast a gloom over the day's proceedings. It is hoped that the Library is able to continue to offer so valuable service.

The Society's thanks goes to Phil Atkins for hosting our visit and for coping with such a large number of Ordnance Survey–Railway devotees.

*Rob Wheeler*



## "ORDNANCE SURVEY - An tSuirbhEireacht OrdonÄis"

Supplement to the "Irish Times" newspaper of Tuesday, 25 May 1993.  
16pp newsprint-quality broadsheet.

How fortunate it is to have a cousin reading postgraduate cartography at University College Dublin! When I visited that city last summer she produced a copy of a supplement, published by the Irish Times (the country's leading quality broad sheet) on 25 May 1993 to mark that day's "Survey Ireland" conference at the Malahide Hotel. Sadly, the newspaper's back-number office in D'Olier Street told me that they had long since sold out of that particular issue. However, my persistence was rewarded when an aunt found another copy she had put away at the time, feeling sure that someone in the family would be interested.

When I told the Editor of "Sheetlines" about my discovery he promptly located a copy in Bristol's Central Library, so it might be worth the while of anyone interested in reading it in full to try there or other similar institutions. He wasted no time in securing permission from the Irish Times to reproduce in their entirety six of the individual articles, which appear separately in this present issue and thus speak for themselves. He then asked me to try to convey to members the flavour of the rest of the contents. This hasn't been the easiest of tasks because, like all such supplements, it consists of a series of (sometimes) overlapping contributions from individual journalists. These seem to have been rather lightly edited, so there is inevitably a degree of repetition when several differing viewpoints are applied to a finite range of subject matter. On balance, however, the various contributors have achieved a most readable amalgam of impressions, aimed of course at the lay newspaper reader rather than the expert.

Many of the articles are illustrated, with a total of 8 colour and 31 black and white reproductions of a wide range of photographs and maps. To my mind the most interesting of these are a pair of satellite images of the Greater Dublin area, which are clearly related to each other despite appearing on widely separated pages. The first is a vertical photograph in 'false colour' (the built-up area in green and the countryside in light brown!) taken from a height of 832 kilometres. The second, imaged by the same ERA-Maptec source, shows a much more appropriately coloured oblique landward view of Dublin Bay, stretching from the Wicklow Mountains through to the Hill of Howth. The vertical axis is increased to bring it more sharply into contrast — quite a 'space odyssey' in its own right!

Unfortunately, since *Sheetlines* is printed only in black and white and definition would be lost in copying soft colours from newsprint, it seems likely at the time of writing that our Editor may not be able to use the last-mentioned image, which I would make my first choice by way of illustration, but he might have to select one rather less dramatic.

It would be tedious in the extreme to attempt to summarise each one of the supplement's 35 remaining articles, so I can really do little more than offer a few snapshot impressions of their wide variety of topics. Many of them clearly derive from the comprehensive 1991 booklet "Ordnance Survey in Ireland — an illustrated record" ( reviewed in *Sheetlines* 33, pp44-45), which was jointly produced by the respective survey departments on both sides of the border to mark the bicentenary of their (British!) origin.

Dublin by satellite, imaged by ERA-Maptec, and showing, left, part of the Dublin and Wicklow mountains, and on the right, Howth Head. Increasing the vertical axis has improved contrast

With that in mind, it seems rather sad that what claims to be an all-Ireland newspaper should have so relatively little to say about the Northern Ireland department, beyond the single article on "Co-operation across the island". What a pity, for example, that the Irish Grid (which is of course derived from a more westerly meridian than Britain's, to which it is accordingly slightly 'skewed') should receive such scant mention, and the 1950-59 primary re-triangulation network none at all, when both happily ignore the existence of the border. To be fair, however, there are several passing references throughout the supplement to the very cordial relationships which exist between both the northern and southern surveys and their respective universities, etc.; notably, in a warm appraisal of his sub-department's work by the Republic's Minister for Finance.

As in Britain, every stage of map making from surveying to printing and marketing has been revolutionised in recent years. The whole process begins with the use of satellite technology through the Global Positioning System and goes on to utilize aerial photography in many different ways. The Irish Air Corps took an early interest here, but systematic coverage began with an archaeological reconnaissance carried out between 1951 and 1973 in co-operation with Professor St. Joseph of Cambridge University. During the next four years the first photographic survey of the whole country was achieved as a joint venture with the French Institut Geographique National. Since then the department has undertaken its own aerial work and built up a huge archive of material which is accessible for study and sale.

Another technological breakthrough is currently taking place, with the use of direct scanning to translate such aerial photography into computer-held digital data in raster or vector form. Ultimately this will dispense with human intervention right up to the printing stage and even beyond, for it is becoming practicable to eliminate routine stockholding of the less commonly required sheets in favour of printing out the customer's exact requirements on demand. As in Britain there is increasing emphasis on licensing the larger customers, such as the public utilities and central and local government, to hold for themselves the computerised data-base material compiled as multi-purpose Geographic Information Systems (GIS). In this context the term "seamless" appears again and again throughout the supplement to describe the way in which, when these developments are complete, the availability of mapped material will no longer be constrained by the arbitrary sheetlines determined by the map makers for their professional convenience. An alleged quote from Napoleon, complaining that "I always seem to be fighting my battles where four maps meet" is used to good effect to illustrate the potential for the customer to request the scale, coverage, colouring and even content of the output to meet his own particular needs.

By the same token an application is currently under development to make it possible to identify parcels of land on a national numbering basis. This could have immense potential, in an agricultural country which is characterised by scattered small holdings, for example in order to show the pattern of land ownership. This study was probably triggered by the immense demand for large-scale rural maps occasioned by the Common Agricultural Policy's "set aside" scheme. Sales of these reached 160,000 instead of the 40,000 expected and produced £1 million additional revenue. On a more esoteric note there were also large sales of a specially-produced map of the County Kerry/Cork area for visitors who flocked to the Eurovision Song Contest at Millstreet!

These points illustrate not only the customer-led revolution in sales and marketing, but also the European dimension which looms larger in Irish thinking than we are used to in Britain. Another example of this is the EC-funded CORINE Land Cover Project, using satellite photography to identify a standardised range of 25 different types of land usage throughout the European Community "from Donegal to the Dodecanese islands". Another Euro development in which the Irish OS is co-operating is the DRIVE project for in-car digital navigation systems. These and several other developments even lead the department's Controller of Mapping to claim the title of being the most advanced organisation of its kind in Europe!

Be that as it may, the needs of the customer are certainly beginning to dominate the departments' thinking. Further articles in the supplement show how survey material is used to produce maps and charts for Ireland's Air Navigation Services Office and Census of Population output for the Central Statistics Office. Commercial uses range from monitoring of power station coal stocks by calculating contours from aerial photographs to supplying customised maps for car-rallying. Already survey material has been used to produce television graphics for golf commentaries and the Irish obsession with sport offers endless opportunities for similar ideas!

Another Irish priority is the education of its youthful population and a lot of thinking has gone into the use of maps at different levels for a variety of subjects. The "Irish Historic Towns Atlas" project is fully described in one of the appended articles, while two separate geographers sing the praises elsewhere in the supplement of the survey's recently-introduced Educational Map Pack as a teaching-aid for their subject. The department itself seems the most likely source of an announcement about its competition utilising the Map Pack material. One wonders, however, whether the prize of a one-day educational tour for the winner's school class was ever claimed, because the entry coupon (stated to be "elsewhere in the supplement") was nowhere to be found! To be fair, of course, the intended route of competition entries would have been direct through schools.

However, perhaps a small word of warning is still appropriate. In another article about the new 1:50000 series, which is at present superseding its 1:126720 'half inch' predecessor, I noticed that the first few provisional sheets were said to be on sale at a discount price to encourage customer comment. Not so in a big Dublin book shop until I produced the reference; a quick telephone call to Phoenix Park produced a profound apology! My only comment would have been that the 'cased' roads in the NI series looked much clearer than their 'uncased' southern equivalents - but I gather that the point has already been dealt with in the regular edition.

Turning from the technical to the department's human resources, it was interesting to read a couple of articles about the staff themselves. One dealt with the way in which the survey had handled the 'natural wastage', redundancy and retraining problems which are inevitable when such an organisation has to change its long-standing way of doing things over so short a period. Like most of the Irish public sector the department is strongly unionised, but the traditional team spirit has ensured a smooth transition from the old to the new. A small regional office structure has been grafted on to the Phoenix Park headquarters, but the lively sports and social tradition has survived. It is easy to imagine old stories being trotted out at such gatherings like the ones told in the supplement about the will o' the wisp, music on a haunted mountain and, believe it or not quite recently, a surveyor's experience of thousands of mice prancing in the beam of powerful light mounted on a trig station - but then, of course, this is Ireland!

Finally, what about the advertisements? These are quite numerous, as is necessary for the economics of such supplements, and often in colour. They come mainly from specialist firms offering associated technology, but it is difficult to see why Cobys Tyre & Auto Services should choose to push their "minder engine immobiliser"— perhaps they visualised surveyors, leaving vehicles unattended while climbing distant mountains, as potential customers? The British Ordnance Survey claimed, somewhat ambiguously, that "we've got Britain covered", while a large full-colour spread from the two Irish departments proclaimed the excellent second edition of their joint "Road Atlas of Ireland" - at last with proper overlap margins. What a pity there wasn't anything from the Charles Close Society seeking new members, as I am sure it would have found some. Perhaps this would be worth trying if a British paper could be persuaded to follow this splendid Irish example of supplement journalism!

*Brian Biddescombe*

*The following articles are reproduced by kind permission of the Editor of the Irish Times; they were selected by the Editor of Sheetlines as being of general interest. There is a degree of repetition of content, as Brian Biddescombe has mentioned.*

## **A taxing task for the military men**

RAY COMISKEY looks at the history of the Ordnance Survey in Ireland

It is tempting to think that, if it hadn't have been for the large matter of taxation and the small matter of a sandbank, the Ordnance Survey might have taken somewhat longer than 1824 to come into existence in this country. Ireland — or parts thereof — had been surveyed before that time; the oldest was the Strafford Survey of almost 200 years earlier, while the best known was William Petty's Down Survey of 1654–9.

By the start of the 19th century, however, time and better measurements had exposed inaccuracies in the maps available. In essence, the *coup de grace* was cumulatively delivered by the changes wrought by agriculture and alterations in townland boundaries over the years; many maps used for local government purposes were, as a result, simply out of date.

What made it all so pressing was the fact that the county cess, a tax which was used to pay for local roads and bridges and much of what local government administration existed at the time, was apportioned on the basis of such small units or townlands. And, as considerable inequalities in the burden of the cess were exposed, a full and proper survey of the entire country was called for.

Whatever initiatives might have been possible — and taken — before the Act of Union left Ireland without a home based parliament, there was an amount of dithering and long-fingering in London after 1800. But when the Admiralty, which had been a proponent of Irish cartography, had one of its sloops wrecked on an uncharted sandbank off the Wexford coast in 1822, it began to press more firmly for some sort of action.

The result, after much debate and a report prepared by a committee of mainly Irish MPs under Thomas Spring Rice, was authorisation

of a survey of all Ireland at a scale of six inches to one mile. Lieutenant-Colonel Thomas Colby was picked for the job on June 22nd, 1824, and with this, effectively, the Irish Ordnance Survey was born.

Colby's brief marked the introduction of large scale mapping at the Ordnance Survey. He selected Mountjoy House in the Phoenix Park (originally built as a private residence in 1728 by Luke Gardiner, the developer who, among other things, built what eventually became O'Connell Street in Dublin) as his headquarters. With Lieutenant Thomas Drummond — a gifted inventor — Colby set in motion a survey which brought amazing technological improvements in such work.

In 1825, a new boundary department under an Irish civil engineer Richard Griffith was set up. His staff liaised with Colby's in the field to show the positions of all the boundaries of parishes and townlands in the country and, in 1830, Griffith's department was given the job of valuing and delimiting the townlands. Colby's and his work thus provided the acreages and valuations needed for an equitable tax system, especially after 1835, when Colby ordered that leading fences should appear on plans in the future, to help in calculating valuations.

There were other names to conjure with in the Ordnance Survey. Lieutenant Thomas Aiskew Larcom, R.E. made an effort in the 1830s to broaden the terms of the survey to include details of history, commerce, geology and natural history, for example.

The result of all this work was that Ireland became the first country in the world to complete national coverage of a map series on such an unprecedentedly large scale.

The partition of Ireland in 1922 created three separately run Ordnance Surveys — one in the Phoenix Park, another confined to Britain and a third, the Ordnance Survey of Northern Ireland, set up in Belfast in the same year. Both Irish bodies were by then

civilianised and under their respective Ministries of Agriculture, but in 1924, the Republic's Ordnance Survey was transferred to the department of Finance for administrative purposes, where it remains to this day

## **Laying the base for the limelight**

COLMAN HIGGINS writes about Drummond and Colby,  
two of the first surveyors of Ireland

Thomas Drummond was one of the most able surveyors that were sent to Ireland in the early 19th century to work on the new survey of the country. In fact, as well as surveying, he held the post of Under-Secretary to the Lord Lieutenant of Ireland for five years, formed the first effective police force here, and invented the lighthouse "limelight".

He was born in Edinburgh in 1797. His father died when he was only three, leaving his mother to bring up their four children. The young Thomas Drummond proved to be a brilliant scholar and a keen inventor. He entered Edinburgh University at the age of 13, where a Professor Jardine saw him as "one of the cleverest of boys".

Two years later, in 1812, he became a cadet at the Royal Military Academy, Woolwich. At this stage he had developed an interest in military engineering, and in 1815 he obtained a commission in the Royal Engineers. At his very first posting he impressed his superiors by inventing a form of floating pontoon which was capable of being dismantled and carried on horseback.

But in 1818, when he was stationed back in Edinburgh, he found it boring and decided to leave the army for the law, entering his name at Lincoln's Inn in London. However, he happened to meet Thomas F. Colby, who was then working on the Ordnance Survey in Scotland, and was persuaded to join the Ordnance Survey in 1820, when Colby was made superintendent.

They worked closely together for the next three years on surveys of Kent, Surrey and Hertfordshire. Then, in 1823, the British Survey was dropped in favour of the Irish Survey. This was begun in the north and worked south and, to achieve very accurate measurements, it needed a good base line. Colby chose to lay it near Magilligan on Lough Foyle in Co. Derry — which was both flat and close to Scotland, so that it could be connected to British lines.

To do this they were using dim lights to pinpoint hilltops, a difficult task in murky conditions. However, from attending the lectures of Brande and Faraday at the Royal



Institution in London, Drummond learned that lime could be used to enhance a burning flame.

Using this principle, he set up his own lamp and reflector on Knocklayd mountain in Co. Antrim, which could be clearly seen by observers from Divis mountain, 40 miles away. Later, in 1825, he used the lamp on Slieve Snaght in Donegal, 65 miles from Divis.

Their success there meant that it was used for most of the other observations in Ireland. Both the lamp and another innovation of Drummond's, a version of the heliostat to help hilltop observation, speeded up the entire survey.

In fact, the strength of the beam from Drummond's lamp was so strong that he suggested that it be used in lighthouses. He made larger versions with special reflection, and Colby noted at one experiment in 1830, the light was able to cast a shadow of his finger on white paper from a distance of ten miles.

For the measurement of the base line at Lough Foyle, both Colby and Drummond devised a measuring apparatus which was able to remain accurate through fluctuations of temperature. The line was remeasured with modern equipment in 1960 and the original result was found to be only one inch out.

In 1831 Drummond left the Ordnance Survey to concentrate on developing his lighthouse lamp, and King William IV was impressed with his drawings. After a number

of government posts, he returned to Ireland as Under-Secretary at Dublin Castle.

He was a popular holder of the office, and was noted for his organisation of the police force and his refusal to force Catholics to pay tithes — in fact, in 1838 the Tithe Commutation Act reformed the old system. He also devised schemes to assist the poor and was the prime moving force behind the Railway Commission.

Drummond married a wealthy heiress, Maria Kinnaird, in 1835, and they had three daughters. But his wife complained that he spent too much time working, and by 1838 he became ill. In 1839 illness forced him to take leave of absence, and although he returned to work in February 1840, he continued to work long hours. In April of that year he fell seriously ill and died.

Fifty carriages attended his funeral at Mount Jerome Cemetery in Dublin, and the chief mourner was Daniel O'Connell. His epitaph read: "Bury me in Ireland, the land of my adoption. I have loved her well and served her faithfully".

He is remembered by a statue in Dublin's City Hall, which depicts him beside a lighthouse, as well as in the names of Mount Drummond Gardens in Dublin and Drummond Park in Derry. And his immortality in the English language is assured by the application of his lamp to theatre stage lighting, the form in which the "limelight" became best known — and the term retains a particular meaning today

## Guides to the past

Recording Ireland's wealth of archaeological and other ancient monuments and remains is one of the many beneficial side-effects of the task of the Ordnance Survey — essentially its main work was aimed at creating data for valuation (and often military) purposes.

KARL JONES examines the background to the Survey's antiquarian antecedents.

Since its inception in 1824, the Ordnance Survey has been concerned to represent the antiquities of the country on its maps. In 1826,

Lt. Col. Colby, Director of the Ordnance Survey, issued instructions concerning "forts, mounds and tombs" which were to be



represented on the new six-inch to one mile maps. Named monuments on the maps were highlighted by the use of a special antiquarian typeface.

During this period the Ordnance Survey relied on scholars such as George Pentrie, John O'Donovan and Eugene O'Curry, the best known members of what came to be called the "Topographical Department", for advice on antiquities. The numerous letters sent to headquarters in Dublin by O'Donovan and his colleagues from all round the country contain a wealth of historical and archaeological detail. Popularly known as the "O'Donovan letters", these are now housed in the Royal Irish Academy and are a major research source for local historians.

In 1842, the Topographical Department was disbanded, though O'Donovan continued to work for the survey on a part time basis until his death in 1861.

The completion of the six-inch survey in 1846 made available for the first time a basis mapped record of the field monuments of the country. This has served as the basis for all subsequent archaeological field survey. As early as 1848, the antiquarian John Windele was using the new maps in Co Kerry. Later in the century they were extensively used by such notable scholars as T J Westropp for his major

study of the forts of Ireland, and by W C Borlase in the compilation of his three volume work *The Dolmens of Ireland*.

The usefulness of the six-inch series of maps for archaeological field work is well known and familiar to all. Less well known, perhaps, are the later "25-inch" plans which date to the period 1864 – 1913, and especially the manuscript field traces on which they are based. These are at a scale of 1:2,500 and in many cases are now the only surviving record of destroyed monuments.

Following O'Donovan's death in 1861 and until the middle of the present century, the Ordnance Survey relied on local referees to authenticate named antiquities on the maps. Some, like T J Westropp, were well equipped for this task; others less so. Recognising the deficiencies of this system and the need for professional advice in regard to the archaeological content of the maps, an archaeological officer was appointed in 1947.

Today the Archaeological Branch continues in this advisory role. Its involvement in the mapping area has increased in recent years, with the production of the new 1:50,000 series of small scale maps designed to cater for the tourist and outdoor pursuit market. Every effort is made to ensure that as many surviving

archaeological monuments as possible are depicted on these maps.

The Archaeological Branch is best known for its survey of Ireland's megalithic monuments (tombs, stone circles, etc.). This work has focused primarily on megalithic tombs. Ireland possesses one of the largest concentrations of these monuments in Europe. Over 1,500 examples are known and include such well known sites as Newgrange and Knowth, Co Meath, Poulnabrone, Co Clare and the extensive cemetery at Carrowmore, Co Sligo.

These great stone monuments, a common form of burial and ritual structure dating from the prehistoric period, are found in Europe all along the Atlantic coast from Spain and Portugal in the south to Denmark and southern Sweden in the north. The builders of these tombs are separated from us in time by some 4,000 – 5,500 years.

To date, five volumes of the *Survey of the Megalithic Tombs of Ireland* covering most of

the western and southern counties have been published. These volumes contain detailed plans, descriptions, photographs and an analysis of the tombs.

The next two volumes of the series are in the course of preparation. In addition, the Archaeological Branch has been involved in excavations at a number of tombs. Surveys of other megalithic monuments (stone circles, stone rows, etc.) have also been undertaken and the results published in a series of papers.

In recent years, increased awareness of and interest in the heritage of the country has led to the discovery of many previously unrecorded monuments. A spokesperson said that the Archaeological Branch "is grateful to other archaeological institutions throughout the country and to its wide circle of contacts among the general public, all of whom have generously provided information on newly discovered sites".

## **The naming of names**

Maps without geographical names would be little more than diagrams or technical drawings, and this is why true map-makers have always been closely concerned with names of places and other topographical features, KARL JONES writes

In the early days of the activities of the British Ordnance Survey in Ireland, those in charge realised that in Ireland the placenames originated mostly in the Irish language. Therefore, from 1830 until the first large scale mapping was completed in 1846, the Survey retained some of the best Irish-language scholars available to decide the most suitable English-language spellings for the placenames of Ireland.

This policy, operated principally by the British Army officers Colby and Larcom, was scientifically sound and reflects to their credit. In addition to the benefits it conferred on the Ordnance Survey, it stimulated the study of the Irish language at a time when the Gaeltacht was at an all time high in terms of numbers, and at an all time low in terms of political influence in Ireland. This was just before the

Great Famine of 1848 and therefore the first Ordnance Survey maps, together with the ancillary documentation, are a most valuable source of social history.

In this century, under an Irish Government, the Ordnance Survey has continued its valuable service to the people of Ireland, not only in the sphere of mapping, but also in the matter of history and language. With the advice of An Coimisiún Logainmneacha / The Placenames Commission, appointed by the Minister for Finance, the Ordnance Survey, through its Placenames Division, is examining the placenames for the purpose of providing the original Irish language forms of the names. The method employed combines literary and linguistic research with traditional local information.

Since the 1970s the Ordnance Survey has had a policy of making maps bilingual as far as possible. This policy is in keeping with general state policy as reflected in national road– signing and street–signing. However, the practical problems of making bilingual maps are only too well–known to cartographers worldwide. If one of the languages is a "latecomer" on the map in question, it requires a very well defined "equality clause" bearing Government authority, to ensure equal rights for both languages on official maps.

The task of providing the correct official Irish–language forms of all placenames has not yet been completed, as it is a slow and careful process very similar to land surveying. The first large–scale mapping begun in the 1820s was a systematic survey of all Ireland from North to South, which provided the present official English–language forms of the names. Current revision proceeds only in those areas where it is particularly required and, consequently, the name research, when intended to service the mapping schedule, does not necessarily produce results for ready publication in other forms. For example, completed work exists for fragments of many counties. However, like a jigsaw puzzle being solved, the picture is gradually filling in and bilingual lists of names are now beginning by county in the series *Liostaí Logainmneacha*.

In the 1970s a map of Ireland on the scale of nine inches to the mile (1:575,000) and bearing about 2,000 names in Irish only was published; the principal names on the series on the scale of one half–inch to one mile (1:126,720) were printed bilingually and the metric series 1:2500 was made bilingual in respect of townland names, while other names and bilingual legends were introduced. Currently, the new series 1:50,000 is bilingual and the policy is to make all mapping bilingual. The work of the Placenames Division makes this feasible.

*The next part of this article was published in Irish, and we are indebted to Leslie Bryan of Trinity College, Dublin, Library for translating it.*

### Placenames

The research team on placenames in the Ordnance Survey was formed for two reasons. Firstly, to establish an organised base for the work of the Placenames Commission to carry out its terms of reference; secondly to give permanent employment to researchers within the state system so that they could remain in the field and accrue benefits from their work experience. One can evaluate the wisdom of this policy from the high quality of the work which is done in the Ordnance Survey concerning placenames. The Ordnance Survey is now recognised as the authority in this field.

Because of the excellent reputation of the Ordnance Survey in these matters its advice and help is constantly sought by private individuals, academic institutions and indeed from every branch of the state system. Owing to the small number of research workers, five to be exact, it is a constant problem to ensure a balanced service to the Ordnance Survey itself and to the state at large.

In 1992, the Ordnance Survey organised a seminar on behalf of the Placenames Commission to discuss in public the importance of the work of placenames. The seminar was principally aimed at local authorities and government departments. It is very evident that this work was not in vain. The Minister of Finance, Mr Bertie Ahern T.D., took part in the seminar and gave a very interesting talk concerning placenames and their intrinsic value. The Minister of the Environment, Mr Michael Smith T.D., did likewise. The proceedings of the seminar were published in a book *The placenames of Ireland in the third millennium* (price IR£ 4.00). An exhibition on placenames was organised as part of the seminar to explain the many aspects of the subject.

The annual congress of the General Council of County Councils will start tomorrow, 26 May, 1993. The OS is especially pleased that the exhibition of placenames will be seen again at the congress as a special request from the General Council. In addition, a member of the OS team is scheduled on the official programme of the congress to give a

paper on 'Irish placenames and the local authorities'.

One good example of publicising placenames are the signposts giving the names of rivers which are to be seen on roads close to

bridges. They are a great enhancement of country signposting and are the result of cooperation over the years of the Ordnance Survey and the Central Fisheries Board.

## **Making history live in the Irish town**

NIALL FALLON interviewed Mary Davies of the Royal Irish Academy  
about a most ambitious — and open-ended — project

A fascination for history lies deep at the heart of one of the seemingly more esoteric uses to which Ordnance Survey maps are put.

High in the recesses of the Royal Irish Academy in Dawson Street, a long-term project is pursuing its course back through Irish history. Mary Davies, cartographic editor and general administrator of the Irish Historic Towns Atlas, is working her way through the early stages of one of the most ambitious projects in the course of recorded Irish history.

The atlas basically will form a record of the topographical development of a selection of Irish towns, big, medium and small. Using as its base the early OS maps of the middle years of the last century, a joint team from the Ordnance Survey Northern Ireland, the Ordnance Survey in Dublin and the Royal Irish Academy began work in 1986 on the atlas.

So far, five towns have been fully mapped and as many more are well in hand. When will it be finished? "I'd prefer to leave that open" says Mary Davies; but this is clearly a long term project.

The topographical recording of Irish towns, says Mary Davies, is excellent. She is particularly enthusiastic about the circa 1870 maps, which give "wonderful" detail — small wonder when some of these maps could be as large as ten or five feet to the mile. This exceptionally large scale enabled the cartographers to record the most minute details, down to individual trees in the gardens of houses in Athlone, for instance. As a keen gardener herself (she is co-editor of the magazine *Irish Gardening*) Mary Davies has checked up on those trees; and they're still there.

Each town is thoroughly recorded topographically in the new atlas and, as a town project is finished, what Mary Davies calls a "fascicle" — actually a type of folder holding documents — is prepared. This folder will contain an historical essay on the chosen town by a recognised authority, a body of topographical information and a series of maps.

The principal map is a four colour plan, drawn initially by the RIA and "designed" by the OSNI to be printed by the OS in Dublin. This map reconstructs the built-up area and the environs as they appeared in the early 19th century, on a scale of about 25 inches to the mile.

Other maps show the contemporary regional setting of the town at that time, and also in its present state as portrayed in the very latest OS maps. Subjects and periods of special interest are also mapped according to the individual needs of each town and the source materials available while, finally, there are also photographic facsimiles of important early relevant maps.

In effect, what these folders amount to is a comprehensive atlas of each town, completed to a very high degree of professional competence and containing a variety of interesting and useful information.

Who buys them? According to Mary Davies, the buyers come from local interests, scholars, libraries, researchers and so on, many of whom come from overseas.

The atlas was the brainchild of Annegret Simms of UCD, but it follows a well defined path, in that many European countries have already published historic town atlases in accordance with guidelines proposed by the

International Commission for the History of Towns, on which Anngret Simms is an Irish delegate. While there is no accepted norm for the atlases in the various countries, Mary Davies says that Ireland's effort has been much admired by others.

So far, as already mentioned, five towns have been completed — Bandon Kildare, Carrickfergus, Kells and Mullingar. Mary Davies was working on Athlone when I visited her in the RIA and work is also being done on other towns. Dublin until about 1610 is the subject of one folder, based on the famous

John Speed map of the city, while Belfast is also on the way.

The cross-Border, all-Ireland aspect is exemplified not alone by the close co-operation of the OS and the OSNI, but also by the fact that both North and South are treated equally (Derry is also on the way). In the end, about 40 towns throughout the island of Ireland will be treated.

Anyone can buy the folders, which cost from IR£15 to IR£18, by applying to the Royal Irish Academy in Dublin.

## Co-operation across the island

EILÍS O'HANLON reports on the high degree of co-operation between the Ordnance Survey and the Ordnance Survey in the North

Since 1922, when the three distinct and independent Ordnance Survey organisations on these islands were first separately established, there has always existed a high degree of co-operation between them.

For obvious reasons, co-operation between the respective offices in Dublin and Belfast has been especially close; and this is something which was strengthened still further after a common reference system was introduced to cover the entire island of Ireland. There has always been a recognition that co-operation was in the common interest of all the Irish people — and it did, furthermore, make sound economic sense.

Co-operation has inevitably led to the development of many successful joint projects. Particularly worthy of note is *The Road Atlas of Ireland*, a recent publication which will surely become indispensable for both seasoned and prospective travellers.

Two years ago saw the 200th anniversary of the Ordnance Survey; in commemoration of this event the Irish OS offices, North and South, closely collaborated in the publication of *Ordnance Survey in Ireland—an Illustrated Record*, which relates the fascinating history of the organisation since its earliest days. A bicentenary exhibition was also held at Dublin

Castle, an event which Vincent Brady, TD (who officially opened the exhibition in November of that year) praised highly as "a tribute to the professionalism and co-operation between these two sister organisations".

The OSNI was established on 1st January 1922, with its original head-quarters on the Antrim Road. (It has, however, long since gone on to other purpose-built sites). Like the OS in the Republic itself, OSNI was "civilianised" and attached to the Ministry of Agriculture. Eleven years later, it was to come under the umbrella of the Ministry of Finance.

After the outbreak of war in 1939, surveys naturally became much more war-related. Many of the 80 staff were deployed to assess the extent of bomb damage in Belfast; and half volunteered for service in the armed forces.

Somewhat ironically, it was the OSNI's own maps which the German air force used to target their bombing raids against Belfast. Those maps were also put to considerable use when the Germans drew up their plans to invade Ireland. Indeed, one of the maps reprinted in the aforementioned joint publication shows quite clearly how the coastline had been marked to indicate precisely where offensive troops might land.

British forces likewise drew on the OSNI maps when considering how to counter these threats.

Soon after the end of the second World War, OSNI began work on a new series of Irish grid large scale maps, followed nine years later by their colleagues in Dublin. Since then, most of the major developments in the field have been technological and the business of compiling accurate and reliable maps has been utterly revolutionised.

In the early 1970s both surveys acquired their first aircraft, and were able to begin systematic aerial photography of their respective dominions.

One important area of co-operation between the two Irish surveys has been in the mapping of sites of archaeological significance. An Archaeological Branch of the OS in Dublin was set up in 1947 to conduct a national survey of megalithic tombs. In its work, it liaises closely with the Department of the Environment north of the border.

Both OS offices, moreover, are involved in a project being co-ordinated from Queen's

University, Belfast, which aims to publish a sequence of books on the original forms of placenames in Northern Ireland.

Of particular significance to people throughout this island is the development of tourism, and in this regard the OS organisations have a major part to play. The publication in 1980 of *Ireland North*, the first of four 1:250,000 Holiday Maps, marked a new stage in the history of north-south co-operation.

The years since then have seen the appearance of other joint publications, such as *The OS Leisure Guide Ireland* and *The Pan-Ordnance Survey Nature Atlas of Great Britain, Ireland and the Channel Islands*.

Computerisation, of course, opens up yet more—and increasingly exciting—possibilities for extending co-operation. The ultimate vision must remain to have a nationwide information system—a computer-based network of databases through which all those involved can be linked together, and in which access is possible at the mere press of a button.

Developments "are constrained only by the imagination", both Irish surveys have pointed out in the booklet released for the 1991's celebrations.

They conclude: "Improved efficiency of access to relevant data will enable greatly enhanced co-ordination among the parties involved, thus minimising duplication of effort on-site and the risk of unnecessary and expensive damage to existing services."

## Membership Questionnaire — An Analysis Of Your Answers

Soon after the AGM in Edinburgh, David Archer rang to ask me if I would be prepared to undertake an analysis of the membership questionnaire and produce an initial summary for the Committee. Being retired, with some time to spare, and a computer to undertake the detailed work, I offered my services.

The analysis proved fascinating, although, as always, it took far longer than I had anticipated. The results were summarised and presented to the Committee in time for their most recent meeting in Stratford-on-Avon on Sunday, 21st November. Since that meeting I have also circulated a complete list of my précis of all the comments received. The secretary also has a complete printout of all the information I have produced.

The Committee thought it would also be valuable for members to have an early indication of some of the highlights from the questionnaire, and the remainder of this article is my attempt to précis the results for you.

### MEMBERS' BACKGROUNDS

Completed questionnaires were received from 135 members, that is some 47% of all members, which I think is a very good response, and thanks from the Society to those members who completed this task. Over one third of the responses indicated that members first learnt of the Society from existing members, which proves the value of personal contact, and suggests one of the main ways we should seek to extend our membership. Other than founder members, a somewhat special category, the next most influential source of membership were libraries of various sorts, which probably indicates the value of our distribution of membership forms.

We asked what prompted members to join, and over half indicated love of maps, which emphasises the importance of the "amateur" side of our membership. One third of our members have joined in the last three years, which means that we are continuing to attract interest. Over 90% of members belong to no other cartographic society, which shows the importance of the Charles Close Society in the map world generally. Reverting to the amateur member status, over 40% of members said that maps and their use played no part in their work. Members like myself, whose interest in and love of maps has developed only from their use in recreation and as a collecting hobby, have therefore an important part to play in making the Society a continuing success.

Less than 20% of members are regularly in contact with more than five other members and probably a goodly proportion of the 80% are in touch with no other member regularly. This emphasises the value of Sheetlines as a means of communication.

Asked whether they used other map collections, over 75% of respondents said that they had used the local library or record office, and almost 50% have used collections in copyright, university or other specialist libraries. This probably implies that many members have some specific interest that they have pursued through such libraries and such interests would make for interesting articles in *Sheetlines*.

Nearly one third of members have had access to other private map collections. Some of these would have undoubtedly been other members collections. This suggests an opportunity for members to arrange local meetings informally to view collections. What about looking through the list of members and contacting your nearest colleagues for an evening of viewing over a suitable beverage!

## MEMBERS' INTERESTS

A substantial majority, some 83%, indicated that the detail on the face of the map was of greatest interest, whilst 94% were interested in the general historical and organisational background to the Ordnance Survey. We had less success in identifying prime interests in specific series, scales or themes, where a wide range of interests emerged, with no dominant theme. This is not unexpected, given the wide range of members' interests generally, but it does suggest a substantial ongoing market for articles and CCS publications.

Hobbyist members (collecting/studying) accounted for over one third of members, whereas 15% said they did not collect maps at all. Collectors can either look at these statistics with satisfaction, in that there are a lot of maps around for swapping or purchase, or with some concern in that there are too many members competing with their collecting interest! Of those members who collect maps, some 90% have over 100 maps, whilst 30% have over 1,000 maps! Anyone remotely interested in politics will know that statistics can be manipulated to any required answer. With that qualification, a rough calculation on the number of maps owned by those members who completed the questionnaire suggests 100,000 maps in members hands. One could argue double that number for all members, and even allowing for substantial duplication, what a wonderful collection of OS material must exist.

Some 60% of members indicated an interest in OS ephemera, whilst over 70% expressed an interest in the technical details of map-making, which suggests another range of potential articles for *Sheetlines*. Those of you with such ephemera or an interest in these subjects — what about a brief article to the editor?

There is a substantial interest in non-OS maps, with over 75% of members indicating a wide range of interests, but enough potential material to provide background articles for *Sheetlines* for the rest of this century!

## WHAT THE SOCIETY IS SEEN TO PROVIDE

Most members gave some indication as to what they most enjoyed from membership and the Committee will be taking these views into consideration in planning the future direction of the Society. Half of the members had bought most of the publications of the Society, which is a most encouraging trend, and only a very small percentage were influenced by the price.

A good response was received indicating the range of topics which members might purchase in the future, and concise guides to specific map series came top of the list.

## SHEETLINES

Just over half of the responders have a complete run of *Sheetlines*, in many cases completed by purchasing the back number booklets. This certainly shows the value members place on *Sheetlines* as a source of information and reference.

There was a good response on what members thought of the contents of recent *Sheetlines*. Some 74% of all comments suggested that it was just right, whilst 19% wanted more, with the main additional suggestions being shorter notes and queries, announcements of new OS maps and more illustrations. Only 6% thought there was too much in recent issues, the main criticisms being length of articles and their profundity.

## MEETINGS AND LECTURES

A small percentage of members are regular attendees, with a third suggesting attendance only if the subject appealed, and one half only if time/place were convenient. A wide range of topics were suggested for future meetings, all we need are members who are prepared to contribute.



Over one half of the members preferred meetings within 100 miles of their home, and half of that group would prefer very short distances. With regard to time and date, half of the returns showed a preference for evening meetings, with one third opting for afternoons. Over 50% of members wanted weekend meetings.

Unfortunately there was little correlation between some of the requirements, and more work is needed on this subject. It is probably fair to summarise that there is a small hard-core of members willing to travel anywhere any time to attend meetings, and at the other extreme there are many members who because of work limitations or travel costs would prefer local meetings, preferably in the evening or weekends. The Committee will need to give more thought to members' needs in the context of meetings.

With regard to the AGM, there was a much more positive response as to probable attendance, with one third of responses suggesting that members would attend if at all possible; one quarter indicating the map mart as a prime reason for attending, and a similar number suggesting the opportunity to meet other members.

One final point which I feel I can highlight as an ex southerner, ex Londoner now residing just in the north, was a preference for more regional meetings, including the AGM in that category. Certainly I thought this year's AGM in Edinburgh was well supported.

#### HOW THE SOCIETY MIGHT IMPROVE

Society members and its Committee should be well satisfied with the health of the Society, in that 98% of members said that their expectations had been fulfilled. More meetings were suggested in 38% of returns, with only 3% suggesting fewer. Similarly more publications were suggested in 56% of returns, with only 2.5% suggesting fewer.

There was a good response of members prepared to help with the running of the Society, with 25% of members prepared to help. A personal comment here, in that too many members underrated their potential capability in this respect, particularly with regard to short articles for *Sheetlines*, or contributing to meetings. What about members swamping the editor with brief articles on their particular interests!

Finally can I just say how much I enjoyed contributing to the Society on this occasion, and how much I have learnt about the Society from this exercise.

*Gerry Jarvis*

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### **Report on the OS/RGS Consultative Committee Meeting of 11 May 1993**

This meeting took place on what must have been the hottest day in May since records began. The full title of this Committee, on which we have had a representative for some years now, is the 'Royal Geographical Society OS Education Committee', and I have to say that, even though I personally have taught 'A' level geography in the past, it does not seem to be the most appropriate committee to represent the views of this Society, geared, as it is, to the needs of educational users. Nevertheless, we receive the same papers as other consultative committees, and it is invaluable to be able to put our views across formally, whatever the forum. Those of you among our members who are involved in the full-time teaching of geography, and who would like to make your ideas about the use and supply of OS maps in education known, are strongly encouraged to get in touch with me so that I can put your views to the committee.

As usual, the agenda was long, and I will here give a précis of a selection of the papers discussed. You will all by now have received a letter from Richard Oliver, inviting you to make your

ideas about the development of OS mapping known to Ordnance Survey. This is part of our response to OS's study into cartographic concepts; with much of the series mapping now under maintenance, and production increasingly being influenced by new technology, OS is seizing the initiative and is reviewing specification and design and the development of new products. I predict a positive reaction to the call for a 1:100,000 series.

Some of you have doubtless needed to use aerial photographs, either for personal or professional reasons, and may be interested to know that the National Association of Aerial Photographic Libraries (NAAPLIB) has entered into an agreement with the Association of Information Libraries to publish a directory of aerial photographic collections. Publication, at an approximate price of £25 per copy, is expected towards the end of this year.

The only graphic to accompany this set of documents was an index showing the proposed Superplan Expansion Programme; already, the major conurbations of London, Bristol, Birmingham Manchester and Glasgow and many other built-up areas are available; by April 1994 the whole of the south east, blocks of the midlands, the north east, south Wales, and central lowlands of Scotland will be covered and the rest, a staggering amount, will be completed by December 1995. The DG's advertising puff claims 'Here in Britain - before anywhere else in the World - we are providing map data for exactly the area required, at the scale best suited to your task.' The final sentence is clearly designed to allay the fears of users of the large scales that they will soon need sophisticated machinery to read a map: 'It demonstrates conclusively that OS intends to go on providing information in the form of both paper and digital maps' - but to a standard format acceptable to the copyright libraries?

The review of future policy for the outline edition of the Pathfinder was occasioned by the realisation that every time a colour version was printed, thirty chart paper monochrome copies were also printed, retailing at £12 each. With over 40,000 copies in store, and an average annual sales of only 1500, rationalisation of production was clearly in order. From 1 June 1993, therefore, the supply of both paper and transparency outline editions of the Pathfinder will become a Fixed Price Service, with printing on demand, at no extra charge. Keen collectors among you will be interested to know that the decision on how to dispose of existing stock, which will be done in order to release storage space, has not yet been taken.

The consultation paper on revision practice contains the following proposed categories of revision on which it asks for comments by major customers: 1) housing developments, commercial and industrial developments, public sector developments and communication networks: all change to be surveyed within six months of construction; 2) agricultural buildings, field boundaries, water, forestry and other rural features, all to be updated methodically on a five-year cycle (ten years in mountain and moorland areas), incorporating 85% of change on each revision; 3) private garages, extensions and other minor alterations to existing buildings to be updated on a ten-year cycle beginning in the year 2000.

Information Paper 2/1993 carries the title 'Ordnance Survey and the Citizen's Charter.' This document, and the accompanying Corporate Plan 1993-1997 and Marketing the Future statements are full of corporate speak. They are designed to assure us that we the customer, come first. The influence of big business management techniques in the writing of these papers is conspicuous by the trite psychological sentiments they express. Surely, it is not necessary to spend money on printing glossy papers which tell us that 'customers are the most important people for OS. Customers don't depend on OS; OS depends on customers. Customers are not an interruption to work - they are the purpose of it. OS is not doing customers a favour by serving them - customers are doing OS a favour by bringing business' - and so on *ad nauseam*. For the *Landranger* mapping we learn that 'market penetration will be increased through improved promotion and packing.' It all makes depressing reading; OS must have been in an appalling state to have to print these reminders to itself. It has to

be said that Bartholomew was doing all this and much more, over a hundred years ago, taking for granted that quality of both product and service were the key to a successful business.

In contrast to this, and on a more positive note, it is a pleasure to record the unanimous praise which was reserved for the Director General's innovative approach to consultation. He has made it clear that the papers which are supplied to the consultative committees can be freely copied and passed on to any interested person. I shall be glad to lend any of the following papers to members, they have only to telephone or write to me:

Minutes of the OS Director General's Conference 1/12/1992;

Information Paper [IP] 1/1993 OS's promotional events calendar;

IP2/93 OS and the Citizen's Charter;

IP3/93 Association of geographic Information Roundtable;

IP4/93 Geographic Information Systems Laboratory;

IP5/93 1:25,00 Pathfinder Outline Edition - future policy;

IP6/93 Address-point;

IP7/93 Project 93 -Object-based data, progress report;

IP8/93 Items of special interest: Cartographic concepts, The OS change team, Service level agreements, Pre-build progress report, Progress with new products, Review of OS International library, Mail order map service, Domesday 2000, National Land Information System, Directory of aerial photograph collections, Coastal zone mapping, Adoption of trig pillars;

Consultation Paper [CP] no 5 Digital update supply;

CP6 spatial reference standards;

CP7 OS revision practice.

*Yolande Hodson*

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**Scottish Popular Edition Map — another misprinted cover**

Tim Nicholson asks "Were they especially liable?". (See *Sheetlines* 23 pp 20 and 26)  
**New Maps and Notes**

*Ordnance Survey of Great Britain*

New publications between 1 May and 31 October 1993 included:

Conventional paper maps:

1:625,000 'Routeplanner', as Sheet 1 of the Travelmaster Series: edition A

(N.B. This appears to have been omitted from the publication reports; it was published simultaneously with the other 'Travelmasters')

1:250,000 'Travelmaster' (no series stated), first publication: sheets 2–9 (all edition A)

1:50,000 *Landranger* (2nd Series): revised sheets: 97, 122, 173, 174, 189, 194 (all edition B).

1:25,000 *Pathfinder* (2nd Series) first publications: 1213, (SS 43/44), Braunton and Lundy Island; 1216, (ST 13/14), Quantock Hills. [The publication of these was anticipated in *Sheetlines* 37, p.22.]

1:25,000 *Pathfinder* (2nd Series) revised sheets: 159 (NH 45/55), 456 (NS 43/53), 590 (NZ 22/32), 624 (TA 08?

/09), 796 (SK 65/75), 857 (TF 22/32), 1230 (TO 84/94), 1331 (SY 58), 1342 (SX 87/97) (all edition B); 699 (SD 41/51), 738 (SJ 28/38) (both edition C).

Digital mapping:

The 1:50,000 scale gazetteer has been reformatted as a standard OS digital product so that it can be integrated with users' own information systems. It is published by 20 x 20 km 'tiles' which complement the similar 'tiles' used for the Colour Raster 1:50,000 mapping.

'Urban-Areas.91': This is a new GIS dataset, and is a collaborative venture between OS, the Department of the Environment and the Welsh Office. It represents the DoE definition of urban areas, at the 1981 and 1991 censuses, as a polygon dataset. The data is taken from 1:10,000 mapping, and includes area measurements for each polygon. 'Applications for such data could include resource location; resource distribution; environmental impact analysis; geodemographic analysis and other census-related investigations.' (OS Publication News, 8/93)

*The Godfrey Edition*

Between 20 July and 29 October 1993 coverage was extended to the following: Aylesbury; Barnard Castle; Batley\*; Becontree; Bishop Auckland; Croydon; Hanley; Llanidloes; Ludlow; Polmont; Stockton-on-Tees & Thornaby; Stonehaven; Sutton Coldfield.

Publication of the Bedford, Darlington and Weymouth groups of maps is now complete.

*Richard Oliver*

\**Editor's note: the observant will have seen, under this heading on p21 of Sheetlines 37, a misprint, which was, in fact, meant to be Batley. My apologies!*

### Book Reviews

Tim Neal and Simon Neal, *Youth Hostels of England & Wales, 1931-1993*. pp 24, A4, pbk, obtainable from S.A. & T.C. Neal, 14 Springfield Avenue, Southbourne, Bournemouth, Dorset, BH6 4EB. Price £3:00; cheques to be payable to S.A. and T.C. Neal.

There are a number of things which I should like to research and write, but don't have the time for, and so it is gratifying when someone else has had the idea, and better still, carries it out. A couple of years ago it occurred to me that it would be interesting to compile a list of youth hostels since their institution in 1931, using one-inch and 1:50,000 OS maps. Messrs Neal and Neal have gone one better, and used the Youth Hostels Association handbooks. They have thereby produced a document of great use to students of OS revision practices. Hitherto, checking of intermediate revision of the one-inch and 1:50,000 has largely been confined to railway information, for which the literature is abundant, and occasional road openings or renumberings, though I know of no ready reference source for these, and they tend to derive from occasional references in sundry local history sources of untested veracity. The Neals have now given us another useful tool. On the Popular, Fifth and New Popular Editions the usual procedure was to show youth hostels by a 'Y' below the place-name; only with the coming of the Seventh Series in 1952 was the practice standardised of showing hostels in situ by a red (latterly magenta) triangle.

Well, almost correct: the hostel at Beverley, in the East Riding of Yorkshire, opened in 1984 has remained in the same place on the ground, but it has moved about on paper: on the latest edition (B, 1992) of 1:50,000 Sheet 107 it is shown about 150 metres north-east of its true position, rather improbably straddling a road and a railway, and I daresay other instances of small but significant errors of this sort could be found. However, whereas the current YHA handbook will set you right at Beverley, you must turn to the Neals to discover what happened, or didn't happen, in Lincolnshire in the 1930s and 1940s. For example, there was a hostel at Hundon, near Caistor, from 1936 to 1940, but one looks in vain for it on the 1937 printing of Popular Edition Sheet 39. On New Popular Edition Sheet 114, issued in March 1947, you will find a hostel at Wainfleet, but in fact it only lasted from 1940 to 1946. It is possible that the Hundon and Wainfleet cases can be explained by the timelag between completing intermediate revision and having the map ready for issue, (was revision from the YHA handbook, or by correspondence between OS and YHA? Wainfleet could be explained by the former), but the Cleethorpes hostel (1957-61) is more interesting. This duly appears of edition A/ (prepared and dated 1957, printed 1959) of Seventh Series Sheet 105, but it does not appear on edition B of that sheet, and this may be symptomatic of a short-lived policy of carrying out intermediate revision at the latest possible stage before printing: this sheet was printed in late November 1961 (the '1962' date on the map is incorrect), and as well as omitting the Cleethorpes hostel, it shows the intermediate stations on the East Lincolnshire Railway as closed; the closure had taken place on 15 September 1961. The closure of this hostel was presumably notified direct from the YHA to the OS. This policy of late-stage intermediate revision was then apparently abandoned, with the result that Seventh Series Sheet 114, edition B, issued in December 1962, shows the East Lincolnshire Railway stations as still open! (This is admittedly not as bad as New Popular Edition Sheet 99, published in 1947, which shows Hull Cannon Street station as open, though in fact it had closed in 1924.) Youth hostel depiction has been subject to similar anomalies, and much more recently. In about 1981 hostels started to appear on the 1:250,000 Routemaster mapping and its derivatives, which include the Ordnance Survey National Atlas of Great Britain, published in 1986, (that's the one with the contribution from Duncan 'Zircon' Campbell). This, based on the re-lettered version of the Routemaster issued in 1985, includes the hostel at Selby, closed after 1982, but omits the Beverley hostel, opened in 1984. Evidently wishing either to atone for this, or else to make itself look even more out of date, the mapping also omits the hostel at Kingston upon Hull, (open 1981-3).

I am enabled to be so specific because of the excellent work of the Neals. They may have published too late to help one OS student, who copied vast swathes of YHA handbooks for map-checking purposes, but otherwise their work is well-timed. I could do without grid references to closed hostels being by 1:50,000 sheet number and six-figure reference, (e.g. 163/204964 instead of SU 204964), and arrangement of detailed information on hostels by current YHA areas, but those are small points. In any case, there is also an alphabetical list of all hostels, which should answer most purposes, and the listing by regions will no doubt suit the more dedicated hostellers who will wish to seek out, for example, Dirt Pot hostel. There is also an analysis of the duration for which some hostels were open. A number of hostels are included which appear never to have opened, the most recent example being the Wisbech hostel. There is much of interest here for students of the historical geography of tourism.

What next? We need comparable lists of hostels for Scotland and Ireland, and perhaps the Neals will provide them. More ambitiously, we need lists of Ministry of Transport road numbers and their changes, of motorway and by-pass openings and similar important road improvements, and of airports, airfields and airstrips. (There have been some county studies of aerodromes, for example Blake et al's *The airfields of Lincolnshire since 1912* (1984), but we need a comprehensive but concise national list.) At present the study of post-1920 small-scale mapping (particularly non-OS mapping) is greatly hampered for want of this information. It could be argued that only the lunatic fringe bother with such maps, but thirty years ago only a lunatic fringe bothered with post-1870 OS maps. Pre-1920 revision checking relies heavily on railway opening information, and collating that can be a slow business.

*Richard Oliver*

Nigel N. James (comp.), *A list of Ordnance Survey catalogues, publication reports & other publications*, pp 96, A5, pbk, Bodleian Library, Oxford, 1993, ISBN 1-85124-031-4, £3:00.

This goes a long way towards fulfilling a long-standing want. It lists the Bodleian Library's holdings of Ordnance Survey catalogues, (both the substantial, usually annual, ones issued between 1863 and 1924 and the skinny affairs issued more recently), the monthly or quarterly publication reports (1882 onwards), the published OS annual reports, post-1970 leaflets, consultative papers (1974 onwards), and a good deal else preserved for a posterity which one hopes will be suitably grateful. (Reading through the list in one sitting is not recommended!) Both Ordnance Survey of Great Britain and of Ireland and Northern Ireland, and Geological and Soil Survey material is listed. It is essential for all OS researchers, and for all curious about the extent of OS modern ephemera.

What it is not, of course, is a comprehensive catalogue of OS catalogues and the like. The next stage must be a union list, covering at least the legal deposit libraries and such important collections as that of the Royal Geographical Society and Public Record Office. The Bodleian collection is impressive, but it is not complete: its run of monthly publication reports begins in 1882, but the RGS has some for 1877-8. (Are these the earliest?) The Public Record Office may prove a more difficult nut to crack, simply because ephemeral items must be sought in less than obvious places. For example, the Bodleian lacks any catalogues published between 1863 and 1873, but you will find one for 1865 at PRO STAT 1/20. Similarly, you will find an 1857 Stanford catalogue, with amendments to 1862 (surely the model for the official catalogues issued from 1863 onwards?), in PRO T1/6397B/18450. I think a few of the later gaps in the Bodleian collection are filled by British Library Map Library holdings, (BLML's publication report holdings have been listed), and of course there are the inter-war leaflets to which considerable attention has been devoted in past issues of *Sheetlines*, which are quite unrepresented in the Bodleian collection. However, Nigel James has provided the essential backbone for such a union list, and readers are strongly urged to encourage future work by purchasing. A little while ago he produced a list of the Bodleian's holdings of OS tourist and district maps, and one hopes for more such lists from this source.

*Richard Oliver*

Brian Short, *The Geography of England and Wales in 1910: an evaluation of Lloyd George's Domesday' of land ownership*, Historical Geography Research Series, no.22, April 1989, pp 104, A5, pbk, ISBN 1-870074-04-1, £4.95.

In the early 1860s Sir Henry James promoted the proposal to resurvey southern Britain at 1:2500 as 'the cadastral survey', and the term had some currency during the next decade, the name being more memorable than the figures. In due course someone looked at a dictionary and saw that 'cadastral' implied a register of property for taxation purposes, and whilst that might be a state purpose compatible with national mapping, it implied more centralisation than the Victorians liked, at any rate in Britain. (That the Ordnance Survey of Ireland was 'cadastral' to the neck had no bearing on the matter at all. Ireland was different. That was amply demonstrated by the low priority accorded to revising the six-inch survey of Ireland.) A national survey with no particular purpose appealed strongly to contemporary ideas about public service neutrality. The Ordnance Survey continues with no particular purpose today, and is expected to cover most of its costs on this basis.

In 1909-10 it looked as though Sir Henry's salesmanship was to be posthumously vindicated. David Lloyd George, as Chancellor of the Exchequer, proposed an incremental duty on land as one of a number of fiscal measures to finance increased welfare and defence spending in his 'people's budget'. The 'people's budget' eventually passed through the parliamentary process (at the cost of a constitutional confrontation and two general elections), and the land tax into the hands of the Valuation Office. The Valuation Office was charged with the valuation of every 'hereditament', and OS maps facilitated this process. Hereditaments were identified and indexed mostly on 1:2500 mapping, but the larger town scales were used in urban areas, and 8000 sheets of 1:1250 enlargements were prepared. In addition, the OS was obliged to suspend most of its regular large-scale revision in favour of a special revision of developing areas, affecting some 2000 of the 51,000 1:2500 sheets. Some of this revision was published as 'Special Editions' of the 1:2500, but most seems to have remained unpublished and confidential to the Inland Revenue until relatively recently. Most of this material is now in the PRO, classes IR 121 to 135, and as well as including standard 1:2500 published sheets and published sheets with the unpublished revision of 1911-12 added in manuscript, there are less expected things, such as the Valuation Office's manuscript copies of unpublished OS revision, and printed advance copies of recently revised 1:2500 mapping, e.g. of Yorkshire and Surrey, which may lack publication information or building infill. Some sheets were destroyed during the Second World War, and replaced afterwards with whatever edition was now current, so there is an element of uncertainty as to what revision covers which area, which at present (I believe) can only be ascertained by requisitioning the actual maps.

The OS's concern with the 'Lloyd George Domesday' ended once the maps had been supplied, but for everyone else the fun was just beginning. Valuations were prepared for every hereditament, and recorded in Valuation Books (now mostly in local record offices) and Field Books (now in Public Record Office class IR 58). In the latter, 'The description was to be as full as necessary in order to make a correct valuation, and in order to defend any future litigation. In practice, descriptions frequently included details of building materials, numbers and use of rooms, comments on repair and condition as well as suitability for the purpose used, facilities, ancillary buildings and their condition, water supply and sanitary facilities and so on. For agricultural holdings, comments on state of cultivation, drainage, land use, etc, are common.' All this information was indexed on the OS sheets. In the event, there was great hostility from landowners, resulting in court actions which often went against the Inland Revenue, and Lloyd George, now at the head of a predominantly Conservative coalition, abolished the increment duty in 1920. However, the maps and field books continued to be consulted until the 1960s.

Though the nature of the material is described as fully as anyone could reasonably wish, the substance of the book is taken up with describing possible historical geographical applications for all

this data. This will no doubt lead to various academic analyses of this Edwardian geographic information system, de facto, but recent observation at the PRO indicates at the moment the main uses for this material are for family history investigations (surely irresistible! assuming that the field book of interest was not destroyed during World War II, as a few were) and for public rights of way investigations. For those alone the book is worth its modest price.

Though I don't wish to run down either the efforts of Brian Short or of the PRO staff who have listed this material, perhaps I may suggest two further cataloguing operations: (1) providing a list which works from OS sheet numbers to PRO numbers, which would be much more user-friendly than the present system, which works from valuation districts to the map numbers, (a reflection of the peculiar law relating to public records rather than of any PRO whim); (2) listing the revision date(s) for each sheet: only by this means will we locate precisely the various unpublished revisions of 1911-12. There is no reason why these two operations need cost the PRO anything, much; the recent operations on the PRO holdings of tithe and enclosure maps, which were financed by outside bodies, ought to provide a model for emulation, and grant application.

*Richard Oliver*

Nick Cotton (compil.), *Cycle tours: 24 one-day routes in Kent, Surrey & Sussex*, Southampton, Ordnance Survey, and London, Hamlyn, 1993, pp 144, A5, pbk, ISBN 0-319-00342-6 (Ordnance Survey) or 0-600-57916-6 (Hamlyn), £9:99. [Also available at the same price: Avon, Somerset and Wiltshire, ISBN 0-600-57913-1; Gloucestershire and Hereford & Worcester, ISBN 0-600-57914-X; Dorset, Hampshire & Isle of Wight, ISBN 0-600-57915-8.]

Regular readers of Sheetlines will be aware of two things: first, OS co-publications are likely to get from me a rough ride if lucky, or otherwise complete disdain if not; and second, I am a strong advocate of an OS 1:100,000 or 1:125,000 series. I first saw these Cycle Tours volumes advertised in an OS monthly publication report, without the subtitle: an important point. I had some difficulty in running them to earth; distribution seems to have been somewhat tardy, at any rate to the bookshops on my regular beat.

Anyway, what have we got? One-day tours? Trips, perhaps? No, tours ('a round; a prolonged journey from place to place': Chamber's). Some of these, er, tours can be joined together, but still they remain, um, trips!<sup>2</sup> If we set aside the semantic problem, we have a collection of 1:50,000 mapping, route directions and brief information on places of interest and 'refreshments' (tea-shops and boozers) for 24 one-day jaunts, 12 on-road and 12 off-road. There is also some advice on riding a bicycle. The route directions include brief notes on terrain, which will no doubt be of some use to those who can't, or won't, read contours. The maps are 1:50,000 extracts which appear to have been cut out and pinned up (joins between sheets are visible, with particularly conspicuous ones on pages 74 and 76), and the routes superimposed on top in yellow, and turns cued in red. Occasionally strange things happen to the colours, as in square 5742 on page 63, where the magenta is omitted.

I suspect that these books are aimed at beginners rather than at more 'advanced' cyclists and map users. I must admit to being antipathetic to a table d'hôte approach such as this, and prefer the a la carte approach implicit in 'conventional' sheet maps, but then, having recently undertaken a 790-mile, three-week, journey by bicycle through East Anglia, Lincolnshire and Yorkshire, I am probably the wrong purchaser and reviewer. But I wish that cycle touring was properly acknowledged by Ordnance Survey by the production of a suitable-scale map. 790 miles with 24 1:50,000 sheets may be good for OS sales and my leg-muscles, but not for my temper, and who but

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<sup>2</sup>-Or have we been misled all these years? Did young aristocrats in the eighteenth century go on the grand trip? Of course, in the 1960s a new use for the world 'trip' was found, which perhaps is considered Politically Incorrect. What, then, are day visitors to Skegness and Southend to be called? Is there something in the fish and chips? We should be told.



me would do that, rather than carry two 1:250,000 sheets? Ordnance Survey seems to have a collective mental block on this point, though I do wonder if the various cycling periodicals and organisations have been pulling their weight as they ought to, in promoting the idea. (There are some who advocate choosing the route from the 1:50,000, and then marking it on dismembered road-atlases. This is fine, if you stick to the route decided weeks earlier.)

Anyway, this is perhaps the place to mention an interesting little map which ought not to be neglected by students and collectors of intermediate scale topographical mapping. It at 1:100,000, of Thetford Forest Park, and is published by Thetford Forest District, Santon Downham, Brandon, Suffolk, IP27 OTJ, (0842-810271), for £1:00. Cartography is by the Forestry Commission, and they have come up with what I fear is the nearest we shall get to knowing, roughly, what a modern OS 1:100,000 might look like.

*Richard Oliver*

***The Ordnance Survey Gazetteer of Great Britain: all names from the 1:50,000 scale Landranger map series, 3rd edition***, Southampton: Ordnance Survey, and London and Basingstoke: Macmillan, 1992. pp xiii, 797, hbk, A4, ISBN 0-319-0036-1 (OS), 0-333-57897-X (Macmillan), £85:00.

I understand that this gazetteer was initially prepared in the early 1980s, at least partly in response to prompting from the Ministry of Defence and the Automobile Association. Rumours of its existence were followed by its publication in fiche form at £92 plus V.A.T. in 1986 (noticed briefly in Sheetlines 17, p.9), and as a conventional hardback book for £50 the following year. A second edition, now £65, followed in 1990, and now we have a third, at £85.

At first sight, £85 seems a frightful sum of money, and I suspect that, if a book club had been persuaded to take an interest (was the attempt made?), the price might be more like £45. In fact, if one compares it with some roughly comparable books, it is quite reasonable. Dr Sarah Bendall's large octavo volume on Cambridgeshire estate mapping (about 400 pages) is £75, Professor Roger Kain's Tithe Survey Atlas (quarto, about 700 pages), is £85, and the Kain and Oliver tithe survey study (quarto, about 800 pages) is expected to cost something in three figures. Admittedly, these three are published by Cambridge University Press, who don't seem to believe in giving owt for nowt, and one might also cite Crispin Jewitt's Maps for Empire, (B5, 536 pages, £75, published by the British Library), but to bring the comparison closer, the Seymour history of the OS is £35 for 440 A4 pages, including plates, but as it has been on offer at the same price since it was published thirteen years ago, that no doubt says something about its sales, (I suspect £60-£70 would be asked were it being published today); and Professor Andrews' history of the Ordnance Survey of Ireland (Oxford University Press), about 400 large octavo pages, will set you back £48. So, by number of pages, this Gazetteer emerges quite well from the comparison. I just hope Ordnance Survey doesn't change its co-publisher to one in a slightly more easterly latitude.

What do you get for your not-that-bad-actually £85? Well, theoretically every name on the 1:50,000, but as fully revised sheets have been appearing at the rate of about fifteen a year, a few names will be on the maps but not in the gazetteer and vice-versa. Full four figure national grid references are given plus latitude and longitude. Layout is in triple column, and in set in the compressed Univers (or a very similar face), similar to that used for districts in towns on the 1:50,000 Second Series. This sometimes makes for difficulty in reading lower case 'll' (as in many Welsh names), for example. A small improvement in the second and third editions as compared with the first, is that hyphenated names of towns are rendered according to common use, e.g. Stoke-on-Trent, whereas originally they were Stoke-On-Trent. This may be thought pedantry, but can be important in 'case sensitive' database, GIS and word-processing applications. (The first edition of the gazetteer

was of great use in adding the current OS form of names to the University of Exeter tithe survey database.) Each column contains one hundred lines, set in blocks of eleven, so that, for example, it is nearly as easy to come up with the statistic that there are twenty 'Frog Hall'-type names as that there is only one Toad Hall: Toad Hall Fm, NZ 7008, on Sheet 94; and that there are one hundred names on the 1:50,000 starting with 'Frog...' as against thirteen with 'Toad...' This may prove that frogs are generally more socially acceptable than toads, but it may also be that toad-buildings are in the wrong place (for example, the Toad Hall Inn in Colwyn Bay, with its 'Ladies' and 'Toads' facilities, which could not be named at a smaller scale than 1:2500), or that the larger toad names have been altered, (for example, 'Toad' in Toad Hole, Toad Hole Hill and Toad Hole Spring on One-inch Old Series Sheet 87 SW as first published in 1841 were altered to 'Todd...' circa 1850), or simply lost, (Old Series Sheet 91 SE, surveyed circa 1843, shows a Toad Hall about 1.25 miles south of St Michaels on Wyre, but it had gone by the 1890s).

For those preferring more obviously economically productive animals, there are 430 names beginning with 'Cow', 58 with 'Pig' (but 22 of those are 'Pigeon') and 133 with 'Sheep' - that is to say, on the 1:50,000 when this gazetteer was compiled.

No doubt some readers will be feeling at this point that £85 is rather a lot to pay for some statistics which may or may not break the ice at parties, and that the fourteen examples of General Wade's Military Road, all in the highlands of Scotland, are definitely unwanted, when one resides in Devon. They may point to the gazetteer of Dorset, listing all the names on the 1:25,000 mapping of that county, (reviewed in Sheetlines 30, p.32); a correspondent of a correspondent draws attention to a series of county gazetteers for Wales, produced by the National Museum of Wales in the late 1960s, and giving full four-figure grid references and One-inch Seventh Series sheet numbers for every name on the One-inch Seventh Series maps.<sup>3</sup> They might even point to the predecessor of the present volume, the gazetteers issued to accompany sheets of the One-inch Fifth Relief Edition; four were issued in 1933-4, and slightly more copies sold. The point is, that the information in this gazetteer might be more widely exploited were a series of regional or county gazetteers to be produced - such, indeed, as have been produced in Scotland by Gazetteer Systems, listing all the names on the 1:25,000, (see Sheetlines 29, pp.-6). How about it, Ordnance Survey?

*Richard Oliver*

The latest issue to hand of the *Cartographic Journal* contains several interesting papers which have a bearing on Ordnance Survey studies.

R.C. Boud, '*Cartographic patronage and the Highland and Agricultural Society: The County geological premium competitions, 1835-1847*' (pp.13-29) describes an enterprise for improving the geological mapping of Scotland, which came to an end once the more geologically complicated parts of the country had been mapped. Further mapping would have been difficult anyway, because of the paucity of suitable topographical base maps before the advent of the OS. Geology and the HAS were extremely important in the early history of the OS in Scotland, and this paper is worth the attention of anyone with an interest in mid-nineteenth century OS matters.

J. Smits, '*The topographic record of The Netherlands 1800-1992 for sale*', (pp.30-39), includes both a summary of post-1800 mapping activity in the Netherlands by the Dutch Topographic Survey, and a survey of the various facsimiles of this mapping which have been published since 1970. It must be conceded that the Netherlands is a much smaller country in terms of area than Great Britain, and does not appear to have (some would say suffer from) the great variety of mapping produced by

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<sup>3</sup>These were formerly sold for £1:00 plus postage, and some at least are still available: enquiries to Department of Botany, National Museum of Wales, Cardiff, CF1 3NP, tel. 0222-397951.

the OS, but, nonetheless, The Netherlands is far ahead in terms of what is available in facsimile at 1:25,000 and smaller scales. In addition, the current 1:25,000 is available in atlas form, and there is a series of twelve provincial atlases of 1:14,000 scale air photographs, taken in 1989. Since 1985 facsimiles of plans of the cadastral survey of 1816-31 have been published; these are very roughly equivalent to the tithe surveys of England and Wales of c.1837-51, of which only a few fragments have been reproduced. One must conclude that historic-cartographic culture is better developed in The Netherlands than it is in Britain.

G.F. Steele, *'The acquisition of maps in digital form in an academic library'* (pp.57-61), describes how Aberdeen University Library did not purchase OS digital mapping because of the excessive cost. (This point is omitted from the abstract; this is 'academic detachment' going too far.) It will be recalled that in August 1992 the OS Director-General, Professor David Rhind, announced that copyright charges would be waived for reproductions of OS mapping in certain publications; it would be nice to think that similar common sense thinking might be applied to the problem of acquisition of OS digital mapping by libraries. Imagination is needed, together with a better understanding of what the market will bear.

D. Fairbairn, *'The future history of our landscape'* (pp.62-7) reports at somewhat greater length the proceedings of the conference at the Royal Society in London on 16 October 1992 which were noticed in Sheetlines 35, pp.29-31. These proceedings are to be published shortly by the British Cartographic Society; meanwhile, here is a useful opportunity for those who wish to catch up with the story so far.

R.P. Kirby, *'Problems of mapping a nature reserve: Aberlady Bay LNR and SSSI'* (pp.72-6), describes the surveying, drawing and printing of a map of Aberlady Bay at 1:7500, on which work began in 1980, and proceeded with both low priority and a low budget, and using comparatively 'low-tech' means, to completion in 1993. (A copy of the map accompanies the journal; it is a very nice production.) It is freely admitted that things would be done differently nowadays, and some figures are given for expected savings using modern 'hi-tech' means. This is one of a number of similar maps of this nature which have been produced during the past twenty-odd years, their *raison d'être* being that OS mapping contains 'little geomorphological information... nothing about ecological habitats and only very generalised information about natural vegetation.'

*Richard Oliver*

Peter Barber and Christopher Board, *Tales from the Map Room. Fact and fiction about maps and their makers*, London, BBC Books, 1993, A4, hbk, £16:99, ISBN 0-563-36784-9.

'Accompanies the major TV series' says the dust-wrapper, and it might be thought (1) possibly ultra vires for Sheetlines to review it, (2) unnecessary, in view of the intrinsic publicity, and (3) a bit of a cheek for it to be reviewed by one of the contributors, albeit a lesser one. To which one replies, (1) on pp.106-7 there is a superb pair of illustrations showing how the land-use around R.A.F. Cranwell in the 1930s was first mapped in the field and then edited for publication, and (2) it is a pity that the publishers have seen fit to indulge themselves in losing detail, and thereby defacing illustrations, by not making a proper allowance for the gutter in double-page spreads. In this instance they cannot plead a lack of experience or warning. Must this always happen, a publisher's self-assumed equivalent of some idiotic initiation ceremony, reminiscent of the worst reputed aspects of a regiment or a public school? [(3) *Well, someone had to review it! — Ed.*]

*Richard Oliver*

## **Field Survey on the Western Front in the First World War**

From Peter Chasseaud:

Can I thank members of the Charles Close Society for their help over the years with my research into Field Survey on the Western Front in the First World War. I am still engaged in information gathering, as there are many serious gaps in my history. I am particularly interested in buying or seeing trench and topographical maps, trig lists, survey documents, photographs, etc., and receiving any information about Topographical Sections, Field Survey Companies, the Printing Company RE, sound ranging and field spotting units, personnel, etc..

Sir Charles Close and Ordnance Survey played a full part in the growth of the field survey organisation in the First World War, and I hope that the gaps in the official records can be filled from other sources. Just as I have been able to build up a surprisingly full picture of the development and deployment of sound-ranging sections and flash-spotting groups from a study of RE signals war diaries and circuit diagrams in the PRO, so I hope to be able to complete the trig, topo and map production side from various sources. Peter Clark, Ian Mumford and others have been immensely helpful in this area, and while the broad picture on the mapping side is substantially complete there remains gaps, particularly in the 1914–15 period; I might cite the elusive ‘A’ Series of 1:20,000 sheets of France and Belgium as an example, while another would be the many special sheets printed in 1914–15 in the field on hand -litho presses by the Printing Company at GHQ and the Army Printing Sections.

I look forward to hearing from anyone who can help.

Yours faithfully, Peter Chasseaud, 17, St Anne's Crescent, Lewes, BN7 1SB

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### **An early “private enterprise” half inch map**

*The Bicycle Road Book* by Charles Spencer (1880) carries an advertisement for One-Inch Ordnance maps reduced to half that scale, published by Edward Stanford for Edward S. Gaisford. The context suggests that they were intended for cyclists. Sheets 256, 270, 271, 272, 285, 286, 288, 289, 290, 299, 300, 305, 315 and 316 were “ready now”, at 6d flat or 1s mounted and folded. Each sheet was 7in x 2½in folded. The introduction to *The Roads of England and Wales...for Cyclists, Tourists and Travellers* (5th Edition, 1889) by Charles Howard mentions a Gaisford photographic reduction of the New Series One-Inch outline map, also at 6d a flat sheet; but gives the scale as a quarter inch to the mile. Howard may have been confused by the earlier advertisement's remark that the One-Inch map was “reduced to a quarter-size” by the half inch scale, which can be taken as meaning that the area of one half inch sheet could go four times into that of a One-Inch sheet, which was true. Or, were there indeed half inch and quarter inch versions of the Gaisford map; has anybody seen either?(Thanks to Eugene Burden for supplying photocopies)

### A Map in my Collection — 1

Looking through my collection of maps during October and trying to put some order into them, I picked up one again which I have trouble in classifying. It is **Main Roads of London**, One Inch to One Mile, clearly not a District nor Tourist Map, but a special one nevertheless. Indeed, a look through both the publications *Ordnance Survey "One-Inch" DISTRICT and TOURIST MAPS, etc..* by Cook and McIntosh, and Richard Oliver's *Guide to the Ordnance Survey One Inch Fifth Series* fails to identify it, but I am sure that some of our members will be able to throw light on it.

The map covers the area from Southgate (north) to Croydon (south) and Eltham / East Ham (east) to Hounslow (west). It is printed in three colours:— main roads without tramlines shown black, mainroads with tramlines shown red (the then new London Transport colour!), and open spaces shown green. The background detail is printed in grey, e.g. other streets and railways. The only other items of interest marked on the map are "Traffic Centres", either open circles or open squares, and Golf Courses. However, where roads pass under bridges, they are clearly marked by a suitable space in the road colour. Most main roads are named.

Looking at the map itself, and comparing it with both the One Inch Popular Edition and the Fifth Edition, I have concluded that it is based on the latter, as the printed information aligns and the *5th Edition* includes the then latest Ministry of Transport Road Numbers. The only reference on the map to the Ordnance Survey is in the bottom right hand corner *Ordnance Survey, 1934*, and the print code at the bottom left hand corner is *3000/34*.

*Lionel Hooper*

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### A map in my collection — 2

Can anyone advise me on the publication date of a map I have had for some years? It is folded, on cloth, scale approximately 3½ inches to one mile, based on the OS 6" map. The internal information on the map (dates of soundings) indicate that it is not earlier than 1880. The map is printed in black with paths shown in red for the Cullin Hills on the Isle of Skye. It was published by John Bartholomew for the Scottish Mountaineering Club

*Vic Harris.*

### A map in my collection —3

A Half-Inch "special": Can anyone place the following map in its context? Its base is early Half-Inch, still (in the coloured map) with the woods as a flat green wash in a black frame and with railway stations as black crosses, but this is a composite black outline map entitled "*Worcestershire*", 640mm by 565mm within its frame, showing in a colour overprint the Domesday hundreds of the county. At the top, inside a cartouche, is a colour key to the hundreds and a scale bar. There is no imprint other than *Ordnance Survey 1927* at bottom right; at the bottom left is another cartouche, blank. The map is folded neatly, as if to go into the pocket at the back of a book or other document. If, as seems likely, this was the case, what was the book? By 1927 the style of the Half-Inch map had moved on, but the publisher concerned did not need to pay the Ordnance Survey for the use of the latest plates when an obsolete base would serve very well.

*Tim Nicholson*

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### ...and Finally

You will see from the rear cover that I have published the intended closing and cover dates of the next three issues. I hope that this will enable intending authors to plan any articles they are contemplating. What *I* would like, is to hear from any member who intends to submit an article with an indication of the subject and size so that the content can be planned. On the subject of articles, can I ask members to ensure that they send the best possible photocopy of any illustration to be included. This might mean going to a local photocopying shop rather than using the one in the office; they are usually very helpful, especially if they know that it is for further reproduction.

A number of members have responded on their methods of keeping maps, and this will form the basis of a future article; what is required are some indications of how members catalogue their collections — cards, computers or whatever.

On behalf of the Charles Close Committee, may I wish all members a Happy 1994, and trust that we will all have one of fruitful discoveries and satisfying map studying.

### Small Advertisements

**Wanted:** Ordnance Survey maps for the Burton on Trent area

One-Inch New Series

1st Edition, sheet 140 (pub 1890), sheet 141 (pub 1890)

2nd Edition, 1st national revision, sheet 140 (pub 1896), sheet 141 (pub 1896)

3rd Edition, Small sheet series, sheet 140 (pub 1907), sheet 141 (pub 1907)

3rd Edition, Large sheet series, sheet 53 (pub 1908), sheet 54 (pub 1909), sheet 62 (pub 1908), sheet 63 (pub 1909)

Popular Edition, sheet 53 (pub 1921), sheet 62 (pub 1921)

War revision and 2nd War Revision, sheets 53 and 62 may have been republished c1940

New Popular Edition, sheet 120 (pub 1947)

Seventh Series, sheet 120 Edn A (pub 1953), edn A/ (reprtd 1956),

edn A// (reprtd 1960), edn B (reprtd 1961), edn B/\* (reprtd 1969),

edn B/\*\* (reprtd 1971)

## 1:50,000 Series

First series sheet 128 pub 1974, edition A

Second series sheet 128 pub c 1975, edition A

Landranger series sheet 128, any edition or reprint in good condition

## Large scale maps

Any larger scale maps of the Burton area (within a radius of approx. 10 mls) produced by the OS or other map makers

I am also keen to find good copies of 1:50,000 First Series maps of the Midlands area published 1974 to c 1985. Leslie Watson, 54, King Street, Burton-on-Trent, Staffordshire, DE14 3AF (Tel 0283 41303)

**For Sale:** Richard Haworth has several copies of the auction catalogue of the Mike Millar Map Collection, sold in Dublin on 30th November, 1993, together with a list of prices obtained. They are available at £2 a copy from him at the Freeman Library, Trinity College, Dublin.

**For Sale:** OS One-Inch 3rd, 4th and 6th editions; ¼ large sheet series. Please send wants list with s.a.e.: Alan Mais, 17, Copthorne Gardens, Hornchurch, RM11 3DL.

**For Sale:** Harry Margary's *Old Series Ordnance Survey Maps of England and Wales*  
 Vol 2 Devon, Cornwall and West Somerset .....£20  
 Vol 3 Dorset, Hants, Surrey, E. Somerset, E. Sussex and S Wiltshire.....£20  
 The County of Kent in 1801 (Mudge, from roll).....£ 5

All new (in original packaging); please add £1 towards postage

Also swap (preferred) or sell some 25" Sussex and Kent, plus 6" Sussex and few Kent, plus reproductions. Some pre-OS Kent, mainly Masted 1799, Morden and Speed. WANTED 1st editions (preferred) or later 25" and 6" Kent and town plans. Terry Wickett, "Beggar's Roost", Cripple Street, Maidstone, Kent, ME15 6BA (Tel. 0622 743707)

**Wanted:** One-Inch Land Utilization Survey of Great Britain 1930: sheets 84–Bedford, 85–Cambridge, 95–Luton; 1:25,000 2nd L.U. Survey of G.B. sheets 287–Hapenden, 310–Luton, 333–Amphill, 355–Bedford South, 376–North Bedford; 1:625,000 Administrative Areas Map any South sheet 1963-69. Any of the above maps flat or folded, well used or reasonable condition  
 Paul Stratford, 6, Markham Road, Luton, Bedfordshire, LU3 2BS