

Sheetlines

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

This edition of *Sheetlines* was published in 1997 and the articles may have been superseded by later research.

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

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

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



SHEETLINES

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Sheetlines 50 December 1997

Editorial

Half a century of Sheetlines!

Welcome to the 50th edition of *Sheetlines*. While *Sheetlines* may have changed a lot since 1980, what has not changed is its reliance on contributions from members. Again we are grateful for contributions and would encourage all of you to consider submitting articles. They can be long or short, complex and detailed or simple observations and thoughts. We would also like to encourage you to send us any questions that you may have. There is every chance that someone out of the 400 members will know the answer. Whether your interest is professional or, like me, as an enthusiastic amateur, send us your opinions, thoughts and observations on the OS and their maps, ancient and modern.

All items can be sent to either of us. You can use any format that suits you, whether it be hand-written, typed or, if you have access to a PC with Word 6 or 7 (or something that can be converted to Word 6 or 7), you can send us your contributions on floppy disk (which we will return) or by email. Our addresses are on the back cover. The deadline for articles for *Sheetlines* 51 is 11 March 1998.

If you have any views about the format, layout or content of *Sheetlines* then please contact either Jim or I. This is <u>your</u> journal for <u>your</u> society so we would be interested to hear your views.

Included in this edition is an article on dating the One-inch *Old Series maps* by Richard Oliver, an appeal for help on 1:25,000 Provisional maps from Roger Hellyer and the first ever (or at least the first that I have seen) official list of forthcoming maps from OS.

We hope you find this edition of *Sheetlines* interesting, informative and enjoyable, and here's to the next 50.

Jon Risby

Marginalia

The increase in your subscription

The subscription increases beginning in 1998 announced in *Sheetlines* 48 were proposed by the committee and passed by the membership of the Charles Close Society at the 1997 Annual General Meeting (not quite unanimously, since one member voted against and one other abstained).

As Membership Secretary I would therefore ask that each member checks carefully what his new subscription is before writing his cheque. In the vast majority of cases (i.e. individual members living in the United Kingdom) this will be £10. The rate for United Kingdom family members is now £11 and for United Kingdom corporate members £15. If you fit into any other category, please refer to the table on the back cover of this issue of *Sheetlines*.

I would ask those of you who pay by standing order to be especially vigilant and adjust the arrangements with your banks before payments are incurred on 1 March: if I make the point that even after six years since the previous increase I was still having to request supplementary payments of £2.50 from members who had failed to notify their banks of the increase from £5 you will understand just how infuriating and time wasting for both parties these details, when overlooked, can be.

I would welcome payment of subscriptions at the new rates at the earliest opportunity. I would remind members that subscriptions are overdue if payment is left beyond 1 March 1998.

Roger Hellyer Membership Secretary

Christmas Puzzle

The accompanying photograph shows Ireland and Scotland quite adjacent to each other! This signpost is in Wiltshire, although on the latest edition of *Landranger* 183, *Yeovil and Frome*, Ireland is omitted.

Where else can you find Ireland, Scotland and Wales in *England*.

Lionel Hooper



Stop Press

Maps in Wrong Covers

This very month Jon Risby was browsing through some *Landrangers* in a certain bookshop and spotted a new *Stoke on Trent* sheet (118) which he thought would help to maintain his collection of latest editions. He looked over it to see if it was to the latest specification but was surprised that the first name he spotted on it was Wendover. Now Jon knows his way around and he instantly realised that even with continental drift, global warming, holes in ozone layers, changes in government or any other natural or un-natural phenomena, it was unlikely that a bit of Bucks had re-materialised in Staffs. Could this be another map in a wrong cover?

The Maps of the Ordnance Survey As They Are, And As They Ought To Be ¹

John L Cruickshank

1 The Replotted Counties and Superplan.

On 28 October 1996, seduced by a 'special offer', I bought on impulse an Ordnance Survey map. Specifically I bought a new 'Superplan' Site-centred 1:1250 Planning Extract print-out centred on my grandmother's house in what used to be Lancashire North of the Sands, now Cumbria (SD 309977).

Having got my purchase home I looked at it, and was startled to realise that the shape of the property was grossly distorted. The adjacent cottage was shown at a quite incorrect angle to my grandmother's house. The rectangular yard between the two was shown as an irregular quadrilateral, and a row of outhouses were also shown in a false relationship to the houses. I was a little disgruntled by this. Certainly the 'special offer' now seemed poor value for money. So I wrote to the Ordnance Survey to point out the problem and requested a replacement.

A very courteous reply quickly followed, enclosing a corrected printout larger than the small one I had paid for, with an explanation that the first 'Superplan' had been derived from County Series mapping at 1:2500 and was 'unchanged from that date'. The replacement map had been 'resurveyed' (in less than three weeks), and was certainly a great improvement. The larger printout however revealed that the resurvey was restricted to the house and garden; the surrounding pattern of field enclosures remained that of earlier this century.

My first reaction was a feeling of innocent pleasure that I had scored points off the OS but as I thought about this further my disquiet increased once more. That the survey had been at 1:2500 was well known to me. That this was County Series mapping was a surprise. I already possessed 1:10,000 sheet SD 39 NW, edition A of 1980, surveyed at 1:2500 in 1970-77 and revised to 1978. Why on earth was County Series mapping being sold in such a high technology way, when a modern survey existed? And why was no warning given on the printout to indicate the date or quality of the survey?

I hunted out some old maps to see what they showed and what survey information was given. Sure enough, the National Grid Series 1:2500 edition A of 1977, on which the 'resurveyed' 1:10,000 map was based, only declared itself to be 'reconstituted from former County Series plans and revised. The County Series 1:10,560 maps had been recast and republished as a National Grid sheet. Edition A of 1957 was 'Revised before 1930, revised for major changes only 1951'. The 1913 edition of the 1:2500 plan Lancashire sheet IV.4 was 'Resurveyed in 1888, revised in 1912, re-levelled in 1909, partly re-levelled in 1932, reprint 15/34'. Careful inspection revealed more or less the same errors as on the first plot on all these maps, although the digitisation had led to some increase in the distortion. Printing at 1:1250 had of course made it much more obvious. I have yet to find a copy of the first edition of the 1:2500 map based on the 1888 re-survey. The representation of the houses and their surroundings on the 1:10,560 map of

¹With acknowledgement to Henry Crook.

the original 1846-8 survey is however correct. It gives a far better representation of the area than any of the later maps until the most recent one.²

So why had the error arisen and why had it persisted so long? Lancashire was of course one of the 'Re-plotted Counties'. That is, it was first surveyed in the 1840s at 1:10,560, immediately after the completion of the Irish survey. Col. Henry James, during the 'Battle of the Scales' in 1856, however stated to Parliament that the survey data had been collected with sufficient accuracy and precision to permit a 1:2500 map to be produced by re-plotting the existing data. Later Directors General were held to this statement by the Treasury, and so when 1:2,500 mapping of Lancashire and Yorkshire was eventually undertaken in the 1880s they were not re-surveyed but were re-plotted from the surviving 1840s records, with piecemeal revision in the field. The amount of field revision required was huge, and the re-plotted base had numerous imperfections. It was clear to those who did this work that the quality was far below that to be expected from a formal 1:2500 survey. Nevertheless the Dorington Committee decreed that the re-plotting be described on the maps as a re-survey. Piecemeal revision, both in the 1880s and later, led to increasing distortion of the planimetry as fudges were superimposed on fudges and attempts were made to 'correct' imperfections as they were recognised in the drawing office. Such corrections usually involved moving the errors into adjacent fields where it was (often vainly) hoped they would not be noticed. The problems were made worse because the drawing media were not dimensionally stable and therefore plans and revisions of plans did not fit together, leading to further fudges. The Re-plotted Counties were described by Seymour as 'one of the Ordnance Survey's worst errors'.³

The systematic nature of the errors meant that certain places, particularly those requiring revision of planimetry or alteration of public boundaries, were most likely to suffer. My grandmother's house in 1846 lay in Coniston Quarter of Hawkshead Parish and Bailiwick (Hawkshead having before 1578 been a Chapelry of Dalton Ancient Parish). Coniston Quarter was treated as a Hamlet within the terms of the 1841 OS Act, and given the name Monk Coniston that was already in common use. The house is quite close to the boundary (defined by a boundary commission in c.1160) between Coniston Quarter of Hawkshead and the adjacent (Church) Coniston Chapelry (a Perpetual Curacy within Ulverston Ancient Parish) and Manor. The 1846-8 survey was conducted parish by parish rather than seamlessly, so the original records were included with Hawkshead. But during the Local Government reforms of 1894 Church Coniston and Monk Coniston were united to form a single Civil Parish (although the Ecclesiastical Parishes retained the 1160 boundary). The new Civil Parish structure had to be incorporated in the replotted map, and the older boundary which delimited the survey areas was discarded.

In 1846, during the original survey, the house together with much of the surrounding farmland changed hands. It was bought by James Garth Marshall (1802-73), MP for Leeds from 1847-52, and one of the second generation partners in the Marshall flax spinning dynasty there. ⁵ He had already bought the adjacent Waterhead estate built up in the eighteenth century by a succession of Furness ironmasters. ⁶ As the 1846-8 survey was being completed he substantially

²Lancashire Sheet IV was published in 1851. It was reissued from a transfer to zinc in 1882, by which time it had been revised to show the new Coniston railway.

³Seymour W.A. (Ed), A History of the Ordnance Survey, 1980 pp182-3 and 190.

⁴Despite the Quarters having formerly been separately treated for Poor Law purposes as well as for Highway purposes.

⁵See Rimmer W.G. Marshalls of Leeds Flax Spinners 1788-1886, Cambridge University Press, 1960.

⁶The Harrison, Ford and Knott families of Newland Furnace near Ulverston.

remodelled his enlarged estate, moving the Coniston to Hawkshead road, altering the field boundaries, and moving the Waterhead Inn half a mile southwards to its present position. When the 1:10,560 map was published in 1851 it showed the previous layout and was thus already out of date. The Marshall family had substantial money and influence, and were linked by multiple marriages to the Spring Rice family. The subsequent contradictory efforts by the OS to update each version of the One inch map in this area have been listed by Richard Oliver. The 1851 1:10,560 map was not updated for these changes (despite the Coniston railway being added before the 1882 transfer to zinc), but the OS were clearly well aware that change had occurred here. Subsequent changes in topography have been more minor, but there have been a number of alterations to field boundaries in the latter part of this century, and the enclosed woodland area to the north of the house has been enlarged. Most of the land surrounding the house has been owned by the National Trust for the last fifty years, although this has not been recorded on the small-scale OS maps.

Various policies have been adopted by the OS to deal with large-scale revision at different dates. Cyclical revision took place from the 1890s until 1922 when the Geddes Axe stopped almost all revision. Continuous revision was envisaged by the Davidson Committee Report of 1938. This remains the ideal, but in practice has been restricted to urban areas and urban developments in rural areas. Rural change has not routinely been mapped since the First World War.

Revision however presupposes that the existing map is of acceptable quality. The difficulties of patching new detail into old maps, and the expedients used, have been described. The plans of the Re-plotted Counties were recognised to be of unacceptable quality by the surveyors who made them in the 1890s. Their defects made them a major embarrassment to the OS in the 1920s and 1930s, when their replacement by modern re-survey was recognised by the Director General to be the only solution to the problem. Attempts to cobble the plans up, such as in the present example, merely made matters worse. Yet it is this out of date, inaccurate, unreliable and unrevisable series of plans that are still on sale in 1997 in the guise of up to date 'Superplan' computer printouts.

2 What I Did in My Summer Holidays.

Like many people I went on holiday this summer with my family, and I also took them for a few weekends in the countryside.

We went for a walk in the Yorkshire Dales, on Beamsley Beacon north of Ilkley. The representation of the enclosures from the moorland on the southern (Langbar) side of the beacon

⁷Thomas Spring Rice MP (1790-1866) was chairman of the Select Committee on the Irish Survey of 1819-24, before becoming Chancellor of the Exchequer in the 1830s, and retiring to the House of Lords as Lord Mounteagle in 1839. He married James Garth Marshall's older sister Mary Anne. James Garth Marshall married Mary A.P. Spring Rice. His younger brother Henry Cowper Marshall married Catherine A.L. Spring Rice. It was Stephen E. Spring Rice, a grandson of Lord Mounteagle and Permanent Secretary to the Treasury in the 1890s, who negotiated the agreement with the Board of Agriculture that regular revision of the 1:2500 was necessary. He was a trustee of the 1876 Settlement on the marriage of J.G. Marshall's son Victor A.E. Marshall to Victoria A.A. Hamilton Gordon, and was thus an owner of this estate. There were other links between these two families.

⁸Oliver R.R. (Cartobibliography in) The Old Series Ordnance Survey Maps of England & Wales (Vol VIII Northern England and the Isle of Man),1991,Harry Margary, Lympne Castle, Kent.

⁹Seymour op cit p336-9.

¹⁰Winterbotham H.StJ.L, *The Replotted Counties*, supp to OS Professional Papers NS 16, 1934.

on the new *Explorer* map¹¹ is decades out of date, and proved grossly misleading when crossing the moor. I was reduced to using the eighteenth century guide stoups along the pre-turnpike footroad from Otley to Skipton to re-establish my global position.

We went up Ingleborough, also in the Yorkshire Dales. The marked positions of the rights of way on both the 1:25,000 and the 1:63,360¹² deviate grossly from the actual paths which are mapped, accurately but very faintly, on the 1:25,000 map. In poor visibility an attempt to take our children along the supposed right of way from Ingleborough to Clapham took us into very steep, rough and unsafe ground indeed. No path can ever have existed on this line.

We went to the New Forest and used the OS/Jarrold Hampshire Walks Guide. Walk number 23 takes one east of Manor Farm at Rockbourne. The written description of the walk fits the reality well. The 1:25,000 extract map provided cannot be reconciled with the text and is grossly out of date (?50 years, there is no revision information) in its representation of the conifer plantations.

Rights of way on the heathlands of the New Forest are unusual. For travellers on foot the whole unenclosed area is available for use, as was the norm across unenclosed wastes until the nineteenth century. The *Outdoor Leisure* map of the New Forest does not indicate the specialised system of cycle rights and restrictions of way established and enforced by the Forest Courts and the Forestry Commission. One has to buy a very scabby Commission product based on the old OS 1:100,000 outline administrative maps to discover these.

Quite simply, in one summer holiday the OS mapping of the countryside was found to be so out of date that simple navigation was difficult. The representation of rights of way was inadequate and at one point was dangerous.

The Ordnance Survey are not the legal authority on rights of way and thus do not control the production of the definitive maps. However they are the principal publisher of the rights of way. Many 'definitive maps' were inaccurately or imprecisely made. If it is clear to the OS that a 'definitive map' is defective, then the OS should require the production by the authority of a satisfactory one. The OS as the publisher cannot continue to evade responsibility for the quality of this heavily used category of information.

3 Home in Leeds.

The 1:10,000 map of where I live is quite good really, if expensive. Like most urban mapping it is remarkably up to date. Yet there are faults. A minor one is that the constituency boundary through Hyde Park is shown running along road centres rather than in its correct position along property frontages. Perhaps a small point, but battles were fought along this boundary about rates and responsibility for road repairs.

A more serious flaw is that district names in 3 mm high capitals are scattered across the map in a way that suggests they were positioned by someone in a drawing office at a late stage in the production of the map. The names are fine, but their positions are wrong.

On the map Woodhouse Cliff is marked (290359) straddling the Leeds Woodhouse - Headingley boundary. Adel East Moor is printed partly in Alwoodley Township. Beckett Park is prominently printed at 275364, but local usage is to use Becketts Park as the name, and the

¹¹No. 27 Lower Wharfedale and Washburn Valley, Ed A 1997, 'revised 1996'.

¹²Touring Map & Guide No 6, Yorkshire Dales 1 inch to 1 mile, Edition A 1992; Outdoor Leisure No 2, Yorkshire Dales Western Area, Edition B 1985.

¹³Sheet SE 23NE, Edition A1, 1993.

position is outside both the modern and nineteenth-century boundaries of the Park. The housing estate containing Becketts Park street names was built <u>adjacent</u> to the Park on the Beckett family's farmland. Most spectacularly, the name Ireland Wood is completely out of position, being placed in the centre of the adjacent Iveson Wood. The underlying map includes both these names in smaller lettering in their correct places.

Some of these errors arise because the Ordnance Survey no longer prints Yorkshire Township boundaries in urban areas. Nevertheless local usage of the Township names remains absolutely precise, and should be respected. The Ireland Wood error further complicates an already complex issue. This name was used for the part of Cookridge Wood that after the resolution of the 1609-1846 boundary disputes still lay in Cookridge Township. Iveson Wood and Clayton Wood were the parts that were in Headingley. The nineteenth-century Ordnance Survey, in England as well as in Ireland, felt obliged to reduce the number of names on the map and to simplify the complexities of reality. Cookridge Wood, which had been the usual name for all this woodland until then, was not named on the OS map because the separate parcel names were given. The name of Cookridge Wood has subsequently completely fallen from use. Now the Ordnance Survey have moved the parcel names around, putting the Cookridge parcel in Headingley. This, if not corrected, is likely to degrade a further place-name. The error must be corrected, with any derived indexes, and any OS archive copies should be marked as having been in error.

4 Conclusion.

These three problems are in many ways one. The 1:25,000 map is expected by the OS to be a major growth product. Public use of the countryside is continuing to increase, and use and sales of these maps should expand fast now that the old small format sheets are at last to be superseded. But as they are used the extent of the deficit in rural resurvey and revision becomes clearly apparent. The information being sold in the new glossy orange packages is antique, and so is that sold as 'Superplans'.

Even up to date maps are open to error if inadequate field checking is done. The district names on the 1:10,000 look like late additions to the map. They have clearly not been field checked. The inclusion of unchecked poor quality data from other agencies has degraded the smaller-scale maps.

Printed Ordnance Survey maps now include no survey or revision information. It is therefore not possible for the user easily to assess what rubbish he is buying. The statement that 'Superplan' printouts 'incorporate surveyed revision to the date of printing' only serves to conceal the truth. No map can be absolutely up to date. If the customer were told that his map contained information a century and a half old, stretched beyond its reliability a century ago, subsequently uncorrected in any consistent way, and now further overblown by computer, he might think twice about buying the map, even at special offer. Even without such warnings, poor 1:2500 maps available as magnifications to 1:1250 will make deficiencies very obvious to customers who are required to use such printouts for planning applications and many other purposes.

The fiction that the date of printing of a map is the date of revision is a lie, and must now be acknowledged as such. Such lies about public services became widespread during the later years of the recent Conservative Government, and must now be corrected. The quality of public services can only be assessed if accurate and consistent information is available. Problems do not go away, and concealment of problems, as for example has been practised in the Health Service, only exacerbates them. The Ordnance Survey should now be required not only to specify the dates

of survey, systematic revision, and partial revision on <u>every</u> map printed, but also to include a diagram similar to those used by the Survey of India to indicate the reliability of the data presented. Only by making explicit the poor quality of the mapping being sold will the political will to fund the solutions arise. The public must be told that the basic rule of computer science applies even to computer generated maps: **Garbage in**; **Garbage out.**

The 1:25,000 Provisional Edition - a request for assistance.

from Roger Hellyer

The Ordnance Survey published 2027 sheets in this edition and for several years now I have been compiling a database in which the probably unapproachable objective is to list all issues of all sheets.

There are now almost thirteen thousand records, not all, admittedly, filled, since some states can be presumed by obvious gaps in the sequence (missing print codes, states which have only so far been recorded as repriced reprints). On the other hand all records allow for a coloured state and an outline state, and in many cases an administrative areas edition as well. Well over 1500 are issues in the military edition GSGS 4627 (M821). Again several are lacking - in particular many East Anglian sheets are recorded as GSGS Second Editions when no preceding War Office Edition or GSGS First Editions have been recorded, and sadly none of the probably small number of layered issues in GSGS 4627A have yet emerged. But on publication of the cartobibliography it is quite possible that in all more than 25,000 states of the 1:25,000 Provisional Edition will be listed.

Some gaps will always remain unfilled, the more so since regrettably the Ordnance Survey destroyed the job files before they could be rescued by the Charles Close Society. Most of the virtually unrecordable gaps are among the issues after 1964 once the price was cleared from the sheet, when almost all indications of reprinting occur as alterations in the top margin. But since this is trimmed from those copies which were folded and issued in integral covers the evidence of this is usually destroyed. Earlier states may be suspected because of a curiously wide gap between price states. Less than half the issues recorded have been located in outline editions.

One could wait for ever to attempt to fill all such gaps. Yet in a sense they do not matter. A repriced reprint or a facsimile reprint is in the end just that; it provides no new cartographic information, it just neatly ties together the complete printing history of a sheet.

Much more important are those print states of the map of which no copy has yet emerged, and since the known total of these has recently dropped to approximately 1% of the total recorded, now would seem to be the time to request the assistance of the membership of the Charles Close Society at large, in an attempt to complete and publish the 1:25,000 cartobibliography. There will probably always be further unsuspected and unrecorded states which record only minor revision, and so avoid both the publication reports and the copyright libraries. One can of course assume a 'B/' state between known 'B' and 'B//' states, but until one emerges one cannot know whether or not one exists between a 'B2' state and a 'C' state. But one cannot list what one cannot know. Thus I list below the 130 print codes that I know do exist but have yet to locate among the 2027 1:25,000 Provisional Edition sheets. Should any member know of any copies carrying any of these I would be grateful if he could inform me; I can then send a questionnaire listing the detailed information I need in order to complete the cartobibliography.

The list offers two possible forms of each sheet number, as the early all figure National Grid reference or the current letters-figures combination. Please check for either, or in some instances the combination of both together. The form actually used is one item that will be detailed on my questionnaire. Please check your collections and let me know. My address is in the list of officers of the society.

27/90	NN90	В	34/86	SD86	C	12/80	SM80	C
27/95	NN95	В	34/90	SD90	В			
						22/82	SN82	A/
37/11	NO11	В	44/01	SE01	В			
37/12	NO12	В	44/13	SE13	C	32/73	SO73	$\mathbf{B}/$
37/20	NO20	В	44/23	SE23	C/	32/74	SO74	$\mathbf{B}/$
37/31	NO31	В	44/24	SE24	В			
37/41	NO41	В	44/28	SE28	C	42/12	SP12	В
			44/31	SE31	В	42/69	SP69	В
26/32	NS32	C/	44/39	SE39	В	42/71	SP71	C
26/45	NS45	В	44/43	SE43	В	42/81	SP81	C/
26/52	NS52	$\mathbf{B}/$	44/48	SE48	В	42/86	SP86	В
			44/50	SE50	В	42/89	SP89	C
36/17	NT17	C/	44/89	SE89	В	42/90	SP90	В
36/29	NT29	Β/	44/91	SE91	В	42/93	SP93	$\mathbf{B}/$
36/37	NT37	В	44/92	SE92	$\mathbf{B}/$	42/94	SP94	$\mathbf{B}/$
36/53	NT53	В				42/99	SP99	В
36/63	NT63	В	23/56	SH56	A /			
36/73	NT73	В	23/57	SH57	$\mathbf{B}/$	21/97	SS97	C
36/76	NT76	В	23/64	SH64	A/	21/97	SS97	D
35/11	NY11	A	33/66	SJ66	В	31/00	ST00	A/
35/42	NY42	A /	33/68	SJ68	В	31/18	ST18	$\mathbf{B}/$
			33/75	SJ75	В	31/24	ST24	A/
45/22	NZ22	Β/	33/76	SJ76	$\mathbf{B}/$	31/58	ST58	В
45/25	NZ25	Β/	33/83	SJ83	В	31/68	ST68	В
45/34	NZ34	C/	33/90	SJ90	$\mathbf{B}/$	31/82	ST82	В
45/35	NZ35	C/	33/93	SJ93	$\mathbf{B}/$	31/87	ST87	В
45/36	NZ36	C						
45/50	NZ50	В	43/07	SK07	$\mathbf{B}/$	41/59	SU59	A/
			43/15	SK15	$\mathbf{B}/$	41/73	SU73	$\mathbf{B}/$
34/42	SD42	Β/	43/43	SK43	В	41/83	SU83	$\mathbf{B}/$
34/45	SD45	C/	43/51	SK51	В	41/93	SU93	C/
34/46	SD46	В	43/53	SK53	C/	41/94	SU94	B//
34/55	SD55	$\mathbf{B}/\!/$	43/56	SK56	В	41/95	SU95	$\mathbf{B}/$
34/82	SD82	$\mathbf{B}/$	43/64	SK64	В			
34/86	SD86	В	43/71	SK71	В			
20/59	SX59	A/	52/00	TL00	В	51/43	TQ43	$\mathbf{B}/$
20/66	SX66	В	52/06	TL06	В	51/53	TQ53	D/
			52/09	TL09	В	51/56	TQ56	В
30/08	SY08	A/	52/15	TL15	В/	51/56	TQ56	D
							_	

30/58	SY58	В	52/21	TL21	C/	51/70	TQ70	$\mathbf{B}/$
30/98	SY98	$\mathbf{B}/$	52/30	TL30	$\mathbf{B}/$	51/75	TQ75	A/
			52/40	TL40	$\mathbf{B}/$	51/76	TQ76	В
54/11	TA11	C/	52/76	TL76	В	51/76	TQ76	C/
54/12	TA12	B/				51/82	TQ82	A/
			51/03	TQ03	$\mathbf{B}/$			
53/22	TF22	$\mathbf{B}/$	51/07	TQ07	C//*/	61/06	TR06	В
53/29	TF29	В	51/08	TQ08	C	61/06	TR06	C
53/50	TF50	В	51/15	TQ15	D	61/13	TR13	В
53/50	TF50	C/	51/23	TQ23	$\mathbf{B}/$	61/34	TR34	$\mathbf{A}/$

Is the village of Merrybent unique?

Merrybent is a small village, pop. c.500, on the A67 between Darlington and Barnard Castle in County Durham (NZ 245145).

It is an unusual name and a glance at the *Landranger* map of the area offers no clue whatever to its existence.

The A1(M) passes under the A67 on its eastern extremity and even the One-inch *Seventh Series* map portrays this but earlier maps begin to reveal the clues. The A1(M) at this point was built on the old rail bed of a small mineral line that joined the Darlington to Barnard Castle railway just north of what is now Merrybent, at Branksome. From LNER records this line was opened in 1866 to serve the quarries at Barton which virtually surround the junction of the A1(M) and the B6275 (NZ 216082) and was named the Merrybent line taken from the two neighbouring farms of Low and High Merrybent (NZ 212076 and 201066). This is a distance of some five miles from what is now the village of Merrybent.

I understand that the line ran into financial difficulties before 1870 and the banks finally sold it on to NER in 1878, but the line finally closed in 1950.

I know that railway lines have given their names to terraces, streets, roads and public houses but whole villages, I'm not so sure about. Do readers know of others?

M.C. McIvor

OS County Series mapping on CD-ROM

A short report on Landmark Information Group's activities appeared in *Sheetlines* 45 (April 1996, pp 3-4): its main business was to supply site reports to developers, etc, illustrated by current and superseded OS large-scale mapping. It was a collaborative venture in which OS provided data from its Landline database and Landmark scanned in superseded mapping from the OS Record Map Library. As a result of a recently signed agreement between Ordnance Survey and Landmark, images derived from some 400,000 1:2500 and 1:10,560 County Series maps are being made available on both CD-ROM and as hard copy, and during 1998 the hard-copy images will be made available through OS Superplan agents. Prices start at £1·20 per square kilometre for 1:10,560 mapping and £14·40 for a County Series 1:2500 sheet, but are subject to a minimum order value of £500.

Richard Oliver

Ordnance Survey One-inch *Old Series* sheets: some notes on development and dating

by Richard Oliver

Some months ago, I was asked to speak to the Charles Close Society on the dating of Ordnance Survey One-inch (1:63,360) *Old Series* mapping: the ideal, I was told, was to be able to date a postage-stamp-sized fragment to the year, if not the month. Ideal, no doubt, but as yet not quite practicable! In 'writing up' the Bath talk, which included a short account of the development of the *Old Series* during the nineteenth century, I have taken the opportunity of saying something about the present state of cartobibliographies of the *Old Series*.

Cartobibliographies

The dating and placing in a larger context of any map is much facilitated if an adequate cartobibliography is available, though 'availability' is subject to two limitations: whether a cartobibliography has been prepared at all, and, if so, how readily available it is to potential users, either through libraries or by purchase. The One-inch *Old Series* is better served by cartobibliography than most OS mapping, though the position at present is not completely satisfactory, from the standpoints of completeness on the one hand, and ready accessibility by 'ordinary people' on the other.

The *Old Series* was described in the early 1960s by the late Brian Harley as 'the most complex and difficult to date' of Ordnance Survey one-inch maps.¹ At that time, although their importance as a source for the history of the landscape a generation or more before the first sixinch (1:10,560) and larger-scale OS mapping was recognised, there was hardly any cartobibliographical study of these maps. The first such was carried out by Harley in the late 1960s for the reissue of this mapping by David and Charles of Newton Abbot: this 'reprint' in 97 sheets was issued between 1969 and 1971, and remains on sale, misleadingly described as the 'First Edition'. Brian Harley told the writer that he fought 'tooth and nail' to have the maps described as '*Old Series*' to the public in their titles and advertising, but to no avail:² however, he used the term '*Old Series*' exclusively in his editorial matter for these maps.³

The David and Charles reissue was based on printings of the *Old Series* made in the 1860s or later; in very few cases, and those all in the far north of England, can these maps be considered as 'first editions', and for sheets such as D & C 56, 64 and 72 (*Old Series* 40/57, 48 and 1 respectively) where the reissue is based on re-engraved versions of the 1840s, the claim of 'first edition' is indefensible. The reason for using later rather than earlier printings was that David St John Thomas (the 'David' in David and Charles) wanted sheets which showed railways. He duly got sheets with railways, but the result is an uneasy compromise: the mapping

¹ J.B. Harley, *The historian's guide to Ordnance Survey maps*, London, National Council of Social Service, 1964, 9.

² This, and other matter in the next three paragraphs, is based on conversations between Brian Harley and the writer in the late 1980s.

³ The term 'Old Series' came into use after 1872 in order to distinguish these maps from their replacements, the 'New Series': to the best of my knowledge, neither 'Old Series' nor 'New Series' has ever appeared on the standard topographic versions of these sheets (the words do appear on dual-numbered geological versions of Old Series Sheets 91-110, which doubled as New Series Sheets 1-73), and in bibliographic terms the use of capitals, as for a proper name, is probably highly objectionable, but it has been so hallowed by usage that now it is probably impossible to change. An unofficial variation recently noted is 'Original Series': see Lincolnshire Past and Present 29, Autumn 1997, 7.

is a hybrid of old and new, and the railway system is still not shown at anything like its fullest extent.⁴ The maps were accompanied by historical and cartobibliographical notes by Harley, who had to work in a hurry, apparently in part by dictating to a secretary in the map room of the British Museum. As a result, the cartobibliographical information was incomplete, a drawback which was fully admitted on the maps: 'The notes make no claim to be definitive'.⁵ These notes are still useful to those who do not have access to a more elaborate cartobibliography of these maps. The mapping was rationalised both by renumbering from north to south and by amalgamation of some coast sheets which only contained small areas of land.⁶

In 1972 another Old Series reissue project was started, by Harry Margary of Lympne Castle, Kent, as a complement to his reissues of pre-OS 'large-scale' (usually one-inch) later eighteenth-century county mapping.⁷ The mapping was issued in large-format volumes, with each 'opening' containing a quarter of an original 'full sheet', and was accompanied by long introductory essays and cartobibliographies.⁸ It was originally intended to complete the enterprise in ten volumes and in five years: in practice the first volume appeared in 1975 and the eighth and last in 1992, some months after Harley's sudden death.9 In preparing the introductory essays, Harley had various collaborators: Yolande Hodson¹⁰ for the first three volumes, John and Barbara Manterfield for the next two, and the present writer for the last three. 11 There were other changes as the series progressed. The original scheme of providing a single introductory essay in ten instalments, which could be reissued later as a monograph, gave way to regionally-oriented essays in each volume. The original cartobibliographic intention was to give a cartobibliography only for the pre-railway states of each sheet, but from Volume 3 onwards the aim was to provide a full cartobibliography (except for the geological versions, which are discussed in more detail below); as the work progressed, so more map collections were 'discovered', with the result that the cartobibliographies reach their fullest complexity in the last three volumes: this was due partly to the excellent ground-work of the first five volumes, and partly to the development of a 'continuous revision' recording method which exploited the rise of the domestic personal computer in the mid-1980s and dramatically speeded up the work in libraries. 12 The cartobibliographies for Volumes 1 and 2 were supplemented by

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⁴ This is particularly apparent on a sheet such as D & C 23 (*Old Series* 86), which derives from an original printed in 1863 or 1864.

⁵ Standard note inside hinged covers of earlier issues [c.1969-78] of these maps.

⁶ From conversations with Brian Harley, the author deduces that these maps were selling at an average of about a thousand copies per sheet in the mid-1980s.

⁷ The use of 'large scale' in this context is to distinguish these maps from the numerous smaller-scale single-sheet county maps, usually at scales smaller than about 1:200,000, of which Christopher Saxton's in the 1570s were the earliest. It is of course at odds with modern OS usage of 'large' and 'small' scale.

⁸ Harry Margary, *The Ordnance Survey Old Series...*, 8 volumes, Lympne, Harry Margary, 1975-92.

⁹ The published Volume 6 was originally to have been Volumes 6A and 6B, and the published Volume 8 was to have been Volumes 8 and 9. The decision to amalgamate these four volumes into two was taken in the spring of 1986, partly for commercial reasons (fewer volumes being a more attractive sales proposition) and partly because of problems with providing a suitable introductory essay for Volume 9 (eastern Yorkshire and the north-east).

¹⁰ Then O'Donoghue.

There is an apparent peculiarity in the titles and dustwrappers of these volumes, in that the present writer appears as 'R.R.Oliver' as a co-author of the introductory essays, and 'Richard Oliver' as compiler of the cartobibliographies. Initials were used, rather than the full name, purely for reasons of elegant layout.

¹² This method is described in Richard Oliver, 'Cartobibliography and the Ordnance Survey One-inch *Old Series*', *Sheetlines* 26 (December 1989), 9-14.

work by Guy Messenger in 1989-91, published by the Charles Close Society, and still in print. Volumes 1, 7 and 8 of the Harry Margary Facsimile are now out of print.

The position at present, then, as concerns availability in print is as follows. Admittedly very incomplete cartobibliographies are available for all the sheets of the *Old Series*, in the form of the notes accompanying the David and Charles version. Somewhat more detailed cartobibliographies are available for the area covered by Volumes 1 to 3 of the Margary edition (i.e. *Old Series* sheets 1-6, 8-12, 14-33, 47, 48), and fairly complete cartobibliographies are available for the area covered by Margary Volumes 4, 5 and 6 (i.e. *Old Series* sheets 7, 13, 34-46, 49-60, 64-70, 74-79, 83-86). Full cartobibliographies for the remainder of England have to be sought in the out-of-print Volumes 7 and 8. Even for the later volumes, the cartobibliographies are not perfect, and there are still important discoveries to be made, for example that in 1993 of pre-publication versions of some of the northern English sheets, ¹⁴ and recently of early quartersheets with 'incomplete' borders, ¹⁵ to say nothing of 'routine' new states of sheets occasionally reported by users of the cartobibliographies. ¹⁶

Although access to a good cartobibliography can ease considerably the problem of dating, it is notorious that the only date to appear consistently on most *Old Series* sheets is that of initial publication, and therefore other readily identifiable diagnostics can be useful. Most of these diagnostics lie outside the neatline (the fine line dividing the topographic part of the map from the border) and it is unfortunate that many *Old Series* sheets survive with the marginal matter seriously truncated. Although the main purpose of this paper is discussion of the dating of individual copies of *Old Series* sheets, it may be helpful to give a summary of the development of the *Old Series* during the nineteenth century, particularly

as no compact yet authoritative account of these maps has yet appeared, ¹⁷ and the development of the mapping provides some clues to dating.

The development of the Old Series 18

It is well known that the OS One-inch *Old Series* originated as a publication of manuscript surveys, mostly at the two-inch (1:31,680) scale, but including some at the three-inch (1:21,120) and six-inch (1:10,560) scales, which the Board of Ordnance had commenced in 1784, and which from the mid-1790s was being conducted as a national survey, although evidently initially with no intention to publish. In the 1790s some of this material was used for published maps of Sussex by Yeakell and of Kent by Faden: these were both 'commercial' enterprises, albeit with the necessary co-operation of the Board of Ordnance, and Faden's map of Kent, published early in 1801, has been described in several places as 'the first Ordnance Survey map': how far this was the case is one of those things that tends to generate more heat than light. Although the Faden map must have been a strong stylistic influence, it is safe to state that the first *Old Series* maps proper, i.e. produced wholly 'in house' by the Board of Ordnance, were a group of four covering Essex and parts of adjoining counties, published officially in

¹³ Guy Messenger, *The sheet histories of the Ordnance Survey One-inch Old Series maps of Essex and Kent* and *The sheet histories of the Ordnance Survey One-inch Old Series maps of Devon and Cornwall*, both published London, Charles Close Society, 1991. These suffer from the drawback that the British Library Map Library collection is very cursorily treated.

¹⁴ Richard Oliver, 'One-inch *Old Series* map design in the early 1850s', *Sheetlines* 38, January 1994, 19-26.

¹⁵ Richard Oliver, 'Cartographic discoveries', *Sheetlines* 49, September 1997, 14-24.

¹⁶ The writer is particularly indebted to Eugene Burden and Roger Hellyer in this regard.

¹⁷ By which is meant a paper of around 5000 to 10,000 words, taking account of the latest research. The writer has had it in mind for some years to write one for *Sheetlines*, but more pressing matters continually thwart.

¹⁸ Unless noted otherwise, this section derives from the various introductory essays to the Harry Margary volumes.

April 1805, and later numbered 1, 2, 47 and 48 (see Fig. 1 for diagram of *Old Series* sheet lines; see Appendix for summary of publication dates). ¹⁹

The Essex maps were engraved on sheets of copper, with a map area for each sheet of about 35 miles west-east by about 23 miles south-north. Documentary evidence suggests that the usual practice with OS engraved mapping throughout the nineteenth century was to print very small batches of each sheet at any one time, usually ten or twenty, so that a sheet in some demand might be 'reprinted' quite frequently, although it is more in order to think of the printing being closer to 'print on demand' so as to maintain very limited stocks, rather than the twentieth-century practice of printing a large stock to last several years.

The Essex maps were followed in 1809 by a group of eight centred on Devon. Although the sheet lines were evidently designed on a national rather than a county basis, both the Essex and the Devon groups were evidently intended to function as county maps, and 'piano key' borders were engraved only round the outside of the county group, so that individual sheets, if not mounted as a county group or cropped to the neat line, would have an asymmetrical appearance. The Essex sheets had latitude and longitude indicated in the border at one-minute intervals, but were unique in that respect. On the Devon sheets a scale bar was provided which was split between the bottom two sheets (23 and 24) and would only 'come together' when these sheets were mounted together as one. It was for this reason, being considered as a selfcontained quasi-county entity, that sheet 10, covering the Isle of Wight, and published in 1810, was unique in having a piano-key border on all four sides from the start: it was also unique in having a title inset (the first known use of the phrase 'Ordnance Survey') into the border. As both the Devon and Essex sheets were (unlike earlier commercially-produced one-inch county maps) complete in topographic detail to the neatline, they could function as parts of the mapping of adjoining counties. This presumably explains why after 1810 the piano-key border was omitted from newly-published sheets, in favour of engraving a plate consisting wholly of piano-key border, which could be cut up and mounted according to the customer's need.

Further publications up to 1822 (the date of sheet 7, covering west London and most of Middlesex) were in the same general style, without a piano-key border, and, officially anyway, in groups as 'Parts'. The change of practice came around 1823-4 with the eight Lincolnshire sheets, which were 'Part X', and the last such 'county group'; a proof copy of sheet 65 on paper watermarked 1823 held in Cambridge University Library still has only the neatline, with no trace of a piano-key border, whereas by the time that the first 'sales copies' were printed early in 1825 a border had been added to all eight Lincolnshire sheets. Presumably borders were added at about this time to all the sheets which had been published previously, and they were thereafter standard, with a temporary exception to be noted shortly.

The production of the Lincolnshire sheets of the *Old Series* in 1825 was a troublesome business for the Ordnance Survey, as in the course of examining some of the surveys it was found that they were planimetrically defective, and that this was a general characteristic of OS work hitherto: up to 1815 survey work had been pushed ahead without much attention to

¹⁹ The Essex sheets were only given 'national' sheet numbers some time after initial publication: see the cartobibliographies for these sheets in Margary, *Old Series*, 1 (1975). The writer asks his readers to accept the curiosities of *Old Series* sheet numbering as a fact rather than as a matter for explanation, at any rate upon the present occasion, and leaves the question of *Old Series* geodesy, with its implications for sheet lines (or possibly of the sheet lines for geodesy) to Brian Adams: see Brian Adams, 'Parallel to the Meridian of Butterton Hill - do I laugh or do I cry?', *Sheetlines* 38, January 1994, 15-19.

²⁰ See entries scattered through Public Record Office [PRO] OS 1/260 relating to 1817-1822, and cf also Sir Henry James (ed.), ... *Methods and processes* ... of the Ordnance Survey..., London, HMSO, 1875, 203.

'quality control', and the published mapping was derived almost unaltered from the larger-scale manuscript surveys. Starting with the Lincolnshire sheets, all existing unpublished surveys were examined and revised before publication. As a result, for the ten years 1825-35 the work 'lingered very heavily', to use the words of the Superintendent of the OS, Colonel Thomas Colby.

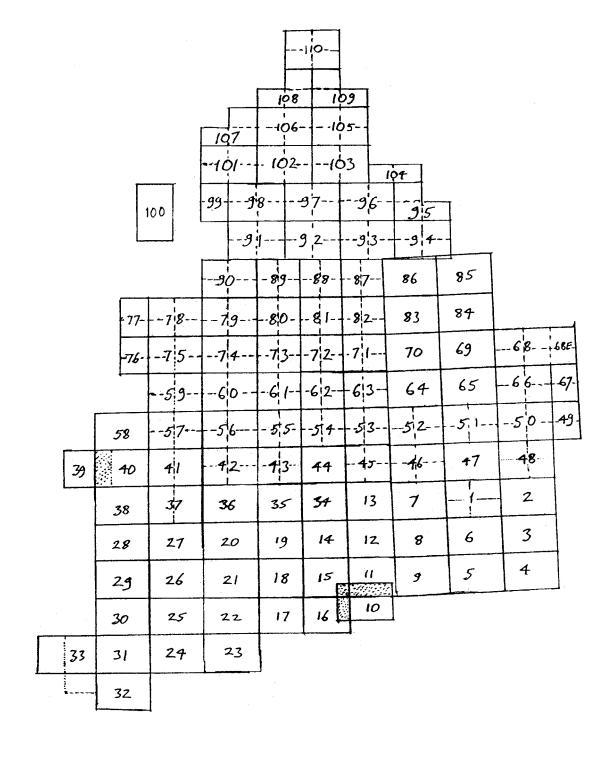


Figure 1. Index to sheet lines of the Old Series. Full sheet lines are solid and quarter sheet lines are pecked; the quarter sheet lines of sheets 1 and 48, and the position of sheet 33, as republished are indicated by dotted lines.

The first few sheets published after 1825 were issued as hitherto, as 'full sheets', covering an area of about 29 to 35 miles west-east by about 23 miles south-north. In 1829 a decision was taken to produce all new sheets as quartersheets: the object of this was to speed up the engraving, so that in future four engravers instead of one could work at any one time on the equivalent of a 'full sheet'. The first quartersheets appeared in 1831. As was reported in *Sheetlines* 49, the first three sheets to be issued in quarters (42, 43 and 54) had borders engraved only on the outer sides, so as that (as with the Essex maps of 1805) the border would appear complete when the four quarters were mounted as one, but as each quartersheet had its own publication note bottom left or bottom right and scale-bar bottom centre, 'full sheets' composed of quartersheets were and are readily recognisable as such. Sheet 68 was effectively divided into six 'quarters', the two easternmost being designated 68 E. no.1 and no. 2; 68 E. no.1, like 59 NW and SW., contained only sea and hydrographic information. (A single plate sufficed for those wanting the western quarters of sheet 90: not many did.)

By 1835 good progress had been made with revising the older unpublished surveys, and new survey was resumed; the sheets surveyed in 1835-40 and published between about 1838 and 1844 are of a high planimetric standard, broadly comparable with present day standards of accuracy. At this period eight sheets (1, 2, 28, 33, 38, 40, 48, 58) were wholly revised and reengraved (in the process sheet 33 was converted from a landscape-shaped to a portrait-shaped sheet, and sheets 1 and 48 were divided into quartersheets), and some revision was carried out at the edges of other sheets in order to assimilate them to their later-surveyed or revised neighbours. (This process is particularly marked on sheet 47.) A minor refinement added to all published sheets in 1836-7, and a standard feature of all other sheets south of the Preston-Hull line, was adjoining full sheet numbers in the piano-keys border (See Fig. 3C.).

In 1840 the OS was authorised to adopt the six-inch scale for survey in northern England, and sheets 91 to 110, which covered England north of a line from Preston to Hull, were derived from surveys made at the six-inch or larger scales. As these larger scale surveys were all published and contain far more detail, the one-inch mapping is of rather less importance as an historical source for students of the landscape than is the case south of the Preston-Hull line. Sheets 91-110 were of uniform size, being laid out as full sheets covering an area 36 miles west-east by 24 miles south-north, but published in quarter-sheets covering 18 miles west-east by 12 miles south-north, except for sheet 100, which covered the Isle of Man and was published as a portrait-shaped full sheet.

The introduction of the electrotype process for duplicating copper plates in 1847 (which is referred to in more detail later) meant that it was possible to publish the *Old Series* in more than one form. As a result, most of the sheets south of the Preston-Hull line may be encountered in three versions (all with hills shown by hachures): (1) the standard version; (2) as 'Index to Tithe Survey', and with a heading thus top centre; and (3) in a geological version, usually readily identifiable by the geological lines and added hand-colour. Sheets north of the Preston-Hull line may be encountered in up to five versions: (1) with hachured hills; (2) with no hachures or contours, and no tree-ornament in woods; (3) with contours and tree-ornament; (4) with hachures and geological information, and usually either hand-coloured, or in later printings (from about 1909) colour-printed; (5) with 'Shaded Zones of Altitude', effectively monochrome hypsometric tints or 'layers', which were confined to ten sheets (98 and 99, all quarters; 101 NE, SW., SE; 102 SW.). All sheets were published in forms (1) and (4); form (2) was a temporary version, pending engraving of the contours and wood-ornament, and although about two dozen such quarter-sheets are now known, it is unclear how many more may have been

printed and sold; all except three quartersheets (91 NW, NE, SW.) were published in form (3), the 'outline-and-contours' form.

From about 1852 onwards, parish boundaries and names were added to those northern English sheets for which this information could be supplied by the six-inch survey ²¹ and (except on early states of 91 SW. and 91 SE) is standard on sheets 91-110. In the early 1860s parish and other boundary information derived from tithe maps was added to 22 quarter sheets in north Wales and the northern Midlands; the random distribution suggests a short-lived intent to incorporate this information as standard on the *Old Series*, before another decision was taken to confine it once more to the 'tithe survey' version. ²² In 1863 sheets 43 and 55 in their standard hachured form were converted to full sheets with the assistance of electrotyping. No further quartered sheets were so treated.

The completion date of the *Old Series* is often quoted as '1873'. There are in fact four possible completion dates: (1) of cover of the mainland, by either outline-and-contours or hachured mapping, in which case the completion date is February 1868 (101 NW, 107 SW., SE); (2) of cover of the mainland by hachured mapping, which was in December 1869 (108 NE, SE); (3) of cover including the Isle of Man (sheet 100) in outline, in December 1873; (4) of the Isle of Man, hachured, in February 1874. If the hachured version is regarded as the standard map, then the 'correct' completion date is February 1874, although it should be noted that *Old Series* mapping never extended to the Isles of Scilly.

Although 'Sheet 100' is often quoted as the last *Old Series* sheet to be published, by the time of its appearance in 1873-4 it had been overtaken by events. In 1872 it was decided to replace sheets 1 to 90 of the *Old Series* by a 'New Series', to be derived from post-1853 sixinch and larger-scale surveys. Sheets 91 to 100 of the *Old Series* were to be renumbered as Sheets 1 to 73 of the New Series, with five 'sheets' (36, 45, 46, 56, 57) allocated to the single plate covering the Isle of Man. A scheme for treating the New Series as a quarter-sheet series was contemplated in 1872-3, and got as far as the addition of sheet numbers 14 and 20 to division-lines on the hachured version *Old Series* sheet 100, although the outline version (which lacked contours, though otherwise complete) bore its five New Series numbers from the start.²³ Although the sheet numbers for the mainland New Series Sheets 1-73 had been devised by November 1873 at the latest, the numbers were only changed on the plates in the winter of 1881-2, which suggests that there was a policy of converting wholly to the new numbers from 1 January 1882, but precise documentary confirmation of this is lacking.

Although only eight sheets south of the Preston-Hull line were subject to complete revision and re-engraving, and edge-matching revision was limited, elsewhere there was piecemeal revision. The most obvious and consistent example of this was the addition of railways. The first railway revision seems to have been carried out in 1836-7, and was the consequence of edge-matching sheets 72 and 73 with the sheets to the north, on which ran the Grand Junction Railway. The logic of the railway, which, unlike a new road, could not be terminated at the first convenient junction, compelled its addition not merely to its terminus at Birmingham on sheet 62, but all the way to London, as it made a junction with the London and Birmingham Railway. The addition of other railways in the late 1830s and early 1840s was

²¹ Except to sheets 80 NE, 85 and 86; and although parish information was added to sheet 87 SE about 1856, it was removed about 1862-3. The parishes in question are ecclesiastical 'mother parishes', rather than civil parishes.

²² The sheets in question are 60 NE, 61 NW, 63 SE, 71 NE, 72 NW, 73 NW and SE, 74 NE, 75 NW and SW., 78 NW, NE and SW., 79 NE, 80 NW, 81 NW, 82 (all quarters), 88 SW. and SE

²³ See Richard Oliver, 'New light on the *New Series*', *Sheetlines* 12 (April 1985), 7-13.

probably an outcome of edge-matching; from about 1845 onwards a systematic attempt was made to carry out a special railway revision of published sheets, and thereafter new railways were usually added to the *Old Series* within a couple of years of their opening.²⁴ As well as revising alterations to roads which crossed railways, this revision included some updating of urban areas, including often the addition of the new workhouses, though, as the 'case' of the omission of the Lincoln lunatic asylum shows, such revision tended to be piecemeal.²⁵ This additional supplementary revision largely ceased after 1862, but railway revision continued into the 1890s. The *Old Series* was only officially superseded as the hachured version of the *New Series* was published, and that was completed only early in 1903.

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Aids to dating

(1) Aids not engraved on the map

Watermarks

Most *Old Series* sheets were printed onto paper which was watermarked. The subject was studied in some detail by Robin Clarke, ²⁶ and the following comments draw on both his work and on the experience gained in compiling the carto-bibliographies for the Margary volumes. The main problem with watermarks is finding them and reading them: they were usually placed close to the edge of the paper, and so were liable to be cropped if and when the map was mounted. Even if present, the material on which the map has been mounted and the position of the watermark vis-a-vis printed matter on the map may affect its legibility.

In theory, all watermarked paper used by the OS for map-printing up to the early 1870s should state not only the name of the printer, but also the year in which the paper was made. Apart from the problem of cropping, another is demonstrable differences between the watermark year and the earliest year in which the map can reasonably have been printed. For example, some copies of some of the Devon sheets, first published in 1809, are on paper watermarked 1801. Three explanations are possible: (1) the paper-maker omitted to change the date; (2) '01' should read '10'; or (3) old stocks of paper were being used. If explanation (3) is accepted, 'common sense' might suggest that the sheets in question were probably printed closer to 1809 than to, say, 1819, but the balance of evidence is moving from what the watermark can tell us about the map, to what the map can tell us about the watermark.

A clearer case where old stocks of paper were used concerns *Old Series* quartersheets. The writer has not seen any such quarter-sheets printed on paper dated between 1847 and 1854; from about 1846 to 1855 all printings were apparently made on paper watermarked 1846, although *Old Series* full sheets printed at this time were being printed on paper bearing dates much closer to the date of printing. The explanation is most probably that around 1845-6, when the railway mania was at its height and there was a large demand for *Old Series* sheets, the OS obtained large stocks of paper, which, after demand for the maps subsided, was considerably in excess of immediate requirements. The large size used for the full sheets was also suitable for the six-inch and larger-scale sheets which started publishing in 1846, whereas the smaller size

²⁴ And very occasionally in advance of their opening, as in the instance of the Doncaster-Selby line on sheet 87 NE, which was added in 1869, about eighteen months before its opening early in 1871.

²⁵ See Richard Oliver, 'What the bird doesn't necessarily see', in Peter Barber and Christopher Board (eds), *Tales from the Map Room*, London, BBC Books, 1993, 32-3.

²⁶ R.V.Clarke, 'The use of watermarks in dating *Old Series* One-inch Ordnance Survey maps', *Cartographic Journal* 6 (1969), 114-29. This remains a seminal paper, though work on copies of six-inch and larger-scale maps printed from 1846 onwards would certainly modify the fine detail of its results and conclusions.

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was only usable for the *Old Series* quartersheets. By 1856 this stock of smaller-sized paper had been exhausted, and newly-made supplies were once more purchased. A further complication with watermarks for quartersheets is that from the 1830s until at least 1859 they often seem to have been printed on sheets of paper which had been made twice the necessary size, and which had then been cut in half before being used for printing.

Robin Clarke concluded that the watermarks were most useful for dating impressions of *Old Series* sheets printed between about 1823 and 1836; the present writer concurs, though he must add that he relied very little on watermark information when compiling the cartobibliographies for the Margary volumes.

Embossed printing dates ²⁷

From March 1851 to June 1912 all engraved OS maps were embossed, top centre, with a 'seal' which included the date of printing. From 1851 to March 1858 this included day, month and year; thereafter it was month and year. Until March 1859 the embossing was a circular design, about 32 mm in diameter, including the arms of the Board of Ordnance and the words 'Ordnance Survey of Great Britain & Ireland' (Fig. 2A); from 1859 to 1870 it was slightly oval, about 40 mm left-right by about 38 mm bottom-top, with the Royal arms in the centre and with the words 'Topographical Department War Office' in the upper half and 'Ordnance Survey' in the lower half (Fig. 2B); from 1870 or 1871 to 1890 it was similar, but now with 'H.M. Office of Works &c' in the upper half (Fig. 2C); from 1890 to 1894 it was once again circular, about 39 mm in diameter, with the Royal arms in the centre, surrounded by the words 'Board of Agriculture - Ordnance Survey' (Fig. 2D); and from 1895 to 1912 various oval designs were used, all rather similar, about 32 mm left-right by 27 mm bottom-top (Fig. 2E). The earlier designs, used between 1851 and 1889, made a shallower impression than did the later ones, and are not always legible; indeed, some of the 'Works' ones are extremely shallow, suggesting a very old and worn embosser.

Two other embossings on the top may be encountered. One, in use between about 1836 and 1856, has the words 'Presentation Copy', denoting a copy supplied by the Ordnance Survey without charge, to such as government departments and public institutions; it is unusual, though not unknown, to find examples in private collections. The other is a variant of the Board of Ordnance style, with the Ordnance arms replaced by 'Unfinished Impression' (see Fig. 2F). So far the writer has only seen this style on a few six-inch sheets, but hopes that this mention may bring to light some one-inch examples, which will presumably on sheets north of the Preston-Hull line. By the mid-1860s unfinished impressions were being annotated thus by hand in the bottom margin (see Fig. 2G).

If it is present, the embossed date is irrefutable evidence of printing date, and the writer has only encountered perhaps half a dozen sheets in several thousands where it ought to have been present but was somehow omitted. Unfortunately, often it is cropped, and of course it will be missing automatically on the lower sheets where 'full sheets' have been made up from quartersheets.

The earliest known example is of 28 March 1851, on a copy of *Old Series* sheet 89 SE, in the Royal Geographical Society's collection.

²⁷ The authority for the embossed printing date is James, *Methods and processes*..., 203. It seems to have been 'rediscovered' for modern students by Ian Mumford and Peter Clark: see I. Mumford, 'Engraved Ordnance Survey One-inch maps - the problems of dating', *Cartographic Journal*, 5 (1968), 44-6, and Ian Mumford and Peter K. Clark, 'Engraved Ordnance Survey One-inch maps - the methodology of dating', *Cartographic Journal*, 5 (1968), 111-14. The embossed stamp was also used on lithographed and zincographed impressions until about 1882.

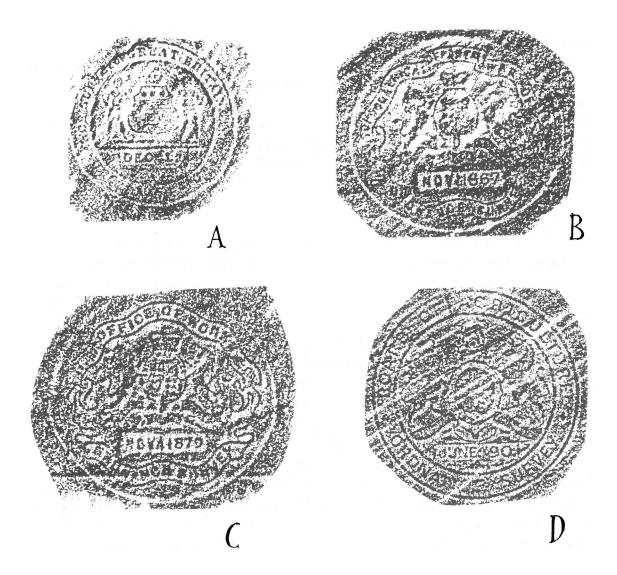


Figure 2. Embossed printing dates. These are difficult to reproduce by any means and photocopies of rubbings have been used.

- 2A: Board of Ordnance type; from sheet 42 S.W., printed 12 May 1854.
- 2B: War Office type; from sheet 80 S.E. (Index to Tithe Survey version), printed November 1867.
- 2C: Office of Works type: from sheet 61 S.W. (Index to Tithe Survey version), printed November 1879.
- 2D: first Board of Agriculture type; from sheet 78 N.E., printed June 1890.

The writer has not yet seen a undoubtedly post-1912 printing from copper of an 'ordinary' *Old Series* sheet, but has seen several of geological sheets; though comparatively large numbers had been printed in the summer of 1909 to provide a stock of 'Record Copies for sale as superseded mapping,²⁹ it is possible that a few more 'ordinary' sheets were printed after 1912.³⁰

²⁹ Sale of 'Record Copy' originals, identifiable by purple oval stamps top right, seems to have continued until about 1968, when the remaining stocks, of all scales, were distributed to libraries (verbal information from Margaret Wilkes); since then, superseded mapping has been supplied by photographic copies of originals in the OS Record Map Library.

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Figure 2 (continued).

2E: later Board of Agriculture oval types: from sheet 93 N.W. (outline version; renumbered as New Series sheet 62), printed March 1898, and from sheet 54 S.W., printed June 1909.

2F: Board of Ordnance 'Unfinished Impression' stamp, from a copy of Yorkshire 6-inch sheet 169, printed 2 March 1854, and overlying an illegible standard Board of Ordnance stamp.

2G: The method of indicating an 'Unfinished Impression' in the 1860s: from a copy of sheet 107 N.E., printed October 1865.

(2) Aids engraved on the map

Unless noted otherwise, the following aids to dating are only applicable to the ordinary hachured versions and to the outline-and-contours versions in northern England. The Index to Tithe Survey and geological versions present special problems, and are discussed separately below.

³⁰ The National Library of Scotland has a copy of *Old Series* 90 SE, state 4, i.e. dateable to the mid-1840s, which might possibly have been printed after 1912, but might equally be a very well preserved 'pull' of the 1840s. Between about 1928 and 1935 the OS issued a number of *Old Series* sheets in photo-lithographic copies. They are of a poor standard and are extremely, and deservedly, uncommon. Masochists will find a set in the Royal Geographical Society's collection.

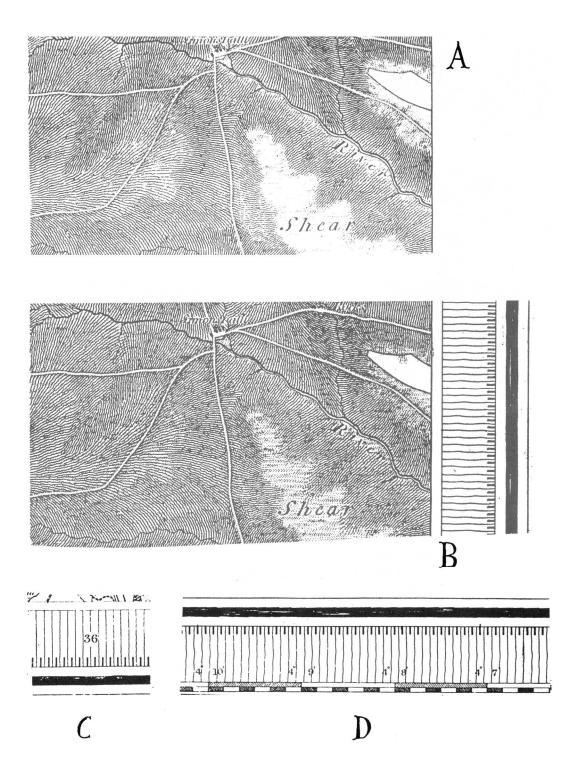


Figure 3. Border types.

- 3A: Sheet 27, as published in 1809, without border.
- 3B: Sheet 27, with border added in mid-1820s.
- 3C: Adjoining sheet number, added to this sheet (42 S.W.) in 1836-7.
- 3D: Latitude and longitude, as added in the early 1860s, from sheet 78 N.E.

Borders

Any sheet where the border is definitely omitted (see Fig. 3A) will have been printed before about 1825. This applies to sheets 3-9, 11, 12, 14-19, 28-33, and 38-40. (Of course, this test is useless where the map has been cropped at the neatline!) Sheets 1, 2, 20-27, 47 and 48 were originally published with borders on one or two sides only; sheets 10, 13, 34-37, 41, 44, 64, 65, 69, 70 and 83-86 were all published as full sheets with complete borders (see Fig. 3B). (Sheet 47 never seems to have had a keyboard border on its south or east sides.)

Adjoining sheet numbers

These were added in the outer borders of all published sheets probably in 1836 (see Fig. 3C). Their absence or presence is therefore significant on sheets 1-48, 51-58, 61-65, 69, 70, 73 and 83-86.

Latitude & longitude dicing and figures

These were included on the four Essex sheets of 1805, at one-degree intervals. The 'standard design' (see Fig. 3D), with dicing at ten-second intervals, was included on all published versions of sheets 91 NW and NE, the hills version of sheet 91 SE, and all published versions of sheets 92-110. They were added to sheet 91 SE before mid-1852 and to sheets 1-90 between about 1855 and 1864. (On the Essex sheets they replaced the original style. Sheet 91 NW was unique, in that in the mid-1850s graticule lines at five-degree intervals were drawn across the face of the map.)

Gardner & Ramshaw imprints

A note 'Printed by Ramshaw' was added, below the scale bar, in the mid-1820s to all sheets then published; James Ramshaw acted as printer to the OS between about 1824 and 1840, but the Ramshaw note does not appear on any sheets first published after 1828. 'Sold by Jas. Gardner, Agent for the Sale of the Ordnance Map, 163 Regent Street, London' appears in the border, above the scale, on most sheets printed between about 1823 and the early 1840s; Gardner was sole agent for the OS between 1823 and 1840 (Fig. 4). The Gardner and Ramshaw notes were usually removed in the early 1840s; as the Gardner note was in the border whereas the Ramshaw note was well outside it, the former is less likely to be lost by cropping and, anyway, the latter appears to be nearly contemporary with the former, and would not appear to offer any real additional assistance to dating.

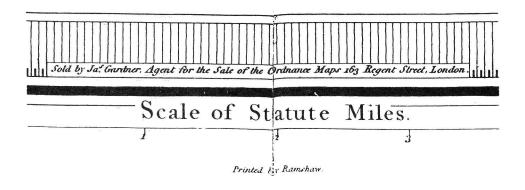
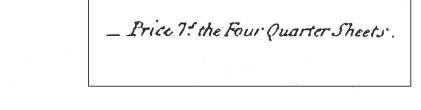


Figure 4. Gardner and Ramshaw notes, from sheet 85, printed early 1830s.

Prices

These first seem to have been added to *Old Series* plates in the late 1820s, when they appeared in the top margin. Prior to 1837, prices were fairly high, usually between about ten and twenty-one shillings per full sheet. In May 1837 prices were reduced to seven or eight shillings per full sheet, and the price was engraved top right, by the sheet number: on sheets published in quartersheet form, the price only appeared in the north-east quarter (See Fig. 5). In 1848 it was decided that all sheets which had been electrotyped would be sold at two shillings per full sheet and sixpence per quarter sheet, but it appears that the prices were not always altered on the maps themselves, even after electrotyping, and thus a 'pre-electrotype' price may appear on a sheet printed as late as the mid-1850s. On the other hand, the appearance of the lower prices on a particular copy are a sure indicator that that sheet was printed between 1848 and 1866-7. From 28 November 1866 prices were raised to one shilling per quarter sheet and two shillings and sixpence per full sheet, and these revised prices were substituted on the plates within the next few months. Earlier copies which were sold from 1867 onwards may be encountered with the price neatly scraped out. From the 1860s onwards the price usually appears in the bottom margin.



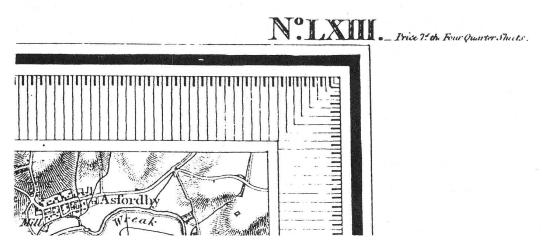


Figure 5. Price note with prices current after 1837, in standard top-right position: from sheet 63 N.E., printed 1840s.

Arabic sheet numbers

The standard method of indicating the number of an *Old Series* sheet was by Roman numerals, top right. In order to assist those not accustomed to Roman numerals, from 1846 an Arabic sheet number was added, above and to the right of the Roman sheet number; the position varies from sheet to sheet, and the Arabic number was often cropped, but its presence

is a reliable indicator of a post-1846 printing. Arabic sheet numbers are occasionally omitted on some sheets in the far north of England which were first published in the later 1860s (See Fig. 6).

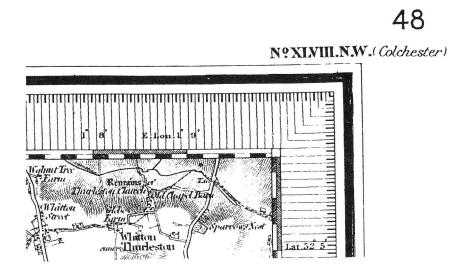


Figure 6. Arabic sheet number, from sheet 648 N.W.

Electrotype notes

Electrotyping was introduced to the *Old Series* in 1847. It had two applications: it could be used to provide duplicate plates so as to facilitate the publication of alternative formats, such as the Index to Tithe Survey and outline-and-contours versions, and it could be used to provide new printing plates to replace those which were showing signs of wear. 'Printed from an Electrotype' starts to appear, usually in the bottom margin, on sheets printed from electrotype duplicates, by about 1850; it is a reliable indicator of a post-1847 printing date. From 1862 until September 1892, the year in which the electrotype was made is usually stated, either as 'Electrotyped in 18xx' or 'Printed from an Electrotype taken in 18xx'; there does not appear to be any significance either in the wording or in the position of the note. From September 1892 all reference to electrotyping was omitted, but such late printings of *Old Series* sheets can often by identified by other diagnostics.

Railways and railway insertion dates

The presence of railways on *Old Series* sheets can provide a rough and ready earliest printing date, particularly if the borders have been cropped, but it depends on a knowledge of railway opening chronology, and whereas a few sheets never did show railways, others, particularly in northern England, included them from the start. Although most new lines carrying passenger traffic were added to the relevant *Old Series* plates within a couple of years of opening, exceptions may be encountered: a particularly striking one is the Victoria Docks

branch at Kingston-upon-Hull, which was opened in 1853, but was only added to *Old Series* sheet 86 in the mid-1880s. Its omission is particularly odd as the lines branching from it to Withernsea and Hornsea were both added shortly after their openings in 1854 and 1864 respectively (See Fig. 7).

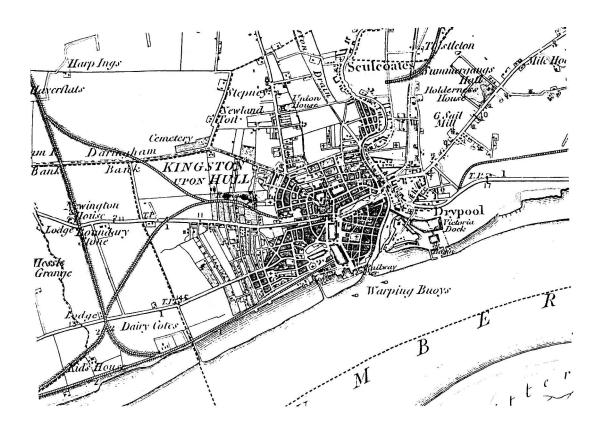


Figure 7. Railway additions and non-additions at Kingston-upon-Hull, from a copy of sheet 86 printed in December 1882. The lines running in from the east and apparently terminating at Drypool and Sculcoates (opened in 1854 and 1864 respectively) would appear not to be connected to the system of lines on the west side of this extract; in fact, both lines made a junction with the Victoria Docks branch, which had been opened in 1853 from a junction south of between 'upon' and 'Hull', but which had still yet to appear on the Old Series nearly thirty years later!

Railway insertion dates start to appear on the *Old Series* in 1882. They were sometimes added retrospectively, and the presence of a pre-1882 railway insertion date is, paradoxically, evidence of a post-1882 printing!

Levels, spot heights, and levelling revision dates

A few altitudes appear, often close to parish churches, on some sheets published in the late 1830s and early 1840s, in a distinctive stiff reversed italic (see Fig. 8A). Sans-serif altitude figures were a standard feature on most of sheets 91-110 from the beginning (some, such as 91 SW, had them added some time after initial publication), and were added to some of sheets 1-90, usually along roads, from about 1860 onwards; this may have been connected with the

completion about that time of the primary geodetic levelling of England and Wales (See Fig. 8B). In the mid 1880s a 'Levels revised' note was added to a few sheets, probably as a result of secondary levelling operations in connection with 1:2500 resurvey.

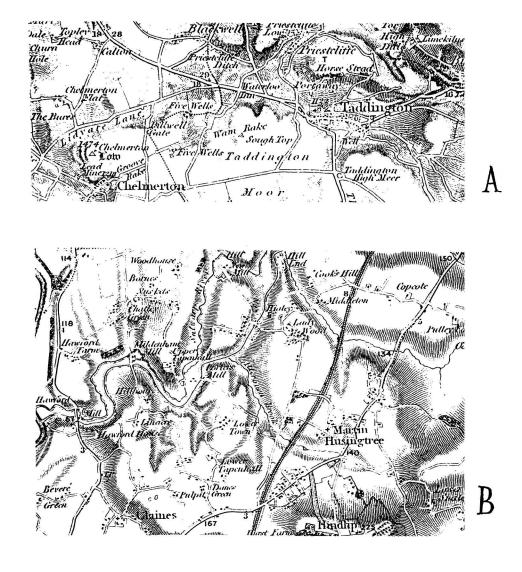


Figure 8. Altitudes:

8A: from sheet 81 S.E., published 1840, with altitudes in black-italic: '1474' for the triangulation station at Chelmerton Low, '1218' evidently applying to Chelmerton church, and '1122' evidently applying to Taddington church. '19.28' and '18.29' are road mileages.

8B: from sheet 54 N.W., in final state (electrotyped in 1890 and printed in June 1909), with sans-serif altitudes along main roads, e.g. '67', '118', '114' along that past Hawford.

'All rights of reproduction reserved'

This note was added to some sheets from 1888 onwards. It can be a useful indicator of a late printing if there is no electrotype date.

'The representation of a road, track or footpath...'

This note was added to some renumbered versions of *Old Series* sheets 91-110, in their guise as *New Series* Sheets 1-73, from about 1888-9 onwards.

Defence works

These were removed from the *Old Series* from the 1870s onwards; sometimes, as for the Martello towers on sheet 48, the plate was 'made good' and the deletion is not apparent, but on sheets 6, 9, 10, 24 and 38 the naval dockyards at Chatham, Portsmouth, Plymouth and Pembroke have been deleted, leaving noticeable white spaces.

The 'Index to Tithe Survey'

The story of this has been told more fully elsewhere.³¹ It was intended to show at the one-inch scale all the public administrative boundary information which was available on the tithe surveys of *circa* 1836-50, and its production was authorised in 1848. Extra-parochial areas were annotated 'E.P.', hamlets were annotated 'H', liberties were annotated 'L' and townships were annotated 'T': everywhere else was assumed to be a parish (See Fig. 9). All the sheets up to a line from Aberystwyth to Lowestoft, plus a few in East Anglia, had been completed by 1853, but further work was suspended for nearly a decade, and only resumed in the early 1860s, after a short period when the 'tithe boundary' information had been added to the standard topographic plates of 22 quarter sheets. The Index to Tithe Survey seems to have been completed in 1866-7; except in sheets 85 and 86 it did not extend to those areas which had been surveyed since 1841 at the six-inch or larger scales,³² but separate 'Index to Tithe Survey' plates were prepared for those 22 quarter sheets which had been issued in the early 1860s with the 'tithe boundary' information on the 'main' plate.³³

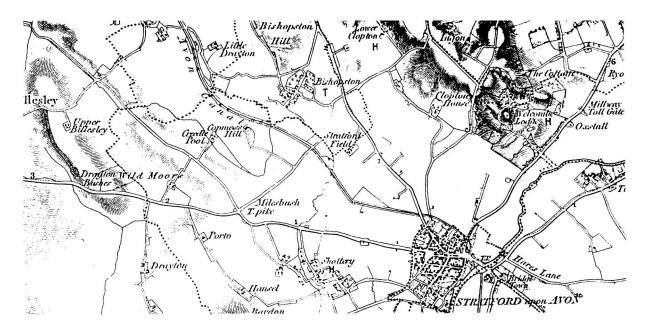


Figure 9. The 'Index to Tithe Survey': an extract from sheet 54 S.E., showing the use of 'H' and 'T' for hamlets and townships respectively: Stratford-upon-Avon is a parish by default!

³³ Which strikes this writer as an unnecessary duplication of effort and copper.

³¹ See Margary, *Old Series*, 6, xxi-xxii, and Roger J.P. Kain and Richard R. Oliver, *The Tithe Maps of England and Wales*, Cambridge University Press, 1995, 827-30; neither exhausts the subject.

³² The sheets published were 1-27, 29-38, 40-58, 59 NE, SE, 60-68, 68 E. [!], 69-75, 76 S, 78-86, 87 SE, 88 SW., SE

The 'tithe' plates were prepared from an electrotype of the current state of the 'ordinary' plate: thus those prepared in or before 1853 can be readily identified by having borders without latitude and longitude information. Except for sheet 2, the tithe plate of which was remade in 1864, the only later revision within the neatline was occasional 'security treatment' in the 1870s, as described above; unlike the 'ordinary' version of the *Old Series*, sheets 43 and 55 continued to be published in quarter-sheet form. At first, the sheets seem to have been issued with no heading at all:³⁴ by the mid 1850s 'Index to Tithe Survey' was being added in manuscript, either as large 'copper-plate', or smaller sans-serif 'Egyptian'; from 1862 onwards an engraved heading was standard, and most of the surviving sheets are in this form. Price notes were duly altered in 1866-7, but there does not appear to have been any other alteration to marginalia.

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The Index to Tithe Survey does not appear to have been in very much demand by contemporaries, and most of the surviving copies are 'Record Copies', printed after *circa* 1880.

The Geological Survey version of the Old Series

It is well known that in 1832 Sir Henry de la Beche offered to provide geological information for the eight *Old Series* sheets (20-27) covering Devon, that in 1835 he was authorised to extend his activities to the rest of England and Wales, and that in 1845 the 'Ordnance Geological Survey' was transferred to the Office of Woods and Forests and became the Geological Survey. The initial geological survey of England and Wales was completed in 1898; where possible (perforce, in the north of England) survey had been at the six-inch scale, and replacement of the *Old Series* geological map by a *New Series* based on six-inch survey began in 1888.³⁵

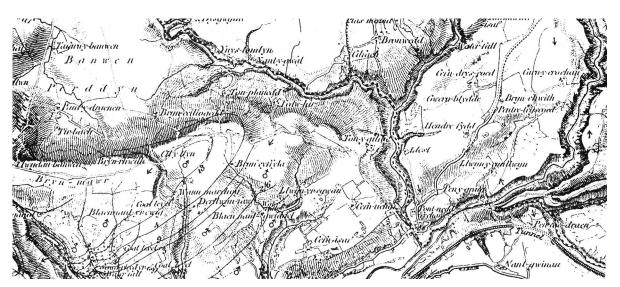


Figure 10. Geological information as added to sheet 42 S.W. in 1844-5, on a 'topographical' copy printed in 1854. The plain arrows indicate the dip of the strata, the arrow-with-circle denotes iron, solid lines are coal outcrops, and fine dotted lines indicate other strata.

Until the advent of electrotyping in 1847, the geological information had to be added to the same plate as carried the ordinary topographical information, and thus once on it stayed on

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³⁴ This has been inferred from a few examples seen by the writer which, on other evidence, seem dateable to the very early 1850s.

³⁵ It has still not been completed, but that is another story.

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sheets 19-27, 29-33, 35-38, 40-43, 56-58 and 59 SE (see Fig. 10.) The ability to engrave the geology on an electrotype duplicate enabled the geological version to emerge as a map in its own right, with separate publication notes, headings (absent from the standard version of the *Old Series*) and a legend explaining the geological symbols, abbreviations and hand-colours. Electrotypes were in due course prepared for those sheets which had been published with the geology on the 'original' topographical plate; sheets 43 and 55 were always published geologically in their quarter-sheet form.

Whilst the geological version of the *Old Series* is readily recognisable (pre-electrotype versions are 'geological' according to whether they are coloured or not), to date its post-publication development and revision have not been studied. The geological version of the *Old Series* continued to be printed up to 1940, when all stocks seem to have been destroyed by enemy action; all the engraving and printing was undertaken by the OS, on a repayment basis, printings are on watermarked paper and until 1912 carry embossed printing dates, and post-1912 printings are identifiable by the lack of the embossed stamp. Whilst it is apparent from the publication notes that the geology was subject to revision and additions, that geological survey often involved the discreet addition of quarries, pits and other features of geological interest, and that the post-1880-ish printings which are those which are most commonly encountered are in a comparable state of railway revision to corresponding states of the 'ordinary' topographic map, it is at present unclear whether non-geological revision was generally effected at the same time as on the 'ordinary' plates, or whether it was more concentrated.

Appendix Summary of Old Series publication dates

The dates given here are the *nominal* publication dates of the standard hachured versions; those of the outline-and-contours versions of sheets 91 SE and 92-110 differ slightly. (Q) denotes quarter-sheet publication; uncertain dates are prefixed by '?'. 36

1, 2	1805	45 (Q)	1833
1, re-engraved (Q)	1843-4	46 (Q)	1834
2, re-engraved	1840	47, 48	1805
3	1819	48,re-engraved (Q)	1838
4	1816	49 (Q), 50 (Q)	1837
5	1813	51 (Q)	1836
6	1819	52 (Q)	1835
7	1822	53 (Q)	1834
8	1816	54 (Q)	1831
9	1813	55 (Q)	1832
10, 11	1810	55, as full sheet	?1863
12	1817	56 (Q)	1833
13	1830	57 (Q)	1834
14	1817	58	1819
15-18	1811	58, re-engraved (1)	1834
19	1817	58, re-engraved (2)	?1844

³⁶ The actual dates at which the maps were put on sale to the public may differ considerably from those given in the publication notes on the map: thus though the eight Lincolnshire sheets (64, 65, 69, 70, 83-86) are all dated 1 March 1824, they were not ready for issue to the public until over a year later.

3,

20-27	1809	59 (Q)	1837
28	1820	60 (Q)	1836
20, re-engraved (1)	?1821	61 (Q)	1833
20, re-engraved (2)	?1836	62 (Q)	1834
29-33	1813	63 (Q)	1835
33, re-engraved	1839	64, 65	1824
34	1828	66 (Q)	1838
35	1830	67 (Q)	1837
36	1833	68 (Q)	1838
37	1830	69, 70	1824
38	1818	71 (Q)	1836-39
38, re-engraved	1839	72 (Q)	1836-38
39	1820	73 (Q)	1833
40	1819	74 (Q)	1837-39
40, re-engraved	1843	75 (Q)	1838-41
41	1831	76 (Q)	1840
42 (Q), 43 (Q)	1832	77 (Q)	1839
43, as full sheet	?1863	78 (Q)	1840-41
44	1828	79 (Q)	1840
80 (Q)	1842-43	97 (Q)	1860-61
81 (Q)	1840-42	98 (Q)	1864-65
82 (Q)	1840	99 (Q)	1864-65
83-86	1824	100	1874
87 (Q)	1840-41	101 (Q)	1867-69
88 (Q)	1843-44	102 (Q)	1863-66
89 (Q)	1842-44	103 (Q)	1861-63
90 (Q)	1842	104 (Q)	1860-61
91 (Q)	1847-52	105 (Q)	1863-67
92 (Q)	1857-59	106 (Q)	1867-69
93 (Q)	1858	107 (Q)	1868-69
94 (Q)	1857-58	108 (Q)	1868-69
95 (Q)	1856-7	109 (Q)	1866-68
96 (Q)	1859-61	110 (Q)	1865-66

Think of a number between 2 and 9 and forget it: A few thoughts on OS/Philip's Street Atlas

The series of OS street atlases produced in association with Philip's have been one of the most noticeable OS developments in recent years. In terms of legibility the present range with their coloured atlas pages are far removed from the earlier volumes with black and white atlas pages. They must now rival the *Landranger* as a popular product with the general public. In commenting on the Manchester street atlas, I do so without any knowledge of where the OS responsibility ends and where the responsibility of George Philip begins.

On a recent tour of the Greater Manchester area the pocket atlas version seemed ideal, with main maps at 3.92 cm to 1 km and selected enlargements at 7.84cm to 1 km.

It was the enlargements which intrigued me, and finally irritated. The areas selected for enlargement include (with the number of pages) Bolton (7), Salford (1), Manchester (11) and Stockport (3).

If you have a one-page enlargement that is fine, similarly with two, but even then there is a danger that the very heart of the town will get lost between pages. A nine-page enlargement is ideal with the centre of the centre being right in the middle of a logically arranged rectangular block. But seven - that just produces an irregular shape, and the result for the visitor to Bolton is that the heart of the town was divided between the right hand side of one page (145) for the western side, with a non-continuous page (148) to the east.

As for Manchester itself, eleven pages produces an irregular (i.e. non-rectangular) block, with the business and shopping centre divided into four non-continuous pages - 158-9 for the northern half, 162-163 for the south. Try using these pages to walk around the City Centre and you will soon find out just how confusing such an arrangement can be!

Stockport, where the enlargement covers three pages (NW, NE and SE quadrants) was equally confusing with the bus and rail stations (which are really quite close) divided between pages 169 (north) and 170 (over the page - south).

My user plea then is for city centre enlargements to cover rectangular areas. One page is obviously acceptable, two adjoining acceptable with reservations about page divisions. After that the atlas designers seem to run into difficulties. Six is acceptable only if the town lends itself to a strong north-south axis. Nine would seem workable from the user's point of view. Larger numbers of pages would make dual-scale atlases very odd.

But perhaps these maps are not designed for that purpose at all: they are just a means of locating particular streets. Once located you should get a real street map for pedestrian exploration or to reach your chosen thoroughfare.

Richard Evans

Something on the side?

Whilst accepting that the unlamented administrative county of 'Humberside' was scorned by both Lincolnshire and Yorkshiremen, I was surprised to find that a professional geographer like Richard Oliver should seek to eliminate such a useful descriptive concept (*Sheetlines* 49 page 9, footnote 2)

Casting my thoughts clockwise round the country I immediately identified a string of familiar names like Deeside, Tyneside, Wearside, (yes!) Humberside, Merseyside and Clydeside. More tortuously, I've occasionally noticed presumably useful journalistic constructions like Thames-side, Solentside, Severnside and, across the water, Lagganside and Liffeyside.

Surely there is a useful place for a geographical 'community of interest' term embracing both sides of an estuary which needn't be tarnished by passing political correctness. Why shouldn't we even try out names like Forthside, Washside, Medwayside, Tamarside, Taffside or Solwayside when appropriate.

Now you see it, now you don't!

by Roger Hellyer

The notes in *Sheetlines* that have revealed the occasional errors in Ordnance Survey covers, both textual and cartographic, have so far overlooked the curious case of the movable Island of Foula. The location diagram on the front of ?first issue covers of Sheet 2 in the One-inch *Seventh Series* (date code 7-61 on the cover hinge) show an inset of Foula squeezed between Stenness and the Ve Skerries which is lacking from the map itself (figure 1).

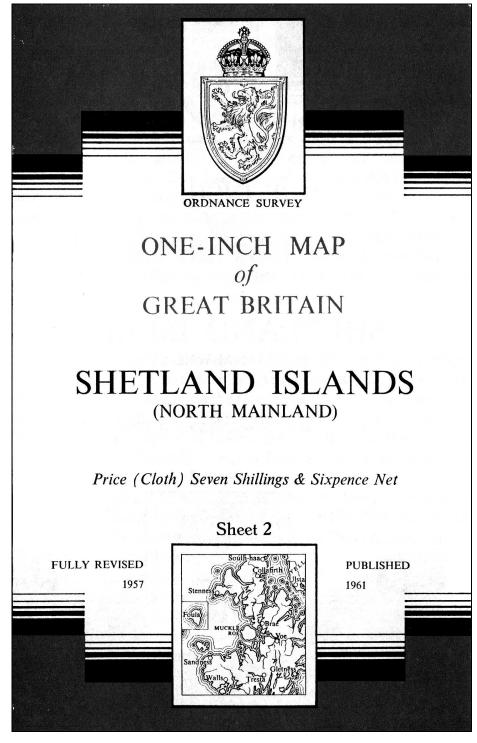


Figure 1

On the reverse the index diagram suggests an alternative, that Foula is in fact in the south-west corner of Sheet 2. But still the map itself refuses to oblige. One has instead to look to Sheet 4, where Foula appears on the map where the front cover location diagram suggests that Fair Isle ought to be, with Fair Isle itself located in the south-west corner of the sheet (figure 2).

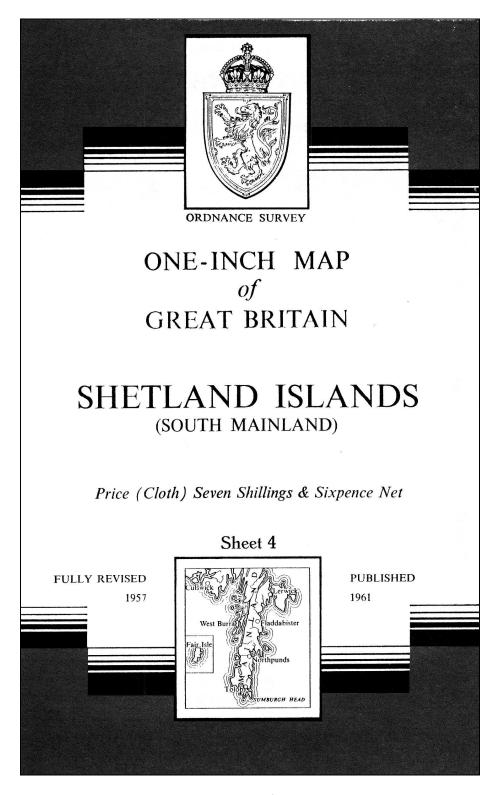


Figure 2

An examination of the One-inch Seventh Series job files, still at Tewin, may just reveal when the instruction to move the inset of Foula from Sheet 2 to Sheet 4 was given. But we would be unlikely to learn from this source how any such instruction related to those concerned with the creation of the cover design, and in particular whether it occurred before or after the drawing of the location diagrams. The alternative scenario that there never was a change of policy as regards the location of the Foula inset, merely that those designing the covers were given incorrect instructions from the outset, is clearly unsustainable because other indexes, such as the 1:2 million Seventh Series Index issued in 1955, and that appearing in A description of Ordnance Survey Small Scale Maps (1957) both show arrows incorrectly pointing from Foula towards the south-west corner of Sheet 2.

As is so often the case with the Ordnance Survey, issues are rarely as clearcut as one first assumes. On the index diagrams on the early 'shortform' *Seventh Series* covers Foula always seems to have been pointed at Sheet 2, and

indeed I have covers with date codes up to 12-59 showing precisely this. Confusion arises with the change to the earliest 'longform' covers, i.e. those preceding the change to sans serif spine writing in 1961. Covers of this generation of course still precede the issue of Sheets 2 and 4. But with the introduction of 'longform' covers in January 1960 on Sheets 169 and 173 Foula was redirected on the new index diagrams to what was to be its future correct location on Sheet 4, only to be misdirected back to Sheet 2 on late issues of covers of this type (I have one such coded 5-61 for Sheet 175). As is established above, the error was preserved on the earliest covers with sans serif spine writing (therefore at the time that Sheets 2 and 4 actually were issued in mid-1961), and was still present on those issued with date codes 9-61. It was corrected for good by the time of the 3-62 issue: members owning *Seventh Series* maps issued between these dates may be able to refine the actual date of correction more closely still.

George Victor du Noyer

In *Sheetlines* 35 (January 1993) there appeared an article by Petra Coffey on George Victor du Noyer (1817-69), who worked first on the Ordnance Survey of Ireland memoir project, and then from 1847 until his death on the Geological Survey of Ireland. He was a most skilled drawer and water-colour artist; in 1995 some of his work appeared on a calendar produced jointly by the Geological Survey of Ireland and the Irish Gas Board, and the plate of apples looked good enough to eat! He died of scarlet fever at Antrim, and was buried there in an unmarked grave.

Thanks to Mrs Coffey's efforts over some three years, du Noyer is now commemorated by a plaque inside All Saints (Church of Ireland), Antrim. This was dedicated on 25 May 1997 by the Archdeacon of Connor, the Venerable Alan Harper, and was reported on the front page of *The Church of Ireland Gazette* of 25 July.

Following her article in *Sheetlines*, Mrs Coffey published another: 'George Victor Du Noyer 1817-1869, Artist, geologist and antiquary', *Journal of the Royal Society of Antiquaries of Ireland*, 123 (1993), 102-119. No doubt some readers will wish to pursue this, but they are warned that apparently proof corrections were not included, so the result was not a 'good text'.

NT and OS - and some thoughts on Explorer 133

The receipt of the recently published 1997 edition of Properties of the National Trust set me on the trail of looking at how the 240,000 hectares which NT owns in England Wales and Northern Ireland are shown on OS maps.

I should hasten to add that *Properties of the National Trust* is NOT the familiar handbook issued free to all the Trust's 2.5 million members but is an additional for sale booklet updated every five years listing all NT properties with their grid reference, area in hectares and acres, and the date and means of acquisition.

The 1997 edition has on its back cover a glorious picture of a field of lupins. The caption and grid reference SU 818236 show it to be in West Sussex and within the area of *Explorer* 133 *Haslemere and Petersfield* edition A 1997. Unlike earlier *Explorer* maps (e.g. the two South Downs Way sheets of which 16 - due to be renumbered 123 - covers the Eastbourne area), 133 introduces the concept of access land, and by using conventional signs printed in purple based on the corporate logos differentiates land owned by NT, its Scottish equivalent the National Trust for Scotland, the Forestry Commission, and 'other access land'. The NT conventional sign for 'always open' is a white oak on a purple background; 'limited access' is a purple leaf on a white background.

But checking the map against the properties booklet, it soon becomes apparent that not all NT land is access land. NT holds land and buildings to which there is no public access at all: Woolbeding House (SU 872227) is an example on 133. This is not shown by the NT symbol. Of the NT's 446 hectares of land on the Woolbeding estate only the wood and an area of common land are within the purple boundary lines. Similarly the NT symbol will not be found where access is confined to rights of way. Terwick Church Field, the lupin field mentioned above, is not graced by either NT symbol: it is clearly not 'access land' and the NT booklet makes a clear it is only approachable by using a right of way footpath.

Starting from my curiosity about the NT properties on the map, and casting myself as a very ordinary map user, the adoption of a new conventional sign diagram on this sheet compared with the A 1995 edition of the Eastbourne sheet, revealed a number of apparent anomalies and curiosities.

Firstly a question which is not new: how do NT and OS divide properties into 'open always' and 'limited access'? Petworth Park is one of the 'limited access' variety. Fair enough, the park does not open before 8am and closes at dusk, while access to the House and Pleasure Grounds are limited to five days a week from spring to autumn, with a charge for non-members to visit the house. All other properties on the sheet are indicated as open always with the exception of the Church Meadow at Selborne (SU 743338). The NT leaflet on Selborne emphasises that all its properties in and around the village are freely accessible and the adjoining Short Lythe is marked as being always open. I will have to investigate those limitations on Church Meadow more closely.

Explorer 133 also introduces a whole range of conventional signs not found on Sheet 16. Cathedrals and abbeys are now marked by a blue cross. (On 16 there is a blue shading over the black printed name of the abbey.) Sheet 133 does not contain any cathedrals or abbeys. But the sheet has two priories: Easebourne (SU 895225) and Shulbrede (SU 876299). Priories, for some reason, do not qualify for the cross symbol - a rather curious distinction.

Public Houses (or in the French translation *pubs*) now get a symbol of their own - a beer mug. But this seems only to apply in rural areas. What are the criteria against which the rural/urban distinction is made? Those metropolises of the Surrey/Hampshire border, Grayshott

and Beacon Hill are apparently too urban for a beer mug symbol (a pint of Gale's HSB at the Fox and Pelican, Grayshott for the best CCS answer). And if an establishment is shown as a 'hotel' in black type, it does not qualify for a beer mug symbol as well. But insisting on a differentiation between pubs (to use the French) and hotels is surely rather absurd in 1997? (I can guess why it has come about!)

Nature reserves have also gained their own blue symbol - a bird. Iping Common (SU 847219) is an example, but at Broxhead Common Nature Reserve (SU 806372) the black printed words 'Nature Reserve' appear. What is the distinction? Again I can only guess.

English Heritage properties are indicated by a symbol based on that organisation's logo. There are no EH properties on Sheet 133. But what will the *Explorer* sheets show when the series reaches Scotland or Wales? Is there to be a slightly different version of the conventional signs list using the logos of the equivalent organisations, Cadw and Heritage Scotland? If so the decision to include the NTS logo on this southern English sheet seems all the more curious.

The conventional sign for permitted paths and bridleways is unchanged between sheets 16 and 133 but I have yet to find any on 133. And the question of permitted paths brings me back to the depiction of NT land and features. I know more than one path across NT land which is not access land, but where the Trust has signposted permitted paths. A path at Woolbeding linking the ancient bridge with the access land Woolbeding wood is an example. Again a curiosity worth investigating.

And if sheet 133 is to be believed NT is the only organisation throughout this map's 30 km x 20 km area providing access land. No Ministry of Defence land is so marked, nothing from the three county councils - Surrey, Hampshire and West Sussex, and nothing from other heritage bodies such as the Woodland Trust. The last named body I know owns woodland at Linchmere to which there seems to be unlimited access. Again I can only surmise that having accepted the notion of access land, OS used its existing data on NT property, but in order to meet target dates for the A edition they failed to follow up other bodies' information in time for publication.

Other changes to the blue conventional signs schedule under the heading Tourist Information (now Tourist and Leisure Information) seems sensible. A distinction is made between seasonal and all-year tourist information centres. Visitor centres and the ubiquitous leisure centres have their own symbols. And there is a 'catch all' symbol - a five pointed star-for 'other tourist features'. But what qualifies under this heading? 'New' tourist features (shown in blue lettering), including a pottery at Selborne and tennis at Kingsley.

Among general features, camping barns now have a symbol - a red square complimenting the established red triangle for youth hostels.

And red is now more emphatically the colour for danger. Firing and test ranges are now shown with a series of broad based arrows along their boundaries. Rather alarmingly for the general user the A3 trunk road is shown as passing within the boundary of Longmoor military firing area.

Perhaps I and my bicycle should avoid Longmoor and the coincident twin dangers of dual trunk road and stray bullets, and should stick with the comparative of the well sign-posted Surrey Cycleway. But one gets little help on that from sheet 133, even though *Explorer* blue symbols now include one for cycle trails.

With all these curiosities, perhaps I should wait for the next edition. But with the continuously numbered sheets of the *Explorer* maps only really getting under way, I may have a long and patient wait.

Review

'Access land' on Ordnance Survey 1:50,000 maps

by Richard Oliver

In July 1995 Ordnance Survey published 1:50,000 Landranger Sheet 124, *Dolgellau*, with a number of experimental features, notably including hill shading, routes with public access which are not public rights of way, 'off-road' cycle routes, and a fully bilingual (English and Welsh) legend. National Trust and Forest Enterprise land (the latter omitted from OS mapping from the late 1980s onwards) was shown by purple lines and abbreviations. The map was reviewed for *Sheetlines* by David Watt, ¹ not altogether favourably.

Whereas the hill-shading met with a very mixed reaction and a decision was taken not to proceed further with it, and the off-road cycle routes are now being shown on new 1:25,000 sheets, access land, access routes and (on sheets including Welsh territory) bilingual legends have now been adopted as standard features of the 1:50,000 map. The first three sheets to include this information have now been published: 135, *Aberystwyth & Machynlleth* (edition B), 165, *Aylesbury & Leighton Buzzard* (edition C), and 196, *The Solent & Isle of Wight* (edition C).

As on Sheet 124, the Welsh legend on Sheet 135 is on the left side of the map, necessitating a trimmed sheet size of about 1125 x 890 mm instead of the standard 1000 x 890 mm, and a 9 x 4 instead of 8 x 4 Bender fold. All these sheets retain Sheet 124's arrangement of revision and edition information immediately below the map title and of having main headings in the legend boxed in. One small innovation on Sheet 124 has not been followed, and that was giving 'Revised for selected change 1994' below the title, supplemented by 'Edition A published 1982 - Revised for selected changes 1990, 1994' at the bottom of the legend; in fact, edition A had been revised in 1982, and published in 1984. Sheets 135, 165 and 196 all have 'Revised 1996' at top and bottom of the legend. A curious innovation on the three new sheets is that the trilingual Communications (now including railways) and Tourist Information sections of the legend are now separated by the monolingual General Information. The sub-heading 'Antiquities' is now 'Archaeological and Historical Information'. As on Sheet 124, there is no information on adjoining sheets on the map face, though there are announcements of the free combined (1:625,000) index to 1:25,000 and 1:50,000 cover and the Scottish and Welsh placenames booklet. The space formerly used on some sheets for a small diagram of long distance paths has now gone. Sheet 135 has a standard cover design, whereas the original issue of Sheet 124 added a small Welsh flag both on the front and on the spine.

Of more interest and substance are the changes and innovations affecting map content. Tree-symbols in woods are now shown in 'green' (as on recent 1:25,000 mapping). National Trust and Forestry Commission land are now shown by purple vignetted bands, supplemented by pictograms to show ownership and any restriction on ownership. 'Other routes with public access' are shown by moderately bold red dots (Sheet 124 used open diamonds), long distance paths by red solid diamonds, 'Selected cycle routes' by a small red cycle symbol, and National Cycle Network route numbers are included, by reversing out on red.

Access land has been shown for some years on 1:25,000 *Outdoor Leisure* maps, and is now being included on the new *Explorer* maps, using the same general style as on these

¹Sheetlines 44 (December 1995, pp 52-5).

²Thank goodness that beastly and unintelligent h-word has not been used!

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1:50,000 sheets, of bands and pictograms. As a recent issue of the Ramblers Association's *Rambling Today* shows, there is considerable public interest in access land, both in its present extent, and increasing that extent, there is the prospect of a new Act being passed within the next couple of years which would substantially increase public access rights, and there can be no serious question of Ordnance Survey not showing it as a standard element on its 1:25,000 and 1:50,000 mapping; one present difficulty is obtaining the necessary information on such land.³ The only question is how such land is to be shown.

As to the worth of the changes the three sheets under review, those to the legend are no doubt largely a matter of taste, though the space occupied by the plug for the free index might have been more usefully occupied by retaining the adjoining sheet diagram with its grid figures for adjoining sheet lines, and it is a pity that the legend is still not fully trilingual; the 'General Information' is precisely where guidance is most needed to (as they seem to outsiders) national peculiarities and specialities, and, if there really isn't the space, it seems perverse to have trilingual information about railways as well as about public rights of way, but only monolingual information on access land. The 'green' tree symbols are not quite wholly successful (certainly not as successful as on, say, *Explorer* 18 [new 135], *Ashdown Forest*), as they seem to depend on careful control of the cyan, but this is not a serious fault, and putting them in colour is a definite step forward. One's only regret is that they are still omitted from 'mixed' woods, which gives a somewhat patchy effect.

Symbols for long distance paths and cycle routes are welcome in principle, as they can relieve the maps of verbal annotations, and as the Cycle Route numbers are starting to appear on signposts there is every reason for OS to include them. (However, one questions whether long distance cyclists will be willing to carry around large quantities of 1:50,000 maps: OS makes a case, unwittingly, for a national 1:100,000 or 1:125,000 series.) However, parts of Sheet 165 are full both of red diamonds and black annotations: see, for example, south of Aylesbury, around SP 820060. It would be helpful were the annotations in magenta or red, rather than black, particularly as they are hardly an organic part of the countryside, or of the cartography, as the discrepancy in type-weight shows (see e.g. at SP 775051 or SP 926060).

The new symbol for 'Other routes with public access' is a great improvement on Sheet 124's open diamonds, which, in retrospect, seem to have been designed in order to provoke suggestions of something better; if so, the ruse was successful. Were it not that the convention has already appeared on a considerable number of 1:25,000 *Outdoor Leisure* and *Explorer* maps issued during 1997, whereas previously lines and annotation by abbreviations (as on Sheet 124) were used at that scale, one would be tempted to suggest that the bands and pictograms for access land are the product of similar thinking. As it is, they ruin the look and legibility of the map: they make it appear as if either it had been overprinted for some special purpose and limited circulation, or else that an overprinted intended for a monochrome map had been printed in the wrong place altogether.

It is not as if National Trust and Forestry Commission land had not been mapped before; the former first appeared on One-inch *Fifth Edition* mapping in 1931 and the latter on the 1:50,000 *Seventh Series* in 1977. The vignetted green band used on the *Fifth Edition* and the *New Popular Edition* was admittedly unsatisfactory, and was replaced by red bounding lines on the One-inch *Seventh Series*, published from 1952 onwards; the same principle was used for showing Forestry Commission land on the 1:50,000. The problem is not the substituting of

³Rambling Today, 26 (Autumn 1997), 14-15, 17-18. (I am indebted to John Perrett for drawing this to my attention.)

purple or lilac, indeed it helps avoid confusion where access land borders on public rights of way, but the way it has been done, both on the 1:25,000 and on the 1:50,000, is nothing short of grotesque. (We have been here before. Red vignetting was tried in 1949 for National Trust areas on the One-inch *Seventh Edition* pilot Sheet 142. It detracted greatly from a generally most successful design.) The National Trust has amongst its objectives the preservation of areas of historic interest and natural beauty: how ironic that they should be depicted in so vile a manner! The result is that all three sheets are covered by banding which looks likes the sort of thing one would expect to see on an overprint of army exercise areas on, say, Salisbury Plain. The New Forest appears to have been overrun by some dreadful plague. Not only is the result ugly: it also interferes with the legibility of the map, and produces a needlessly overloaded effect, exemplified on Sheet 196 at SZ 310850, SZ 386835 and SZ 435905. The prospect of a considerable expansion in access land and of this vile purple banding and its associated (puerile) pictograms is thoroughly unpleasant.

One hopes that something better will employed, and sooner rather than later. As it is, the depiction of access land negates the good impression produced by the other innovations.

The Reproduction of OS Maps in Books

At a very enjoyable Nottingham CCS weekend I suggested that the Society should consider compiling a list of the use of authorised OS maps (as opposed to maps derived from OS material) in other publications.

You need no thinking time to guess the result: I should start the ball rolling.

I feel that we need a structured approach to listing all items, not maps in themselves, which contain OS maps, and therefore tentatively suggest the following approach in the hope that others can tackle the areas in which I am least confident.

If we create the following classes of publication, we can make a start on a Society bibliography.

- A. Atlases, which by their nature consist of OS maps, published by the Ordnance Survey.
- B. Atlases consisting of OS maps, unadapted by others, published jointly by the OS and another publisher.
- C. Catalogues and price-lists of the Ordnance Survey which use full- scale illustrations of OS maps.
- D. Catalogues and price lists of, e.g., mapsellers which contain full-scale sample illustrations of OS maps.
- E. Books published by the OS illustrated with full-scale illustrations of maps.
- F. Books co-published by the OS and another publisher, illustrated with OS maps.
- G. Books from other publishers using examples of OS maps at full scale.
- H. For the sake of completeness we could consider including books which happen to include OS maps in their illustrations, but only as part of a picture.

I myself wish to concentrate on 'G', which is my particular interest, but I have suggested the other classes, and hope that other members will take up the challenge of creating comprehensive listings.

The scheme I suggest, ready for the warranted criticism of more learned members, starts with a brief reference to the book, and sufficient information on the maps to aid identification, but not to the extent of corner grid references.

The class is followed by the first year of publication of the particular edition (because the maps were often updated at revision time), and of course we are only including maps reproduced in their original colours, as opposed to monochrome reproductions of coloured maps.

Thus a book might be as follows:

'G/1963/Map Studies and Landscape Types by Margaret Wood, pub. G.G. Harrap & Co, 4th ptg 1967, page 240mm x 185mm'

The maps and pages of conventional signs (if I omit them someone will want to make a study of them) could be listed as follows:

- opp. p.9 'One Inch Seventh Series Conventional Signs with Conventional Signs 1/625,000'
 - opp. p.10 'Conventional Signs Used on the Two & a Half Inch (1/25,000) Series.
 - opp. p.12 'Scale 1:10,560 or 6 Inches to 1 Mile Conventional Signs'
- opp. p.14 'Tourist map (One Inch to One Mile) Part of the Lake District' *this is shown in landscape, map 156 x 217mm, centred on Patterdale*, printed by 'W. & A.K. Johnston & G.W. Bacon Ltd, Edinburgh & London'.
- opp. p.24 'One Inch to One Mile Map, Seventh Series' 'Malham and Pen-y-ghent District', shown portrait 210 x 157mm, centred on Knowe Fell, printers as before.
- opp. p.26 '1:25,000 Map' 'Llangollen District', shown portrait centred on Wern Isaf, NE of Llangollen, size and printers as before.
- opp. p.31 'One Inch to One Mile Map, Seventh Series' 'Loch Leven', *landscape centred* on Leac Mhor, size and printers as before.
- opp. p.34 'One Inch to One Mile Map, Seventh Series' 'The Dovey Estuary and Borth', landscape centred on Tre'r-ddol, size and printers as before.
- opp. p36 'One Inch to One Mile, Seventh Series' 'Falmouth and the Carrick Roads', shown portrait centred on Feock, map 205 x 147mm, printers as before.
- opp. p.41 '1:25,000 map' 'Lulworth Cove and Worbarrow Bay', shown landscape centred on Sea Vale Farm, map 143 x 213mm, printers as before.
- opp. p.46 'One Inch to One Mile Map, Seventh Series' 'Bourne', landscape, centred on PH east of Bourne, map 153 x 216mm, printers as before.
- opp. p.48 'One Inch to One Mile map, Seventh Series' 'part of the West Riding of Yorkshire', *landscape, centred on Bingley, map 146 x 210mm, printers as before.*
- opp. p.51 '1:10,560 Map' 'Part of Bristol City', landscape, centred on Brandon Hill, map 153 x 216mm, printers as before.
- opp. p.55 '1:625,000 Map' 'Population Density in South Wales and the Borderland', landscape, centred on Rhymney, map 127 x 153mm, with key below, printers as before.
- opp. p.60 '1:25,000 Map' 'Land Utilisation in the Fens', *landscape, centred between* Bourne South Fen and Northorpe Fen, map 120 x 160mm, with key below, printers as before.

NB All maps state 'Reproduced from the Ordnance Survey map, with the sanction of the Controller of H.M. Stationery Office'.

I hope the above whets the appetites of some members, so that I can list the rest of a small collection, and hopefully persuade others to list their holdings.

I will be pleased to receive letters direct or through the editors.

New maps

Ordnance Survey of Great Britain

New publications between 1 June and 30 September 1997 included the following; some further issues since the date of the latest official list are noted with an issue date in square brackets.

8	B (revised 1997)	The Cotswolds	(8/97)
1:50.	000 Landranger (shee	ts showing Access Land, cycle routes, etc are annotate	ed '[AC]'):
14	B (revised 1994-6)	Tarbert & Loch Seaforth	(7/97)
22	B (revised 1996)	Benbecula, South Uist	(6/97)
31	B (revised 1995)	Barra & South Uist, Vatersay & Eriskay	(7/97)
38	B (revised 1996)	Aberdeen, Inverurie & Pitmedden	(9/97)
69	B (revised 1996)	Isle of Arran	(9/97)
84	B (revised 1996)	Dumfries & Castle Douglas	(9/97)
85	C (revised 1997)	Carlisle & The Solway Firth, Gretna Green	(11/97)
86	C (revised 1997)	Haltwhistle & Brampton, Bewcastle & Alston	(11/97)
90	C (revised 1997)	Penrith & Keswick, Ambleside	(12/97) [AC]
93	B2	Middlesbrough, Darlington & Hartlepool	(6/97)
100	C (revised 1996)	Malton & Pickering, Helmsley & Easingwold	(8/97)
109	C (revised 1996)	Manchester, Bolton & Warrington	(8/97)
114	A2/	Anglesey	(7/97)
116	C (revised 1996)	Denbigh & Colwyn Bay	(7/97)
117	C (revised 1996)	Chester & Wrexham, Ellesmere Port	(7/97)
118	B3	Stoke-on-Trent & Macclesfield	(7/97)
120	C (revised 1997)	Mansfield & Worksop, Sherwood Forest	(11/97)
121	C (revised 1997)	Lincoln & Newark-on-Trent	(11/97)
127	C (revised 1995)	Stafford, Telford & Ironbridge	(6/97)
128	C (revised 1994-5)	Derby & Burton upon Trent	(7/97)
133	C (revised 1996)	North East Norfolk, Cromer & Wroxham	(6/97)
134	C (revised 1996)	Norwich & The Broads	(7/97)
135	B (revised 1996)	Aberystwyth & Machynlleth	(6/97) [AC]
135	В/	Aberystwyth & Machynlleth	(10/97) [AC]
138	B (revised 1996)	Kidderminster & Wyre Forest	(7/97)
150	C (revised 1996)	Worcester & the Malverns, Evesham & Tewkesbury	(9/97)
159	C (revised 1997)	Swansea & Gower, Carthmarthen	(10/97)
165	C (revised 1996)	Aylesbury & Leighton Buzzard, Thame &	(10/97) [AC]
		Berkhamstead	
172	B1/	Bristol, Bath & surrounding area	(8/97)
173	C (revised 1996)	Swindon & Devizes, Marlborough & Trowbridge	(9/97)
174	C (revised 1995-6)	Newbury & Wantage, Hungerford & Didcot	(11/97) [AC]
195	C (revised 1997)	Bournemouth & Purbeck, Wimborne Minster &	(10/97)
		Ringwood	
196	C (revised 1996)	The Solent & The Isle of Wight, Southampton &	(10/97) [AC]
		Portsmouth	

¹ Though retains 1995 Copyright date and 'old' style cover

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(8/97)(7/97)(9/97)

201	C (1	revised	1995-6)	Plymouth & Launceston, Tavistock & Looe				
202	· · · · · · · · · · · · · · · · · · ·			Torbay and South Devon, Totnes & Salcomb	Salcombe			
204	C (revised 1996) Truro & Falmouth, Roseland Peninsula							
1:25,	000	Outdoo	r Leisure l	-				
2		A		Dales (Southern & Western areas)	(11/97)			
42		A	Kielder W		(6/97)			
43		A	Hadrian's	s Wall	(6/97)			
44		A	Tweed Va	ılley, Peebles to St Boswells	(9/97)			
1:25.	000	Explore	er:					
104	A	•		gnes, Camborne & Perranporth	(6/97)			
105	A			evagissey, Truro & St Mawes	(9/97)			
106	A			dstow, Wadebridge, Port Issac	(6/97)			
107	A			skeard, Fowey, Looe & Lostwithiel	(6/97)			
108	A			Valley & Plymouth, Tavistock	(9/97)			
109	A			Bodmin, Camelford & Liskeard	(8/97)			
111	A	Bude	, Boscastl	e & Tintagel	(8/97)			
112	A	Laun	ceston & I	Holsworthy, Roadford Lake	(9/97)			
113	A	Okel	ampton, H	Hatherleigh, North Tawton & Lapford	(9/97)			
114	A		-	xe Valley, Crediton, Tiverton & Dulverton	(11/97)			
118	A	Shaftsbury & Cranbourne Chase, Poole, Wimborne Minster (11/97)						
		& Bl	andford F	orum				
120	A	Chic	hester, Soi	uth Harting and Selsey ²	(11/97)			
124	A	Hast	ings & Bes	xhill, Battle & Robertsbridge	(11/97)			
126	A	Clov	elly & Har	rtland, Bideford & Bradworthy	(10/97)			
127	A	South Molton & Chumleigh, King's Nympton, (10/97)						
		Chitt	tlehampton	ı & Dolton				
128	A	Taun	ton & Bla	ckdown Hills, Wellington & Ilminster	(10/97)			
129	A	Yeov	il & Sherb	ourne, Somerton & Wincanton	(9/97)			
133	A	Hasl	emere & P	Petersfield, Midhurst & Selborne	(10/97)			
134	A	Crav	vley & Hor	rsham, Cranleigh & Billingshurst	(11/97)			
136	A	The	Weald, Roy	yal Tunbridge Wells, Cranbrook Hawkhurst	(10/97)			
		& Be	wl Water					
137	A	Ashfe	ord, Head	corn, Chilham & Wye	(9/97)			
138	A	Dove	er, Folkest	one & Hythe	(6/97)			
146	A	Dork	ing, Box H	Hill & Reigate, Leatherhead & Caterham	(11/97)			
147	A	Seve	noaks & T	onbridge, Royal Tunbridge Wells &	(10/97)			
		West	erham					
148	A	Maia	lstone & th	ne Medway Towns	(9/97)			
149	A		_	& Faversham, Isle of Sheppey	(6/97)			
155	A			Keynsham & Marshfield	(8/97)			
163	A	Gravesend & Rochester, Hoo Peninsula (8/97)						

The 1998 Mapping Index was available from the first week in December.

² Has 1998 Copyright date

1:250.000 Travelmaster

7 B/ Wales & West Midlands

(10/97)

1:25,000 Pathfinder withdrawals:

An OS list indicates that by 1 October 1997 the following 1:25,000 Second Series (*Pathfinder*) maps had officially been withdrawn from publication (although, as the list in *Sheetlines* 48 indicates, some were never published in the first place):

118, 140, 169, 203, 218, 242, 255, 274, 309, 320, 333, 346, 348, 369, 441, 448, 449, 454, 460, 461, 467, 472-475, 486, 487, 498, 499, 503, 509, 510, 512, 515, 521, 522, 527, 533, 534, 546, 547, 559, 560, 579, 582, 584, 585-589, 594-598, 602-608, 611-619, 622, 623, 629, 632-634, 638-640, 649-652, 660-662, 670, 671, 680, 681, 689, 690, 700, 714, 725, 742, 753, 760, 769, 770, 777, 778, 785, 786, 793, 801-804, 818-824, 839-845, 863-866, 884, 896, 904-906, 925, 1010, 1019, 1032, 1033, 1039, 1042, 1055-1057, 1061-1063, 1079, 1080, 1084-1087, 1094, 1102-1104, 1111, 1117, 1118, 1124-1126, 1131, 1137, 1138, 1145, 1156, 1157, 1167, 1179, 1183, 1193-1196, 1198, 1199, 1209-1212, 1214-1219, 1230-1239, 1248, 1252, 1253, 1259, 1260, 1269, 1273, 1279, 1280, 1283, 1288, 1289, 1292-1294, 1296, 1297, 1302, 1303, 1307, 1308, 1310-1313, 1315, 1316, 1320-1322, 1324-1372.

Although officially withdrawn from publication, residual stocks of some of these sheets may still be encountered on sale.

Additionally Outdoor Leisure 10, Yorkshire Dales (Southern area) was withdrawn.

Publication News - the successor.

Publication News, the OS's former list of new maps, was withdrawn in September 1996. It has now been replaced by two new lists, *Small Scale Maps Current Editions & Forthcoming Titles* and *Pathfinder map(s) no longer available*, both of which will be sent on a bi-monthly basis to those who responded to the questionairre. The most interesting feature is probably the list of forthcoming maps and I reproduce this below. It covers the period from 1 December 1997 to 31 January 1998. It will be interesting to see how close this is to reality!

1	١:,	5(),	0	0	θ	Landrangers	
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No.	Title	New edition	Copyright	Release date
			date	
160	Brecon Beacons	A3	1997	10/12/97
164	Oxford, Chipping Norton & Bicester	C	1997	12/12/97
151	Stratford-upon-Avon, Warwick & Banbury	C	1997	17/12/97
19	Gairloch & Ullapool	В	1997	23/12/97
72	Upper Clyde Valley	C	1997	7/1/98
163	Cheltenham & Cirencester	B2	1997	7/1/98
55	Lochgilphead & Loch Awe	В	1997	21/1/98
1:25,	000 Explorers			
121	Arundel & Pulborough	A	1997	7/1/98
125	Romney Marsh, Rye & Winchelsea	A	1997	7/1/98
135	Ashdown Forest	A	1996	14/1/98

N.B. 135 is simply the A edition with revised sheet number.

Ordnance Survey of Ireland

The following 1:50,000 *Discovery* series sheets have recently been published:

Sheets 60, 61, 65, 68, 69, 73 (all as 'First Edition').

The following 1:50,000 *Discovery* series sheet has recently been reprinted:

Sheet 10.

The following 1:25,000 National Park Series sheets have recently been published:

First publication: Killarney National Park (1997).

1:600,000 Road Map Ireland: First Edition (1997).

The Godfrey Edition

The following were published by Alan Godfrey Maps between 8 July and 3 November 1997:

Derbyshire 8.11	1896	[Whaley Bridge & Bugsworth]	[8/10/97]
Durham 7.14	1896	[Washington; with part of 7.15]	[16/9/97]
Durham 19.05	1895	[Lanchester; with part of 18.08]	[3/11/97]
Durham 26.08	1897	[Langley Moor; with part of 26.08, 1913]	[16/9/97]
Durham 26.12	1897	[Meadowfield]	[16/9/97]
Durham 27.05	1897	[Durham City South; with part of 27.05, c.1914]	[8/7/97]
Gloucestershire 33.02	1900	[Gloucester (SW)]	[16/9/97]
Gloucestershire 72.13	1901-2	[Bristol (NE)]	[8/10/97]
Lanarkshire 6.05	1893-4	[Partick]	[23/7/97]
Lanarkshire 17.04	1896	[Hamilton]	[19/8/97]
Lancashire 67.02	1908	[Lytham; plus all of 67.03 above high water]	[8/7/97]
Lancashire 72.09	1908	[Rawtenstall]	[3/11/97]
Lancashire 96.10	1907	[Heaton Park]	[3/11/97]
Lancashire 103.12	1905	[Trafford Park; plus part of 103.12, 1893]	[19/8/97]
London 8	1894	[Tottenham (North)]	[3/11/97]
London 10	1893-	[East Finchley & Hampstead Garden	[23/7/97]
	4/1911	Suburb; 'Special Edition 1912']	
London 139	1894	[Hampton]	[23/7/97]
London 145	1894	[Crystal Palace (South), Anerley &	[8/10/97]
		Upper Norwood]	
Staffordshire 67.06	1900	[Sedgley West]	[8/7/97]
Staffordshire 71.06	1901	[Brierley Hill (West) & Brettell Lane]	[19/8/97]
Surrey 20.02	1895	[Purley Oaks; plus west part of 20.03, 1894]	[19/8/97]
Warwickshire 14.01	1913	[Birmingham (North)]	[23/7/97]
Worcestershire 11.02	1903	[Hall Green]	[8/10/97]

Thanks to Richard Oliver and Jon Risby - Ed

Roy Re-visited and Re-measured

The celebrations of the 250th anniversary of Military Survey have been previewed in recent numbers of *Sheetlines*. Billed as the main launch event was the re-measurement by modern methods of Major-General William Roy's historic Hounslow Heath baseline, itself the subject of several references in *Sheetlines* during 1994. The original measurement of this baseline had played a most important part in the development of ordnance military surveying, before that common operation began to divide into two separate streams and to acquire initial capitals.

Briefly, the base had initiated the English side of the triangulation to connect the observatories of Paris and Greenwich and subsequently became the starting line for the principal triangulation of the British Isles. Measured by three different methods in 1784 and again in 1791, by 1858 eleven different lengths were available for it, deriving from actual measurements, reductions to mean sea level, different definitions of the foot and triangulation adjustments, noting however that it was not one of the bases utilised by A.R. Clarke in his definitive adjustment of the Principal Triangulation published in 1858. The Retriangulation of Great Britain produced another calculated length, but it should be made clear that such a figure could in no way supplant an accurate direct measurement.

On 1 July 1997 a party from 19 Specialist Team RE, Royal School of Military Survey, Hermitage, Berks, assembled in Roy Grove, Hampton, to re-measure the baseline using GPS (Global Positioning System) equipment. Preliminary work had already been carried out, such as removing commemorative tablets, erecting protective tents and (off the record) doing a measurement. A small exhibition area of the work of Military Survey was erected on the grassed area at the head of Roy Grove. For those unfamiliar with it, this is a short cul-de-sac with the Hampton Poor House (south-eastern) base terminal at one side of its head.

First inspection of the army team was carried out by the red-jumpered members of the Tadpoles Nursery School which meets in Roy Grove and who were most cordially received by the soldiers. Next came the official party from Military Survey headquarters at Feltham, which included Sir Alan Muir Wood, representing the Royal Society and Colonel André di Martino, head of the Centre Géographique Inter Armées, in recognition of the original Anglo-French operation. After an introduction by the Director of Military Survey, Brigadier Philip Wildman, the operation was described by Major Alan Honey, in command of 19 STRE. The instruments were read and the distances calculated by Sergeant Andy Gray.

The GPS equipment provided a slope distance between the two terminals of 8353·572 international metres, with an altitude difference of 9·388 metres, differing slightly from that obtained in 1791. From these figures was derived a mean sea level length for the baseline of 27406·56 feet of 0, referred to the WGS84 spheroid used by GPS. Whilst this compares very favourably with the equivalent 1791 Mudge/Clarke figure of 27406·19, Sgt Gray also recalculated the latter using the WGS84 spheroid and the 1997 altitude difference and obtained a length of 27406·61 feet of 0, a most remarkable confirmation of the accuracy of Captain William Mudge's measuring procedures. No comparable length figure has hitherto been available for General Roy's measurement in 1784, but I have now calculated it to be 27405·96 feet of 0, which in 1997 terms would be 27406·38, representing an apparent error of just 2·2 inches in 5·2 miles.

Not included in the official party, but probably as knowledgeable as any of them, were Dave Watt and myself, and after the proceedings at Roy Grove Dave very kindly chauffeured me to the north-western base terminal of Kings Arbour. This lies between the northern

perimeter road of Heathrow Airport and its police station and because of the traffic conditions Dave was unable to tarry there but just let me down. The cannon is at one side of a small area of bushes, but the most surprising event of the day in this area of continuous air and road traffic noise was to be preceded up the path by a large rabbit which left me in no doubt as to its resentment of my human presence by repeatedly turning and glaring at me, eventually disappearing into the bushes.

I found the cannon here to have been painted silver, checked the wording on the commemorative plate (one transcript having contained an error), and then moved on to the police station. Here on the south wall, is a further tablet erected at the instance of Major-General R.C.A. Edge in 1968, when the cannon was in store and there was no above-ground evidence of the base terminal, and stating that the terminal was 109 yards to the south. I then made my way home, highly satisfied with this celebration of the beginnings of our own Ordnance Survey as well as its sibling Military Survey.

<u>Postscript</u> - As this issue is about to go, I have to record that the area of bushes mentioned above has been cleared and is being included with a much larger area to help satisfy the insatiable demand of Heathrow for car parks. However, I was assured that the contractor's instructions are to 'work round the cannon' (CCS members keep your fingers crossed).

Brian Adams

Passing By

In W.A. Seymour's 'History of the Ordnance Survey' (1980) they are described as a nuisance, whilst Richard Oliver (Sheetlines 28) referred to them as a cartographic equivalent of a remoulded tyre and elsewhere pointed out that 'the whole concept struck at the original intention of the 1935 Davidson Committee proposals whereby the mapping of the whole country would be brought to a modern uniform standard'.

The subject of these criticisms was the by-passed 1:2500 scale map of the 1953-56 period and it is necessary to examine the immediate post 1939-45 war rural revision situation to evaluate their evolution.

Various experiments - the earliest in Wiltshire in 1939 - had proved the feasibility of 'overhauling' the old County Series 1:2500 maps and re-casting them on National Grid sheet lines. Resurvey would have been the ideal but would have been an enormous task both in time and cost and in any case the priority for many years was to be the survey of urban areas at the 1:1250 scale.

Nevertheless 1:2500 revision commenced around the fringes of the 1:1250 areas, but as a much larger dedicated task in the counties of Devon and Cornwall in 1948. In the previous year an experiment in the form of a revision/resurvey compromise (using air photography as opposed to ground only methods in the south west) had also commenced in Essex.

By 1952 when large numbers of the west country maps on a 1 by 1 km square format were being published, it became apparent that many contained little change from the previous revision (in spite of a lapse in many cases of nearly 50 years.) This was painfully obvious in the surrounds of southern Dartmoor, where although more than fifty - ironically downgraded to 1:10,000 scale in 1980 - contained little more than open moorland. By way of an example SX 5871 published in 1953 contained a stream, a cairn, the summits of two tors and the remainder marsh and rough grassland symbols.

The concept of by-passing is known to have dated back to 1948, but it was not until sometime after July 1952 that a 'Field Division Order' was issued laying down the

circumstances in which by-passing should take place. In the field this involved little more than making a rapid reconnaissance to determine the map or group of maps.

Now the balance swung dramatically in the other direction. From revising maps of moorland with little or no important detail, 1:2500 sheets covering even hamlets suffered bypassing and in Devon four 1:10,560 maps (SS 22 NW, SS 22 SW, SX 49 SW and SX 49 SE) were published in the early 1960s made up entirely of reduced 1:2500 of (mainly) 1905 vintage.

The method of producing the National Grid 1:2500 from the County Series is described in pages 13-19 of '*The Overhaul of the 1:2500 County Series Maps*' (Professional Paper New Series No. 25), published in 1972. Only the field revision element is lacking as far as by-passed maps were concerned.

Nevertheless, the office procedure was quite complex as this index to the large-scale drawing specification pamphlet of November 1955 shows:

- 1. General
- 2. Summary of work required
- 3. Preliminary work by Large Scale control
- 4. Boundary Section
- 5-10 Drawing Section
- 11 Examination Section
- 12 Areas Section

Appendix A: area measurement of broken parcels. Special treatment. Plate 1: Diagram of special areas treatment

- the whole amounting to 17 A4 pages including the diagrams.

The fact that the office instructions had suffered an early revision suggests problems and it appears that publication did not proceed before 1955. Even then it was short lived being abandoned for good in September 1956.

The yearly production (though not necessarily publication) had been 986 in 1952-53; 698 in 1953-54; 354 in 1954-55;354 in 1955-56 and 91 in 1956-57. Of this total of 2483 1 by 1km maps, 144 were in Cornwall and somewhere between 1350 and 1400 in Devon. (1138 definite but more than 200 subsequently revised during 1958-61 and thus not reaching the six-inch map in a by-passed state). Dorset and Essex are both thought to have had well over 300 apiece whilst the remainder were spread around Warwickshire, Leicestershire, Sussex, Kent, Staffordshire, Fife, West Lothian and the fringes of Wiltshire and Hampshire.

Through the process of derived mapping many of the by-passed maps and their revision dates may be traced in first editions of National Grid 1:10,560 (six-inch) maps (still available in reference libraries). The list in Sheetlines 48 indicates that they also filtered through to Pathfinders and Outdoor Leisure maps. Many were revised as early as the late 1950s and all by 1981.

The section of by-passed 1:2500 map SX 3396 (Fig 1) shows the adjoining sheet number, national gridding and adjusted acreages at the map edge. The date of revision is 1905 and publication date is 1955. (Thus the levelling is based on Liverpool not Newlyn.)

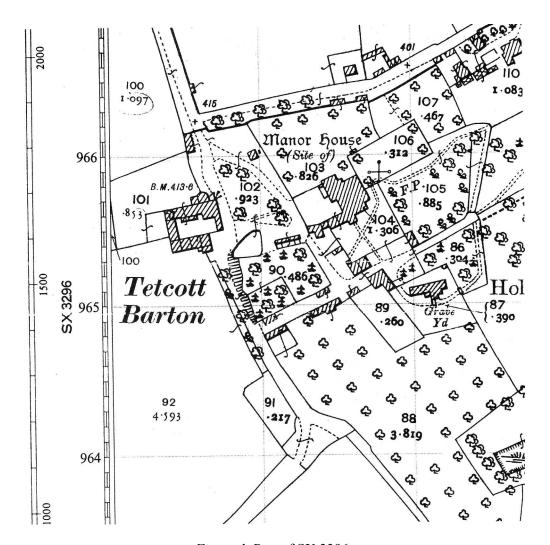


Figure 1. Part of SX 3396

Map numbers and dates of revision for Cornwall and Devon are probably the most complete available and if interested readers can supply me with similar details for other areas I will be most grateful. The OS Library provided the Large Scale drawing instructions and the map total but could provide no other details including sales figures.

The following tables show the number of bypassed plans contained in various 1:10,000 sheets by counties.

Cornwall

SS 20 NW	3	SS 21 NW 12	SX 28 NW 1	SX 29 NW	17	SX 39 NW	4
NE	7	NE 2	NE 5	NE	12	SW	9
SE	13	SW 16	SW 7	SW	9		
SW	4	SE 13		SE	7		

SX 39 SW includes two maps straddling the county boundary - an unusual situation because due to Devon and Cornwall being on different meridians in County Series days, all other straddling maps were reconstituted (often with difficulty) and revised during the 1950s.

SX 19 NE, an enlarged sheet, included three by-passed maps, two of which also figured in enlarged sheet SS 20 SW. All three were apparently revised before 1960 in spite of which an incorrect survey date of 1905-79 appears on Pathfinder SX 19. Revision dates in Cornwall were mainly 1905 with some 1932 in the vicinity of Bude.

<u>Devon</u>

SS 20 NE 5	SS 21 NW 9	SS 22 NW 10	SS 30 NW 15	SS 31 NW 17
SE 4	NE 11	NE 16	NE 13	NE 14
	SE 1	SW 18	SW 8	SW 13
		SE 20	SE 17	SE 17
GG 22 GW 12		00 41 2021 14	CC 42 NW 2	00.50.3034.14
SS 32 SW 12	SS 40 NW 20	SS 41 NW 14	SS 42 NW 2	SS 50 NW 14
SE 12	NE 20	NE 10		NE 22
	SW 6	SW 12		SW 12
	SE 13	SE 17		SE 19
~~ -1 > 1 -	00 00 2777		~~~	GTT (0.3.TT
SS 51 NW 13	SS 60 NW 13	SS 61 NW 21	SX 39 NW 10	SX 68 NE 20
NE 19	NE 17	NE 19	NE 22	
SW 12	SW 23	SW 14	SW 6	
SE 14	SE 13	SE 17	SE 8	
SX 69 NW 21	SX 73 NW 1	SX 74 NW 10	SX 75 NW 14	SX 76 NW 11
NE 25	NE 8	NE 17	NE 17	NE 2
SW 6		SE 6	SW 24	SW 14
SE 17			SE 14	SE 5
SX 83 NW 1	SX 84 NW 13	SX 96 NW 2	SX 98 SW 1	SX 85 NW 1
521 05 11 11 1	NE 1	521701111 2	52170 5 11	SW 13
	SW 3			D VV 13
	S VV S			

The following are approximate numbers of original by-passed maps revised before publication of the 1/10,560:

SS 42 (22), SS 52 (63), SX 77 (72), SX 78 (50), SX 86 (20), SX 87 (6), SX 88 (13), SX 97 (8),SX 98 (15 + one 1904 included in SX 98 SW total), SY 08 (29).

Revision dates of Devon by-passed maps are 1903, 1904, 1905, 1932, 1936, 1937 and 1939.

The following are the areas of other counties where by-passed maps are known or thought to have occurred.

<u>Essex</u>	TL 60/70	TL 81/91	<u>Dorset</u>	SY 97	SZ 08
	61/71	82		88/98	09/19
	62/72	83/93		89/99	
	63/73			ST 90	SU 01
				91	02
				92	

<u>Leicestershire</u>	SK 70 SP 79	Warwickshire	SP 17/27 18/28 19/29	SK 20
<u>Sussex</u>	TQ 21/31 22/32 42/52	<u>Kent</u>	TQ 77	
<u>Staffordshire</u>	SJ 85/95	<u>Hampshire</u>	SU 01/11	
Wiltshire	ST 91/92 SU 11/02	West Lothian	NS 87/97 NT 07	
<u>Fife</u>	NT 28			

John Cole

Wrong Covers

I realise that I have been remiss in not commenting on Lionel Hooper's letter in *Sheetlines* 45 regarding maps in wrong covers. However his letter in *Sheetlines* 49 has jogged my conscience.

Whilst the 'Wrong Cover' *Popular Edition* maps are news to me, I have had a number of the *Seventh Series* through my hands in the last few years. Unfortunately I looked on them rather as an example of bad housekeeping by the printers and have not kept any records, but have sold them on as curiosities. I can confirm that they have all been with a red and white cover.

I have now checked through my stock and find that there are two of the errors to hand as follows:-

Sheet 78 'C' (1965) Newcastle upon Tyne in cover 106 Anglesey.

Sheet 114 'B' (1962) Skegness in cover 171 London SE

From memory all the other ones that I have handled have been in the southern half of England, though one cover was *York*.

It would be interesting to know whether someone like David Archer has much experience of this since his turnover, being much greater than mine, must provide more of a chance of revealing such items.

Graham Stephenson

The Ordnance Survey One-inch *Old Series* sheets: some questions answered

By Richard Oliver

In *Sheetlines* 49 Dr Forbes Robertson posed a number of questions about the Ordnance Survey One-inch *Old Series*: there follow some 'quick answers'. As Dr Robertson supposes, some of the answers are to be found in the volumes of the Harry Margary facsimile; others will call for further research. I have avoided quoting sources for statements which are, I believe, now fairly well known in print, in the Margary volumes.¹

Question (1): yes, sheets 1 to 90 were only published in hachured form. Pre-publication proof copies, struck from the plate before the hachures had been engraved, are known, but are very uncommon.

Questions (2) and (3): contours. No, not an OS invention! The first use of contours in Britain was probably by Charles Hutton and Nevill Maskelyne in 1777, to determine the mass of the mountain Schiehallion in Scotland. By the early 1830s contours were in occasional use for land drainage mapping in England, for example of Dengie, Essex,² and of Sandown Levels, Isle of Wight:³ I would be most interested to learn of others.

The first OS contours were surveyed in Inishowen, Donegal, Ireland, in 1839-40; the first in Great Britain were probably on an unpublished six-inch survey of Ogmore, Glamorgan, of 1840-41;⁴ contouring of the published six-inch mapping of Lancashire began in 1844 if the compilation notes on those maps are to be relied on. The first one-inch sheet to carry contours was *Old Series* 91 SE, an electrotype duplicate of which was contoured experimentally as an exhibit for the Great Exhibition of 1851, and subsequently put on sale.⁵ From the mid-1850s onwards all newly published one-inch maps of both northern England and of Scotland were published in two forms: hachured, or 'outline and contours'.

The above is a skeletal outline of a rather complicated subject, which is explored in more detail in the introductory essay to Volume 8 of the Harry Margary Facsimile.

Question (4): the uncontoured version of sheet 98 NE If there are no latitude and longitude values, then this will be a proof copy, and therefore unusual. In its original form, before mounting, it may well have been annotated 'Unfinished Impression': these would appear to have been issued to the public, but I have not yet discovered under quite what circumstances. However, if latitude and longitude values are present but contours and wood ornament are absent, then this will be an interim issue of the outline-and-contours form, before the contours had been added: about two dozen *Old Series* sheets, plus some of Scotland, are known to have been issued in this form between about 1862 and 1868.

Questions (5) and (6): the 'get-up' of the Anson set in book-style slipcases is a common one for much of the nineteenth century, as, regrettably, is the splitting of such sets!

¹Harry Margary, *The Ordnance Survey Old Series....*, with introductory essays and cartobibliographies by J.B. Harley and others, 8 volumes, Lympne, Harry Margary, 1975-92.

²Essex Essex Record Office D/SD 120, D/SD 122, D/SD 124, D/SD 125, D/SD 126, D/SD 128, D/SD 130.

³Isle of Wight Record Office, MP/B/257.

⁴See B.P.P.(H.C.) 1844 (527) XXX.257, Report of the Commissioners ... the Ordnance Memoir of Ireland, evidence, q.101.

⁵Very few copies of this sheet in its contoured form are known; from one being in the bound set in the Brotherton Library, University of Leeds, it may be inferred that it had been put on sale by the mid-1860s.

Question (7): there are two problems here, (1) the discrepancy between the prices of the maps quoted on the index accompanying the 'Anson set' and the price at which the actual maps are believed to have been purchased (a price which excluded the mounting, sectioning and placing in slipcases), which I am not in a position to resolve, and (2) whether the prices can be used to date the maps. In theory, yes, but in practice pre-1848 'high prices' (usually 7s or 8s) may be encountered on 1848-55 printings for which one would expect the prices of 2s for a full sheet and 6d for a quarter sheet. The revision of prices in 1866-7 was apparently carried out much more efficiently on the maps, and the new higher prices (2/6 for a full sheet, 1s for a quartersheet) are a reliable indicator of a post-1866 printing.

Questions (8), (9) and (10): road and railway mileages. As far as I know, no-one has made a close study of these, but my impression is of inconsistent treatment, and I certainly advise against using them as a dating aid. As an example of inconsistency, road mileages appear on the Ermine Street (later A15) north from Lincoln on *Old Series* sheet 83, but not on sheet 86, although both sheets were being engraved simultaneously in the early 1820s. Road mileages seem to have been omitted fairly consistently from sheets 91 to 110, but were added to some sheets from the mid 1880s onwards: details of sheets affected will be found in the cartobibliography in Margary Volume 8.

Question (11): turnpikes and toll gates. T.P. means turnpike, and T.G. definitely means toll gate: the order to use T.G. rather than T.P. was issued by Captain Richard Mudge on 29 March 1832: 'all Turnpikes throughout the work in future to be marked T.G. instead of T.P.' ⁶ As 'turnpike' was as familiar a word in the nineteenth century as 'motorway' is today and as the term 'turnpike' derives from a gate with spikes on top erected at a toll point, this seems a rather odd decision, and it is unsurprising that once the six-inch survey began in 1841 'turnpike' was reverted to. 'Dis-turnpiking' in England began in earnest in the mid-1860s and was completed in 1895.

Questions (12) and (13): signals and telegraphs. The signal stations employed flags and were used for ship-to-shore communication in the days before wireless; the 'telegraphs' shown on *Old Series* maps of south-east England are nothing to do with the electric type associated with Cooke and Wheatstone, but are visual telegraphs, of either semaphore or shutter type, the main uses of which were for rapid transmitting of messages between London and various naval bases and for reporting shipping movements.⁷

Question (14): post offices. That on sheet 77 is the only example I have heard of on the *Old Series*: they were certainly not common, but I wouldn't be surprised if one or two others were to appear. Otherwise, they first start to appear on the One-inch *New Series* and the One-inch map of Scotland in the 1880s, though they were recorded on the six-inch from its start in the 1840s.

Question (15): windmill symbols. What Dr Robertson describes as 'Type A' is a symbolised post-mill (where the body, or 'buck', moves with the wind; well-known preserved examples are Saxtead Green mill in Suffolk and Outwood mill in Surrey); what he describes as 'Type B' is a symbolised tower-mill or smock-mill, where only the cap at the top moves with the wind (a well-known example is that at Cley-next-the-Sea, Norfolk). The question of windmill depiction on the *Old Series* is a complicated one: all the mills on the Lincolnshire sheets, first issued in 1825, are type A, even where (e.g. at Long Sutton (Brunswick Mill),

⁶OS Day Book, 1827-49, now at Public Record Office, OS 3/279.

⁷The standard work on visual telegraphs seems to be Geoffrey Wilson, *The Old Telegraphs*, London and Chichester, Phillimore, 1976, and a useful source on their electric successors is J.L. Kieve, *The Electric Telegraph*, Newton Abbot, David and Charles, 1973.

Lutton and Saltfleet) the mill was definitely a tower-mill at this time. By the later 1830s, as the mapping of Norfolk (sheets 66-68) makes clear, post and tower mills were being differentiated, though close study of both the published maps and of the parent two-inch manuscript drawings shows a wide variety of designs within these basic types, and I am pretty confident that they were all individually engraved. (However, the windmill symbols which start to appear on the *New Series* from 1887 onwards do look as though they were mass-produced by a punch.) The lack of any windmills on some of *Old Series* sheets 1-90 is probably because, as in much of Wales, there simply weren't any windmills to record. For sheets 91-110, which were derived from six-inch and larger scale mapping, it would appear that the general policy was to show windmills either by description or not at all, but there seems to have been a temporary deviation from this policy in the mid-1850s, as about a dozen windmill symbols - some pictorial, some planimetric, e.g. dot-plus-'X' - are to be found scattered across sheets 93 and 94. The random distribution suggests that this policy change was very short-lived.

Question (16) Sheet 91, and the making up of the 'folio' set. The 'misprint' watermark 'RUSE & TUNRERS' is not particularly common, but it is by no means unknown. As it lacks latitude and longitude, Sheet 91 SE is in early, possibly first, state, and is only the third copy known of this sheet in such a state: it was certainly printed before July 1852, and was the only Old Series sheet above 90 to be published initially without latitude and longitude values. It is interesting, therefore, that it appears with the other three quarters of the sheet, which must have been printed somewhat later than July 1852. The date at which the 'folio' set was made up could only be determined by examination of all the constituent sheets, but the watermark evidence suggests an assembly date closer to 1852-3 than 1857. That said, it is not unknown for sets of Old Series (and, indeed, later generations of the One-inch map) to have been made up by the original owner purchasing in one go all the sheets which had been published so far, and then either buying further sheets as they were published (and possibly eventually losing interest, and so leaving the set incomplete), or else waiting for some time and buying in one go all the sheets which had been published since the original purchase. An extreme example of this is the set of Old Series sheets in the Public Record Office, M.11**, of which sheets 1-90 were supplied to the State Paper Office in 1844, and sheets 91-110 were added no earlier than 1898 or 1899!! In my experience, it is quite common for sets of the *Old Series* to be 'inconsistent' in their makeup, even when other evidence (e.g. mounting) suggests that they were bought simultaneously, i.e. the states of the plate cannot be reconciled with those which would have been current in a given month. The probable explanation - and a possible explanation for the pre-mid-1852 91 SW cohabiting with the later other three quarters - is that such sets were supplied by retailers from whatever stock they had in hand.

Richard Oliver

Book Review

Flash Spotters and Sound Rangers, compiled by John R. Innes, illustrated, pp308, republished 1997, ISBN 0953156508.

This is not a new book but a facsimile of a 1935 publication, privately published to coincide with the 250th anniversary of the foundation of the (now Royal) Military Survey.

The book falls into three parts, a prologue; an account of the methods of enemy gun location and plotting where our own rounds fell; and finally a series of descriptions by individual officers and men of life at various times in the front line.

The prologue sets out to show how the Sound Ranging and Flash Spotting sections, together with other sections of the Survey Battalions, contributed to the Artillery's effectiveness, enabling guns to be laid with a minimum of ranging shots in the final assaults against German positions in 1918.

Part one of the book proper describes the formation of the Flash Spotters and Sound Rangers and their association with the Field Survey. It also gives a simple explanation of the principles of gun location and sound ranging and the work of an observation group and section. The second part is a number of personal recollections and some anecdotes of the day-to-day work, from setting up an observation post early in the war to the experiences of members of the Survey Battalions during the German Somme offences in March 1918, with many heroic deeds by these primarily non-fighting men.

Not being a student of the First World War, I nevertheless found the book fascinating. What I found sad was that here is another example of the inertia of those in charge. In the Spring of 1915 'the matter (the feasibility of sound ranging as a practical proposition) now came before the Experiments Committee at G.H.Q., and they decided against ordering any apparatus on the grounds that the method had not yet reached a sufficiently practical stage.' As the author goes on to say... 'To the onlooker this committee seems to have been provided with a very inapt name.'

Altogether this is a book which deserves to be read not only by members interested in the history of the Military Survey, but those interested in the broad history of the Ordnance Survey as it gives the background and experience of some of the post World War One Directors General, senior officers and employees of the Ordnance Survey.

Lionel Hooper

The Ordnance Survey Maps, Atlases and Guides catalogue 1998

Explorer maps

Those members who have seen the Ordnance Survey leaflet setting out the proposed timetable for the replacement of the *Pathfinder* series will be disappointed to know that the programme appears to have been a little ambitious and, unfortunately but understandably, has fallen behind schedule. The new 1998 catalogue lists only those *Explorer* maps shown on the leaflet as to be published in 1997, some of them annotated 'Spring 1998'. The catalogue does not list any of those shown on the leaflet as intended to be published in 1998, i.e. those between approximately the M4 and a line from Aberystwyth to Lowestoft.

However, one must say that at the same time as this ambitious *Pathfinder* replacement programme, the *Landranger* maps are being updated at an impressive rate.

The existing *Explorer* maps, 7 *Lands End*; 8,*The Lizard*; 16, *South Downs Way*, *Newhaven to Eastbourne*, and 17 *South Downs Way*, *Steyning to Newhaven* appear to be scheduled to be renumbered into the new format in Spring 1998 as 102,103,122 and 123 respectively.

Outdoor Leisure maps

One new *Outdoor Leisure* map is announced, number 45, *The Cotswolds*, to replace the *Pathfinder* maps 1043, 1067, 1090 and 1114 and the western halves of 1044, 1068, 1091 and 1115, i.e. the area equivalent to six *Pathfinders*. Not bad value at £5.95 against £27!! Or should that be £36.

Outdoor Leisure maps 2 and 10 have already been combined into a new OL2, Yorkshire Dales - Southern and Western areas, which is double sided (November 1997). Maps 4,5,6,7,17,18,23,and 29 are also to be enlarged during 1997/98 (sic).

Price changes

Although there hasn't been an announcement, or else it passed me by, I see from the 1998 Price List that only a few prices are to be increased, and some are to be reduced, presumably as from the 1st January 1998:

Travelmaster series to be increased from £3.99 to £4.25. (The flat outline version remains at £18.00)

Touring Map and Guides increased from £4.25 to £4.50.

The Superscale Atlas (which is the Motoring Atlas printed at 1:140,000 instead of 1:190,000) reduced from £14.99 to £12.99, available spiral bound only.

Range of Wall Maps increased from £3.99 to £4.99.

Road Atlas of Ireland is replaced by (or just renamed?) Complete Road Atlas of Ireland, both spiral bound, reduced from £9·50 to £7·99.

Map Cover Art, listed in the 1997 Price List although not shown in the 1997 catalogue, is not listed in either for 1998. If any members require one they should act quickly as, if any are available, at £10.99 it is excellent value for money.

Lionel Hooper

The Ordnance Survey - a bibliography

A good while ago, it was suggested that 'a bibliography on the Ordnance Survey be compiled'. The Committee agreed to look into the matter. Following an initial investigation by Peter Haigh, John Symons and myself, it was shown that it would be quite feasible to produce a bibliography with variable length data fields and full searching facilities using personal computers.

I prepared a paper which has been used as a basis for discussion by the Committee on two occasions. After the last discussion, it was agreed that even though the Committee supported the proposal and wished to give it maximum encouragement, no individual member felt able to devote any time or energy to it. It was therefore decided that the matter be put to the membership as a whole so as to seek volunteers. The Committee are in broad agreement that:

- 1. The idea of a traditional bibliography be abandoned in favour of a database covering all forms of information on the Ordnance Survey.
 - 2. All information be stored on computer.
 - 3. This will be an ongoing project of very large proportions.
 - 4. The project should have a leader who will co-ordinate and direct the work as it progresses.

The first task is to enlist members willing to participate in the project. A bibliography standard will have to be prepared. Computer software needs to be chosen. A long term strategy for the project needs to be defined.

If any members would like to take part in this project, at any level, would they please contact me. I will be able to give further information and forward a copy of a paper presented to the Committee (Tel: 01 686 670382, Fax: 01 686 670551; The Pentre, Kerry, Newtown, Montgomeryshire SY16 4PD)

David Archer

The design of the 1:25,000 *Explorer* maps continues to evolve: the latest change noted is on 126, *Clovelly & Hartland*, where a red 'emergency telephone' symbol appears at several places along the coast.

A fourth *Pathfinder* with 'full colour' roads has now appeared: 370 (NN 60/70), edition A1, which, like the others (482, 541 and 1106) is dated 1996, but does not appear in any official publication report or list. 370 represents yet another design variant: administrative information and vegetation symbols in black, National Park etc symbols in yellow (as on 1106; green on the other two), and cycle routes and permitted paths and bridleways in brown. Only 370 has the permitted ways, and then only in the legend, for none appear on the face of the map!

Richard Oliver

Letters

Explorer Covers

Jack Kirby writes in response to Lionel Hooper's comments on Explorer covers:

Lionel Hooper's call for a return to map covers illustrated with paintings (*Sheetlines* 49) is, I fear, in vain. One of the trends most evident in OS in recent years is branding, and the present 'chocolate box' photographs used on the *Explorer* map covers reinforces the uniform image of the series. A range of paintings by different artists, each with his or her own way of seeing, would destroy this impression. Commercial considerations dictate here: photographs are what 'the customer' 'wants' and as we all know, the customer is always right.

Having said this I would agree with Mr Hooper that the present choice of images is singularly uninspired. Yet if photographs must be used, I would suggest the use of aerial photographs. These would not only look impressive, but also provide a link with to mapmaking (although I think oblique rather than vertical photographs would have to be used. Failing that, why not just illustrate the covers with the maps themselves, as Geographer A-Z company does? There can be surely no better advertisement, after all.

Where's London?

A.G.Hunt seeks assistance in finding the centre of London

Some while ago, on a personal whim arising from a casual conversation, I set myself the task of determining the precise co-ordinates of the centre of London. I have been unable to do this partly because of doubt as to its whereabouts. Some say Charing Cross. A better description says the statue of King Charles in Whitehall; but then this has been moved from its original position! For simple admin purposes it may be sufficient to draw radii around Charing Cross.

I wished to see how closely I could define the 'Centre of London' to say the nearest centimetre from the Greenwich Meridian - if indeed I am sure where that is precisely. I would like latitude, longitude and OS reference equivalent to a resolution of 0.1 or better 0.01 metre.

Can any of your readers help at all?

Amendments

A couple from John Cole

May I rectify some omissions from my article on the 1:25000 '*Regular*' series appearing in *Sheetlines* 47.

I neglected to mention that black was substituted for grey in the case of field boundaries. Also that the original published maps appeared in card covers.

The legend was somewhat altered from the provisionals. Amongst other changes the triangulation station symbol as applied to churches was dropped and in addition was the lettering 'RW' over the pecked line representing a path, with the explanation 'Rights of Way'. In point of fact none such appeared on the actual maps and it was dropped from the legend when all the maps appeared as B editions in 1959.

These points were covered by Richard Oliver in 'Episodes in the history of the Ordnance Survey 1:25000 map family' in *Sheetlines* 36 of April 1993, and new CCS members since that date, with a particular interest in the 1/25000 should lose no time in obtaining a back number.

Another faux pas by me in 'Linkage between abandoned town scales and the 1:1250' in *Sheetlines* 48.

1:1056 surveyed towns should read Lancs 26, Yorks 27 and Scotland 15.

Also my wording that six inch surveys were enlarged could have been better. The basis of the subsequent trouble was that work from the six inch survey books of the 1840s was <u>replotted</u> at 1:2500 some fifty years later and the maps revised - the operation being treated as revision as opposed to a resurvey.

I hope to make this the subject of a future article.

Also

Paragraph 4 of the 'Linkage' article (page 34 of *Sheetlines* 48) should read:

'1:1056 surveys took place in a number of English and Scottish towns mainly during the 1840s and 1850s. By far the greatest numbers were in Lancashire (26) and Yorkshire (27). It may be recalled that these counties plus Edinburghshire, Fifeshire, Haddingtonshire, Ross-shire, Kirkcudbrightshire, Wigtownshire and the Isle of Lewis figured in that most unfortunate chapter of Ordnance Survey history whereby surveys for the six-inch to the mile map of the 1840s were re-plotted at twenty-five inch scale in the 1880s and 1890s, then revised to produce the 1:2500 map.'

From note 2 at the foot of the page, Stranraer and Wigtown should both be deleted.

And one from Brian Adams

A regrettable error crept into my piece 'Parallel to the meridian of Butterton Hill - do I laugh or cry?' which appeared in Sheetlines 38. Nine lines down on page 19 I stated that (Old Series) sheet 13 was 'also rectangular', whereas in fact its north border slopes downwards to the east at an angle of 0° 51' to the horizontal. The important thing in the context was that the main body of the sheet is rectangular so that the western and eastern borders are parallel, and, as stated, the third column of narrow sheets only tapers from 45 to 87. However, the reference in Sheetlines 38 as it stands is erroneous, it should not have occurred, and I apologise for it.

The angle of 0°51′ may sound very small, thinking of a school protractor, but it does mean that the eastern border of the sheet is shorter than the western by 0.43 inches (1.1 cm). The sloping border must have been incorporated to accommodate the tapering column of sheets to the north, and therefore indicates that sheet 13 was not schemed until the shape of things to come had at least been provisionally determined. This is just one more lead towards solving the puzzle of the compilation story of the central *Old Series* sheets.

Scottish Populars

Richard Evans writes responding to Brian Dobbie's article on Scottish Populars in Sheetlines 49.

The article by Brian Dobbie on Scotland Popular Edition Sheet 31 Peterhead is just the sort of thing that encourages CCS members to look through their own collections. Of the various maps of this series in my collection with large '16.1b' covers, three have the insides of both the front and back covers printed with information panels of the kind described in Brian's article on Sheet 31. I have not got a copy of that particular sheet in my collection the ones in my collection are:

Sheet 43, print code 1700/28

Sheet 48 Loch Ericht and Loch Laggan, print code 2300/28

Sheet 51 Stonehaven and Brechin, print code 2800/28

All three are mounted in sections : 43 and 48 are priced at 4/-; 51 has a sticker amending the previous price to 4/6 net.

Illustrations in *Sheetlines*

David Archer seeks advice on behalf of the Publications Sub-Committee

Until now, illustrations in *Sheetlines*, other than photographs, have usually been produced by photocopying an original map or image. The quality of what appears in print depends on the original used, the photocopier used and whether the resulting photocopy is reduced in size or not.

The Publications Sub-Committee would like to improve the quality of illustrations and seek advice, information or offers of help from members.

Ideally, we would like to send material to someone who specialises in illustration photography, who would photograph it and return the original to its owner within a couple of days. We are sure that such a facility exists within universities, other institutions or commercially. The problem is that we do not know of such a service.

Having said this, we are aware that scanning is an alternative that should also be investigated, both for black and white and coloured illustrations.

So, if any member has used such a service, could provide a service or even suggest who might provide such a service, would they please contact me (Tel: 01 686 670382, Fax: 01 686 670551; The Pentre, Kerry, Newtown, Montgomeryshire SY16 4PD).

Advice on what to look for, what to avoid and what questions to ask would also be most useful.